UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

Mr. Parker E. Brugge
Patton Boggs, L.L.P.
2550 M Street, N. W.
Washington, D.C. 20037-1350

Dear Mr. Brugge:

This letter is in response to your April 7, 1998, letter seeking clarification on the distinction between thermal desorbers and incinerators. Under the U.S. Environmental Protection Agency (EPA) Resource Conservation and Recovery Act (RCRA) regulations (40 CFR 260.10), thermal treatment units that are enclosed devices using controlled flame combustion, and that are neither boilers nor industrial furnaces, are classified as incinerators subject to regulation under 40 CFR Part 264, Subpart 0. Thermal treatment units that do not use controlled flame combustion, and that are neither boilers nor industrial furnaces, are classified as "miscellaneous units" subject to regulation under 40 CFR Part 264, Subpart X.

EPA regulations do not define "thermal desorber", but the term generally applies to a unit that treats waste thermally to extract the contaminants from the matrix. A thermal desorber utilizing controlled flame combustion (e.g., equipped with a directly fired desorption chamber and/or a fired afterburner to destroy organics) would meet the regulatory definition of an incinerator. On the other hand, a thermal desorber that did not use controlled flame combustion (e.g., equipped with an indirectly heated desorption chamber and the desorbed organics were not "controlled"/destroyed with an afterburner) would be classified as a "miscellaneous unit".

With regard to the September 1993 Presumptive Remedy guidance entitled: `Presumptive Remedies: Site Characterization and Technology Selection for CERCLA Sites with Volatile Organic Compounds in Soils" (Directive Number 9355.0-48FS) that you mentioned, EPA identified thermal &sorption and incineration as the second and third preferred technologies, respectively. The intent of the guidance is that units that can be generally described as thermal desorbers, whether or not they are also incinerators, are second in the preference list. However, if a thermal desorber that meets the RCRA definition of incinerator is used to treat hazardous waste at a CERCLA site, the unit must meet RCRA's incinerator standards, EPA developed the preferential order set out in this guidance based on historical patterns of remedy selection and EPA's

scientific and engineering evaluation of performance data on technology implementation. There was no intent implied or stated in the Presumptive Remedy guidance that the preferential order was based on the temperature of operation; the guidance does not limit the thermal desorbers technologies to those that are low-temperature thermal desorbers.

We appreciate that as technologies evolve, the distinctions between units often become blurred, and, in the case of thermal desorbers, may fail within two separate classifications depending on the design of the unit. Classification of a "thermal treatment" unit, however, is defined by 40 CFR 260.10.

Both the RCRA regulatory framework and the CERCLA remedy selection process provide adequate flexibility to ensure that the unit is operated in a protective manner and that there is adequate and informed public participation. If you have any further questions, please contact either Andrew O'Palko, Office of Solid Waste, at (703) 308-8646 or Robin Anderson, Office of Emergency and Remedial Response, at (703) 603-8747.

Sincerely,

Elizabeth Cotsworth
Acting Director
Office of Solid Waste

Sincerely,

Stephen D. Luftig
Director
Office of Emergency and
Remedial Response

cc: Andrew O'Palko, OSW
Bob Holloway, OSW
Robin Anderson, OERR
Karen Kraus, OGC
Superfund Regional Response Managers
RCRA Senior Policy Advisors

PATTON BOGGS, L.L.P.

2550 M STREET. N.W.
WASHINGTON. D.C. 20037-1350
(202) 457-6000 (202) 457-5225

April 2, 1998

Ms. Elizabeth A. Cotsworth
Acting Director
Office of Solid Waste
U.S. Environmental Protection Agency
401 M Street, S.W. (5301W)
Washington, D.C. 20460

Dear Ms. Cotsworth:

I am writing to seek clarification on the distinction between thermal desorbers and incinerators.

It is my understanding that thermal treatment units which are enclosed devices using controlled flame combustion, and that are neither boilers nor industrial furnaces, are classified as incinerators subject to regulation under 40 CFR Part 264, Subpart O. It is also my understanding that thermal treatment units which do not use controlled flame combustion, and that are not industrial furnaces, are classified as "miscellaneous units" subject to regulation under 40 CFR Part 264, Subpart X.

Thus, a thermal desorber is subject to regulation as an incinerator if it is equipped with a fired afterburner, or if the desorption chamber is directly fired. However, I would assume that, although such a device is subject to regulation under Subpart O, it nevertheless remains a "thermal desorber." The fact that it must meet the standards set forth in Subpart O for incinerators does not transform it somehow into an incinerator for CERCLA purposes.

For example, EPA issued guidance in September 1993 explaining that at a Superfund site which has soil contaminated with volatile organic compounds, the range of remedial technologies set forth in a Record of Decision may be soil-vapor extraction ("SVE"), low-temperature thermal desorption ("LTTD"), and incineration. The preferred order is SVE, LTTD, and, as a last resort, incineration. A thermal desorber with a fired afterburner, or one whose desorption chamber is directly fired, must fall within the "thermal desorption" family of technologies, even though it would be subject to regulation under Subpart O as an incinerator.

To hold otherwise would disqualify the large majority of LTTD units, which are directly fired and use afterburners for air pollution control. This result would be contrary to EPA's CERCLA guidance and to the Administrator's emphasis on reducing incineration which involves the high-temperature burning of contaminated soil.

There appears to be some confusion on this issue, for which we would appreciate your help in clarifying. Please call me if you have any questions or if you would like to discuss this issue further.

Sincerely,

Parker E. Brugge

cc: Bob Holloway

Message

From: Knittel, Janette [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a955f914e8d34cb19b6f63ac60707d32-Knittel, Janette]
Sent: 2/8/2019 11:11:04 PM
To: Valdez, Heather [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eb323347294d44009a369c3576798bdf-Valdez, Heather]; McArthur, Lisa [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=524660efbdb140e7868646d8073f0c72-McArthur, Lisa]; Davies, Lynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=169eb6cbdebb4caf85f76390b8ab2674-LDavie12]
Subject: FW: Approval of Class 3 Permit Modification Request at Chemical Waste Management of the Northwest, Inc.

Well, it's finally done!

From: DEQ Online Subscriptions <ordeq@public.govdelivery.com>
Sent: Friday, February 08, 2019 3:09 PM
To: Knittel, Janette <Knittel.Janette@epa.gov>
Subject: Approval of Class 3 Permit Modification Request at Chemical Waste Management of the Northwest, Inc.

Approval of Class 3 Permit Modification Request at Chemical Waste Management of the Northwest, Inc.

This notice is to inform all persons on the CWMNW facility mailing list of the approval of a Class 3 modification to the permit.

M118, a Class 3 permit modification request to add 22 storage tanks and authorize the use of 40 CFR 63 subpart ff air emission controls in lieu of the 40 CFR 264 subpart BB air emission controls.

On February 8, 2019, DEQ approved a permit modification request to add 22 storage tanks and authorize the use of 40 CFR 63 subpart ff air emission controls in lieu of the 40 CFR 264 subpart BB air emission controls. This modification included the addition of permit condition II.V.1., changes to Standalones 3 (Inspection Plan) and 5 (Closure/Post-Closure Plan), and the addition of 22 (Information on ORU-2 operation) and 23 (WWTP-2 liquid storage/treatment plan).

The request to add the 22 tanks for WWTP-2 was made to support the management of residues generated from the ORU-2 recycling operation. The authorization to use 40 CFR 63 subpart ff air emission standards was made to avoid duplication of requirements with the hazardous waste program. DEQ received no comments on these issues. DEQ did receive several comments on the operation and permitting status of the ORU-2. DEQ can not address the ORU-2 comments in this permit modification, but will consider these comments in drafting the permit renewal for this facility, which is currently underway.

People can view the Notice of Decision, Response to Comments and other relevant documents at this link. Copies of the permit modification request, DEQ's review report, the approval letter and other relevant documents may be viewed at the locations listed below.

DEQ, The Dalles Office
400 E. Scenic Dr., Suite 307
The Dalles, OR 97058
541-298-7255

To view any of these documents at the above location, contact Sharon Stephens at 541-298-7255, ext. 221 to make an appointment.

These documents are also available at the Arlington Public Library

If you have any additional questions regarding this modification, please contact one of the following people:

Mr. David Anderson
DEQ, Bend Office
475 NE Bellevue Dr., Suite 110
Bend, OR 97701
541-633-2012
anderson.david@deq.state.or.us

Mr. Jim Denson
Chemical Waste Management of the Northwest, Inc.
17629 Cedar Springs Lane
Arlington, OR 97812
602-757-3352
jdenson@wm.com

NEWS AND ANNOUNCEMENTS:

Follow us on Twitter Find us on Facebook or

Visit Oregon DEQ

SUBSCRIBER SERVICES:
Manage Subscriptions | Unsubscribe All | Help

This email was sent to knittel.janette@epa.gov using GovDelivery Communications Cloud on behalf of the Oregon Department of Environmental Quality (DEQ)
700 NE Multnomah St., Suite #600, Portland, OR 97232 · 503-229-5696

Message

From: Knittel, Janette [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a955f914e8d34cb19b6f63ac60707d32-Knittel, Janette]
Sent: 3/13/2017 10:32:26 PM
To: Valdez, Heather [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eb323347294d44009a369c3576798bdf-Valdez, Heather]; Davies, Lynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=169eb6cbdebb4caf85f76390b8ab2674-LDavie12]
Subject: FW: CAA-RCRA air emission overlap
Attachments: Final Overlap Provisions.pdf

From: DUVAL Rich [mailto:rich.duval@state.or.us]
Sent: Monday, March 13, 2017 3:15 PM
To: Knittel, Janette <Knittel.Janette@epa.gov>
Subject: CAA-RCRA air emission overlap

EPA Region 4

CAA and RCRA Overlap Provisions in Subparts AA, BB, and CC of 40 CFR Parts 264 and 265

ED_002469_00000084-00001

Disclaimer

The information in the document has been funded by the United States Environmental Protection Agency. It has been subjected to EPA's peer and administrative review, and it has been approved fro publication as an EPA document. Mention of trade names or commercial products does not constitute endorsement or recommendation fro use by EPA.

This document is not intended, nor can it be relied upon, to create any right enforceable by any party in litigation with the United States. The EPA may change this document at any time without public notice.

When using this document, remember that it does not replace any applicable Federal regulations such as the RCRA Air Rules in Subparts AA, BB, or CC of 40 CFR part 264 and part 265 or any state and local rules that may apply to your facility.

This page is intentionally left blank

Table of Contents

Section Page

List of Tables vi
Introduction vii
1.0 RCRA Air Rules' CAA/RCRA Overlap Provisions 1
1.1 Subpart AA–Air Emission Standards for Process Vents-CAA/RCRA Overlap Provisions 1
1.1.1 Applicability and Exemptions 1
1.1.2 Technical Requirements 2
1.2 Subpart BB–Air Emission Standards for Equipment Leaks-CAA/RCRA Overlap Provisions 4
1.2.1 Applicability and Exemptions 4
1.2.2 Technical Requirements 6
1.3 Subpart CC–Air Emission Standards for Tanks, Surface Impoundments, and Containers–CAA/RCRA Overlap Provisions 10
1.3.1 Applicability and Exemptions 10
1.3.2 Technical Requirements 11
2.0 RCRA Air Rules Recordkeeping Requirements for Clean Air Act Exemptions 15
2.1 Subpart AA–Process Vents 15
2.2 Subpart BB–Equipment Leaks 15
2.3 Subpart CC–Tanks, Containers, and Surface Impoundments 15
2.4 Conclusions 16

3.0 Summary of Clean Air Act Regulations Applicable to Waste Management Units 19

4.0 Clean Air Act Enforceability and Operating Permit Considerations 25
4.1 Facilities With and Operating Permit 25
4.2 Facilities Without an Operating Permit 28
4.3 Conclusions 29

ED_002469_00000084-00005

Tables

Number		Page
1.1.2-1	Summary of RCRA and CAA Technical Control Requirements for Process Vent Control Devices	4
1.2.2-1	Summary of Equipment Modifications	8
1.2.2-2	Control Effectiveness for a LDAR Program at a SOCMI Process Unit	9
1.3.2-1	Summary of RCRA and CAA Technical Control Requirements for Tanks, Surface Impoundments, and Containers	14
3.0-1	Summary of CAA Regulations Potentially Applicable to Waste Management Units	20

ED_002469_00000084-00006

Introduction

The EPA fully recognizes that, in developing air standards to meet congressional directives established by provisions in the Clean Air Act (CAA) and Resource Conservation and Recovery Act (RCRA), the potential exists for regulatory overlap and that EPA's intention is to minimize, if not eliminate, regulatory overlap to the extent allowed under the different legislative acts. Section 1006(b) of RCRA indeed requires that the air standards be consistent with and not duplicative of CAA standards. Similarly, the Clean Air Act voices a strong preference for consistency of CAA section 112 standards and RCRA standards where practicable (see section 112(n)(7)).

The EPA decided that the best way to eliminate any regulatory overlap between the RCRA Air Rules and the various CAA national emission standards was to amend the RCRA Subpart AA, BB, and CC rules to exempt waste management units, process vents, and equipment components (otherwise subject to the standards) that are using air emission controls in accordance with the requirements of applicable Clean Air Act new source performance standard (NSPS) or national emission standard for hazardous air pollutants (NESHAP) regulations. Therefore, the RCRA Air Rules in Subparts AA, BB, and CC of part 264 and part 265 were amended to exempt any hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with an applicable Clean Air Act regulation codified under 40 CFR Part 60, Part 61, or Part 63. It is important to note that these exemptions only apply to those units, process vents, or equipment using organic air emission controls to comply with an applicable CAA regulation. The EPA has determined that this is the best way to assure that air emissions from hazardous waste management units are controlled to the extent necessary to protect human health and the environment.

Providing this exemption eliminates the possibility of duplicative or conflicting requirements for those hazardous waste treatment, storage, and disposal facility (TSDF) tanks, surface impoundments, containers, process vents, and equipment using organic emission controls in compliance with a NSPS or NESHAP under the CAA but also subject to requirements under the RCRA standards. The Agency considered it unnecessary for owners and operators of those waste management units subject to air standards under both sets of rules to perform duplicative testing and monitoring, keep duplicative sets of records, or perform other duplicative actions. Despite various restrictions and conditions that are

ED_002469_00000084-00007

included in the individual RCRA Air Rule subparts, the EPA considers this approach to provide the facility owner or operator with a broader degree of compliance flexibility, and a less extensive monitoring, recordkeeping, and reporting burden under RCRA.

The purpose of this document is to provide the RCRA permit writer and inspector with guidance on the appropriate application of the RCRA Air Rules overlap exemption for facilities also subject to NSPS and NESHAP and on how to confirm that the facility is meeting all requirements under the CAA rules for the units, process vents, and equipment seeking exemptions under the overlap provisions of the RCRA Air Rules.

Section 1.0 of this document addresses the RCRA Air Rules' CAA/RCRA overlap provisions. A separate subsection is provided for each of the RCRA Air Rule subparts, i.e., Subpart AA, Subpart BB, and Subpart CC. Each subsection within Section 1.0 is divided into

- a discussion of the subpart's specific applicability and exemption provisions with a discussion of the background of the exemption and any conditions placed on the use of the exemption presented; and
- a discussion of the technical requirements relative to the air emission controls required by the RCRA Air Rules and the CAA NSPS and NESHAP that may apply to the facility.

Section 2.0 of the document addresses the documentation required by the RCRA Air Rule exemption provisions. A subsection is included for each of the RCRA Air Rule subparts that notes the documentation required specifically by the relevant subpart. Section 3.0 is a summary of the CAA regulations that potentially might overlap with the RCRA Air Rules. Section 4.0 discusses CAA enforceability and operating permit considerations related to confirming that applicable CAA requirements are met for the RCRA units, process vents, or equipment that are seeking exemptions under the overlap provisions of the RCRA Air Rules.

ED_002469_00000084-00008

1.0 RCRA Air Rules' CAA/RCRA Overlap Provisions

1.1 Subpart AA–Air Emission Standards for Process Vents-CAA/RCRA Overlap Provisions

1.1.1 Applicability and Exemptions

In the December 8, 1997, revisions to the Subpart AA rules (62 FR 64635-64671), the EPA amended §264.1030 and §265.1030 (Applicability) to exempt from the requirements of Subpart AA any "process vents at a facility where the facility owner or operator certifies that all of the process vents that would otherwise be subject to this subpart are equipped with and operating air emission controls in accordance with the process vent requirements of an applicable Clean Air Act (CAA) regulation codified under 40 CFR Part 60, Part 61, or Part 63."

The EPA amended the applicability provision of Subpart AA by adding a new §264.1030(e) and §265.1030(d). This provision states that a process vent is not subject to the Subpart AA standards provided the owner or operator certifies that all Subpart AA-regulated process vents at the facility are equipped with and operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulation codified in Part 60, 61, or 63. This provision is quite similar to but not exactly the same as the one adopted by EPA for units subject to Subpart CC as part of the November 1996 amendments (see §264.1080(d) and §265.1080(d) of Subpart CC) and the logic for applying the exemption in much the same manner to Subpart AA process vents is identical to the rationale used by EPA for the Subpart CC revisions.

The Subpart AA process vent applicability exemption is, however, implemented slightly differently from the parallel exemption for Subpart CC units. Both compliance approaches allowed under the existing Subpart AA rules require emission control or emission limits on a facility-wide basis. See the provisions at 40 CFR 264.1032(a)(1) and (a)(2). Thus, to be equally protective of human health and the environment, the EPA considered it necessary that any alternative compliance demonstration require control of all

ED_002469_00000084-00009

of the process vents at the facility that would have otherwise been regulated under Subpart AA. Therefore, the Subpart AA process vent applicability exemption is only available at a facility where each and every process vent that would otherwise be subject to Subpart AA is equipped with and operating air emission controls in compliance with an applicable CAA standard under Part 60, 61, or 63. The various individual vents could be regulated under different CAA rules as long as all vents (otherwise subject to Subpart AA) are controlled under an applicable CAA rule.

As with the similar exemption provisions in Subparts BB and CC, to comply with the requirements at paragraphs §264.1030(e) or§265.1030(d) and thus qualify for the applicability exemption, the emissions from each Subpart AA process vent must be routed through a closed-vent system to an air emission control device. A process vent that is in compliance with a CAA standard under an exemption from control requirements (i.e., is not equipped with and operating a control device) does not meet the criteria established in the provisions paragraph §264.1030(e) or §265.1030(d) of Subpart AA. Therefore, a unit that does not use the required air emission controls but is in compliance with a NESHAP through an "emission averaging" or "bubbling" provision does not qualify for the exemption. Similarly, if the Clean Air Act standard for the particular unit is no control (for example, because the Maximum Achievable Control Technology (MACT) floor for the source category is no control and the Agency decided not to apply controls more stringent than the floor), the exemption from the RCRA standards under §264.1030(e) or §265.1030(d) of Subpart AA would not apply since the unit would not actually be controlled (i.e., equipped and operating air emission controls) under provisions of the MACT standard.

To take the above example a step further, at a facility where all but one of the Subpart AA process vents are equipped with air emission controls for compliance under CAA rules and the one uncontrolled Subpart AA process vent is also in compliance with a CAA regulation but is not controlled for air emissions, the facility's Subpart AA process vents do not meet the applicability exemption criteria as stated in Subpart AA and thus are not exempt from the rule under §264.1030(e) or §265.1030(d). Despite this restriction, the EPA considers this alternative to provide the facility owner or operator with a broader degree of compliance flexibility, and less extensive monitoring, recordkeeping, and reporting requirements under RCRA.

1.1.2 Technical Requirements

The regulatory language used in the applicability exclusion under §264.1030(e) and §265.1030(d) does not condition the use of the Subpart AA RCRA/CAA overlap exemption on the relative stringency of the CAA rule under which the process vents are required to

install and operate air emission controls. No mention is made of relative stringency in the rule language. Therefore, the Subpart AA applicability exclusion in paragraphs (e) and (d) does not require that the CAA air emission controls be equivalent or more stringent than the control device requirements under Subpart AA for the affected waste management unit process vent. Language regarding the relative stringency of the various rules under which a process vent on a waste management unit could be required to install air emission controls was not considered necessary or meaningful relative to control of waste management unit process vents; this is because the technical control requirements prescribed in the various rules for these waste management unit process vents are for all practical purposes the same. Therefore, implementation of vent controls, regardless of what particular rule the controls are required under, results in approximately the same overall level of control device performance for the vent stream.

A review of the regulations affecting waste management unit process vents shows that the technical control requirements for process vents are relatively consistent with regard to control device performance. For the most part, both the RCRA and CAA rules for process vents require use (i.e., installation and operation) of a control device on the vent unless certain source category or rule specific criteria are met. For example, if the waste has an organic constituent concentration below a specified level or the vent flow and concentration are below stated diminimus values controls are not required. For the Subpart AA process vent rules in parts 264 and 265, the rules apply to specific unit operations that are managing hazardous wastes with organic concentrations of at least 10 ppmw. For the off-site waste and recovery operations NESHAP in part 63, the applicability criteria include a 500 ppmw Volatile Organic Hazardous Air Pollutant (VOHAP) concentration in the off-site material managed in the unit on which the process vent is located. The off-site waste and recovery NESHAP also has process vent flow and concentration criteria of 6 m^3/min and 20 ppmv for the vent stream. Part 63 in the HON also has flow rate and concentration criteria (0.005 scm/min and 50 ppmv total organic HAP concentration) that are used to categorize process vents for application of control devices. The rules, in general, require that the control device meet certain design, operational, and performance criteria and it is these control device technical requirements that are similar throughout the RCRA and CAA process vent rules. These performance or technical requirements are briefly summarized in Table 1.2.1-1.

1.2 Subpart BB–Air Emission Standards for Equipment Leaks-CAA/RCRA Overlap Provisions

1.2.1 Applicability and Exemptions

Compliance with EPA equipment leak standards is typically assessed through review of records that document implementation of the technical requirements of the rule. As originally promulgated (55 FR 25506, June 21, 1990), the Subpart BB recordkeeping and reporting requirements at §264.1064(m) and §265.1064(m) provided that "the owner or operator of any facility that is subject to this subpart (i.e., Subpart BB) and to regulations at 40 CFR Part 60, Subpart VV, or 40 CFR Part 61, Subpart V, may elect to determine compliance with this subpart (i.e., Subpart BB) by documentation either pursuant to §264.1064 of this subpart, or pursuant to those provisions of 40 CFR Part 60 or 61, to the

Table 1.2.1-1. Summary of RCRA and CAA Technical Control Requirements for Process Vent Control Devices

Control Device Technical Requirements	
Control Device Type	Technical Control Requirement
Enclosed combustion devises (e.g., thermal incinerator, catalytic incinerator, boiler, or process heater)	• 95 % destruction efficiency • 20 ppmv exit concentration • minimum residence and temperature, (e.g., 760 °C and 0.5 sec)
Recovery devices (e.g., carbon adsorber or condenser)	• 95 % overall recovery
Flares	• design and operational criteria (e.g., no visible emissions)

extent that the documentation under the regulation at 40 CFR Part 60 or 61 duplicates the documentation required under this subpart (i.e., Subpart BB)." The purpose of this paragraph in Subpart BB was to add a provision in the rule to provide for elimination of recordkeeping requirements that are duplicative of other Federal requirements for equipment leaks.

The amendments to the Subpart BB rules, published on December 8, 1997 (62 FR

ED_002469_00000084-00012

64636-64671), revised the recordkeeping provisions of Subpart BB to eliminate owner or operator burden caused by regulatory overlap of the various EPA equipment leak regulations under the Clean Air Act and RCRA. The Subpart BB recordkeeping provisions in Section 264.1064(m) and Sec. 265.1064(m) were amended to allow any equipment that contains or contacts hazardous waste that is subject to Subpart BB and also subject to regulations in 40 CFR Part 60, 61, or 63 to determine compliance with Subpart BB by documentation of compliance with the relevant provisions of the Clean Air Act rules codified under 40 CFR Part 60, Part 61, or Part 63. As noted in the preamble to these amendments, "because compliance with Subpart BB is demonstrated through recordkeeping, this recordkeeping revision has the effect of exempting equipment that would otherwise be subject to Subpart BB from Subpart BB requirements, provided the equipment is operated, monitored, and repaired in accordance with an applicable CAA standard, and appropriate records are kept to that effect."

Paragraph §264.1064 (m) in the recordkeeping requirements states that the owner or operator "...may elect to determine compliance with this subpart either by documentation pursuant to §264.1064 of this subpart [i.e., Subpart BB], or by documentation of compliance with the regulations at 40 CFR Part 60, Part 61, or Part 63 pursuant to the relevant provisions of the regulations at 40 CFR Part 60, Part 61, or Part 63." The corresponding Part 265 language is the same. The objective of the amendment was to eliminate any owner or operator burden caused by regulatory overlap. In making the revision to paragraph (m) in §264.1064 and §265.1064 of Subpart BB, the Agency intended that, for a piece of equipment subject to equipment leak regulations under the CAA as well as RCRA Subpart BB, compliance with the CAA rules rather than the RCRA Subpart BB requirements would be an adequate demonstration of compliance and in effect eliminate the need to demonstrate compliance under Subpart BB of the RCRA Air Rules. The provisions in 40 CFR 264.1064(m) and 265.1064(m) are intended to allow a facility owner or operator to demonstrate compliance with all of subpart BB, through documentation of compliance with regulations under one of the specified parts of the CAA. Simply put, if a facility has equipment that is subject to relevant provisions (i.e., provisions for operating, monitoring, and repairing subpart BB equipment) under regulations within the specified CAA parts, that equipment is exempt from 40 CFR part 264 subpart BB. To be eligible for the exemption provided by 40 CFR 264.1064(m) or 265.1064(m): the relevant CAA requirements must be applicable to the subpart BB equipment; the relevant CAA requirements must include provisions for operation, monitoring, and repair of the Subpart BB equipment; the relevant

CAA requirements must be codified within 40 CFR part 60, 61, or 63; and compliance with the relevant CAA requirements must be documented in the facility operating record.

1.2.2 Technical Requirements

The regulatory language used in the revised paragraph (m) of Subpart BB does not condition the use of the CAA documentation of compliance in place of Subpart BB compliance on the relative stringency of the rule being used to document compliance. No mention is made of relative stringency in the rule language. That is, Subpart BB paragraph (m) does not require that the alternative CAA equipment leak rule be equivalent to or more stringent than the control requirements of Subpart BB. This type of rule language was not considered necessary or meaningful in relation to the Agency's equipment leak standards because differences in the various CAA and RCRA equipment leak rules in terms of technical requirements and overall control performance are marginal.

The EPA has promulgated a number of equipment leak regulations in 40 CFR Part 60, Part 61, and Part 63; although these rules may vary somewhat in format and administrative requirements, they contain nearly the same technical requirements (in terms of performance, work practice, and equipment requirements) and achieve approximately the same level of emissions control for the majority of equipment component types. For pumps and valves, there are differences in estimated control efficiencies that result from the use of different leak definitions and monitoring frequencies and, as a result, compliance with one of these equipment leak rules over another does result in slightly different emission reductions. However, the incremental emission reductions are small. The technical requirements covering other equipment components (e.g., sampling connections and open-ended lines) are the same in all the rules.

With regard to the control efficiencies for equipment leak control techniques, there are two primary techniques for reducing equipment leak emissions that form the basis of existing EPA regulations: 1) modifying or replacing existing equipment, and 2) implementing a leak detection and repair (LDAR) program. Table 1.2.2-1 presents a summary of equipment modifications that can be used for each equipment type with an approximate control efficiency for each modification. The equipment requirements (e.g., installing caps on open-ended lines or installing closed-loop sampling systems) are essentially the same in all of the Agency's equipment leak rules; therefore there are no real differences in rule stringency for these equipment types.

The LDAR program is a structured program to detect and repair equipment that is identified as leaking (i.e., emitting sufficient amounts of regulated material to warrant reduction of the emissions through repair); a portable monitoring device is used to identify

equipment leaks from individual pieces of equipment. LDAR programs are best suited to valves and pumps. The control effectiveness of any given LDAR program is dependent on a number of factors including leak definition and monitoring frequency as well as initial and final leak frequencies. The existing EPA equipment leak rules vary in a number of ways that relate to these program factors. Some formats specify the leak definition (e.g., 10,000 ppmv) and monitoring frequency (e.g., monthly or quarterly) and others specify the final leak frequency. The EPA has estimated the differences in control effectiveness at Synthetic Organic Chemical Manufacturing Industry (SOCMI) process units for typical LDAR programs that are in the 40 CFR Part 60, Part 61, and Part 63 equipment leak rules. These include: 1) monthly LDAR with a leak definition of 10,000 ppmv, similar to the requirements of Subpart BB of Parts 264 and 265, Subpart VV and Subpart GGG of part 60, and Subpart VV and Subpart J in Part 61; 2) LDAR equivalent to that specified in the hazardous organic NESHAP (or HON) in Subpart H of Part 63 that has a lower leak definition for pumps and valves (e.g., 500 ppmv for Phase II and III) and specifies the monitoring frequency based on the leak frequency. Table 1.2.2-2 summarizes the estimated control effectiveness for the two LDAR programs at SOCMI process units, which also were those used in the original Subpart BB analysis to characterize waste management unit equipment leak emissions. As the estimates in Tables 1.2.2-1 and 1.2.2-2 show, the differences in emission reductions achieved by the various equipment leak rules are minimal.

The fact that EPA intended to keep all the various equipment leak rules consistent (if not equivalent) is shown by the preamble language that describes the changes made to the Subpart BB rules in the November 25, 1996, Federal Register notice (61 FR 59937). In these changes, the EPA incorporated into the Subpart BB standards recent changes that were made to other national equipment standards that require equipment leak detection and repair programs. Revisions to the RCRA standards for equipment leaks consist of incorporating changes to the requirements so that the Subpart BB requirements in Parts 264 and 265 are consistent and up-to-date with the general decisions the EPA has made regarding leak detection and repair program requirements for organic air emission control in other regulations under the Clean Air Act (e.g., National Emission Standards for Hazardous Air Pollutants (NESHAP): Off-Site Waste and Recovery Operations, 61 FR 34140, July 1, 1996, or the National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks, 40 CFR Part 63, Subpart H, 59 FR 19402, April 22, 1994, i.e., the HON).

Table 1.2.2-1. Summary of Equipment Modifications

Equipment type	Modification	Approximate control efficiency (%)
Pumps	Sealless design	100 [a]
	Closed-vent system	90 [b]
	Dual mechanical seal with barrier fluid maintained at a higher pressure than the pumped fluid	100
Compressors	Closed-vent system	90 [b]
	Dual mechanical seal with barrier fluid maintained at a higher pressure than the compressed gas	100
Pressure relief devices	Closed-vent system	[c]
	Rupture disk assembly	100
Valves	Sealless design	100[a]
Connectors	Weld together	100
Open-ended lines	Blind, cap, plug, or second valve	100
Sampling connections	Closed-loop sampling	100

[a] Sealless equipment can be a large source of emissions in the event of equipment failure.

[b] Actual efficiency of a closed-vent system depends on percentage of vapors collected and efficiency of control device to which the vapors are routed.

[c] Control efficiency of closed vent-systems installed on a pressure relief device may be lower than other closed-vent systems, because they must be designed to handle both potentially large and small volumes of vapor.

ED_002469_00000084-00016

Table 1.2.2-2. Control Effectiveness for a LDAR Program at a SOCMI Process Unit

Equipment type and service	Control effectiveness (%)	
	Monthly monitoring[a] 10,000 ppmv leak definition	HON [b]
Valves - gas	87	92
Valves - light liquid	84	88
Pumps - light liquid	69	75

[a] This format serves as the basis for the 40 CFR Part 60 and Part 61 CAA equipment leak regulations as well as the RCRA Subpart BB rules.

[b] Control effectiveness attributable to the requirements of the hazardous organic NESHAP equipment leak negotiated regulation, 63 CFR Subpart H, are estimated based on equipment-specific leak definitions and performance levels specified in Subpart H.

1.3 Subpart CC–Air Emission Standards for Tanks, Surface Impoundments, and Containers–CAA/RCRA Overlap Provisions

1.3.1 Applicability and Exemptions

In the November 25, 1996, revisions to the Subpart CC rules (61 FR 59932 - 59997), the EPA amended paragraph (b)(7) of §264.1080 and §265.1080 (Applicability) to exempt from the requirements of Subpart CC any "hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with an applicable Clean Air Act (CAA) regulation codified under 40 CFR Part 60, Part 61, or Part 63."

There are three limitations to this applicability exemption that are explained in the preamble to the Subpart CC revisions. First, for a tank that uses an enclosure as a part of the air emission control system rather than the more conventional tank controls involving covers, the enclosure and control device used must comply with the technical requirements for enclosures and combustion devices in §264.1084(i). If this is the case then the unit is exempt from further requirements under the rule. This enclosure/control device limitation does not hold if the tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all the applicable requirements specified under 40 CFR Part 61, Subpart FF—National Emission Standards for Benzene Waste Operations, as is noted directly in paragraph (b)(7) of §264.1080 and §265.1080. These benzene waste tanks are exempt from Subpart CC as long as they meet the Part 61 Subpart FF requirements applicable to the unit.

Second, a unit that does not use the required air emission controls but is in compliance with a NESHAP through an "emission averaging" or "bubbling" provision does not qualify for the exemption; EPA lacks assurance that emissions from the unit are controlled to the extent necessary to protect human health and the environment. An explanation for this limitation was provided in footnote 2 of the preamble at 61 FR 59939, November 25, 1996.

ED_002469_00000084-00018

Third, if the Clean Air Act standard for the particular unit requires no control, the exemption from the RCRA standards under §264.1080(b)(7) would not apply since the unit would not actually be equipped and operating air emission controls under provisions of the MACT standard. Again, as stated above, the EPA believes the best way to assure protectiveness under the Subpart CC national rule is to require controls on each particular unit. It is therefore clearly EPA's intent that for a hazardous waste management unit to take advantage of this Subpart CC applicability exemption, the particular unit must be equipped with and operating air emission controls under an applicable CAA regulation.

The EPA further explained in the November 1996 preamble their logic and rationale for including this particular exclusion in the Subpart CC rules. In short, the Agency found that where there are MACT air emission control requirements for a specific unit otherwise covered by Subpart CC, the MACT typically requires the same technical air emission controls as would be required under Subpart CC. Thus, it follows that compliance with the MACT requirements (such that the unit is equipped with and operating air emission controls) would thus afford equal protectiveness as would be achieved under Subpart CC, and therefore can be considered to satisfy the RCRA protectiveness requirements.

1.3.2 Technical Requirements

The technical requirements for the RCRA Air Rules in Subpart CC as amended are essentially the same as those published by the EPA under the CAA section 112 MACT program. A unit controlled under one or the other set of requirements would achieve the same emission reduction and performance level; and the various requirements thus provide the same level of protection. For example, EPA, in promulgating the final requirements for the Off-Site Waste and Recovery Operations NESHAP (61 FR 34147, July 1, 1996), added a series of new subparts to 40 CFR Part 63; these subparts do not apply directly to any particular source category but are referenced by other rules to provide up-to-date consistent technical control requirements (i.e., *standard-standards*). These subparts include Subpart OO--National Emission Standards for Tanks—Level 1, Subpart PP--National Emission Standards for Containers, Subpart QQ--National Emission Standards for Surface Impoundments, Subpart RR--National Emission Standards for Individual Drain Systems, and Subpart VV--National Emission Standards for Oil-Water Separators and Organic-Water

Separators. Additional *standard-standards* were promulgated by the Agency on June 29, 1999 (64 FR 34853-34949) and included Subpart SS--National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices, and Routing to a Fuel Gas System or a Process; Subpart TT--National Emission Standards for Equipment Leaks—Control Level 1; Subpart UU--National Emission Standards for Equipment Leaks—Control Level 2; and Subpart WW--National Emission Standards for Storage Vessels (Tanks)—Level 2. In terms of technical control requirements, these CAA standards are essentially identical to the requirements for tanks, containers, and impoundments found in the RCRA Subpart CC rule. Table 1.3.2-1 presents a summary comparison of the technical control requirements for the RCRA Air Rules in Subpart CC and the CAA *Standard-Standards* in 40 CFR part 63.

The differences in the individual rules lies in the fact that each rule has its own criteria to establish which units subject to the rule would be required to install and operate air emission controls. These criteria include such factors as volatile organic HAP concentration, vapor pressure, and tank or container size. Thus, a particular waste managed in a particular tank may require use of air emission controls under one CAA rule but not under another; however, once controls are applied, the resultant emission reduction would be the same regardless of which of the rules required the tank controls.

The regulatory language used in applicability exclusion under §264.1080(b)(7) and §265.1080(b)(7) does not condition the use of the Subpart CC RCRA/CAA overlap exemption on the relative stringency of the CAA rule under which the unit is required to install and operate air emission controls. No mention is made of relative stringency in the rule language. Therefore, the Subpart CC applicability exclusion in paragraph (b)(7) of §264.1080 and §265.1080 does not require that the CAA air emission controls be either equivalent or more stringent than the control device requirements under Subpart CC for the affected waste management unit. Language regarding the relative stringency of the various rules under which a waste management unit could be required to install air emission controls was not considered necessary or meaningful relative to control of these types of waste management units because, as discussed above, the technical requirements for these units are for all practical purposes the same and implementation of the controls results in the same overall level of control performance for the unit. However, the language is quite clear on the fact

that to qualify for this exemption, the unit must indeed be equipped-with and operating air emissions controls under an applicable CAA regulation in 40 CFR Part 60, Part 61, or Part 63.

In order to qualify for the RCRA/CAA overlap exemption, it is not enough that the unit is merely subject to and in compliance with a particular CAA rule (but does not install air emission controls); the waste management unit must be equipped-with and operating air emission controls to comply with the CAA rule provisions relative to the unit. Similarly, the air emission controls must be installed and operated to comply with the requirements of an applicable CAA regulation. Installing air emission controls to comply with a CAA regulation that is not applicable to the waste management unit, as specified in the subpart, is not sufficient to qualify the unit for the RCRA/CAA overlap exemption.

ED_002469_00000084-00021

Table 1.3.2-1 Summary of RCRA and CAA Technical Control Requirements for Tanks, Surface Impoundments, and Containers

Waste Management Unit	Technical Control Requirements	
	RCRA Part 264/265	CAA Part 63
Tanks - Level 1	Subpart CC	Subpart OO
	• Fixed roof	• Fixed roof
Tanks - Level 2	Subpart CC	Subpart WW
	• Fixed roof with internal floating roof	• Fixed roof with internal floating roof
	• External floating roof	• External floating roof
	• Cover and vent to control device	• Equivalent alternative
	• Pressure Tank	
	• Tank enclosure vented to combustion device	
Surface Impoundments	Subpart CC	Subpart QQ
	• Floating membrane cover	• Floating membrane cover
	• Cover and vent to control device	• Cover and vent to control device
Containers	Subpart CC	Subpart PP
Level 1	• Meet DOT regulations	• Meet DOT regulations
	• Cover container	• Cover container
	• Organic suppression barrier	• Organic suppression barrier
Level 2	• Meet DOT regulations	• Meet DOT regulations
	• Operate with no detectable emissions (Method 21)	• Operate with no detectable emissions (Method 21)
	• Tested vapor tight (Method 27)	• Tested vapor tight (Method 27)
Level 3	• Enclosure vented to control device	• Enclosure vented to control device
	• Vent container to control device	• Vent container to control device

DOT = U.S. Department of Transportation

ED_002469_00000084-00022

2.0 RCRA Air Rules Recordkeeping Requirements for Clean Air Act Exemptions

Documentation is an integral part of the RCRA air emission standards exemptions that are based on compliance with CAA regulations. All three of the RCRA air rule subparts directly refer to documentation of compliance with CAA rules and require that the documentation be kept with, or made readily available with, the facility on-site operating record. Note that "readily available" requires retrieval of information at the regulator's request when, for example, the regulator is scheduled to be on-site.

2.1 Subpart AA–Process Vents

The applicability exemption in §264.1030(e) and §265.1030(d) requires that the documentation of compliance under regulations at 40 CFR Part 60, Part 61, or Part 63 be kept with, or made readily available with, the facility on-site operating record.

2.2 Subpart BB–Equipment Leaks

The recordkeeping compliance alternative in §264.1064(m) and §265.1064(m) requires that the documentation of compliance under regulations at 40 CFR Part 60, Part 61, or Part 63 be kept with or made readily available with the on-site facility operating record.

2.3 Subpart CC–Tanks, Containers, and Surface Impoundments

The recordkeeping provisions of Subpart CC at §264.1089(j) and §265.1090(j) require that the owner or operator of a facility, where a hazardous waste management unit is not using air emission controls in accordance with the applicability exemption specified in §264.1080(b)(7) and §265.1080(b)(7), must record and maintain the following information relevant to the exempt units:

1) certification that the waste management unit is equipped with and operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulation codified under 40 CFR Part 60, Part 61, or Part 63; and
2) identification of the specific requirements codified under 40 CFR Part 60, Part 61, or Part 63 with which the waste management unit is in compliance.

ED_002469_00000084-00023

Paragraph (a) of the Recordkeeping requirements (§264.1089 and §265.1090) requires the owner or operator to record and maintain information required by paragraph (j) in the operating record for as long as the waste management unit is exempt from the Subpart CC control requirements in accordance with the conditions specified in §264.1080(b)(7) or the corresponding paragraphs under Part 265.

2.4 Conclusions

Neither the Subpart AA, BB, or CC regulations themselves nor the accompanying preambles provide comprehensive guidance on the level of detail needed to document compliance with the CAA rules and thus qualify for the RCRA air emission standards exemptions. However, it is clear from the preamble discussions contained in the various Federal Register notices adding or amending these Subpart AA, BB, and CC exemptions, that the minimum documentation would include:

- certification by the owner/operator regarding the fact that the unit, process vent, or equipment is in compliance with applicable regulations under Part 60, Part 61, or Part 63 of the CAA;
- ? certification by the owner/operator that the unit, process vent, or equipment is controlled for air emissions either through installation of a control device (for Subpart AA or Subpart CC) or application of an emission control program such as a LDAR program (for Subpart BB) as required under the applicable CAA regulations;
- identification of each unit, process vent, or equipment component for which the exemption is being claimed and the specific requirements under 40 CFR Part 60, Part 61, or Part 63 with which the unit, process vent, or equipment component is subject to and in compliance with; and
- copies of all records and other documentation required specifically by the 40 CFR Part 60, Part 61, or Part 63 regulations to document or demonstrate that the unit, process vent, or equipment component is in compliance through use of the appropriate emission control equipment (e.g., operating permits, engineering design documentation, source tests, inspection reports) or work practices (e.g., monthly LDAR inspection/monitoring records).

It is also important to note that a TSDF owner or operator claiming the RCRA/CAA overlap exemption will need to submit relevant supporting documentation during the (Part 270) RCRA permit process. The RCRA permit writer will need this relevant information for the particular units or equipment involved even though the facility is eligible for the RCRA/CAA overlap exemption as specified in the RCRA air rule provisions. The permit writer must be able to justify and document why the RCRA permit conditions lack any

applicable Subpart AA, BB, or CC related requirements and standards. In addition to verifying the appropriateness of the exemption for the facility, the RCRA permit writer needs the information regarding control of organic air emissions to reference the exemption in the Permit Factsheet, Response to Comments, and possibly in the actual RCRA permit. In general, the information, regarding compliance with any CAA rules that qualifies the unit or equipment for exemption under the RCRA Air Rules, should be included in the facility's Part B RCRA permit application. For example, if the facility's CAA Title V permit (or permit application) contains information specific to the hazardous waste management units or equipment for which the exemption is claimed, the owner or operator should include this information in the documentation sent to the RCRA permit writer to support the exemption based on organic air emission controls required under the CAA. Again, an unsupported claim is not sufficient to warrant or justify the exemption.

ED_002469_00000084-00025

This page is intentionally left blank.

3.0 Summary of Clean Air Act Regulations Applicable to Waste Management Units

The EPA fully recognizes that in developing air standards to meet congressional directives established by provisions in the Clean Air Act and Resource Conservation and Recovery Act, the potential exists for regulatory overlap and that it is the EPA's intention to minimize, if not eliminate, regulatory overlap to the extent that the Agency is allowed under the different legislative acts. Section 1006(b) of RCRA requires that the air standards be consistent with and not duplicative of Clean Air Act standards. Similarly, the Clean Air Act voices a strong preference for consistency in CAA section 112 standards and RCRA standards where practicable (see section 112(n)(7)).

The various EPA regulations in 40 CFR Part 60, Part 61, and Part 63 were reviewed to determine which particular subparts might contain provisions that also apply to hazardous waste management units and associated equipment regulated under the RCRA Air Rules and that require control of organic air emissions from waste management units and equipment components. Clean Air Act regulations that potentially might overlap with RCRA Subparts AA, BB, and CC in 40 CFR Part 264 and Part 265 include those listed in Table 3.0-1. This table is not intended to be exhaustive but rather provides a guide for readers regarding which CAA regulations are likely to overlap the RCRA Air Rules.

ED_002469_00000084-00027

Table 3.0-1. Summary of CAA Regulations Potentially Applicable to Waste Management Units.

Regulatory Title	40 CFR Part No.	Subpart	Type of Units Regulated	Comments
		Part 63		
National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations	Part 63 §63.680 — §63.697	Subpart DD	Process vents, equipment components (e.g., pumps and valves), tanks, surface impoundments, containers, individual drain systems, oil-water separators	Control requirements reference "Standard Standards" in Subparts OO, PP, QQ, RR, and VV
National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater (a.k.a. "the HON")	Part 63 §63.110 — §63.152	Subpart G	Wastewater tanks, surface impoundments, containers, individual drain systems, oil/water separators, treatment units (i.e., steam strippers, bio-units, etc.)	This rule is referenced by a number of Part 63 standards for technical control requirements.
National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks	Part 63 §63.160 — §63.182	Subpart H	Equipment components (e.g., pumps and valves)	
National Emission Standards for Organic Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks	Part 63 §63.190 — §63.193	Subpart I	Equipment components (e.g., pumps and valves)	References subpart H of 40 CFR Part 63 for technical standards .

ED_002469_00000084-00028

Table 3.0-1 (Continued)

Regulatory Title	40 CFR Part No.	Subpart	Type of Units Regulated	Comments
Part 63 Standard Standards:	Part 63	See below	See below	These standards do not apply directly to any particular source category but are referenced by other rules to provide technical control requirements.
• National Emission Standards for Tanks-Level 1	§63.900 — §63.907	Subpart OO	Fixed-roof tanks	
• National Emission Standards for Containers	§63.920 — §63.928	Subpart PP	Containers	
• National Emission Standards for Surface Impoundments	§63.940 — §63.948	Subpart QQ	Surface impoundments	
• National Emission Standards for Individual Drain Systems	§63.960 — §63.966	Subpart RR	Drains, sewer lines, junction boxes, etc.	
• National Emission Standards for Oil-Water Separators and Organic-Water Separators	§63.1040 — §63.1049	Subpart VV	Oil/organic - Water Separators	
• National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process	§63.980 — §63.999	Subpart SS	Process vents and closed-vent systems	
• National Emission Standards for Equipment Leaks — Control Level 1	§63.1000 — §63.1018	Subpart TT	Equipment components (e.g., pumps and valves)	

ED_002469_00000084-00029

Table 3.0-1 (Continued)

Regulatory Title	40 CFR Part No.	Subpart	Type of Units Regulated	Comments
• National Emission Standards for Equipment Leaks — Control Level 2	§63.1019 — §63.1039	Subpart UU	Equipment components (e.g., pumps and valves)	
• National Emission Standards for Storage Vessels (Tanks) — control Level 2	§63.1060 — §63.1066	Subpart WW	Fixed-roof, floating-roof, pressure, and other tanks	
Part 60				
Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry	Part 60 §60.480 -- §60.489	Subpart VV	Equipment Components (e.g., pumps and valves)	
Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries	Part 60 §60.590 -- §60.593	Subpart GGG	Equipment Components (e.g., pumps and valves)	References Subpart VV of 40 CFR Part 60 for technical standards.
Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems	Part 60 §60.690 — §60.699	Subpart QQQ	Individual drain systems and oil-water separators	
Standards of Performance for VOC Emissions from SOCMI Wastewater (Proposed only)	Part 60 §60.770 — §60..789	Subpart YYY	Tanks, surface impoundments, containers, individual drain systems, oil-water separators	Proposed regulation contains provisions addressing "Relationship to RCRA" rules (63 FR 68049); i.e., comply with more stringent requirements or request case-by-case determination of requirements. Control requirements reference various Part 60, 61, 63, 264, and 265 rules

Table 3.0-1 (Continued)

Regulatory Title	40 CFR Part No.	Subpart	Type of Units Regulated	Comments
		Part 61		
National Emission Standard for Equipment Leaks of Benzene	Part 61 §61.110 — §61.112	Subpart J	Equipment Components (e.g., pumps and valves)	References Subpart V of 40 CFR Part 61 for technical standards. Over-rides 40 CFR Part 60 rules.
National Emission Standard for Equipment Leaks	Part 61 §61.240 — §61.247	Subpart V	Equipment Components (e.g., pumps and valves)	Over-rides 40 CFR Part 60 rules.
National Emission Standard for Benzene Waste Operations	Part 61 §61.340 — §61.358	Subpart FF	Tanks, surface impoundments, containers, individual drain systems, oil-water separators	Applies to chemical manufacturing plants, coke by-product plants, and petroleum refineries; the rule also applies to hazardous waste which includes any TSDF that manages waste generated by any of these facility types.

This page is intentionally left blank.

4.0 Clean Air Act Enforceablility and Operating Permit Considerations

One of the more relevant issues associated with the RCRA/CAA overlap provisions is the general question on how the RCRA permit writer will confirm that hazardous waste treatment units, equipment, and vents potentially subject to RCRA Organic Air Emission Standards (40 CFR 264, Subparts AA, BB, and CC) are also subject to CAA regulations under Part 60, 61, or 63 and that all requirements under the CAA rules are met for these units, equipment, or vents. The discussion below addresses this point and is presented based on the situation where a facility is either with or without a CAA Title V operating permit.

4.1 Facilities With An Operating Permit

EPA rules for State CAA operating permit programs (40 CFR Part 70) require an operating permit for each facility that is a major source as defined in 40 CFR 70.2. According to the EPA's Operating Permits Group of the OAQPS Information Transfer and Program Integration Division, an operating permit for a major source must be comprehensive with respect to including all emission units and all applicable requirements that apply to the units (see 40 CFR 70.3(c)(1)). That is, for major sources, the CAA permit must include all "applicable requirements" for all emission units within the fenceline (except for "insignificant activities") and contain an explanation of any exemptions from otherwise "applicable requirements." An "applicable requirement" is essentially all emission limitations and standards and other requirements through State implementation plans (SIP), NSPS, MACT, NESHAP, and other CAA requirements. For example, the RCRA air emission standards are not an "applicable requirement" under Title V because they are not CAA requirements (RCRA is a separate statute). The CAA standards under Part 60, 61, or 63 are applicable requirements and as such should be included in the CAA Title V operating permit, as applicable to the facility. All terms and conditions in the permit that are required by the CAA or applicable requirements are federally-enforceable. In fact, all Federally-approved rules/requirements are independently enforceable outside of CAA permitting programs. For example, State Implementation Plan (SIP) requirements become

federally-enforceable when EPA approves the SIP. NSPS, MACT, and NESHAP are federally-enforceable as of their effective date and remain federally enforceable even if the program is delegated to a state or local agency. Therefore, CAA requirements under 40 CFR Parts 60, 61, or 63 are independently enforceable regardless of whether or not the requirements have been incorporated into the facility's Title V permit. An owner or operator with sources subject to regulations under 40 CFR Part 60, 61, or 63 must comply with the applicable requirements of these regulations regardless of the CAA Title V permit status.

The requirements for permit content are described in 40 CFR 70.6. Each permit must include the emission limits and standards including operational requirements and limits that assure compliance with all applicable requirements at the time of permit issuance. All the terms and conditions of the permit , including any "permit shield" granted under 40 CFR 70.6(f), remain in effect until the renewal permit has been issued or denied. The operating permit term is 5 years.

Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action. Section 70.6(f) allows the permitting authority to include a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided: (1) such applicable requirements are included and specifically identified in the permit; or (2) the permitting authority determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary of it. This means, in general, that once the applicable requirement is translated into permit terms, the source only must comply with the Title V permit terms. There also are limitations to the provisions that can be "shielded." For example, neither non-compliance nor terms that have not undergone EPA and public review can be shielded by a CAA Title V permit.

The concept of "permit shield" under the CAA is significantly different than the "permit-as-a-shield" practice under RCRA which allows permitted TSDF to be shielded from compliance with regulatory requirements promulgated after the RCRA permit is issued; i.e., compliance with the RCRA permit constitutes compliance with the RCRA program. In general, under this practice, if a new regulation in 40 CFR Part 264 is not in the facility's RCRA permit, the owner or operator is typically not required to comply with that particular rule. This is not the case under the CAA where "shielded" requirements must be specifically identified in the Title V permit. The CAA requires that the permit must be reopened to include newly promulgated requirements if more than 3 years remain in the

term of the permit. If not, the requirements are included in the permit renewal. In either case, the facility owner or operator must comply with any new regulations under 40 CFR Part 60, 61, or 63, which are independently enforceable, as of their effective date.

There are circumstances where a particular unit or source may not be included or listed in a facility's Title V permit. For example, an emissions unit may not be listed in the permit for a major source if it constitutes an "insignificant activity." State permitting programs have varying definitions of "insignificant activity." Some use a emissions threshold for HAPs (e.g., 2 tpy) and such limits should only be subject to generally applicable requirements of the SIP. Portable units moved onto the site for a short period of time also may not be listed in the permit for a major source. A portable source cannot be a major source. In cases where a particular unit or source is not included or listed in a facility's Title V permit, the unit is not exempt from any applicable CAA requirements under Sections 111 and 112. As this discussion illustrates, in limited cases a HWMU at a facility could be subject to and in compliance with a particular CAA rule but the facility's Title V permit may not clearly identify or list the applicability of the rule.

For a CAA source (either major or non-major) with an operating permit, there are many ways to confirm that a particular unit or piece of equipment is subject to a specific CAA rule and that all CAA requirements imposed by the rule are being met (i.e., in this case, that air emission controls are installed and operating). Foremost among these is the fact that (1) many permitted facilities subject to CAA rules (i.e., NSPS, NESHAP, and MACT) must submit an initial notification of applicability, a notification of compliance status, and annual compliance certifications (these go to the permitting authority and EPA), and must submit excess emission reports and other reports as may be required by the particular CAA rule; (2) the EPA also has authority to make inspections and request information needed to determine compliance under Section 114 of the CAA; and (3) the CAA regulations may include recordkeeping and reporting requirements for units that are below the applicability threshold for the standard but they require the "exempt" units to document the continuing non-applicability of the requirements. The recordkeeping requirements are included in the Title V permit and the exempt units should be noted as exempt in the permit; the records should also be available for EPA inspection.

Where would a RCRA permit writer, inspector, or program staffer find the CAA files on a facility subject to TSDF air rules? According to the OAQPS Operating Permits Group (OPG) Information Transfer and Program Integration Division, the CAA permit rules in 40 CFR part 70 require that the permitting authority provide the Administrator (i.e., the Regional Office) a copy of each permit application, proposed permit, and final permit. The

ED_002469_00000084-00035

format (paper or electronic) and extent (all supporting documentation like test reports) may vary from State to State. Full copies of everything must be held at the State level. This would include the CAA permit and all supporting documentation (e.g., notifications, emission estimates, test reports, and monitoring reports). Depending on the information sought to confirm applicability and compliance with CAA regulations, it might be helpful to first review compliance certifications and compliance schedules for the facility that are included in the permit and semiannual reports which should be available in the CAA operating permit file at both the State and EPA Regional office. An alternative is to look at the facility's semi-annual report that would indicate compliance with each applicable provision. The EPA first contact for this information should be the CAA Title V Program Manager for EPA Region office.

4.2 Facilities Without an Operating Permit

As discussed in earlier sections, there is a population of non-major sources that are not currently in the CAA Title V permitting universe due to deferrals that are expected to continue for the next few years. These facilities may nonetheless contain units that are subject to and in compliance with CAA regulations under 40 CFR Part 60, 61, or 63 as well as being potentially subject to the RCRA Air Rules in Subpart AA, BB or CC. While EPA has deferred CAA permit requirements for non-major sources, the NSPS, MACT, and NESHAP requirements that apply to these facilities are federally-approved rules and, as such, they are independently enforceable. Therefore, an owner or operator with sources subject to regulations under 40 CFR Part 60, 61, or 63 must comply with the applicable requirements of these regulations regardless of the CAA Title V permit status.

It is also of interest to note that when a permit is issued for any non-major source (including an area source) under the CAA Part 70 program, those units that are subject to NSPS, NESHAP, and MACT rules must be included in the permit for the non-major source; all applicable requirements under the rules must be included for these units. (See 40 CFR 70.3.)

For a CAA non-major source without a Title V operating permit, there also are ways to confirm that a particular unit or piece of equipment is subject to a specific CAA rule and that all CAA requirements imposed by the rule are being met (i.e., that air emission controls are installed and operating). Again, the most direct among these is the fact that under most CAA NSPS, NESHAP, and MACT regulations, facilities must submit an initial notification of applicability, a notification of compliance status, and must routinely submit excess emission reports and other reports as may be required by the particular CAA rule. These

ED_002469_00000084-00036

reports provide a sound basis for making the determination regarding CAA rule emission controls and compliance relative to the RCRA air rule exemptions.

It should be pointed out that in general there is less assurance of continuous compliance with CAA rules at a facility with no operating permit. Compliance with the individual rules is typically assessed by inspections and EPA review of reports required by the CAA rules. EPA authority under section 114 also can be used to collect additional information needed to assess compliance.

4.3 Conclusions

Based on the above discussion, it appears that there are situations where either a facility may not have a CAA operating permit or their permit does not include all units and yet the owner/operator has installed and is operating air emission controls on a unit because of applicable CAA rules under 40 CFR Part 60, 61, or 63. Therefore, it does not seem reasonable that the RCRA air rule exemptions or exclusions included in Subparts AA, BB, and CC for CAA rule controls should not be considered or allowed merely on the grounds that the applicable CAA rule requiring installation and operation of emission controls is not incorporated into the facility's CAA Title V operating permit. The key point that must be considered under the RCRA air rule provisions for the exemption or exclusion is that the potentially affected unit must be equipped with and operating air emission controls in accordance with an applicable CAA regulation codified in 40 CFR Part 60, 61, or 63; and that this fact must be adequately documented by the owner/operator as required in the RCRA air rule provisions relevant to the RCRA/CAA overlap exemption.

ED_002469_00000084-00037

Message

From: Knittel, Janette [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a955f914e8d34cb19b6f63ac60707d32-Knittel, Janette]
Sent: 3/13/2017 10:31:19 PM
To: Valdez, Heather [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eb323347294d44009a369c3576798bdf-Valdez, Heather]; Davies, Lynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=169eb6cbdebb4caf85f76390b8ab2674-LDavie12]
Subject: FW: Chem Waste issued (simple air permit)
Attachments: removed.txt; 11-0002-SI-01-PmtMod1-28517-FNL.docx; 11-0002-SI-01-RRmod1-28517-FNL.docx

---

From: DUVAL Rich [mailto:rich.duval@state.or.us]
Sent: Monday, March 13, 2017 3:17 PM
To: Knittel, Janette <Knittel.Janette@epa.gov>
Subject: FW: Chem Waste issued

From: WELCH Doug
Sent: Monday, April 25, 2016 2:04 PM
To: Denson, Jim; DUVAL Rich
Subject: FW: Chem Waste issued

FYI

The AQ permit modification for Chem Waste has been issued.

Thanks,
Doug

From: SWOFFORD Nancy
Sent: Monday, April 25, 2016 2:03 PM
To: WELCH Doug
Subject: Chem Waste issued

I just issued the Chem Waste Mod. Documents are attached and also in the x-drive.

The paperwork is in the mail headed your way.

Nancy Swofford
Air Quality Permit Coordinator
DEQ ER-Bend Office
541-633-2021
swofford.nancy@deq.state.or.us
www.oregon.gov/DEQ

HAZARDOUS WASTE PERMIT

FOR THE

STORAGE, TREATMENT, AND DISPOSAL OF HAZARDOUS WASTE

State of Oregon Department of Environmental Quality

Issued in accordance with the applicable provisions of ORS Chapter 466 and the regulations promulgated at OAR Chapter 340 Divisions 100 through 120, and, the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA), the Hazardous and Solid Waste Amendments of 1984 (HSWA), and the regulations promulgated at Title 40 of the Code of Federal Regulations as adopted into Oregon Rules by OAR 340-100-0002.

This Permit is effective as of August 21, 2006, and shall remain in effect until August 21, 2016, unless revoked and reissued (40 CFR §270.41), terminated (40 CFR §270.43), or continued in accordance with OAR 340-105-0051.

ISSUED TO:

Chemical Waste Management of the Northwest,Inc.
17629 Cedar Springs Lane
Arlington, OR 97812
Telephone: (541) 454-2643

ISSUED BY:

_____ _____
Lynn Hampton, Chair Date
Oregon Environmental Quality Commission

_____ _____
Joni Hammond, Regional Administrator Date
Eastern Region

[THIS PAGE INTENTIONALLY BLANK]

ED_002469_00000090-00002

TABLE OF CONTENTS

Section Page

Signature Page i
Table of Contents iii
Introduction v
List of Standalone Documents viii
Definitions x
Figure 1-1 Facility Layout Map.....xii
I. Standard Conditions I-1
II. General Facility Conditions II-1
III. Container Storage III-1
IV. Tank Storage and Treatment IV-1
V. Surface Impoundment Storage and Treatment V-1
VI. Landfill Disposal VI-1
VII. Containment Building Storage and Treatment..... VII-1
VIII. (removed ‡Rev. 25)IX..... Past Practice Units IX-1
X. Groundwater Detection Monitoring Program X-1
XI. Groundwater Compliance Monitoring Program..... XI-1
XII. Corrective Action XII-1
XIII. Amendments to Standalone Documents XIII-1
XIV. PCB Disposal Permit..... XIV-1

[THIS PAGE INTENTIONALLY BLANK]

ED_002469_00000090-00004

INTRODUCTION

Permittee: Chemical Waste Management of the Northwest, Inc.

Environmental Protection Agency Identification Number: ORD 089 452 353

Pursuant to Oregon Revised Statutes Chapter 466 and the hazardous waste rules promulgated by the Oregon Environmental Quality Commission in Chapter 340 of the Oregon Administrative Rules (OAR), and, pursuant to the Solid Waste Disposal Act (42 U.S.C. 3251 et seq.), as amended by the Resource Conservation and Recovery Act of 1976 [42 U.S.C. 6901 et seq., (RCRA)] and the Hazardous and Solid Waste Amendments of 1984 (HSWA) and regulations promulgated by the U.S. Environmental Protection Agency (Agency) in Title 40 of the Code of Federal Regulations, this Permit is issued to Chemical Waste Management of the Northwest, Inc. (Permittee), to operate a hazardous waste treatment, storage, and disposal Facility located in Gilliam County near Arlington, Oregon, on Cedar Springs Road at latitude 45° 37' 30" and longitude 120° 22' 30".

The Permittee shall comply with all Terms and Conditions set forth in this Permit and with documents referenced in this Permit. Some of these documents are defined and referenced as "standalone documents", "referenced standalone documents", or shortened as "documents". The Permittee shall comply with all applicable state rules, including OAR 340 Divisions 100-120, and the rules of the Oregon Department of Transportation, the Oregon Department of Water Resources, the Workers' Compensation Department, the Oregon State Health Division, and other state agencies having jurisdiction over the Facility. Additionally, the Permittee shall comply with all applicable federal regulations in 40 CFR Parts 260 through 266, Part 268, and Part 270, as adopted by Oregon rule at OAR 340-100-0002.

In some cases, within the Permit and the referenced standalone documents, the Department has included references to other documents which are not physically contained in this Permit or the referenced standalone documents. In such cases, the Permittee shall still comply with the procedures of those referenced documents, even though they are not physically contained in this Permit, to the extent necessary to remain in compliance with the conditions of this Permit and referenced standalone documents. The Permittee shall maintain a set of such referenced documents at the Facility.

The Department's issuance of this Permit is based upon the administrative record. The Permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the Permittee's misrepresentation of any relevant facts at any time, shall be grounds for the termination of this Permit and/or initiation of an enforcement action, including criminal proceedings. Whenever the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in the permit application or in any report to the Department, the Permittee shall promptly submit such facts or corrected information to the appropriate persons.

The Department shall enforce all Conditions of this Permit. Other state agencies having jurisdiction over the Facility shall exclusively enforce the requirements of their rules. ‡ **Rev. 1**

The first RCRA hazardous waste permit for the Facility was originally issued on March 11, 1988, by the Oregon Environmental Quality Commission, the Oregon Department of Environmental Quality, and the U.S. Environmental Protection Agency. The Permittee submitted a Permit renewal Part A and B application in March 1998. The Department has reviewed the renewal application and issued a draft hazardous waste storage, treatment, and disposal Permit for public comment. The draft hazardous waste Permit was issued for comment on February 22, 2006. The final Permit decision will be made by the Environmental Quality Commission and the Department of Environmental Quality. See ORS 466.140, 466.145, and 466.015.

This Permit may be modified in accordance with 40 CFR 270.40 (as amended by OAR 340-105-0040), 40 CFR 270.41 (as amended by OAR 340-105-0041), and 40 CFR 270.42.

Issuance of this Permit shall terminate the hazardous waste permit issued in March 1988 and its subsequent modifications.

ED_002469_00000090-00006

[THIS PAGE INTENTIONALLY LEFT BLANK]

ED_002469_00000090-00007

LIST OF STANDALONE DOCUMENTS

The following documents are incorporated, in their entirety, by reference into this hazardous waste Permit. Their structure and most of the content comes from the Permittee's RCRA 1998 Permit renewal application and from previous Department approved modifications to the hazardous waste permit which was first issued in March 1988. In cases where there are inconsistencies between this Permit and a standalone document, the Permit supersedes the standalone document. In some cases, the Department has altered specific language in the standalone documents by adding Permit Conditions and/or changing language in the standalone documents. Alterations as described in the Permit Conditions found in this Permit supersedes the language of the standalone document. These incorporated documents, as modified by specific Permit Conditions are enforceable conditions of this Permit.

Standalone Document 1 Waste Analysis Plan, administrative record no. 06074.

Standalone Document 2 Security Procedures, Hazard Prevention, Training Plan, administrative record no. 06075.

Standalone Document 3 Inspection Plan, administrative record no. 06076.

Standalone Document 4 Contingency Plan, administrative record no. 06077.

Standalone Document 5 Closure/Post-Closure Plan, Cost Estimates, Financial Assurance, Insurance, administrative record no. 06078.

Standalone Document 7 Groundwater Monitoring Plan, administrative record no. 06080.

Standalone Document 8 Bulk Liquid Storage/Treatment Plan, administrative record no. 06081.

Standalone Document 9 Container Storage Design and Operations Plan, administrative record no. 06082.

Standalone Document 10 Stabilization/Chemical Treatment Plan, administrative record no. 06083.

Standalone Document 11 Debris Treatment Plan, administrative record no. 06084.

Standalone Document 12 Containment Building Design and Operations Plan, administrative record no. 06085.

Standalone Document 13 Surface Impoundments Design and Operations Plan, Response Action Plan, administrative record no. 06086.

ED_002469_00000090-00008

Standalone
Document 14 Landfill Design and Operations Plan, administrative record no. 06087.

Standalone
Document 15 Landfill Response Action Plans, administrative record no. 06088.

Standalone
Document 16 Construction Quality Assurance Plan, administrative record no. 06089.

Standalone
Document 17 Landfill Final Cover Design Plan, administrative record no. 06090.

Standalone
Document 18 Landfill Design Drawings, administrative record no. 06091.

Standalone
Document 19 Bioremediation Facility and Organic Recovery Unit Design and Operations Plan, administrative record no. 06092. ‡ **Rev. 12**

Standalone
Document 20 PCB Operations Plan, administrative record no. 06093.

Standalone
Document 21 Waste Piles Plan, administrative record no.06092. ‡ **Rev. 23**

ED_002469_00000090-00009

DEFINITIONS

For this hazardous waste Permit, the following definitions shall apply:

a. The term "Administrator" shall mean the Administrator of the United States Environmental Protection Agency (EPA) or a designated representative. The Director, Office of Air, Waste, and Toxics, EPA Region 10, is a duly authorized and designated representative of the Administrator for purposes of this Permit.

b. The term "Agency" shall mean the United States EPA Region 10.

c. The abbreviation "A.R. (no.) "shall mean the administrative record index number for a specific document.

d. The term "Commission" shall mean the Oregon Environmental Quality Commission.

e. The term "daily" shall mean only those days which the Permittee considers to be regular workdays which shall include Monday through Friday excluding holidays. In the event of a full temporary facility shutdown or a holiday combined with extra days, no more than 72 hours shall elapse between inspections listed at a frequency of "normal working day" or "daily." For partial temporary shutdown where employees do arrive at the facility and can perform duties in accordance with the Permit, such duties shall be performed during partial temporary shutdown.

f. The term "Department" shall mean the Oregon Department of Environmental Quality (DEQ).

g. The term "Director" shall mean the Director of the Oregon Department of Environmental Quality or a designated representative. By Department delegation all notifications and approvals assigned to the Director are delegated to the Eastern Region Hazardous Waste Program Manager ("Manager").

h. The term "Eastern Region Clean-up Manager" shall mean the Manager implementing the authority of ORS 465 in the Department's Eastern Region.

i. The terms "Facility" or "Site" shall mean the legal description of the Chemical Waste Management of the Northwest, Inc., property (including structures, appurtenances, and improvements) used to store, to treat or to dispose hazardous waste as authorized by this Permit. For purposed of Permit Condition I.N., "permitted Facility" shall also include significant physical alterations not otherwise detailed in this Permit.

j. The term "Inspector" shall mean the designated representative of the "Manager" delegated to routine Facility oversight.

k. The term "Manager" shall mean the Manager of the DEQ Eastern Region Hazardous Waste Program.

l. The term "Permit" shall mean the Permit issued by the Commission and the Department pursuant to ORS 340 Divisions 105 and 106.

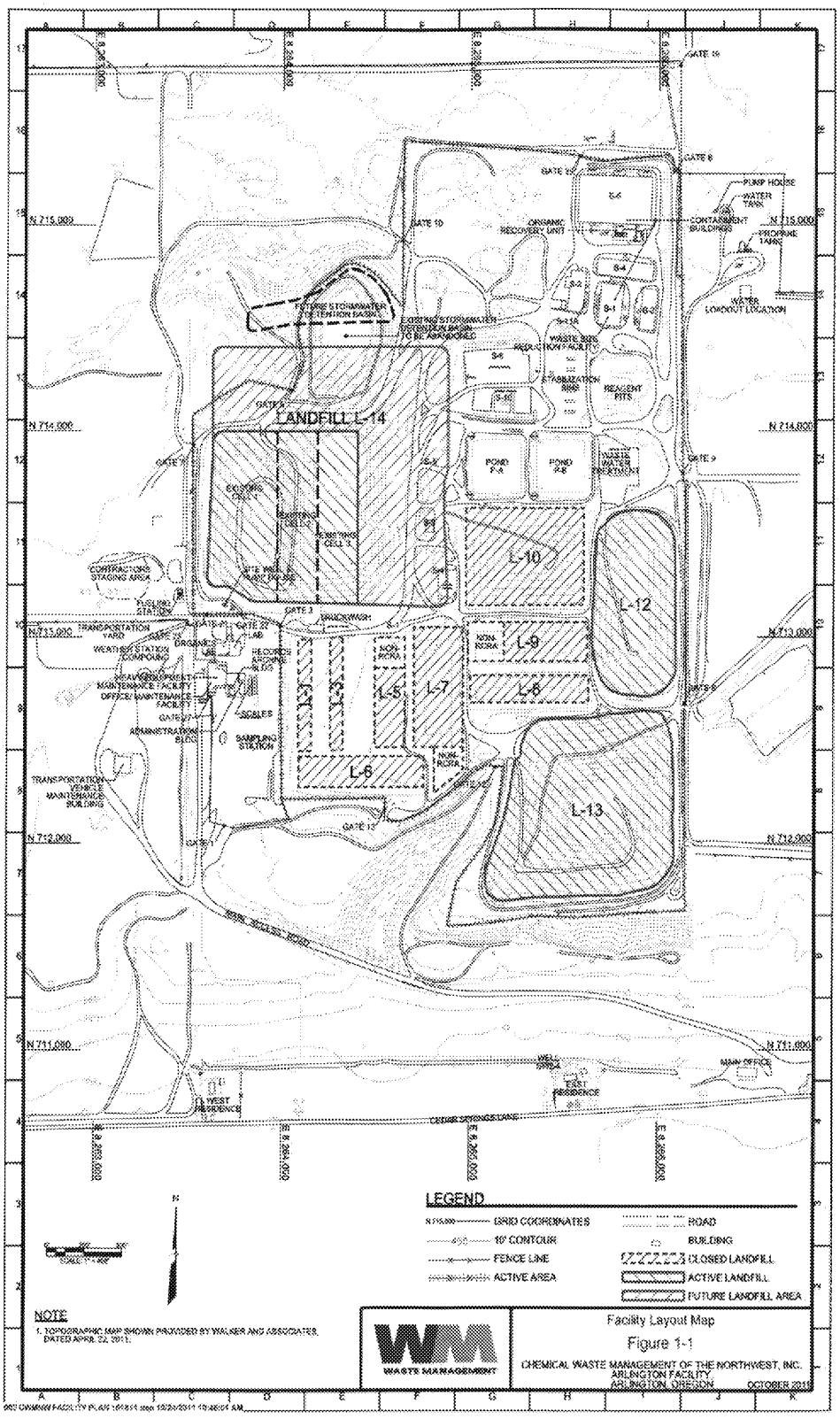
m. The term "standalone document" or "referenced standalone document" shall mean those documents listed in the List of Standalone Documents in this Permit.

n. The term "within [x] days of the effective date of this Permit" shall mean within [x] calendar days after the effective date of this Permit. If the date within [x] amount of days after the effective date of this Permit falls on a weekend or holiday, the time shall automatically be extended until the following regular workday.

o. In cases where the Permittee is required to comply with a specific provision of 40 CFR Part 264 and that provision refers to "Regional Administrator" or "Director", the term "Regional Administrator" or "Director" shall be interpreted to mean the Manager, Eastern Region Hazardous Waste Program.

p. All definitions contained in 40 CFR Parts 260 through 270, and, OAR 340 Divisions 100 through 106 and 120 are hereby incorporated, in their entirety, by reference into this Permit, except that any of the definitions used above, (a) through (o), supersede any definition of the same term in 40 CFR 260.10, 270.2, 264.141, and OAR 340-100-0010. Where a term is not defined in the Permit, regulations or rules, the term is defined according to the standard dictionary definition or the generally accepted scientific or industrial meaning of the term.

Figure 1-1 Facility Layout Map



ED_002469_00000090-00012

I. STANDARD CONDITIONS

I.A. Effect of Permit

The Permittee is authorized to store, treat, and dispose hazardous waste in accordance with the Conditions of this Permit and in accordance with 40 CFR 262.34. Any storage, treatment, or disposal of hazardous waste by the Permittee at this Facility that is not authorized by this Permit or by 40 CFR 262.34, and for which a Permit is required under Section 3005 of RCRA and ORS 466.095 and 466.100 is prohibited.

I.B. Personal and Property Rights

This Permit does not convey any property rights of any sort, or any exclusive privilege, nor does this Permit authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local laws or regulations.

I.C. Permit Actions

I.C.1.

This Permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR 270.41, 270.42, 270.43 and OAR 340 Divisions 105 and 106. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. [40 CFR 270.30(f)]

I.C.2.

Except as provided by specific language in this Permit, any modification or change in design or operation of this Facility or in a hazardous waste management practice covered by the Permit shall be done in accordance with 40 CFR 270.41 and 270.42, unless a change in accordance with Permit Condition II.R. is appropriate.

I.C.3. [Reserved]

I.D. Severability

I.D.1.

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. Invalidation of any state or federal statutory or regulatory provision, which forms the basis for any Condition of this Permit, does not affect the validity of any other state or federal statutory or regulatory basis for said Condition.

I.D.2.

In the event that a condition of this Permit is stayed for any reason, the Permittee shall continue to comply with the related applicable and relevant conditions in the previously-expired permit until final resolution of the stayed condition unless compliance with the related applicable and relevant conditions in the previously-expired permit would be technologically incompatible with compliance with other Conditions of this Permit, which have not been stayed.

I.E. Duty to Comply

I.E.1.

The Permittee shall comply with all Conditions of this Permit, except that the Permittee need not comply with the Conditions of this Permit to the extent and for the duration such noncompliance is authorized in an emergency Permit [issued under 40 CFR 270.61, OAR 340-105-0061, or ORS 466.095(3)]. Any Permit noncompliance, except under the terms of an emergency Permit, constitutes a violation of the applicable provision of Oregon State law and/or RCRA, as amended by HSWA, and is grounds for enforcement action, Permit termination, modification or revocation and reissuance of the Permit, or denial of a Permit renewal application.

I.E.2.

Compliance with the terms of the Permit does not constitute a defense to any action brought under ORS 466.180, 466.185, 466.190, 466.200, 466.210, 466.225, or 465, or Sections 3007, 3008, 3013 and 7003 of RCRA (42 U.S.C. 6934 and 6973), Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) [42 U.S.C. 9606(a)], as amended by the Superfund Amendments and Reauthorization Act of 1986, or any other federal or state law governing protection of public health or the environment from any imminent and substantial endangerment to human health or the environment. Specific exclusions from compliance with this Permit are found at 40 CFR 270.4.

However, compliance with the terms of this Permit does constitute a defense to any action alleging failure to comply with the applicable law upon which this Permit is based. ‡ **Rev. 3**

I.F. Duty to Reapply

If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittee shall apply for and obtain a new permit, in accordance with 40 CFR 270.30(b). The Permittee shall submit such permit application at least 180 calendar days prior to the expiration date of this Permit, unless the Manager has granted permission for a later date (but no later than the expiration date of the existing Permit) in accordance with 40 CFR 270.10(h).

I.G. Continuation of Expiring Permit

This Permit, all Conditions herein and the standalone documents shall continue in force until the effective date of a new Permit if the Permittee has submitted a timely, complete application (under 40 CFR 270 Subpart B and OAR Chapter 340 Division 105), and, through no fault of the Permittee, the Manager, the Administrator, or the Commission does not issue a new Permit under 40 CFR 124.15 on or before the expiration date of the previous Permit. In accordance with 40 CFR 270.50, this Permit shall be reviewed five years after the effective date and modified, as necessary, in accordance with 40 CFR 270.41.

I.H. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the Permitted activity in order to maintain compliance with the Conditions of this Permit.

I.I. Duty to Mitigate

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.

I.J. Proper Operation and Maintenance

The Permittee shall at all times operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee so as to achieve compliance with the Conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This Condition requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the Conditions of this Permit.

I.K. Duty to Provide Information

The Permittee shall furnish to the Manager or his designee, within a reasonable time, any relevant information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Manager and Inspector, upon request, copies of records required to be kept by this Permit.

I.L. Inspection and Entry

The Permittee shall allow the Department, or its authorized representatives, upon the presentation of credentials and other documents as may be required by law, to:

I.L.1.

Enter at reasonable times upon the Permittee's premises where regulated hazardous or solid waste management units or activities are located or conducted, or where records must be kept under the Conditions of this Permit;

I.L.2.

Have access to and copy, at reasonable times, any records that must be kept under the Conditions of this Permit;

I.L.3.

Inspect at reasonable times any portion of the Facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and

I.L.4.

Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by RCRA or Oregon Law, any substances or parameters at any location.

I.M. Monitoring and Records

I.M.1.

Samples and measurements taken by the Permittee for the purpose of monitoring shall be representative of the monitored activity. The Permittee may request to substitute analytical methods which are equivalent to those specifically approved for use in this Permit by meeting the following:

I.M.1.a.

The Permittee may submit to the Manager a request for a substitution of an analytical method(s) that is equivalent to the method(s) specifically approved for use in this Permit. The request shall provide information demonstrating that the proposed method(s) is equal or superior to the approved analytical method(s) in terms of sensitivity, accuracy, and precision (i.e., reproducibility); and

I.M.1.b.

The Manager notifies the Permittee in writing that the substitution of the analytical method(s) is approved. Such approved substitution of an analytical method(s) shall not require a permit modification.

I.M.2.

The Permittee shall retain records of all monitoring information, (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this Permit, the certification required by 40 CFR 264.73(b)(9), and records of all data used to complete the application for this Permit, for a period of at least three years from the date of the sample, measurement, report, certification, or recording unless a longer retention period for certain information is required by other Conditions of this Permit. This three year period may be extended by the Manager at any time by notification, in writing, to the Permittee. The Permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations for the active life of the Facility and, for disposal units, for the post-closure care period as well.

I.M.3.

Records of monitoring information shall include:

I.M.3.a.

The date, exact place, and time of sampling or measurements;

I.M.3.b.

The name, title, and affiliation of the individual(s) who performed the sampling or measurements;

I.M.3.c.

The date(s) analyses were performed;

I.M.3.d.

The name, title, and affiliation of the individual(s) who performed the analyses;

I.M.3.e.

The analytical techniques or methods used; and

I.M.3.f.

The results of such analyses.

I.N. Reporting Planned Changes

The Permittee shall give notice to the Manager, as soon as possible of any planned physical alterations or additions to the permitted Facility.

I.O. Certification of Construction or Modification

The Permittee may not commence storage, treatment, or disposal in a new hazardous waste management unit or in a modified portion of an existing unit until:

I.O.1.
The Permittee has submitted to the Manager by certified mail or hand delivery a letter signed by the Permittee and a registered professional engineer stating that the hazardous waste management unit has been constructed or modified in compliance with this Permit; and

I.O.2.a.
The Inspector has inspected the modified or newly constructed hazardous waste management unit and has notified the Permittee in writing that he finds it is in compliance with the Conditions of this Permit; or

I.O.2.b.
Within 15 days of the date of submission of the letter in Permit Condition I.O.1., the Permittee has not received notice from the Manager by letter, by certified mail or hand delivery, of his or her intent to inspect, prior inspection is waived and the Permittee may commence treatment, storage, or disposal of hazardous waste.

I.P. Anticipated Noncompliance

The Permittee shall give advance notice to the Manager of any planned changes in the Permitted Facility or activity that might result in noncompliance with Permit requirements.

I.Q. Transfer of Permit

This Permit is issued and is personal to the Permittee and is transferable only in accordance with 40 CFR 270.40 and OAR 340-105-0040(2).

I.R. Monitoring Reports

The Permittee shall report monitoring results to the Manager at the intervals required in specific Conditions of this Permit.

I.S. Compliance Schedules

The Permittee shall submit reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule required by specific Conditions of this Permit to the Manager no later than 14 calendar days following each schedule date.

I.T. Twenty-Four Hour Reporting

I.T.1.

The Permittee shall verbally report to the Manager or Inspector, any noncompliance with this Permit which may endanger health or the environment, within 24 hours from the time the Permittee becomes aware of the noncompliance. ‡ **Rev. 3** The report shall include: [OAR 340-105-0030(2)(b)]

I.T.1.a.

Information concerning release of any hazardous waste that might cause an endangerment to public drinking water supplies; and,

I.T.1.b.

Any information of a release or discharge of hazardous waste or of a fire or explosion from the hazardous waste management facility that might threaten human health or the environment.

I.T.2.

The description of the occurrence and its cause shall include:

I.T.2.a.

Name, address, and telephone number of the owner or operator;

I.T.2.b.

Name, address, and telephone number of the Facility;

I.T.2.c.

Date, time, and type of incident;

I.T.2.d.

Name and quantity of material (s) involved;

I.T.2.e.

The extent of injuries, if any;

I.T.2.f.

An assessment of actual or potential hazards to the environment and human health outside the Facility, where this is applicable; and,

I.T.2.g.

Estimated quantity and disposition of recovered material that resulted from the incident.

I.T.3.

Within 5 calendar days of the time the Permittee becomes aware of noncompliance that may endanger human health or the environment, the Permittee shall provide to the Manager a written submission. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times; the anticipated time noncompliance is expected to continue if the noncompliance has not been corrected; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The

Manager may waive the five-day written notice requirement in favor of a written report within fifteen days.

I.U. Other Noncompliance

The Permittee shall report to the Manager all other instances of noncompliance not reported under Conditions I.R., I.S., and I.T. of this Permit, by March 1 of the following year. This report shall contain the applicable information listed in Condition I.T. of this Permit.

I.V. Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts in the Permit application, or submitted incorrect information in the Permit application or in any report to the Manager or Inspector, the Permittee shall promptly submit such facts or corrected information to the appropriate persons.

I.W. Signature and Certification

All applications, reports required by the Permit and other information requested by the Manager, when submitted to the Manager, or Inspector, by the Permittee shall be signed and certified in accordance with 40 CFR 270.11.

I.X. Confidential Information

Information submitted by the Permittee to the Manager or Inspector that is claimed as trade secret, confidential, or confidential business information by the Permittee will be handled in accordance with the applicable provisions of OAR 340-100-0003.

I.Y. Fees

The Permittee shall pay fees as required under ORS 466.160, 466.165, and promulgated at OAR 340-105, and other state statutes and related rules. This Condition does not preclude the Permittee from challenging any future promulgation or adoption of a statute, rule, or administrative action imposing any fee on the Permittee.

[THIS PAGE INTENTIONALLY BLANK]

II. GENERAL FACILITY CONDITIONS

II.A. Design and Operations of Facility

II.A.1.

The Permittee shall design, construct, maintain, and operate the Facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, groundwater, or surface water which could threaten human health or the environment.

II.A.2.

The Permittee shall construct all future hazardous waste management units in accordance with the approved designs and specifications that are included in the standalone documents of this Permit, except for minor changes deemed necessary by the Permittee to facilitate proper construction of the units. Minor deviations from the approved designs or specifications necessary to accommodate proper construction shall be noted on the as-built drawings, and the rationale for those deviations shall be provided in narrative form. After completion of construction of each future waste management unit, the Permittee shall submit final as-built drawings and the narrative report to the Manager as part of the construction certification document specified in Permit Condition I.O.1.

II.B. Required Notices

II.B.1.
The Permittee shall notify the Inspector in writing at least four weeks in advance of the date hazardous waste from a foreign source is expected to arrive at the Facility. Notice of subsequent shipments of the same waste from the same foreign source is not required.

II.B.2.
When the Permittee is to receive hazardous waste from an off-site source (except where the Permittee is also the generator), the Permittee shall inform the generator in writing that it has the appropriate permit(s) for, and will accept, the waste the generator is shipping. The Permittee shall keep a copy of this written notice as part of the operating record in accordance with 40 CFR 264.73(b)(7).

II.C. General Waste Analysis

II.C.1.

The Permittee shall follow the procedures as stated in Standalone Document No. 1, Waste Analysis Plan. [40 CFR 264.13]

II.C.2.

The Permittee shall follow the requirements of 40 CFR 268.7(b), (c), (d) and (e).

II.C.3.

In storing hazardous waste in a storage unit, treating hazardous waste in a treatment unit, or placing hazardous waste in a land disposal unit, the Permittee is responsible for meeting the requirements of 40 CFR 268.

II.C.4.

In addition to the appropriate reporting of noncompliance under Permit Condition I.T. or I.U, upon discovery by the Permittee, or Department notification to the Permittee, that the procedures and tasks in the Waste Analysis Plan (Standalone Document No. 1) failed to characterize adequately a hazardous waste and, as a result, did not designate the proper storage, treatment, or disposal of the hazardous waste, the Permittee shall submit a report to the Department within 45 days of the discovery or notification evaluating the Waste Analysis Plan and explaining why the failure occurred.

II.C.5.

The Permittee may accept hazardous and non-hazardous wastes that are (1) containerized liquid corrosive wastes, (2) bulk liquid corrosive wastes, (3) containerized liquid ignitable and organic wastes, (4) bulk liquid ignitable and organic wastes, (5) containerized and bulk liquid reactive wastes, (6) all containerized liquid wastes not included in (1) through (5), including pesticide wastes plus every combination, (7) all bulk liquid wastes not included in (1) through (6) including pesticide wastes plus every combination, (8) bulk or containerized solid wastes including lab packs such as filter cakes and spill and site cleanup reside, (9) semi-solid or sludge wastes, (10) PCB contaminated wastes greater than or equal to 50 ppm, and (11) compressed gases.

II.C.5.a.i.

The Permittee may accept: Recoverable Organic Wastes limited to: Petroleum hydrocarbon wastes, spent non-halogenated solvents, spent halogenated solvents, commercial chemical products, off-specification species, process residues, and spill residues.

II.C.5.a.ii.

The Permittee may accept: Inorganic wastes limited to: Corrosive wastes, toxicity characteristic wastes, primary and secondary metals wastes (non-reactive), electroplating wastes (non-reactive) soils, sludge, debris, inorganic pigments, aqueous wastes (non-reactive) asbestos and asbestos containing material (RCRA regulated wastes), commercial chemical products, off-specification species, process residues, and spill residues.

II.C.5.a.iii.

The Permittee may accept: Reactive Wastes limited to: Water reactive solid wastes, commercial chemical products, off-specification species, process residues, and spill residues.

II.C.5.a.iv.

The Permittee may accept: Non-recoverable Organic Hazardous Wastes limited to: soils, sludges, debris, toxicity characteristics wastes, organic acids and bases, wood products wastes, pesticide wastes, petroleum/refining wastes, aqueous wastes (non-reactive), commercial chemical products, off-specification species, process residues and spill residues.

II.C.5.a.v.

The Permittee may accept: State-only hazardous waste containing a three percent or greater concentration of any substance or mixture of substances listed in 40 CFR 261.33(e); State-only hazardous waste containing a ten percent or greater concentration of any substance or mixture of substances listed in 40 CFR 261.33(f); spill cleanup residue, soil, water or other debris containing any amount of state-only hazardous wastes; blister agent and nerve agents materials approved for disposal from the Umatilla Army Depot; designated state-only hazardous waste

numbers P998 and P999, respectively; residues from the demilitarization, treatment, and testing of blister and nerve agents designated state-only hazardous waste numbers F998 and F999, respectively; PCB containing materials regulated under OAR 340-110; solid wastes defined by ORS 459.005 and/or OAR 340-93-0030 including cleanup materials contaminated by hazardous substances, commercial solid waste, construction and demolition waste, industrial solid waste, leachate, sludge, wood waste, and asbestos and asbestos-containing material; and pesticide wastes managed under OAR 340-109-0010.

II.C.5.b.i.

The Permittee may not accept at the Facility for treatment or disposal the following hazardous wastes: K013, K027, K044, K045, K047, P006, P009, P031, P033, P056, P063, P065, P076, P078, P081, P095, P096, P111, P112, P122, U020, U023, U033, U096, U115, U117, U124, U125, U133, U135, U160, U162, U169, U171, U189, U205, U213, U223, and U234. However, the Permittee may accept the above-listed hazardous wastes for treatment or disposal if they are residues from the treatment of these wastes and handled in accordance with the Conditions of this Permit. Also, the Permittee may accept the above-listed hazardous wastes for treatment or disposal if they meet the definition of hazardous debris at 40 CFR 268.2. The Permittee may accept for storage, treatment and disposal all soils that are or were hazardous wastes and are subject to the alternative land disposal restrictions treatment standards in 40 CFR 268.49.

II.C.5.b.ii.

The Permittee may not store the following hazardous waste compressed gasses: P009, P031, P033, P056, P063, P076, P078, P095, P096, and U135.

II.C.6.a.
For new hazardous waste codes the Permittee wants to manage at the Facility, which are promulgated after the effective date of this Permit but have been previously been managed at the facility, the Permittee shall submit a permit modification in accordance with 40 CFR 270.42(g).

II.C.6.b.
For new hazardous waste codes that have been promulgated after this Permit is issued and have not been previously managed at the Facility, the Permittee shall submit a permit modification in accordance with that table found in Appendix I of 40 CFR 270.42.

II.C.7. ‡ **Rev. 7**

II.D. Security Procedures

The Permittee shall comply with the security procedures in Standalone Document No. 2, Security Procedures, Hazard Prevention, Training Plan [A.R. 06075].

II.E. Inspection Plan

II.E.1.

The Permittee shall follow the procedures in Standalone Document No. 3, Inspection Plan [A.R. 06076].

II.E.2.

The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by 40 CFR 264.15(c). Inspection reports shall be recorded and maintained as required by 40 CFR 264.15(d).

II.E.3.

The Permittee shall maintain a copy of the latest approved Inspection Plan [A.R. 06076] at the Facility until the Facility is fully closed and certified.

II.F. Training Plan

II.F.1.

The Permittee shall train all personnel who handle hazardous waste in hazardous waste management, safety and emergency procedures, as applicable to their job description, in accordance with Standalone Document No. 2, Security Procedures, Hazard Prevention, Training Plan [A.R. 06075]. These personnel shall be trained in accordance with the Training Plan and documentation of training shall be maintained as specified in the Training Plan.

II.F.2.

The Permittee shall maintain a copy of the latest approved Security Procedures, Hazard Prevention, Training Plan [A.R. 06075] at the Facility until the Facility is fully closed and certified closed.

II.G. Hazards Prevention

The Permittee shall follow the hazards prevention procedures in Standalone Document No. 2, Security Procedures, Hazards Prevention, Training Plan [A.R. 06075].

II.H. Contingency Plan

The Permittee shall follow the contingency procedures in Standalone Document No. 4, Contingency Plan [A.R. 06077].

II.I. Manifest System, Recordkeeping, and Reporting

II.I.1.a.
The Permittee shall follow the procedures for using the manifest system and identifying and resolving significant manifest discrepancies in accordance with 40 CFR 264.71, 264.72, and 270.30(l)(7) and Standalone Document No. 1, Waste Analysis Plan [A.R. 06074].

II.I.1.b.

The Permittee shall submit an un-manifested waste report to the Manager, in accordance with 40 CFR 264.76 and 270.30(l)(8), within fifteen calendar days of receipt of un-manifested waste.

II.I.2.

The Permittee shall maintain a written operating record at the Facility in accordance with 40 CFR 264.73(a) for all records identified in 40 CFR 264.73(b)(1) through (b)(17).

II.I.3.

The Permittee shall retain all hazardous waste management records, including data collected in accordance with procedures of the Response Action Plans, and make such records available, at reasonable times, for inspection to the Inspector, in accordance with 40 CFR 264.74(a).

II.I.4.

The retention period for all records required by this Permit is extended automatically during the course of any unresolved enforcement action regarding the Facility or as directed by the Manager, in accordance with 40 CFR 264.74(b).

II.I.5.a.

The Permittee shall submit a survey plat indicating the location and dimensions of landfill units or other hazardous waste disposal units in accordance with 40 CFR 264.116 to the local land use authority and to the Department by the date of submission of certification of closure of each landfill unit at the Facility.

II.I.5.b.

The Permittee shall submit post-closure notices to the local land use authority and to the Department in accordance with 40 CFR 264.119(a).

II.I.6.

The Permittee shall submit a monthly hazardous waste management record to the Manager in accordance with OAR 340-105-0120(7). The Permittee shall submit an annual report covering Facility activities to the Manager in accordance with OAR 340-104-0075(3).

II.I.7.

The Permittee shall submit additional reports to the Manager, in accordance with 40 CFR 264.77 as required by 40 CFR Part 264 Subparts F, K through N, AA, BB, and CC.

II.I.8.

All reports, notifications, applications, or other materials required to be submitted to the USEPA shall be submitted to the Director, Office of Air, Waste and Toxics at EPA Region 10 in Seattle, WA.

II.J. Closure

II.J.1.

The Permittee shall meet the general closure performance standard in 40 CFR 264.111 during closure of all hazardous waste management units and the Facility. Compliance with 40 CFR 264.111 shall require closure of each hazardous waste management unit in accordance with the Standalone Document No. 5, Closure/Post-Closure Plan Cost Estimates, Financial Assurance, Insurance [A.R. 06078].

II.J.2.

Final cover design for landfill units L-12, L-13, and L-14 shall be as specified in Closure Cover Design Details in Standalone Document No. 17, Landfill Final Cover Design Plan [A.R. 06090], and landfill units L-12, L-13, and L-14 shall be capped in accordance with Standalone Document No. 17, Landfill Final Cover Design Plan [A.R. 06090].

II.J.3.
For all landfill units and other hazardous waste management units to be closed as landfills, minor deviations from the Permitted closure designs, specifications, or procedures necessary to accommodate proper closure shall be noted on the as-built drawings and the rationale for those deviations in designs, specifications, or procedures shall be provided in narrative form with the closure certification statements. Such minor deviations shall not be considered modifications of the Permit. ‡ **Rev. 3** Within 60 calendar days after completion of the closure of each landfill unit and other hazardous waste management units closed as landfills, the Permittee shall submit the final as-built drawings of the closed unit, the narrative report and the certification statements to the Manager.

II.J.4.

For all hazardous waste management units other than units closed as landfills, minor deviations from the Permitted closure procedures necessary to accommodate proper closure shall be described in a narrative form with the closure certification statements. Such minor deviations shall not be considered modifications of the Permit. The Permittee shall describe the rationale for implementing minor deviations as part of this narrative report. Within 60 calendar days after completion of closure of each hazardous waste management unit, other than landfill units and units closed as landfills, the Permittee shall submit the certification statements and narrative report to the Manager.

II.J.5.

The Permittee shall amend the Closure Plan when required in accordance with 40 CFR 264.112(c).

II.J.6.

The Permittee shall notify the Manager at least 60 calendar days prior to the date it expects to begin closure of any surface impoundment or landfill unit and at least 45 calendar days prior to the date it expects to begin closure of any tanks, container storage unit, or containment building.

II.J.7.

For closure at all hazardous waste units, the Permittee shall submit a task-specific/unit-specific closure work plan to the Department no less than 30 days before the Permittee begins closure activities at the specific unit. The Department shall review the work plan for conformity with this Permit and issue an approval to proceed. ‡ **Rev. 1**

II.J.8.

The Permittee shall decontaminate or dispose of all Facility equipment as specified in the Closure Plan.

II.J.9.

The Permittee shall provide certification statements that each unit at the Facility has been closed in accordance with the applicable specifications in the Closure Plan, in accordance with 40 CFR 264.115.

II.J.10 [Reserved]

II.J.11.

The Permittee shall follow the soil sampling procedures and analysis outlined in Appendix A of Standalone Document No. 5, Closure/Post-Closure Plan, Cost Estimates, Financial Assurance, Insurance [A.R. 06078]. The Permittee shall modify the sampling grid procedure, as appropriate and necessary, when sampling soils at or near the perimeter of buildings and concrete structures, or in similar situations. Such change shall not require a permit modification. The Permittee shall document the change in the closure report submitted to the Manager in accordance with Permit Condition II.J.3.

II.J.12.

In the event that any hazardous waste management unit, other than a landfill unit, cannot be "clean closed" by removing hazardous waste, hazardous constituents and contaminated subsoil as specified in section II.J. of this Permit, the Permittee shall revise the Facility post-closure plan to include a post-closure plan for that unit. The Permittee shall submit the post-closure plan for that unit to the Manager, as a Permit modification request, within 90 calendar days of the date that the Manager notifies the Permittee, in writing, that the unit shall be closed as a landfill, in accordance with 40 CFR 264.118(a).

Other Closure Conditions

II.J.13.a. [Reserved]

II.J.13.b.

Regardless of any Permit Condition found in a standalone document or this Permit, at closure for surface impoundments P-A and P-B, the Permittee shall either: (1) Remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless 40 CFR 261.3(d) applies, or (2) appropriately modify this Permit and allow P-A and P-B to operate and eventually close as a landfill. [OAR 340-104-0228]

II.J.13.c.

Regardless of any Permit Condition found in a standalone document or this Permit, requests for variance and stated timelines in Standalone Document No. 5, Closure/Post-Closure Plans, Costs Estimates, Financial Assurance, Insurance [A.R. 06078] allowed for closure for all units are hereby not approved. The Permittee shall follow the closure time frames set forth in 40 CFR 264.113 unless another time frame is approved by permit modification.

II.J.13.d.

The Permittee shall upon final closure of the Facility remove all Facility hazardous waste structures (e.g., tanks, storage units, etc.,), and all Facility unused buildings, non-hazardous structures, and equipment and restore, to the extent reasonably practicable, the site to its original condition. However, the Permittee may at any time submit in writing a request for a modification to Standalone Document No. 5, Closure/Post-Closure Plans [A.R. 06078] for any structure, building or equipment the Permittee determines it desires to leave standing after the final Facility closure. In the request for a modification, the Permittee shall identify a use for any structure, building or equipment to remain standing upon final closure of the Facility. Upon Department written approval of the modification, Permittee may leave the structure, building or equipment standing upon final closure of the Facility. The closure/post-closure costs for all Facility hazardous waste structures (e.g., tanks, storage units, etc.) and all Facility unused

buildings, non-hazardous structures, and equipment shall use the estimated costs to sample and, if needed, decontaminate the structure, building or equipment. [ORS 466.150(5)]‡ **Rev. 10**

II.J.13.e.

(removed ‡ **Rev. 21**)

II.J.13.e.i.

(removed ‡ **Rev. 21**)

II.J.13.g.

Upon commencement of the end of the post -closure period, the Permittee shall negotiate in good faith and enter with the Department an Access Agreement under reasonable terms that will allow the Department to enter the Facility when necessary to carry out actions authorized by ORS 466.095 through 466.225.

II.K. Cost Estimate for Facility Closure

II.K.1.

The Permittee shall comply with the requirements of 40 CFR 264.142(a). The Permittee shall maintain a current closure cost estimate for each individual waste management unit. These costs shall be summarized, by the Permittee, for final closure of the entire Facility.

II.K.2.

The Permittee shall adjust the closure cost estimate for inflation on an annual basis, in accordance with 40 CFR 264.142(b).

II.K.3.

‡ **Rev. 27**

During the active life of the Facility, the Permittee shall revise the closure cost estimate within 30 calendar days of an approved modification to the closure plan, if such modification results in an increase in the closure cost estimate, in accordance with 40 CFR 264.142(c).

II.K.4.

During the operating life of the Facility, the Permittee shall keep at the Facility a copy of the latest closure cost estimate and, when this estimate has been adjusted in accordance with 40 CFR 264.142(b), the latest adjusted closure cost estimate in accordance with 40 CFR 264.142(d).

II.K.5.

The Permittee shall maintain an updated summary of current closure costs for the entire Facility closure based on the waste management units that have received RCRA waste, but have not yet been certified as closed and have not been released from the financial assurance requirements as specified in Permit Condition II.N., (i.e., active units).

II.K.6.

Prior to placement of hazardous waste in any new hazardous waste management unit, the Permittee shall amend, as necessary, the summary of current closure costs to reflect the estimated closure cost of that new unit. Such amended closure costs shall be annually adjusted for inflation, as required by 40 CFR 264.142(b). [See Permit Condition II.N.2.].

II.K.7.

Upon closure certification of any hazardous waste management unit, in accordance with 40 CFR 264.115, and after the Manager has released the Permittee from the financial assurance requirements for that unit as specified in Permit Condition II.N., the Permittee may adjust the summary of current closure costs to reflect the closure cost of that unit. Along with the closure certification statement for a closed unit, the Permittee shall submit the current version of the closure cost estimate for the Facility, indicating cost estimates for each remaining unit to be closed, to the Manager.

II.L. Post-Closure Care

II.L.1.

The Permittee shall comply with Standalone Document No. 5, Closure/Post-Closure Plan, Cost Estimate, Financial Assurance, Insurance [A.R. 06078]. In addition, the Permittee shall comply with 40 CFR 264.117, 264.118, 264.119, and 264.120.

II.L.2.

The period of post-closure care for each closed landfill unit shall end after 30 years from the effective date of this permit renewal. Units that have not closed by the date of this permit renewal shall have a 30 year post-closure period commencing upon the certified closure date of the unit.

II.L.3.

As part of the post closure certification sent in accordance with 40 CFR 264.120, the Permittee shall submit to the Department a report which includes a determination of future use, or abandonment of, groundwater monitoring wells at the Facility in accordance with OAR 690-240.

II.M. Cost Estimate for Post-Closure Care

II.M.1.

The Permittee shall comply with 40 CFR 264.144(a). The Permittee shall maintain a current post-closure cost estimate for each post-closure activity.

II.M.2.

The Permittee shall adjust the post-closure cost estimate for inflation on an annual basis, in accordance with 40 CFR 264.144(b).

II.M.3.

‡ Rev. 27

During the active life of the Facility, the Permittee shall revise the post-closure cost estimate within 30 calendar days of an approved modification to the post-closure plan, if such

modification results in an increase in the post-closure cost estimate, in accordance with 40 CFR 264.144(c).

II.M.4.

During the operating life of the Facility, the Permittee shall keep at the Facility a copy of the latest post-closure cost estimate and, when this estimate has been adjusted in accordance with 40 CFR 264.144(b), the latest adjusted post-closure cost estimate in accordance with 40 CFR 264.144(d).

II.M.5.

[Reserved]

II.M.6. [Removed]

‡ Rev. 1, 5

II.N. Financial Assurance for Facility Closure

II.N.1.

The Permittee shall comply with 40 CFR 264.143, as amended by OAR 340-104-0143 or 40 CFR 264.146, by providing documentation of financial assurance, as required by 40 CFR 264.151, as amended by OAR 340-104-0151, in the amount of the cost estimates required by Permit Condition II.K.1.

II.N.2.

Prior to placement of hazardous waste in any new hazardous waste management unit, the Permittee shall update the closure financial assurance mechanism, as necessary, so that an adequately funded financial assurance mechanism for closure of the Facility, including the new unit, is in effect. A copy of the updated financial assurance mechanism shall be submitted to the Manager before waste is placed in the new unit. [See Permit Condition II.K.6.].

II.N.3.

Changes in financial assurance mechanisms shall be approved by the Manager pursuant to 40 CFR 264.143.

II.O. Financial Assurance for Facility Post-Closure

II.O.1.

The Permittee shall comply with 40 CFR 264.145, as amended by OAR 340-104-0145, or 40 CFR 264.146 by providing documentation of financial assurance, as required by 40 CFR 264.151, as amended by OAR 340-104-0151, in the amount of the cost estimates required by Permit Condition II.M.1.

II.O.2.

Changes in financial assurance mechanisms shall be approved by the Manager pursuant to 40 CFR 264.145.

II.P. Liability Requirements

II.P.1.

The Permittee shall comply with the requirements of 40 CFR 264.147(a), as amended by OAR 340-104-0147, and the documentation requirements of 40 CFR 264.151, as amended by OAR 340-104-0151, including the requirements to have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs.

II.P.2.

The Permittee shall comply with the requirements of 40 CFR 264.147(b), as amended by OAR 340-104-0147, and the documentation requirements of 40 CFR 264.151, as amended by OAR 340-104-0151, including the requirements to have and maintain liability coverage for non-sudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs.

II.Q. Incapacity of Owners or Operators, Guarantors, or Financial Institutions

The Permittee shall comply with 40 CFR 264.148.

II.R. Equivalent Materials/Information

If certain equipment, materials, procedures, and administrative information (such as names, phone numbers, addresses, obsolete forms, addition of new forms and to forms, format of tables or forms, deletion from forms of units certified as closed, etc.,) are specified in this Permit, the Permittee is allowed to use an equivalent or superior substitute or deletion. Use of such equivalent or superior substitute or deletion shall not be considered a modification of the Permit, but the Permittee shall present the proposed changed to the Department, and then with Department approval (such approval may be verbal or written) submit to the Department by written letter the revision, accompanied by a narrative explanation, and the date the revision becomes effective. If the Department determines that the change is not in accordance with the approval, the Department will by letter direct the Permittee to submit the change again.

II.S. RCRA Subparts AA and BB and Other Air Emissions

The Permittee shall comply with the all applicable requirements found in 40 CFR 264 Subparts AA and BB, and other air emission physical and operational limitations and requirements in this Permit and the standalone documents.

II.T. ORS 466.065 Requirements

II.T.1.

The Permittee shall not land dispose greater than 5,900,000 tons of hazardous waste during the ten-year term of this Permit without approval from the Department in accordance with ORS 466.065(1).

II.T.2.

The Permittee shall not treat greater than 37,275,980 tons of hazardous waste during the ten-year term of this Permit without approval of the Department in accordance with ORS 466.065(1).

II.T.3.

The Permittee shall comply with all applicable Federal and Oregon technological requirements for treating and disposing of hazardous waste.

II.T.4.

The Permittee shall maintain the property line setback as specified at OAR 340-120-0010(e)(B) by having at least a 1,000 foot separation between active waste management areas and facilities, and property boundaries.

II.T.5.

The Permittee, and its parent company, shall comply with all applicable Oregon and Federal requirements for financial and technical capability to properly construct and operate the Facility.

II.T.6.

The Permittee shall own, or contract with, an emergency response provider or coordinator that can provide for timely response to a spill or release in Oregon of hazardous waste being transported to the Facility by a motor vehicle owned by the Permittee.

II.T.7.

The Permittee shall determine if any transporter of hazardous waste hired by the Permittee, owns or has a contract with an emergency response provider or coordinator that can provide for timely response to a spill or release in Oregon of hazardous waste being transported by a motor vehicle to the Facility.

II.T.8.

The Permittee shall, upon arrival at the Permittee's Facility of any motor vehicle transporting hazardous waste in a motor vehicle not owned or hired by the Permittee, request to review the transporter's authorization to transport hazardous waste in Oregon and the driver's authorization to drive a motor vehicle transporting hazardous waste in Oregon. The Permittee shall provide to the Department in writing the name of any transporter or driver that fails to demonstrate the requested authorization.

II.U. Management of Subpart CC Wastes

II.U.1.

The Permittee shall not manage hazardous wastes containing an average volatile organic concentration of 500 parts per million by weight (ppmw), or more as determined by 40 CFR 264.1083, at any permitted tank or surface impoundment, until this Permit is modified to incorporate the requirements of 40 CFR 264.1082(b), except as 40 CFR 264.1080 and 40 CFR 264.1082(b) provide otherwise.

II.U.2.a.

The Permittee is authorized to manage volatile organic hazardous wastes with an average concentration of 500 parts per million by weight, or more, as determined using 40 CFR 264.1083, at all permitted storage units in accordance with the Container Level 1 or Level 2 standards, as applicable, meeting the requirements of 40 CFR 264.1086(c) and (d), respectively. Except as provided by Permit Condition II.U.3., management of Container Level 3 standards is prohibited unless this permit is modified.

II.U.2.b.

If the Permittee manages volatile organic hazardous wastes with an average concentration of 500 parts per million by weight or more, as determined by 40 CFR 264.1083, in containers at a

permitted storage unit that require Container Level 1 or 2 standards, the Permittee shall comply with 40 CFR 264.1086(c) and (d), respectively.

II.U.3.

The Permittee may manage volatile organic hazardous wastes with an average concentration of 500 parts per million by weight, or more, as determined by 40 CFR 264.1083, that are undergoing biotreatment in accordance with Bioremediation Facility and Organic Recovery Unit Design and Operations Plan [A.R. 06092], Standalone Document No. 19.

[THIS PAGE INTENTIONALLY BLANK]

III. CONTAINER STORAGE

III.A. Design and Operation

III.A.1.a.

The Permittee may store those containerized wastes listed under Permit Condition II.C.5. and II.C.5.a.i.v., and the second, third and fourth sentences in Permit Condition II.C.5.b.i. only in storage units S-1, S-2, S-3, S-4, S-5, S-6, S-10, and S-11A. The Permittee shall not store containerized water reactive hazardous wastes in these units except as allowed in Standalone Document No. 9, Container Storage Design and Operation Plan [A.R. 06082]. ‡ **Rev. 3**

III.A.1.b.

The Permittee shall not store hazardous wastes listed under Permit Condition II.C.5.b.ii in all container storage units.

III.A.1.c.

The Permittee may store containerized hazardous wastes in containment buildings B-2 and B-5 in compliance with Permit Conditions under III.A. through III. I and Standalone Document No. 9, Container Storage Design and Operation Plan. The Permittee may not have more than 50 hazardous waste containers in each of these containment buildings. ‡ **Rev. 3**

III.A.2.

The quantity of containerized hazardous waste stored in each designated container storage unit shall be limited by the design capacity of that unit, as specified in Standalone Document No. 9, Container Storage Design and Operations Plan [A.R. 06082].

III.A.3.

The Permittee shall store containerized hazardous waste in the manner described in Standalone Document No. 9, Container Storage Design and Operations Plan [A.R. 06082], except as otherwise specified in this section of the Permit. Compliance with the storage operation procedures outlined in Container Storage Design and Operations Plan [A.R. 06082] and Permit Condition II.A.1, shall constitute compliance with the following requirements of 40 CFR Part 264:

- 264.171 Condition of containers;
- 264.172 Compatibility with waste containers;
- 264.173 Management of containers;
- 264.174 Inspections;
- 264.176 Special requirements for ignitable or reactive wastes; and
- 264.177 Special requirements for incompatible wastes.

III.A.4.

The Permittee is authorized by law to store or treat hazardous waste in containers in accordance with 40 CFR 262.34.

III.A.4.a.

Except as provided in Section VII of this Permit, bioremediation of containerized solid wastes containing free liquids shall be conducted in storage units authorized to store liquid wastes in accordance with the operation procedures and monitoring in Standalone Document No. 19, Bioremediation Facility and Organic Recovery Unit Design and Operations Plan [A.R. 06092].

III.A.5.

All container storage units shall be designed in accordance with all design requirements, engineered drawings, and applicable recommendations in Standalone Document No. 9, Container Storage Design and Operations Plan [A.R. 06082].

III.A.5.a.

Container storage units S-3 and S-5, are not authorized to store containerized liquid hazardous wastes unless this Permit is modified. ‡ **Rev. 3**

III.B. Inspections

The Permittee shall store all containers of hazardous waste on a single tier, (i.e., no stacking) at all container storage units, except as allowed by Permit Condition III.C.1. and Stand Alone Document No. 9 and except that small containers that are suitable for stacking (e.g., boxes or crates) may be stacked to a reasonable level, (not to exceed 5 feet in height) and intermodal type containers specifically designed for stacking may be stacked, provided the stack is stable and there is no apparent hazard of such containers tipping or falling and provided that inspection of such containers is not inhibited. Containers used in bio-treatment may be stacked three high. ‡ **Rev. 3**

The Permittee shall, immediately upon request from the Inspector reposition any container, as necessary, to make the label on that container visible from the aisle for the purpose of inspection.

III.C. Aisle Space

III.C.1.

The Permittee shall maintain a minimum of 2.5 feet of aisle space for hazardous waste containers at all container storage units at the Facility. Maintenance of the specified aisle space shall constitute compliance with 40 CFR 264.35. At container storage unit S-2: The Permittee shall not double stack 55-gallon, or larger, hazardous waste containers unless all permitted floor space in an individual storage area (A, B, C, D or E) within container storage unit S-2 is occupied by a container. The Permittee may double stack 55-gallon, or larger, containers if such permitted floor space is occupied. ‡ **Rev. 3** Containers that have a volume less than 55-gallons may be double-stacked at anytime.

III.C.2.

At container storage unit S-2, the Permittee shall maintain a minimum aisle width of four (4) feet between hazardous waste container rows and between containers and walls for ignitable and reactive hazardous wastes. ‡ **Rev. 3**

III.D. Containment

III.D.1.

The Permittee shall store hazardous waste containers in a manner that minimizes the potential for container deterioration. ‡ **Rev. 3**

III.D.2.

Container storage of liquid and non-liquid hazardous wastes in S-1, S-2, S-3, S-4, S-5, S-6, S-10, and S-11A in the manner specified in Standalone Document No. 9, Container Storage Design and Operation Plan [A.R. 06082], shall constitute compliance with 40 CFR 264.175(b) and (c).

III.E. Requirement for Containerized Wastes

All containers holding hazardous waste shall be covered at all times, except when hazardous wastes are being added, removed, or inspected. ‡ **Rev. 3**

III.F. Special Requirement for Incompatible Wastes

The Permittee shall comply with 40 CFR 264.177.

III.G. Closure

The Permittee shall close all container storage units in accordance with Section 1.0 of the Closure Plan in Standalone Document No. 5 [A.R. 06078] and Section II.J. of this Permit.

III.H. Additional Conditions at Container Storage Unit S-2

III.H.1.

S-2 storage areas A through E, as shown in drawing 10-AS-1 in Standalone Document No. 9, shall be constructed such that 10% of the maximum volume stored in the specific storage area is contained within that specific storage area. At a minimum, all surrounding berms around each specific storage area shall be no less than 3 inches in height.

III.H.2.

The Permittee shall follow the operational conditions found in Standalone Document No. 9, Container Storage Design and Operations Plan [A.R. 06082] as amended by Permit Conditions III.H.3. through III.H.7.

III.H.3.

Within container storage unit S-2, the Permittee may only store hazardous wastes at storage areas A, B, C, D and E, as designated in drawing 10-AS-1 in Standalone Document No. 9. ‡ **Rev. 3** Hazardous wastes found in the designated area "Receiving Area" shall be hazardous wastes undergoing analysis in accordance with Standalone Document No. 1, Waste Analysis Plan A.R. 06074].

III.H.4.

Unless otherwise approved by the Department, the maximum allowable storage for hazardous waste containers for each storage location is: ‡ **Rev. 3**

Storage Areas				
A (# 55-gal. drums) (gallons)	B (# 55-gal. drums) (gallons)	C (# 55-gal. drums) (gallons)	D (# 55-gal. drums) (gallons)	E (# 55-gal. drums) (gallons)
164 9,020	142 7,810	142 7,810	142 7,810	188 10,340

III.H.5.

The Permittee shall maintain rows of hazardous waste containers to be no more than two 55-gallon drums wide. For hazardous waste containers larger than 55-gallon drums, a container row shall be no wider than the single largest container in that row. ‡ **Rev. 3**

III.H.6.

The Permittee may not store incompatible wastes within the same storage area which is serviced by a single sump.

III.H.7.

The Permittee shall have signage to indicate what class of hazardous waste (e.g., acid, oxidizer, toxic, etc.,) is being stored within a container storage unit which is serviced by a single sump.

III.I. Subpart CC Air Emission Requirements

The Permittee shall comply with Permit Conditions II.U.2.a. and II.U.2.b.

[THIS PAGE INTENTIONALLY BLANK]

IV. TANK STORAGE AND TREATMENT

IV.A. Applicability of Rules

IV.A.1.

The Permittee shall comply with the regulations pertaining to hazardous waste tank systems in 40 CFR 264 Subpart J.

IV.A.2.

The Permittee is authorized by law to store or treat hazardous waste generated on-site in tanks in accordance with 40 CFR 262.34.

IV.A.3

The Permittee shall not store hazardous wastes prohibited from storage under Permit Condition II.C.5.b.ii. in all tanks, and shall not treat hazardous wastes prohibited from treatment the first sentence of Permit Condition II.C.5.b.i. in all tanks.

IV.B. Bulk Liquid Storage and Treatment Facility/Wastewater Treatment Unit ‡ Rev. 14

IV.B.1.

The bulk liquid storage and treatment facility/wastewater treatment unit shall consist of all associated ancillary equipment, containment system, and tanks which includes: Six 10,500 gallon tanks, two 5,200 gallon mix tanks, one 1,500 gallon clarifier, one 2,600 gallon thickener tank, one 1,440 gallon surge tank, two 400 gallon sand filters, two eleven gallon bag filters, and two 1,700 gallon carbon vessels ‡ **Rev. 14** ,as described in Standalone Document No. 8, Bulk Liquid Storage/Treatment Plan [A.R. 06081]. In addition, the tank system capacity includes the tanks described in the Wastewater Treatment Facility Operations Manual, also found in Standalone Document No. 8, Bulk Liquid Storage/Treatment Plan [A.R. 06081].

IV.B.2.

The Permittee may store and treat any wastes, in liquid form, listed under Permit Conditions II.C.5. and II.C.5.a.i-v. and the second, third and fourth sentences in Permit Condition II.C.5.b.i. in the bulk liquid storage and treatment facility. Compliance with 40 CFR 264.198 for ignitable or reactive wastes is required, in order for such wastes to be managed in the Permitted tank systems. Additionally, if the waste is incompatible with any waste already in a tank, or the tank itself, based on compatibility assessment as specified in Standalone Document No. 1, Waste Analysis Plan [A.R. 06074], such waste shall not be stored or treated in that tank.

IV.B.3.

The Permittee shall operate the bulk liquid storage and treatment facility/wastewater treatment unit ‡ **Rev. 14** in accordance with the procedures in Standalone Document No. 8, Bulk Liquid Storage/Treatment Plan [A.R. 06081].

IV.B.4.

The Permittee shall maintain spill controls, and overfill prevention controls as required by 40 CFR 264.194. Overfill prevention controls shall be set such that one foot of freeboard in each tank (headspace) is maintained at all times.

IV.C. Stabilization Unit Tanks

IV.C.1.

The stabilization unit tanks shall consist of 12 in-ground steel tanks, with a capacity of approximately 15,000 gallons each. The design of each tank and the secondary containment structure shall be as described in Standalone Document No. 10, Stabilization/Chemical Treatment Plan [A.R. 06083].

IV.C.2.

The Permittee may store and treat any wastes described in Permit Condition II.C.5. and II.C.5.a.i.-v. and the second, third and fourth sentences in Permit Condition II.C.5.b.i. in the stabilization unit tanks. Additionally, if any hazardous waste is water reactive, has a pH less than or equal to 2, or is incompatible with other wastes already in the tank, based on the compatibility assessment as specified in the Waste Analysis Plan [A.R. 06074], such waste shall be treated in accordance with the applicable sections of Standalone Document No. 10, Stabilization/Chemical Treatment Plan [A.R. 06083]. Water-reactive hazardous waste may only be treated upon Department approval for each waste stream (which approval shall not be considered a modification of this Permit).

IV.C.3.

The Permittee shall operate the stabilization unit tanks in accordance with Standalone Document No. 10, Stabilization/Chemical Treatment Plan [A.R. 06083].

IV.C.4.

The Permittee shall maintain at least two feet of freeboard in the stabilization unit tanks at all times. Hazardous waste in the unit, other than residue or stain on the inside of the tank walls, shall not exceed the two-foot freeboard requirement, except as may be necessary during the actual mixing process. Residue or stain on the inside of the tank walls above the two-foot freeboard limit shall not, in itself, result in a freeboard violation.

IV.D. Closure

The Permittee shall close all tank units in accordance with the applicable sections of Standalone Document No. 5, Closure/Post-Closure Plan, Cost Estimates, Financial Assurance, Insurance [A.R. 06078] and Section II.J. of this Permit.

IV.E. Subpart CC Air Emission Requirements

The Permittee shall comply with Permit Condition II.U.1.

[THIS PAGE INTENTIONALLY BLANK]

V. SURFACE IMPOUNDMENT STORAGE AND TREATMENT

V.A. Surface Impoundments.

V.A.1.

Surface impoundments shall consist of two existing units P-A and P-B.

V.A.2.a

The Permittee may store and treat any wastes, in liquid or semi-solid form, listed under Permit Condition II.C.5. and II.C.5.a.i.-v. and the second, third and fourth sentences in Permit Condition II.C.5.b.i. in the surface impoundments. The Permittee shall not store or treat any hazardous wastes which are restricted from land disposal under 40 CFR Part 268 unless the applicable treatment standard as specified in 40 CFR Part 268 has been achieved prior to placement in the surface impoundments. In addition, as new hazardous wastes are prohibited from land disposal unless the wastes meet the land disposal restriction treatment standards under 40 CFR Part 268, the Permittee shall immediately cease placement of such wastes in any surface impoundment upon the effective date of the 40 CFR Part 268 regulation.

V.A.2.b.

The Permittee shall not store hazardous wastes listed under Permit Condition II.C.5.b.ii. in the surface impoundments and shall not treat hazardous wastes listed in the first sentence under Permit Condition II.C.5.b.i. in the surface impoundments.

V.A.3.

If any waste, or the product of residue of the treatment of such waste, is incompatible with wastes already in a surface impoundment, based on the compatibility assessment as specified in Standalone Document No. 1, Waste Analysis Plan [A.R. 06074], such waste shall not be placed into the surface impoundment.

V.A.4.

The Permittee shall operate all surface impoundments in the manner specified in Standalone Document No. 13, Surface Impoundments Design and Operations Plan [A.R. 06086]. The Permittee shall operate each surface impoundment in a manner to prevent physical barriers (i.e., solid material or sludge) from restricting the mixing of liquid waste.

V.A.5.a.

The Permittee shall maintain freeboard in each surface impoundment as specified in Standalone Document No. 13, Surface Impoundments Design and Operations Plan [A.R. 06086] and shall follow the procedures specified in Surface Impoundments Design and Operations Plan [A.R. 06086] to prevent overtopping.

V.A.5.b.

The Department reserves the right to increase the amount of freeboard required at any surface impoundment if overtopping has occurred. Such a change could occur at any point during the life of this Permit and would be effective upon written notification from the Manager to the Permittee. Such a change would not require a Permit modification in accordance with 40 CFR 270.42.

V.A.6.

Prior to placement of any sludge from the surface impoundments into a landfill unit, the Permittee shall follow the stabilization (when necessary) and analyses procedures outlined in the Waste Analysis Plan [A.R. 06074], Surface Impoundments Design and Operations Plan [A.R. 06086], and Stabilization/Chemical Treatment Plan [A.R. 06083] to ensure that the sludge has been properly stabilized. The Permittee may stabilize the sludge within the surface impoundments as specified in Standalone Document No. 5, Closure/Post-Closure Plan, Cost Estimates, Financial Assurance, Insurance [A.R. 06078], and Standalone Document No. 13, Surface Impoundments Design and Operations Plan, Response Action Plan [A.R. 06086].

V.A.7.

The Permittee shall follow the requirements of Standalone Document No. 13, Surface Impoundments Design and Operations Plan [A.R. 06086] when emergency repairs are undertaken for an surface impoundment. ‡ **Rev. 3**

V.A.8.

The Permittee shall follow the procedures in Standalone Document 13, Surface Impoundments Design and Operations Plan, Response Action Plan [A.R. 06086], for units P-A and P-B, that require a response action plan.

V.B. Subpart CC Air Emission Requirements

The Permittee shall comply with Permit Condition II.U.1.

[THIS PAGE INTENTIONALLY BLANK]

VI. LANDFILL DISPOSAL

VI.A. Existing Closed Landfill Units L-5, L-7, and L-9

VI.A.1.

The Permittee shall inspect the leachate collection system in units L-5, L-7 and L-9 for the presence of liquid at the frequency specified in Standalone Document No. 3, Inspection Plan [A.R. 06076]. The results of the inspection, including the amount of any liquid found, shall be entered in the operating record. Prior to final Facility closure, if liquid is found in the leachate collection system, all pumpable quantities of such liquid shall be removed, to the extent practicable, within 24 hours of the time such liquid is found. The time for removal of liquid shall be 72 hours after finding liquid in the leachate collection system after final Facility closure. In all cases, the liquid shall be managed as hazardous waste.

VI.B. Operating Landfill Units L-12, L-13, and L-14

VI.B.1.

The Permittee may dispose of any wastes listed under Permit Condition II.C.5. and II.C.5.a.i.-v. and the second, third and fourth sentences in Permit Condition II.C.5.b.i. in landfill units L-12, L-13, or L-14 except that the following restrictions on waste disposal shall apply:

VI.B.2.a.

The Permittee shall not dispose of hazardous wastes listed in the first sentence under Permit Condition II.C.5.b.i.

VI.B.2.b.

The Permittee shall not dispose of wastes containing free liquids. Free liquids analyses shall be performed in accordance with the applicable procedures in Waste Analysis Plan [A.R. 06074]. Note: Liquid wastes that are contained in lab packs (packaged in accordance with 40 CFR 264.316) or containers, that are very small such as ampoules, or containers that are designed to hold free liquids for use other than storage, such as capacitors or batteries (in accordance with 40 CFR 264.314), may be disposed without stabilization and related testing and verification procedures, provided other restrictions, as specified in this Permit or by other statutes or regulations, do not prohibit the land disposal of such wastes.

VI.B.2.c.i.

The Permittee shall not dispose of any hazardous waste which was generated as a liquid and was then stabilized by the generator (or another off-site treatment facility) unless the Permittee has conducted testing to ensure that the waste has been properly stabilized, (i.e., achieves the appropriate treatment standard required by 40 CFR Part 268 and does not contain free liquids). Such testing shall be done by the Permittee, using sampling and analytical methods outlined in Waste Analysis Plan [A.R. 06074], and Stabilization/Chemical Treatment Plan [A.R. 06083]. Records of such analyses shall be maintained in the operating record for a minimum period of three years. This Permit Condition [VI.B.2.c.i.] shall not apply if the Permittee complies with Permit Condition VI.B.2.c.ii.

VI.B.2.c.ii.

As an alternative to the testing by the Permittee specified in Permit Condition VI.B.2.c.i., the Permittee shall maintain documentation supplied by the generator (or another off-site treatment facility) that proper stabilization has been achieved. Documentation from the generator (or another off-site treatment facility) shall contain a signed certification that the stabilized hazardous waste achieves the appropriate treatment standard required by 40 CFR Part 268 and does not contain free liquids as specified in this Permit. The Permittee shall maintain such documentation in the operating record for a minimum period of three years.

VI.B.2.d.

The Permittee shall not dispose of any wastes which are restricted from land disposal under 40 CFR Part 268 unless the applicable treatment standard in 40 CFR Part 268 has been achieved. In addition, as new hazardous wastes are prohibited from land disposal unless the wastes meet the land disposal restriction treatment standards under 40 CFR Part 268, the Permittee shall immediately cease disposing of such wastes upon the effective date of the 40 CFR Part 268 regulation, unless the treatment standards for the hazardous wastes in 40 CFR Part 268 have been achieved.

VI.B.2.e.

The Permittee shall not dispose ignitable or reactive hazardous wastes (Environmental Protection Agency Waste numbers D001 or D003, respectively) or any EPA-listed hazardous waste for which the basis for listing is ignitability or reactivity, unless the waste has been treated to render it non-ignitable or nonreactive. For such wastes, the Permittee shall follow testing procedures used to determine ignitability and reactivity as specified in Waste Analysis Plan [A.R. 06074]. This restriction on disposal of ignitable waste does not apply to ignitable waste disposed in accordance with 40 CFR 264.312(b).

Note: Cyanide or sulfide bearing waste as defined in 40 CFR 261.23(a)(5) may be packaged in accordance with 40 CFR §264.316 and disposed without first being treated or rendered nonreactive.

VI.B.3.

The Permittee shall operate landfill units L-12, L-13, and L-14 in accordance with the operating practices in Standalone Document No. 14, Landfill Design and Operations Plan [A.R. 06087].

VI.B.4.

The Permittee shall maintain a permanent accurate record of the approximate three dimensional location of each hazardous waste type, based on grid coordinates, within units L-12, L-13 and L-14 in accordance with 40 CFR 264.309. This record shall include the information necessary to locate a specific hazardous waste type and shall be based on information contained in the manifest (generator identification number, waste code, and date of disposal). This Condition shall apply to all wastes placed in units L-12, L-13 and L-14, irrespective of the date of disposal. Upon final closure of the Facility, the Permittee shall submit copies of these records for units L-12, L-13, and L-14 to the Manager.

VI.B.5.

‡ **Rev. 9** Liquid in the primary leachate collection system of unit L-12, L-13, or L-14 will not exceed 30 cm (one foot) in depth over the primary liner after waste has been placed. (This does

not include the area of the sump used to accumulate sufficient quantities of liquid for pumping). Liquid in the secondary leachate collection system of unit L-12, L-13, and L-14, will be removed, when pumpable quantities exist, to the extent practicable, within 24 hours after those quantities are found. The leachate from both the primary and secondary leachate collection systems will be managed for dust suppression within the footprint of the landfill from which the leachate originated per Standalone Document 14 – Landfill Design and Operations Plan. Leachate application shall be inspected daily to assure that the application is conducted in a controlled manner to prevent ponding and runoff. Leachate not used for dust suppression will be managed as hazardous waste and routed to the wastewater treatment unit. During the post-closure period, after final Facility closure, liquid from the secondary leachate collection systems shall be pumped, as described above, within 72 hours after such liquid is found.

VI.B.6.

For landfills units L-12, L-13, and L-14, the Permittee shall follow the procedures specified in Standalone Document No. 15, Landfill Response Action Plan [A.R. 06088].

VI.B.7.

The Permittee shall close units L-12, L-13, and L-14 in accordance with the applicable sections of Standalone Document No. 5, Closure/Post-Closure Plan, Cost Estimates, Financial Assurance, Insurance [A.R. 06078], Standalone Document No. 16, Construction Quality Assurance Plan [A.R. 06088] and Standalone Document No. 17, Landfill Final Cover Design Plans [A.R. 06090], and Permit Condition II.J.

‡ Rev 28

VI.B.7.a

When implementing the evapotranspiration final cover alternative, the Permittee shall follow the fertilizer and soil amendments recommended by A&L Western Agricultural Laboratories as contained in Appendix B.3 of the Alternative Final Cover Design Report for Landfills L-12, L-13 and L-14 included in standalone 17.

VI.B.8.

The Permittee shall close units L-13, L-12, and L-14 in accordance with 40 CFR 264.19 and Standalone Document No. 16, Construction Quality Assurance Plan [A.R. 06089].

VI.B.9.

The Permittee shall follow the requirements for post-closure care of units L-12, L-13, and L-14 in accordance with the applicable sections of Standalone Document No 5, Closure/Post-Closure Plan, Cost Estimates, Financial Assurance, Insurance [A.R. 06078] and Section II.L. of this Permit. The post-closure care period for each unit shall begin at the time of completion of closure of each unit.

VI.B.10.

The landfill units shall be operated and maintained using best management practices designed to prevent fires, pyrophoric events, explosions, combustion, or conflagration within the footprint of any operating landfill. **‡ Rev. 3**

VI.C. Waste Pile WP-1 ‡ Rev. 23

VI.C.1.

The Permittee is authorized to process and store concrete wastes from the Umatilla Demilitarization Demolition Project in accordance with the provisions of Standalone Document 21 – Waste Pile Operations Plan.

VI.C.2

The Permittee shall inspect the Waste Pile WP-1 in Accordance with Standalone Document 1-Inspection Plan

VI.C.3

The Permittee will monitor the Waste Pile WP-2 in accordance with Standalone Document 7 – Groundwater Monitoring Plan

VI.C.4

The Permittee will close the Waste Pile WP-2 in accordance with Standalone Document 21 – Waste Pile Operations Plan

VI.C.5

The Permittee will maintain Closure Post Closure Financial Assurance for Waste Pile WP-1 in accordance with Standalone Document 5 – C-PC Plan

VI.D. [Reserved]

VI.E. Acceptance, Storage, Treatment, and Disposal of Corrective Action Management Unit [CAMU]-Eligible Wastes

VI.E.1.

The Permittee is authorized to accept, store, treat, and dispose of CAMU-eligible wastes, as defined at 40 CFR 264.552(a)(1), in accordance with Permit Conditions VI.E.2. through VI.E.12.

VI.E.2.a.

In addition to the approved Waste Analysis Plan requirements: For each single-type CAMU remediation waste acceptance, the Permittee shall investigate and determine that the authority that designated the waste as CAMU-eligible waste is authorized for such designation in accordance with either being an US EPA regional office or state authorized by 40 CFR Part 271. The results of the investigation, which may include hand-written notes from phone calls, shall be placed in the operating record.

VI.E.2.b.

In addition to the approved Waste Analysis Plan requirements: For single CAMU remediation wastes, the Permittee shall investigate and determine if the regulatory authority that designated the waste as CAMU-eligible waste provided a public notice and an opportunity for public comment. The results of the investigation, which may include hand-written notes from phone calls, shall be placed in the operating record.

VI.E.3.

The Permittee shall comply with the requirements of 40 CFR 268.7(b)(4) except the certification shall state that the CAMU-eligible wastes meet the treatment standards in 40 CFR 264.555(a)(2).

VI.E.4.

The Permittee shall dispose all CAMU-eligible waste in either landfill L-12, L-13, or, L-14.

VI.E.5.

All CAMU-eligible wastes that are disposed in a landfill shall meet any of the standards in 40 CFR 264.555(a)(2)(i), (ii), or (iii).

VI.E.6.

For new single CAMU-eligible wastes proposed to be received at the Facility, the Permittee shall notify the Department and persons on the Facility's mailing list of the Permittee's intent to receive the waste unless exempted in accordance with Permit Condition VI.E.9. The Permittee shall abide by all conditions in any Department exemption letter.

VI.E.7.

In the notification to the Department and the Facility mailing list regarding the Permittee's intent to receive CAMU-eligible wastes at the Facility, the Permittee shall state the source of the CAMU-eligible waste, the principal hazardous constituents in the waste, and the treatment requirements. The notification shall state that there will be a 15-day period after receipt of the notification for public comment. The notification shall state that any comments should be sent to the Department and that any comment may include an objection to receipt of the CAMU-eligible waste.

VI.E.8.a.

The Permittee may not receive any CAMU-eligible waste within the 15-day comment period specified in Permit Condition VI.E.7., and may not receive CAMU-eligible waste until the Department notifies the Permittee that the Department does not object to placement of the CAMU-eligible waste in the landfill. The Department may take a 30-day review period, with a possible 30-day extension because of public concerns or insufficient information, from the date of the Permittee's notice of intent to receive the CAMU-eligible waste.

VI.E.8.b.

The Department may object to the Permittee's placement of any single-type remediation CAMU-eligible waste stream. If the Department notifies the Permittee that the Department objects, the Permittee may not receive the single CAMU-eligible waste. If, at the end of the review period, the Department has not notified the Permittee that the Department has chosen not to object, the Permittee may not receive the single remediation CAMU-eligible waste until the objection has been resolved, or, the Permittee obtains a permit modification in accordance with 40 CFR 270.42 specifically authorizing receipt of the single remediation CAMU-eligible waste.

VI.E.9.

Upon an approved permit modification submitted by the Permittee, the Department may modify, reduce, or eliminate the notification requirements of Permit Condition VI.E.6. and VI.E.7. The Department's written decision will be based on minimal risk.

VI.E.10.

The Permittee may accept Rhone Poulenc (ORD 990 659 492) granular activated carbon remediation wastes as specifically described in the permit modification request, dated October 4,

2004. Such wastes shall be containerized when disposed of in a landfill. Such containers shall remain intact during disposal and when covered by operational lifts.

VI.E.11.

[Reserved]

VI.E.12.

The Permittee may accept and dispose the single remediation granular activated carbon CAMU-eligible wastes, as described in the permit modification request, dated October 4, 2004, from the Union Pacific Railroad Tie Treating Facility [UPRTTF], EPA ID ORD 982 658 742, The Dalles, Oregon. All CAMU-eligible wastes from the UPRTTF facility shall be disposed by macro encapsulation in accordance with this Permit and Standalone Document No 11, the Debris Treatment Plan [A.R. 06084].

[THIS PAGE INTENTIONALLY BLANK]

VII. CONTAINMENT BUILDING STORAGE AND TREATMENT

VII.A.1.a

The Permittee is authorized to store and treat any non-liquid wastes listed under Permit Condition II.C.5 and II.C.5.a.i.-v. and the second, third and fourth sentences in Permit Condition II.C.5.b.i. in containment buildings B-1, B-2, B-4 B-5, and B-9 including crushing and size reduction.

VII.A.1.b.

The Permittee shall not store hazardous wastes listed under Permit Condition II.C.5.b.ii. in containment buildings and shall not treat hazardous wastes listed in the first sentence under Permit Condition II.C.5.b.i. in containment buildings.

VII.A.2.

The Permittee shall operate and maintain all containment buildings in accordance with Standalone Document No. 12, Containment Buildings Design and Operations Plan [A.R. 06085] and all applicable requirements contained in 40 CFR 264 Subpart DD. Bioremediation in containment buildings authorized for the storage and treatment of hazardous wastes containing free liquids shall be conducted in accordance with Standalone Document No. 19, Bioremediation Facility and Organic Recovery Unit Design and Operations Plan [A.R. 06092].

VII.A.3.

The Permittee may store and treat wastes containing free liquids in containment building B-5.

VII.A.4.

The Permittee is authorized to operate and maintain its Organic Recovery Unit and associated ancillary equipment including tanks, containment and flare in accordance with Standalone Document No. 19, Bioremediation Facility and Organic Recovery Unit Design and Operations Plan as approved by the Department. ‡ ‡ **Rev. 12**

[THIS PAGE INTENTIONALLY BLANK]

VIII. (removed ‡Rev. 25)

.

.

[THIS PAGE INTENTIONALLY BLANK]

IX. PAST PRACTICE UNITS ‡ Rev. 15

IX.A. Definition of Past Practice Units

IX.A.1

Past practice units at this Facility shall consist of landfill units L-1, L-3, L-5, and L-6.

IX.B. Post-Closure Care of Landfill Units L-1, L-3, L-5, and L-6

IX.B.1.

The Permittee shall implement a detection groundwater monitoring program for the past practice units which complies with the requirements of Section X of this Permit. Monitoring well locations for the past practice units are listed in Table X-1 of this Permit and are displayed on Figure 1 of this Permit. Monitoring well sampling frequencies are specified in Table X-1 of this Permit.

IX.B.2.

The Permittee shall follow the post-closure care maintenance procedures outlined in Standalone Document No. 5, Closure/Post-Closure Plan, Cost Estimates, Financial Assurance, Insurance [A.R. 06078] for past practice units L-1, L-3, L-5, and L-6.

IX.C. Corrective Action for Past Practice Units L-1, L-3, L-5, and L-6

The Permittee shall follow the requirements in Permit Conditions X.D.4. through X.E.5. in response to a confirmed exceedance of the detection monitoring criteria as specified in Permit Conditions X.D.1. through X.D.3.

[THIS PAGE INTENTIONALLY BLANK]

X. GROUNDWATER DETECTION MONITORING PROGRAM‡ Rev. 15

X.A. Monitoring Well/Piezometer Locations

X.A.1.

The Permittee shall maintain a groundwater detection monitoring program as specified below at the locations for detection monitoring that are listed in Table X-1 of this Permit and displayed on Figure 1 of this Permit. [40 CFR 264.97 and 264.98]

X.A.2.

The Permittee shall maintain the network of piezometers, for the purpose of determining groundwater elevations, at the locations listed in Table X-2 of this Permit and displayed on Figure 1 of this Permit.

X.A.3.

The point of compliance is the vertical surface located at the hydraulically down gradient boundary of the Waste Management Areas listed in Table X-1. [40 CFR 264.95].

X.B. Well Construction, Maintenance, Replacement and Decommissioning

X.B.1.

The Permittee shall maintain the monitoring wells and piezometers identified in Permit Conditions X.A.1. and X.A.2., in accordance with Standalone Document No. 7, Groundwater Monitoring Plan [A.R. 06080].

X.B.2.

All new and replacement monitoring wells and piezometers shall be drilled and constructed as approved by the Department. A well installation work plan shall be submitted to the Department, for approval, for all new and replacement monitoring wells and piezometers. The Permittee may not begin drilling until Department approval has been granted. All new and replacement monitoring wells and piezometers shall be designed, constructed, and installed in accordance with Oregon Water Resources

Department rules OAR 690-240; and, as appropriate, in general accordance with current guidance from the Department and the Environmental Protection Agency for drilling and construction of groundwater monitoring wells. Minor changes to the well installation work plan shall not be considered a Permit modification.

The Permittee shall take all reasonable precautions during drilling to prevent cross contamination between any water-bearing hydrologic zone and the geologic zones overlying and underlying the water-bearing hydrologic zone.

X.B.3.

The Permittee shall maintain all monitoring wells and piezometers in good working order, making necessary repairs in a timely manner so that sampling activities do not occur outside the sampling timeframes specified in Permit Condition X.C.2.a. The Permittee shall maintain an adequate supply of replacement parts and repair equipment so that each groundwater sampling event [as defined in Permit Condition X.C.2.a.] is not unreasonably delayed. The Permittee shall maintain a list of spare parts and equipment that will fulfill the terms of this Permit Condition.

This list shall be approved by the Department. The Department's approval under this Permit Condition shall not be considered a Permit modification.

X.B.4.

The Permittee shall follow the procedures in Table 3-2 of Standalone Document No. 3, Inspection Plan [A.R. 06076] and in Section 3.4 of Standalone Document No. 7, Groundwater Monitoring Plan [A.R. 06080] for routine inspection of monitoring wells and piezometers.

X.B.5.

The Permittee shall maintain borehole integrity of each monitoring well and piezometer for any groundwater monitoring program developed to satisfy 40 CFR 264.98, 264.99 and 264.100, as required by 40 CFR 264.97(c). The Permittee shall inspect groundwater wells at the Facility not identified in the previous sentence at least once every five years beginning August 1, 2007 as provided in Section 3.4 of Standalone Document No. 7, Groundwater Monitoring Plan [A.R. 06080].

X.B.6.

Any replacement monitoring wells or piezometers that may be required during the life of this Permit shall be installed as close as appropriate and practicable to the monitoring well or piezometer being taken out of service. If a monitoring well or piezometer shall be replaced for any reason during the term of this Permit, it shall be replaced within 90 calendar days of the date taken out of service unless the Department approves a longer period of time.

X.B.7.All new or replacement groundwater sampling pumps shall be dedicated bladder pumps unless the Department approves use of another type of pump or sampling device in writing. The Department's approval under this Permit Condition shall not be considered a permit modification.

X.B.8.

All monitoring wells or piezometers that require decommissioning shall be decommissioned in accordance with Oregon Water Resources Department rules OAR 690-240 and, as appropriate, in general accordance with current guidance from the Department and the Environmental Protection Agency for decommissioning groundwater monitoring wells. Written approval for monitoring well or piezometer decommissioning is required from the Department. Monitoring well or piezometer decommissioning documentation, as required by OAR 690-240-0510(6), shall be submitted to the Department within 60 calendar days after completion of decommissioning.

X.B.9.

By written direction from the Department, the Permittee shall decommission monitoring wells or piezometers in the groundwater monitoring program developed to satisfy 40 CFR 264.98, 264.99 and 264.100, that do not meet the requirements in 40 CFR 264.97(c). In determining whether to issue the written direction, the Department will consider the Permittee's evaluation, if any, for whether the monitoring well(s) or piezometer(s) meets the requirements in 40 CFR 264.97(c).

X.B.10.

The Permittee shall submit to the Department within 60 calendar days of installation of any new or replacement monitoring well or piezometer (or group of monitoring wells or piezometers), or decommissioning of an existing monitoring well or piezometer (or group of monitoring wells or piezometers), revised versions of Table X-1, Table X-2, and Figure 1. The Permittee shall obtain a Permit modification for any new or replacement monitoring well.

X.C. Program Operation

X.C.1.

Groundwater Elevations and Flow Direction

X.C.1.a.

The Permittee shall determine the elevation of the groundwater surface at each monitoring well and piezometer listed in Table X-1 and Table X-2 of this Permit, each time the groundwater is sampled. [40 CFR 264.97(f)]

X.C.1.b.

Groundwater level measurements for each monitoring well shall be obtained prior to purging the well. In order to minimize the potential for error caused by temporal variations, the Permittee shall obtain all water level measurements within as short a time as practicable. On each day that water level measurements are being collected under this Permit Condition, the barometric pressure shall be recorded and entered into the operating record.

X.C.1.c.

The Permittee shall use these data to determine the rate and direction of groundwater flow at each Waste Management Area annually, and construct groundwater elevation (or potentiometric surface) contour maps for Level 1 and Level 2 of the Selah Aquifer annually. The contour maps and flow rates shall be submitted to the Department in the second semi-annual monitoring report. The Permittee shall submit, with the contour maps, a written review of the adequacy of the groundwater monitoring system relative to observed groundwater flow directions with respect to each Waste Management Area.

X.C.1.d.

Graphs of groundwater elevation vs. time will be submitted annually, in the second semi-annual monitoring report, for all monitoring wells listed in Table X-1 and all piezometers listed in Table X-2, including all available historical groundwater elevation data.

X.C.2. Groundwater Sampling and Analysis

X.C.2.a.

The Permittee shall obtain water quality samples from each detection monitoring well listed in Table X-1 of this Permit and displayed on Figure 1 of this Permit at the frequencies designated on Table X-1 of this Permit, in accordance with the procedures in Standalone Document No. 7, Groundwater Monitoring Plan [A.R. 06080]. Semiannual groundwater sampling events shall be started and finished in the months of March through May, and September through November, respectively, during each calendar year. For all semiannual, annual, and all other groundwater sampling events, the Permittee shall notify the Department within five (5) working days prior to the sampling event.

X.C.2.b.

The Permittee shall analyze all groundwater samples obtained under Permit Condition X.C.2.a. for the constituents and parameters listed in Table X-3 of this Permit, using procedures specified in Standalone Document No. 7, Groundwater Monitoring Plan [A.R. 06080].

X.C.2.c.

Results of all analyses, including semiannual analyses, verification analyses, and Appendix IX analyses, shall be submitted to the Department within 45 calendar days after the Permittee's receipt of the analytical laboratory's quality-assured data report. In

no case shall the period between the last date of sampling and the date of submission to the Department of analytical results exceed 90 calendar days unless a written extension is granted by the Department. The Permittee shall document when the analytical laboratory's quality-assured data reports are received. The report submitted to the Department shall contain laboratory quality-assured results (as specified in the Standalone Document No.7, Groundwater Monitoring Plan [A.R. 06080] reported down to the method detection limit (MDL), and the reporting limit (RL) as specified in Standalone Document No.7, Groundwater Monitoring Plan [A.R. 06080]. The MDL results are for informational purposes and will be discussed in the reports for each sampling event, as described in the Groundwater Monitoring Plan.

X.C.2.d.

Semiannual groundwater monitoring reports shall also include the information listed in Section 7.2 of Standalone Document No. 7, Groundwater Monitoring Plan [A.R. 06080].

X.C.2.e.

The Permittee shall enter all monitoring, testing, and quality-assured analytical data obtained pursuant to Permit Condition X.C. in the operating record as required by Permit Condition I.M. Upon written request by the Department, these results shall be submitted within 30 calendar days after the Permittee's receipt of the request, provided the Permittee has received the analytical laboratory's quality-assured data report.‡ **Rev. 16**

X.D. Data Evaluation

X.D.1.

The results of analyses obtained pursuant to Permit Condition X.C.2. shall be compared to the following detection monitoring criteria for the Volatile Organic Constituents (VOCs) listed in Table X-3:

X.D.1.a.

For Chloromethane; Dichlorodifluoromethane; Dichloroethane,1,1-; Methylene chloride; Tetrachloroethene; Toluene; Trichloroethane,1,1,1-; Trichloroethene; and Trichlorofluoromethane in detection monitoring wells 3R-2, 4B-1, 5D-1, and 5Q-1 each detection monitoring criterion listed in Table X-4 multiplied by five; or

X.D.1.b.
For all other detection monitoring wells not included in Permit Condition X.D.1.a., the detection monitoring criteria listed in Table X-4.

X.D.1.c.

For any VOCs detected in detection monitoring wells 3R-2, 4B-1, 5D-1, or 5Q-1 that are degradation products of Chloromethane; Dichlorodifluoromethane; Dichloroethane,1,1-; Methylene chloride; Tetrachloroethene; Toluene; Trichloroethane,1,1,1-; Trichloroethene; and Trichlorofluoromethane, the Permittee may add those VOCs to Permit Condition X.D.1.a. after Department approval.

X.D.2.

Upon determination of VOCs in any monitoring well exceeding the applicable criteria specified in Permit Condition X.D.1. of this Permit, the Permittee shall:

X.D.2.a.

Notify the Department of this finding, in writing, within 7 calendar days after receiving the analytical laboratory's quality-assured data report [40 CFR 264.98(g)(1)]; and,

X.D.2.b.

Within 30 calendar days after this finding, collect two samples from any affected monitoring well(s), following the procedures identified in Standalone Document No. 7, Groundwater Monitoring Plan [A.R. 06080], and reanalyze the samples for all VOCs specified in Table X-3 of this Permit that exceeded the applicable criteria in Permit Condition X.D.1. In no case shall the period between the date of the determination under Permit Condition X.D.2. and the date of the submission to the Department of the analytical results for the sampling under this Permit Condition exceed 135 calendar days unless a written extension is granted by the Department.

X.D.2.c.

The Permittee may elect to forgo verification sampling activities described under Permit Condition X.D.2.b. and instead follow the requirements of Permit Condition X.D.4.

X.D.3.

If the analytical laboratory's quality-assured data results from the analyses in Permit Condition X.D.2.b. show that:

X.D.3.a.

Neither verification sample confirms the detection of VOCs above the applicable detection monitoring criteria specified in Permit Condition X.D.1., the Permittee shall resume detection monitoring according to the schedule in Permit Condition X.C.2.a. and notify the Department in writing that the detection monitoring program is being resumed; or

X.D.3.b.

One or both verification samples confirm the detection of VOCs above the applicable detection monitoring criteria specified in Permit Condition X.D.1., the Permittee shall follow the requirements of Permit Condition X.D.4.

X.D.4.

Response to Confirmed Exceedance

X.D.4.a.

The Permittee shall notify the Department in writing that the detection monitoring criteria have been exceeded. This notification shall occur within 7 calendar days after receipt of the analytical laboratory's quality-assured data report obtained in Permit Condition X.D.3.b., or within 7 calendar days after receipt of the analytical laboratory's quality-assured data report received under Permit Condition X.C.2. if the Permittee elects to forgo verification sampling as provided in Permit Condition X.D.2.c.; and

X.D.4.b.

The Permittee shall sample the affected monitoring well(s) within 30 calendar days after receipt of the analytical laboratory's quality-assured data report obtained in Permit Condition X.C.2., or

within 30 calendar days of receipt of the analytical laboratory's quality-assured data report received under Permit Condition X.C.2. if the Permittee elects to forgo verification sampling as provided in permit Condition X.D.2.c., and analyze for the constituents identified in 40 CFR Part 264 Appendix IX.

X.D.4.c.i.

If any Appendix IX constituents not listed in Table X-3 of this Permit are detected above the applicable detection monitoring criteria as specified in Standalone Document No. 7, Groundwater Monitoring Plan [A.R. 06080], the Permittee may resample within 30 calendar days after receipt of the analytical laboratory's quality-assured data report and repeat the Appendix IX analysis for any new constituents detected above the applicable detection monitoring criteria. If the second analysis confirms the presence of new constituents above the applicable detection monitoring criteria, the Permittee shall report the concentrations of these detected constituents to the Department within 7 calendar days after receipt of the analytical laboratory's quality-assured data report for the second analysis.

X.D.4.c.ii.

If the Permittee chooses not to resample, then the Permittee shall report the concentrations of the additional constituents detected above the applicable detection monitoring criteria to the Department within 7 calendar days after receipt of the analytical laboratory's quality-assured data report for the samples collected under Permit Condition X.D.4.b.

X.D.4.d.

Within 90 calendar days after receipt of the analytical laboratory's quality-assured data report for Appendix IX constituents required under Permit Condition X.D.4.b., the Permittee shall submit either of the following:

X.D.4.d.i.

An application for a permit modification to establish a compliance monitoring program, for the affected monitoring well(s), as specified in 40 CFR 264.98(g)(4), or, if any hazardous constituents are above the groundwater concentration limits, to initiate a corrective action program, as specified in Permit Condition X.E. unless the Permittee has submitted a notice of intent under 40 CFR 264.98(g)(4)(iv) to revise the groundwater concentration limits or,

X.D.4.d.ii.

A report demonstrating that a source other than a regulated unit or the past practice units caused the contamination, or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the groundwater; and in addition, when required by 40 CFR 264.98(h), an application for a permit modification to make any appropriate changes to the detection monitoring program.

X.D.4.e.

If the Department determines that a report submitted in accordance with condition X.D.4.d.ii. fails to identify a source of contamination other than a regulated unit or past practice unit, or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the ground water, then the Permittee shall within 60 days of the Department's determination submit an application for a permit modification to establish a compliance monitoring program, as specified in 40 CFR 264.98(g)4, or, if any hazardous constituents are above the groundwater concentration limits, to initiate corrective action, as specified in Permit

Condition X.E. unless the Permittee has submitted a notice of intent under 40 CFR 264.98(g)(4)(iv) to revise the groundwater concentration limits.

X.D.5.

[Reserved]

X.E. Corrective Action Process

X.E.1.

Upon exceedance of the groundwater concentration limit(s), as determined by Permit Conditions X.D.4.d. or X.D.4.e., the Permittee shall send a written request to the Department's Eastern Region Environmental Cleanup Manager requesting a meeting. The written request shall be sent within 15 calendar days after it is determined that the groundwater protection standard(s) has been exceeded. The written request shall also contain the following information:

X.E.1.a.

Description of release with information known to date,

X.E.1.b.

Description of Permittee's obligation to notify the Environmental Cleanup Manager about the release in accordance with this Permit, and,

X.E.1.c.

Description of Permittee's duty to initiate corrective action in accordance with this Permit if any groundwater concentration limit(s) is exceeded.

X.E.2.

The Permittee shall meet with the Department's Eastern Region Environmental Cleanup Program within 45 calendar days after the date on the written notification sent in accordance with Permit Condition X.E.1. unless the Department approves a longer time period (which approval shall not be considered a modification of this Permit). Such a meeting is intended to initiate development of a corrective action written agreement for the Facility.

X.E.3.

The Permittee shall enter into a written agreement with the Department's Eastern Region Environmental Cleanup Program within 180 calendar days after the date on the written notification sent in accordance with Permit Condition X.E.1. The agreement shall provide that any corrective action be implemented under OAR 340-122 consistent with the requirements of 40 CFR 264.90 to 264.101. The agreement shall also provide that in the event of disagreement between the Permittee and Department regarding whether any action under the agreement is consistent with or exceeds 40 CFR 264.90 to 264.101, the Permittee and Department shall make a good faith effort to resolve the dispute by taking the following actions: (a) discussing the dispute between the Permittee's Environmental Manager and the Department's Project Manager, (b) if necessary, referring the dispute for resolution to the Permittee's Facility Manager and the Department's Cleanup Manager; and (c) if necessary, providing each other their respective positions in writing and referring the dispute for resolution by the Department's Eastern Region Administrator, in consultation with the Permittee's Market Area Manager. ‡ **Rev. 3**

X.E.4.

The agreement entered into under Permit Condition X.E.3.shall be processed as a Class 3 Permit modification and shall be considered an enforceable Condition of this Permit.

X.E.5.

During the course of the corrective action agreement, the Department may determine it necessary to revise the agreement or corrective action activities conducted under the agreement. Changes to the agreement, or corrective action activities conducted under the agreement that are implemented after the effective date of this Permit may require a modification to the Permit. The Permittee shall notify the Manager in writing at least 30 days prior to any planned changes to the agreement or corrective action activities conducted under the agreement. Upon notification by the Permittee, the Manager will determine whether or not a Permit modification will be needed. If a Permit modification is needed, the Manager shall so notify the Permittee, and upon receipt of such notice, the Permittee shall proceed with a Permit modification in accordance with the procedures set forth in 40 CFR 270.41 and 270.42, incorporated by reference under OAR 340-100-0002 and as modified by OAR -105-0041 and OAR 340-106-0005. In accordance with 40 CFR 270.42(e), as incorporated by reference under OAR 340-100-0002, the Permittee may seek, and the Manager may grant, temporary authorization to implement changes to the agreement or corrective action activities conducted under the agreement prior to the final approval of a Permit Modification.

X.E.6.

The agreement or corrective action activities conducted under the agreement, may be modified at any time under the Department's Environmental Cleanup Program authority pursuant to the agreement, provided the Permittee complies with the requirements of X.E.5. The Department's Environmental Cleanup Program authority to implement changes to the agreement, or corrective action activities conducted under the agreement, shall not be restricted or hindered by any requirements to modify this Permit. Changes approved under the Department's Environmental Cleanup program authority and implemented by the Permittee shall not be a violation of any condition of this Permit or any requirement to modify this Permit provided the Permittee complies with the requirements of X.E.5.

X.E.7.

The requirement to modify this Permit to accommodate changes in the agreement or corrective action conducted under the agreement shall not be in any way interpreted or deemed to replace, supersede, supplant, modify, or amend the Permittee's right to dispute resolution under the agreement.

X.E.8.

If, after the conclusion or stabilization of corrective action activities, either the Permittee or the Department determines that the Facility should return to a compliance monitoring program, the Permittee must submit a permit modification request to institute a renewed compliance monitoring program under this Permit.

X.F. Post Closure Monitoring

X.F.1.

All procedures described in Section X of this Permit shall apply to the post-closure care period, as well as the active life period of each regulated unit or waste management area.

X.G. Request for Permit Modification

X.G.1.

If the Permittee determines the detection monitoring program no longer satisfies the requirements of 40 CFR 264.98, then within 90 calendar days the Permittee shall submit an application for a permit modification to make any appropriate changes to the detection monitoring program. [40 CFR 264.98(h)]‡ **Rev. 17**

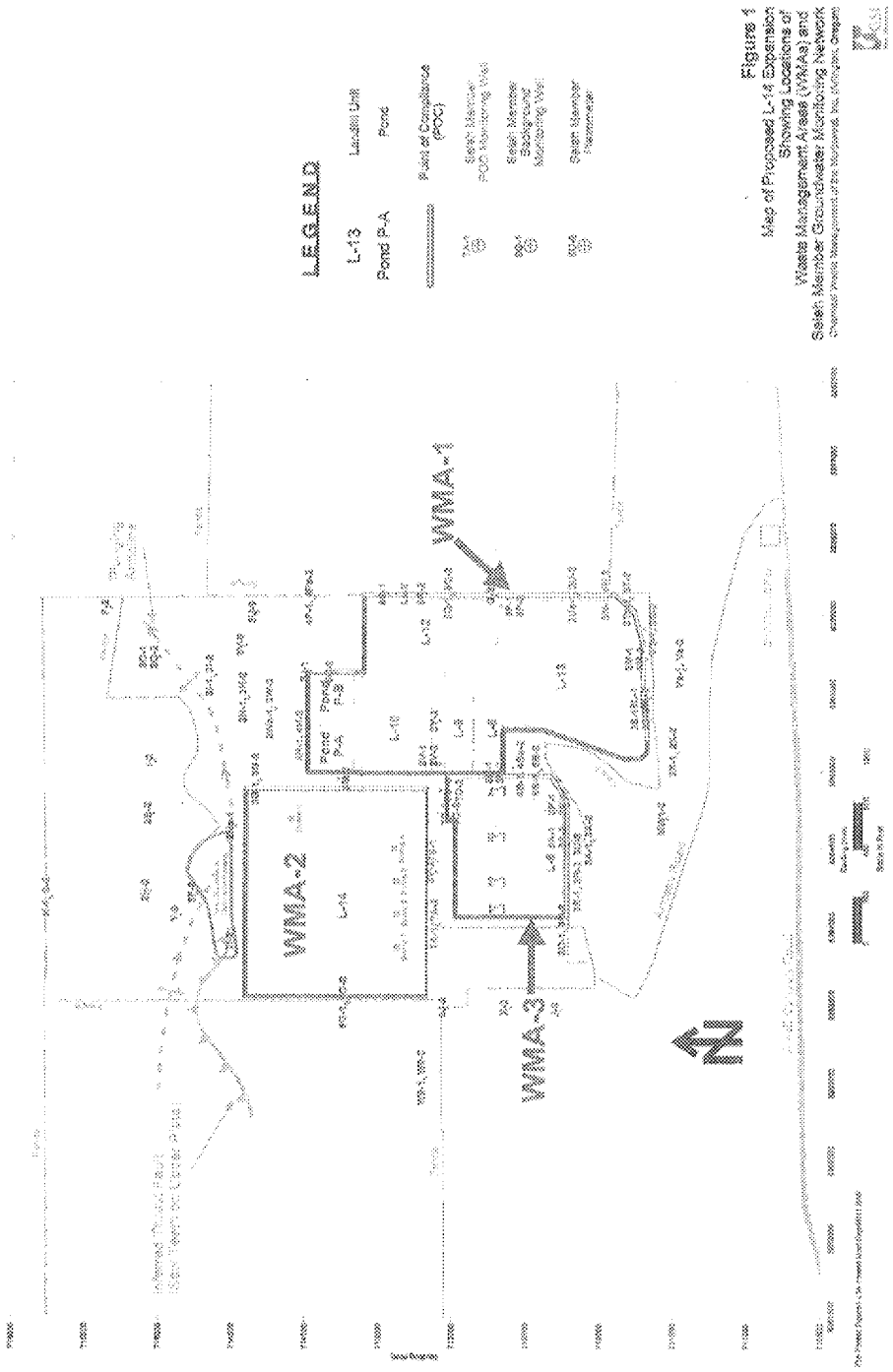


Figure 1 Map of Proposed L-14 Expansion

TABLE X-1

Table X-1 (REV.25)
Detection Monitoring Well Locations and Sampling Frequency

Monitoring Well ID	Location [a] Northing	Easting	TOC Elevation (ft) [a,b]	TSCA Monitoring Frequency	RCRA Monitoring Frequency	Post-Closure Monitoring
WASTE MANAGEMENT AREA WMA-1						
La-2	713381.50	8266135.26	1037.74	Annual	Annual	Yes
2Ua-1	712177.95	8266132.81	1031.35	Annual	Semiannual	Yes
2U-2	712168.56	8266133.98	1031.39	Annual	Annual	Yes
3Q-1	711698.46	8265913.55	1027.28	Annual	Semiannual	Yes
3Q-2	711688.30	8265906.11	1027.36	Annual	Annual	Yes
3S-1	711649.76	8265331.87	991.57	Annual	Semiannual	Yes
3S-2	711649.23	8265321.93	990.86	Annual	Annual	Yes
3Ta-1	711780.29	8266107.22	1029.90	Annual	Semiannual	Yes
3T-2	711783.71	8266096.76	1030.26	Annual	Annual	Yes
5L-1	711656.26	8265469.62	1002.39	Annual	Semiannual	Yes
5L-2	711655.68	8265480.21	1002.85	Annual	Annual	Yes
5M-1	711689.41	8265721.27	1021.38	Annual	Semiannual	Yes
5M-2	711666.90	8265719.81	1019.23	Annual	Annual	Yes
5N-1	711930.00	8266133.57	1031.72	Annual	Semiannual	Yes
5N-2	711938.57	8266133.94	1031.92	Annual	Annual	Yes
5P-1	712673.72	8266058.07	1025.56	Annual	Semiannual	Yes
5P-2	712686.52	8266049.02	1024.90	Annual	Annual	Yes
5Q-1	712993.93	8266138.51	1035.65	Annual	Semiannual	Yes
5Q-2	713005.74	8266139.00	1035.81	Annual	Annual	Yes
5R-2	713176.05	8266137.78	1037.33	Annual	Annual	Yes
5S-1	713441.01	8266134.93	1037.87	Annual	Semiannual	Yes
6C-9	713801.00	8265639.00	1018.66	Not Required	Semiannual	No
WASTE MANAGEMENT AREA WMA-2						
3V-2	713104.08	8264349.12	1001.26	Annual	Annual	Yes
4H-1	714000.38	8265225.41	1021.43	Annual [c]	Semiannual [d]	Yes
4H-2	713999.85	8265214.75	1021.29	Annual [c]	Annual [c]	Yes
7A-1	713074.69	8264024.77	990.47	Annual	Semiannual	Yes
7A-2	713076.45	8264015.95	990.11	Annual	Annual	Yes
7B-1	713091.15	8264418.42	1003.59	Annual	Semiannual	Yes
7C-1	713103.22	8264745.81	1018.13	Annual	Semiannual	Yes
7C-2	713102.18	8264733.31	1017.38	Annual	Annual	Yes
7D-1	713082.85	8264881.81	1022.18	Annual	Semiannual	Yes
7D-2	713085.44	8264870.37	1021.72	Annual	Annual	Yes
2E-9	714386.23	8265469.54	1017.96	Not Required	Semiannual	No
3H-1	715031.29	8264077.75	1016.62	Not Required	Semiannual	No

Table X-1 (Cont.) (REV. 25)
Detection Monitoring Well Locations and Sampling Frequency

WASTE MANAGEMENT AREA WMA-3

Monitoring Well ID	Location [a] Northing	Easting	TOC Elevation (ft) [a,b]	TSCA Monitoring Frequency	RCRA Monitoring Frequency	Post-Closure Monitoring
3P-1	712209.42	8264785.41	1025.84	Not Required	Semiannual	Yes
3P-2	712211.09	8264794.07	1026.65	Not Required	Annual	Yes
3R-1	712204.75	8264256.48	1010.90	Not Required	Semiannual	Yes
3U-2	712206.37	8264530.24	1014.45	Not Required	Annual [c]	Yes
4B-1	712592.50	8265015.07	1027.88	Annual	Semiannual	Yes
4Ba-2	712581.78	8265015.06	1028.29	Annual	Annual	Yes
5A-1	712212.18	8264574.73	1017.04	Not Required	Semiannual	Yes
5A-2	712190.02	8264593.74	1017.41	Not Required	Annual	Yes
5B-1	712395.18	8265005.39	1026.36	Annual	Semiannual	Yes
5B-2	712321.89	8264986.63	1026.72	Annual	Annual	Yes
5D-1	712805.20	8264991.15	1033.34	Annual	Semiannual	Yes
5D-2	712825.81	8264994.29	1033.38	Annual	Annual	Yes
BACKGROUND WATER QUALITY WELLS						
6G-1	713699.93	8263511.11	995.70	Annual [c]	Semiannual [d]	Yes
6G-2	713709.26	8263512.21	995.87	Annual [c]	Semiannual [d]	Yes

Notes:

[a] RUST 1994 Survey; Oregon State Plane, North American Datum 1983-1991

[b] Top of casing elevation relative to mean sea level

[c] Quarterly for first 2 years of monitoring, then annual
[d] Quarterly for first 2 years of monitoring, then semiannual

TABLE X-2

Table X-2 (REV.25)
Piezometer Locations

Monitoring Well ID	Location [a]		TOC Elevation [b]	Aquifer Level
	Easting	Northing		
K-1	8264181.39	715712.29	1003.48	1
Va-1	8265656.61	711421.45	794.30	1
W9-1	8263032.76	713160.82	998.14	1
2Na-1	8264648.44	714468.80	983.89	1
2O-1	8265728.62	714993.49	1032.92	1
2Vb-1	8265035.42	713079.27	1030.23	1
2Wa-1	8265398.81	714177.28	1020.03	1
2X-1	8265124.28	711463.38	915.94	1
3A-1	8264557.93	712038.00	1012.61	1
3G-1	8264947.14	714300.29	1018.55	1
3I-1	8265611.36	714614.22	1009.28	1
3J-1	8265639.57	713970.21	1019.13	1
3O-1	8263981.08	712213.62	995.17	1
4P-1	8266115.12	713939.21	1038.98	1
Y-9	8264080.53	714843.09	1022.03	1 & 2
5U-9	8266018.49	714324.88	1037.76	1 & 2
5V-9	8265809.45	714405.50	1029.43	1 & 2

Table X-2 (cont.) (REV. 25)
Piezometer Locations

Monitoring Well ID	Location [a]		TOC Elevation [b]	Aquifer Level
	Easting	Northing		
C-2	8264187.28	715720.88	1004.45	2
F-2	8266048.01	715326.01	1048.33	2
G-2	8266127.52	712704.47	1024.31	2
I-2	8265065.70	715023.96	1010.78	2
J-2	8263466.71	712256.68	982.91	2
MW1-2	8264694.07	711538.99	930.84	2
Va-2	8265662.57	711426.10	912.25	2
W9-2	8263032.76	713160.82	998.19	2
X-2	8263481.30	712602.86	986.73	2
2B-2	8264724.72	715031.73	1008.12	2
2H-2	8264231.15	715047.16	1012.10	2
2I-2	8263904.32	714471.40	970.87	2
2O-2	8265728.62	714993.49	1032.95	2
2V-2	8265043.25	713084.27	1030.23	2
2W-2	8265398.63	714203.30	1018.37	2
2X-2	8265124.28	711463.38	915.95	2
3A-2	8264557.93	712038.00	1012.66	2
3F-2	8264216.78	714729.31	966.97	2
3G-2	8264947.47	714310.85	1018.31	2
3H-2	8265470.60	714396.38	1016.34	2
3I-2	8265610.45	714624.44	1010.16	2
3M-2	8264951.31	713766.84	1022.7	2
3O-2	8263990.41	712212.00	995.45	2
3Y-2	8265321.14	713083.81	1030.44	2
4Pa-2	8266105.95	713933.82	1037.78	2
6J-2	8263481.40	713020.15	994.58	2

Notes:
[a] Oregon State Plane System
[b] Top of casing elevation relative to mean sea level

ED_002469_00000090-00073

TABLE X-3

Table X-3 Detection Monitoring Program Groundwater Sampling Constituents and Parameters			
Volatile Organic Constituents	CAS #		
Benzene	71-43-2		
Bromodichloromethane	75-27-4		
Bromoform	75-25-2		
Bromomethane	74-83-9		
Carbon disulfide	75-15-0		
Carbon tetrachloride	56-23-5		
Chlorobenzene	108-90-7		
Chlorodibromomethane	124-48-1		
Chloroethane	75-00-3		
Chloroform	67-66-3		
Chloromethane	74-87-3		
Dichlorodifluoromethane	75-71-8		
Dichloroethane, 1,1-	75-34-3		
Dichloroethane, 1,2-	107-06-2		
Dichloroethene, 1,1-	75-35-4		
Dichloroethene, trans-1,2-	156-60-5		
Dichloropropane, 1,2-	78-87-5		
Dichloropropene, cis-1,3-	10061-01-5		
Dichloropropene, trans-1,3-	10061-02-6		
Dioxane, 1,4	123-91-1		
Ethyl benzene	100-41-4		
Hexachlorobutadiene	87-68-3		
Methylene chloride	75-09-2		
Tetrachloroethane, 1,1,2,2-	79-34-5		
Tetrachloroethene	127-18-4		
Toluene	108-88-3		
Trichloroethane, 1,1,1-	71-55-6		
Trichloroethane, 1,1,2-	79-00-5		
Trichloroethene	79-01-6	TSCA Constituents	
Trichlorofluoromethane	75-69-4	Aroclor 1016	12674-11-2
Vinyl chloride	75-01-4	Aroclor 1221	11104-28-2
Field Parameters		Aroclor 1232	11141-16-5
pH	NA	Aroclor 1242	53469-21-9
Specific Conductance	NA	Aroclor 1248	12672-29-6
Temperature	NA	Aroclor 1254	11097-69-1
Depth to Water	NA	Aroclor 1260	11096-82-5
Samples shall be collected, analyzed, and evaluated in accordance with the Permit			

and Standalone Document No.7, Groundwater Monitoring Plan.

TABLE X-4

Table X-4 (REV.19) Detection Monitoring Criteria	
Volatile Organic Constituents	**Criterion (µg/L)[1]**
Benzene	1
Bromodichloromethane	1
Bromoform	1
Bromomethane	2
Carbon disulfide	1
Carbon tetrachloride	1
Chlorobenzene	1
Chlorodibromomethane	1
Chloroethane	2
Chloroform	1
Chloromethane	2
Dichlorodifluoromethane	2
Dichloroethane, 1,1-	1
Dichloroethane, 1,2-	1
Dichloroethene, 1,1-	1
Dichloroethene, trans-1,2-	1
Dichloropropane, 1,2-	1
Dichloropropene, cis-1,3-	1
Dichloropropene, trans-1,3-	1
Dioxane, 1,4	20
Ethyl benzene	1
Hexachlorobutadiene	1
Methylene chloride	5
Tetrachloroethane, 1,1,2,2-	1
Tetrachloroethene	1
Toluene	1
Trichloroethane, 1,1,1-	1
Trichloroethane, 1,1,2-	1
Trichloroethene	1
Trichlorofluoromethane	2
Vinyl chloride	1

Table X-4 (cont)
Detection Monitoring Criteria

TSCA Constituents	**Criterion (µg/L)**[1]
Aroclor 1016	1 µg/L
Aroclor 1221	1 µg/L
Aroclor 1232	1 µg/L
Aroclor 1242	1 µg/L
Aroclor 1248	1 µg/L
Aroclor 1254	1 µg/L
Aroclor 1260	1 µg/L

Samples shall be collected, analyzed, and evaluated in accordance with the Permit and Standalone Document No.7, Groundwater Monitoring Plan.

[1]The criterion listed in this table for each constituent is the reporting limit specified in Standalone Document No. 7. Reporting limits shown in this table assume that no sample dilution is necessary. Actual reporting limits may be higher if dilution is necessary or blank contamination is detected.

[THIS PAGE INTENTIONALLY BLANK]

XI. GROUNDWATER COMPLIANCE MONITORING PROGRAM‡ Rev. 15

XI.A. Monitoring Well Locations

XI.A.1.

If a groundwater compliance monitoring program is established as provided in Article X, the Permittee shall maintain a groundwater compliance monitoring program as specified below at the locations for compliance monitoring that are listed in Table XI-1 of this Permit and displayed on Figure 1 of this Permit.

XI.B Well Construction, Maintenance, Replacement and Decommissioning

XI.B.1.

The Permittee shall maintain the monitoring wells identified in Permit Condition XI.A.1. in accordance with the Standalone Document No. 7, Groundwater Monitoring Plan [A.R. 06080] .

XI.B.2.

All new and replacement monitoring wells shall be drilled and constructed as approved by the Department. A well installation work plan shall be submitted to the Department, for approval, for all new and replacement monitoring wells. The Permittee may not begin drilling until Department approval has been granted. All new and replacement monitoring wells shall be designed, constructed, and installed in accordance with Oregon Water Resources Department rules OAR 690-240; and as appropriate, in general accordance with current guidance from the Department and the EPA for drilling and construction of groundwater monitoring wells. Minor changes to the well installation work plan shall not be considered a Permit modification.
The Permittee shall take all reasonable precautions during drilling to prevent cross contamination between any water-bearing hydrologic zone and the geologic zones overlying and underlying the hydrologic zone.

XI.B.3.

The Permittee shall maintain all monitoring wells in good working order, making necessary repairs in a timely manner so that sampling activities do not occur outside the sampling timeframes specified in Permit Condition XI.C.1.a. The Permittee shall maintain an adequate supply of replacement parts and repair equipment so that each groundwater sampling event [as defined in Permit Condition XI.C.1.a.] is not unreasonably delayed. The Permittee shall maintain a list of spare parts and equipment that will fulfill the terms of this Permit Condition. This list shall be approved by the Department. The Department's approval under this Permit Condition shall not be considered a permit modification.

XI.B.4.

The Permittee shall follow the procedures in Table 3-2 of the Standalone Document No. 3, Inspection Plan [A.R. 06080], and in Section 3.4 of Standalone Document No.7, Groundwater Monitoring Plan [A.R. 06080], for routine inspection of monitoring wells.

XI.B.5.

The Permittee shall maintain borehole integrity of each monitoring well identified in Permit Condition XI.A.1, as required by 40 CFR 264.97(c).

XI.B.6.

Any replacement monitoring wells that may be required during the life of this Permit shall be installed as close as appropriate and practicable to the monitoring well being taken out of service. If a monitoring well shall be replaced for any reason during the term of this Permit, it shall be replaced within 90 calendar days of the date taken out of service unless the Department approves a longer time period.

XI.B.7.

All new or replacement groundwater sampling pumps shall be dedicated bladder pumps unless the Department approves use of another type of pump or sampling device in writing. The Department's approval under this Permit Condition shall not be considered a permit modification.

XI.B.8.

All monitoring wells that require decommissioning shall be decommissioned in accordance with Oregon Water Resources Department rules OAR 690-240 and, as appropriate, in general accordance with current guidance from the Department and Environmental Protection Agency for decommissioning of groundwater monitoring wells. Written approval for monitoring well decommissioning is required from the Department. Monitoring well decommissioning documentation, as required by OAR 690-240-0510(6), shall be submitted to the Department within 60 calendar days after completion of decommissioning.

XI.B.9.

By written direction from the Department, the Permittee shall decommission monitoring wells identified in Permit Condition XI.A.1. that do not meet the requirements in 40 CFR 264.97(c). In determining whether to issue the written direction, the Department will consider the Permittee's evaluation, if any, for whether the monitoring well meets the requirements in 40 CFR 264.97(c).

XI.B.10.

The Permittee shall submit to the Department within 60 calendar days of installation of any new or replacement monitoring well (or group of monitoring wells), or decommissioning of an existing monitoring well (or group of monitoring wells), revised versions of Table XI-1 and Figure 1. The Permittee shall obtain a Permit modification for any new or replacement monitoring well.

XI.C. Program Operation

XI.C.1. Groundwater Sampling and Analysis

XI.C.1.a.

The Permittee shall obtain water quality samples from each compliance monitoring well listed in Table XI-1 of this Permit and displayed as a compliance monitoring well on Figure 1 of this Permit, at the frequencies designated on Table XI-1 of this Permit, in

accordance with the procedures in the Standalone Document No. 7, Groundwater Monitoring Plan [A.R. 06080]. Semiannual groundwater sampling events shall be started and finished in the months of March through May, and September through November, respectively, during each calendar year. The Permittee shall notify the Department within five (5) working days prior to the sampling event.

XI.C.1.b.

The Permittee shall analyze all groundwater samples obtained under Permit Condition

XI.C.1.a. for the constituents and parameters listed in Tables XI-2 and XI-3 of this Permit, using procedures specified in Standalone Document No. 7, Groundwater Monitoring Plan [A.R. 06080].

XI.C.1.c.

The Permittee shall triennially analyze the groundwater sampled from the compliance monitoring well with the highest total VOC concentration during the previous sampling event for all 40 CFR 264, Appendix IX constituents. Triennial sampling shall occur upon the commencement of compliance monitoring and every third year thereafter during the compliance period.

XI.C.1.c.i.

If any Appendix IX constituents are detected above the applicable detection monitoring criteria as specified in Permit Conditions X.D.1.a. and X.D.1.b. and these constituents are not already designated for compliance monitoring and listed in Tables XI-2 or XI-3 of this Permit, the Permittee may resample within 30 calendar days after receipt of the analytical laboratory's quality-assured data report and repeat the Appendix IX analysis for any new constituents not listed in Tables XI-2 or XI-3 that are detected above the applicable detection monitoring criteria. If the second analysis confirms the presence of new constituents above the applicable detection monitoring criteria, the Permittee shall report the concentrations of these detected constituents to the Department within 7 calendar days after receipt of the analytical laboratory's quality-assured data report for the second analysis.

XI.C.1.c.ii.

If the Permittee chooses not to resample, then the Permittee shall report the concentrations of the additional constituents detected above the applicable detection monitoring criteria to the Department within 7 calendar days after receipt of the analytical laboratory's quality-assured data report for the initial Appendix IX samples collected under Permit condition XI.C.1.c.

XI.C.1.c.iii.

The Permittee shall add any newly identified Appendix IX constituents under Permit Conditions XI.C.1.c.i. and XI.C.1.c.ii.to Table XI-3, if the concentration is above the-applicable detection monitoring criteria, and submit the revised Table XI-3 to the Department for inclusion into the Permit. For any new Appendix IX constituents without a groundwater concentration limit in Table XI-4, the Permittee shall develop a groundwater concentration limit modifying the Permit in accordance with 40 CFR 270.42.

XI.C.1.d.

Results of all analyses, including semiannual analyses, annual analyses, verification analyses, and Appendix IX analyses, shall be submitted to the Department within 45 calendar days after the Permittee's receipt of the analytical laboratory's quality-assured data report. In no case shall the period between the last date of sampling and the date of submission to the Department of analytical results exceed 90 calendar days unless the Department approves a longer time period. The Permittee shall document when the analytical laboratory's quality-assured data reports are received. The report submitted to the Department shall contain laboratory quality-assured results (as specified in Standalone Document No. 7, Groundwater Monitoring Plan [A.R. 06080] reported down to the method detection limit (MDL), and the reporting limit (RL) as specified in

Standalone Document No.7, Groundwater Monitoring Plan [A.R. 06080]. The MDL results are for informational purposes and will be discussed in the reports for each sampling event, as described in Standalone Document No.7, Groundwater Monitoring Plan [A.R. 06080].

XI.C.1.e.

Semiannual groundwater monitoring reports shall also include the information listed in Section 7.2 of Standalone Document No. 7, Groundwater Monitoring Plan [A.R. 06080].

XI.C.1.f.

The Permittee shall enter all monitoring, testing, and quality-assured analytical data obtained pursuant to Permit Condition XI.C. in the operating record as required by Permit Condition I.M. Upon written request by the Department, these results shall be submitted within 30 calendar days after the Permittee's receipt of the request, provided the Permittee has received the analytical laboratory's quality-assured data report.

XI.D. Data Evaluation

XI.D.1.

Groundwater Concentration Limit - For each hazardous constituent detected above the applicable detection monitoring criterion from results of analyses obtained pursuant to Permit Condition XI.C.1., the Permittee shall determine if the groundwater - concentration limit has been exceeded at any compliance monitoring well at the point of compliance using the following procedures:

XI.D.1.a.

Determine if the observed concentration of any constituent listed in Tables XI-2 and XI-3 of the Permit exceeds the groundwater concentration limit listed in Table XI-4 of the Permit for that constituent;.

XI.D.1.b.

[Reserved]

XI.D.1.c.

Cumulative Carcinogenic Risk Evaluation - Determine if the carcinogenic health risk associated with those detected hazardous constituents listed in Tables XI-2 and XI-3 of the Permit that are denoted as carcinogens ("C" Risk Category) contribute a cumulative risk greater than 1×10^{-5}. For the purposes of determining compliance with this condition, the Permittee shall compute the ratio of the detected concentration of the hazardous constituent divided by the risk based concentration for the hazardous constituent shown in Table XI-4. The Permittee shall determine if the Risk Index exceeds ten using Equation 1; and

XI.D.1.d.

Cumulative Toxicity Risk Evaluation - Determine if the toxicity associated with those detected hazardous constituents listed in Tables XI-2 and XI-3 of the Permit that are denoted as non-carcinogenic ("Tox" Risk Category) systemic toxicants contribute an aggregate hazard quotient (HQ) greater than one. For the purposes of determining compliance with this condition, the Permittee shall compute the individual constituent hazard index (HI) for those detected hazardous constituents by dividing the detected concentration of the hazardous constituent by the risk-based concentration for the hazardous constituent shown in Table XI-4. The Permittee shall determine if the Risk Index exceeds one using Equation 1.

Equation 1

$$RI = \frac{C_1}{RBC_1} + \frac{C_2}{RBC_2} + \bullet \bullet \bullet + \frac{C_n}{RBC_n}$$

where,

RI = Risk Index

Cn = Concentration of the nth constituent in groundwater (mg/L)

RBCn = Risk-based concentration for the nth constituent in groundwater (mg/L)

With Department approval, the Permittee may group detected hazardous constituents by similar toxic endpoints and perform the determination in Equation 1 separately for each group of detected hazardous constituents with similar toxic endpoints.

XI.D.2.

[Reserved]

XI.D.3.

[Reserved]

XI.D.4.

Upon a determination of hazardous constituents in any monitoring well exceeding the groundwater concentration limits as specified in Permit Condition XI.D.1., the Permittee shall:

XI.D.4.a.

Notify the Department of this finding in writing, within 7 calendar days after receipt of the analytical laboratory's quality-assured data report [40 CFR 264.99(h)1]; and,

XI.D.4.b.

Within 30 calendar days after this finding, collect two verification samples from any affected monitoring well(s), following the procedures identified in Standalone Document No. 7, Groundwater Monitoring Plan [A.R. 06080], and reanalyze the samples for all constituents that exceeded the limits as specified in Permit Condition XI.D.1. In no case shall the period between the date of the determination under Permit Condition XI.D.4. and the date of the submission to the Department of the analytical results for the sampling under this Permit Condition exceed 135 calendar days unless a written extension is granted by the Department.

XI.D.4.c.

The Permittee may elect to forgo verification sampling activities described under Permit Condition XI.D.4.b. and instead follow the requirements of Permit Condition XI.D.6.

XI.D.5.

If the analytical laboratory's quality-assured data results from the analyses in Permit Condition XI.D.4.b. show that:

XI.D.5.a.

The verification samples do not confirm the detection of hazardous constituents above the limits as specified in Permit Condition XI.D.1., the Permittee shall resume compliance monitoring according to the schedule in Permit Condition XI.C.1., need take no action under Permit

Condition XI.D.6., and shall notify the Department in writing that the compliance monitoring program is being resumed; or

XI.D.5.b.

One or both verification samples confirm the detection of constituents above the limits as specified in Permit Condition XI.D.1, the Permittee shall follow the requirements of Permit Condition XI.D.6.

XI.D.6.

The Permittee shall either:

XI.D.6.a.

Notify the Department in writing within 7 calendar days of determining that the groundwater concentration limit as specified in Permit Condition XI.D.1. has been exceeded at any compliance monitoring well as determined by Permit Condition XI.D.4. or XI.D.5.b., as appropriate. The notification shall indicate which limits have been exceeded. [40 CFR 264.99(h)(1)] The Permittee shall also follow the requirements specified in Permit Condition XI.D.8. or XI.E., as appropriate; or,

XI.D.6.b.

Submit to the Department a report demonstrating that a source other than a regulated unit or past practice unit caused the exceedance, or that the exceedance is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the groundwater; and in addition, when required or as provided by 40 CFR 264.99(i), an application for a permit modification to make any appropriate changes to the compliance monitoring program including changes to the groundwater concentration limits for which there was an exceedance. If the Permittee has performed verification sampling under Permit Condition XI.D.4.b., then the report shall be submitted within 90 calendar days after the Permittee's receipt of the analytical laboratory's quality-assured data report under Permit Condition XI.D.5.b. If the Permittee has elected to forgo verification sampling in accordance with Permit Condition XI.D.4.c., the report shall then be submitted within 90 calendar days after the Permittee's receipt of the analytical laboratory's quality-assured data report for the samples collected under Permit Condition XI.C.1.a.

XI.D.7.

If the Department determines that a report submitted in accordance with Permit Condition XI.D.6.b. fails to identify a source of contamination other than a regulated unit or past practice unit, or that the exceedance is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the groundwater or that any application for a permit modification to make changes to the groundwater concentration limits for which there was an exceedance has been denied, then the Permittee shall follow the requirements in Permit Condition XI.E. if the groundwater concentration limit(s) as specified in Permit Condition XI.D.1. is exceeded.

XI.E. Corrective Action Process

XI.E.1.

Upon exceedance of the groundwater concentration limit(s), as determined under the process in Permit Conditions XI.D.4. through XI.D.7., the Permittee shall send a written request to the Department's Eastern Region Environmental Cleanup Manager requesting a meeting. The

written request shall be sent within 15 calendar days after the notification date in Permit Condition XI.D.6.a. or the determination of the Department in Permit Condition XI.D.7. The written request shall also contain the following information:

XI.E.1.a.

Description of release with information known to date,

XI.E.1.b.

Description of Permittee's obligation to notify the Environmental Cleanup Manager about the release in accordance with this Permit, and

XI.E.1.c.

Description of Permittee's duty to initiate corrective action in accordance with this Permit if any groundwater concentration limit(s) is exceeded.

XI.E.2.

The Permittee shall meet with the Department's Eastern Region Environmental Cleanup Program within 45 calendar days after the date on the written notification sent in accordance with Permit Condition XI.E.1. unless the Department approves a longer time period. Such a meeting is intended to initiate development of a corrective action written agreement for the Facility.

XI.E.3.

The Permittee shall enter into a written agreement with the Department's Eastern Region Environmental Cleanup Program within 180 calendar days after the date on the written notification sent in accordance with Permit Condition XI.E.1. The agreement shall provide that any corrective action be implemented under OAR 340-122. The agreement shall also provide that in the event of disagreement between the Permittee and Department regarding whether any action under the agreement is consistent with or exceeds 40 CFR 264.90 to 264.101, the Permittee and Department shall make a good faith effort to resolve the dispute by taking the following actions: a) discussing the dispute between the Permittee's Environmental Manager and the Department's Project

Manager, b) if necessary, referring the dispute for resolution to the Permittee's Facility Manager and the Department's Cleanup Manager; and c) if necessary, providing each other their respective positions in writing and referring the dispute for resolution by the Department's Eastern Region Administrator, in consultation with the Permittee's Market Area Manager ‡ **Rev. 3**.

XI.E.4.

The agreement entered into under Permit Condition XI.E.3. shall be processed as a Class 3 Permit modification and shall be considered an enforceable Condition of this Permit.

XI.E.5.

During the course of the corrective action agreement, the Department may determine it necessary to revise the agreement or corrective action activities conducted under the agreement. Changes to the agreement, or corrective action activities conducted under the agreement that are implemented after the effective date of this Permit may require a modification to the Permit. The Permittee shall notify the Manager in writing at least 30 days prior to any planned changes to the agreement or corrective action activities conducted under the agreement. Upon notification by

the Permittee, the Manager will determine whether or not a Permit modification will be needed. If a Permit modification is needed, the Manager shall so notify the Permittee, and upon receipt of such notice, the Permittee shall proceed with a Permit modification in accordance with the procedures set forth in 40 CFR 270.41 and 270.42, incorporated by reference under OAR 340-100-0002 and as modified by OAR -105-0041 and OAR 340-106-0005. In accordance with 40 CFR 270.42(e), as incorporated by reference under OAR 340-100-0002, the Permittee may seek, and the Manager may grant, temporary authorization to implement changes to the agreement or corrective action activities conducted under the agreement prior to the final approval of a Permit Modification.

XI.E.6.

The agreement or corrective action activities conducted under the agreement may be modified at any time under the Department's Environmental Cleanup Program authority pursuant to the agreement, provided the Permittee complies with the requirements of XI.E.5. The Department's Environmental Cleanup Program authority to implement changes to the agreement, or corrective action activities conducted under the agreement, shall not be restricted or hindered by any requirements to modify this Permit. Changes approved under the Department's Environmental Cleanup program authority and implemented by the Permittee shall not be a violation of any condition of this Permit or any requirement to modify this Permit provided the Permittee complies with the requirements of X.E.5.

XI.E.7

The requirement to modify this Permit to accommodate changes in the agreement or corrective action conducted under the agreement shall not be in any way interpreted or deemed to replace, supersede, supplant, modify, or amend the Permittee's right to dispute resolution under the agreement.

XI.E.8.

If, after the conclusion or stabilization of corrective action activities, either the Permittee or the Department determines that the Facility should return to a compliance monitoring program, the Permittee must submit a permit modification request to institute a renewed compliance monitoring program under this Permit.

XI.E.9.

For any specific compliance monitoring program that has demonstrated an exceedance of the groundwater concentration limit(s), as determined under the process in Permit Conditions XI.D.4. through XI.D.7., the Permittee shall continue with that specific groundwater compliance monitoring program as specified in Section XI of this Permit until there is a written agreement for corrective action in effect. Unless the corrective action written agreement provides otherwise, the Permittee shall continue the groundwater compliance monitoring program as set forth in Section XI of this Permit after the corrective action agreement is in place.

XI.F. Post Closure Monitoring

XI.F.1.

All procedures described in Section XI of this Permit shall apply to the post-closure care period, as well as the active life period of each regulated unit or waste management area.

XI.G. Request for Permit Modification

XI.G.1.

If the Permittee determines the compliance monitoring program no longer satisfies the requirements of 40 CFR 264.99, then within 90 calendar days the Permittee shall submit an application for a permit modification to make any appropriate changes to the compliance monitoring program. [40 CFR 264.99(j)]

XI.G.2.

If the Permittee demonstrates that concentrations at all compliance monitoring wells identified in Table XI-1 of the Permit are below the detection monitoring criteria as specified in Permit Condition IX.D.1. for a period of three consecutive years, the Permittee may submit an application for a permit modification to modify the groundwater compliance monitoring program.

TABLE XI-1

Table XI-1 [Reserved] Compliance Monitoring Program Compliance Monitoring Wells					
Point of Compliance	Location		Frequency of Sampling and Analysis		
Well Name	Northing	Easting	Table XI-2 Analysis	Table XI-3 Analysis	Appendix IX Analysis*
Notes: See Permit Condition XI.C. for compliance monitoring requirements. Datum is the Oregon State Plane Coordinate System. *Sampling for Appendix IX constituents is required triennially at one compliance well, the well that had the highest total VOC concentration during the most recent sampling event.					

TABLE XI-2

Table XI-2 [Reserved]

Compliance Monitoring Program

Semi-Annual Monitoring Constituent List

Hazardous Constituent	CAS #	Hazardous Constituent	CAS #

Notes:

Samples shall be collected, analyzed, and evaluated in accordance with the Permit and Standalone Document No.7, Groundwater Monitoring Plan.

For a given compliance monitoring well, the semi-annual monitoring constituent list will consist of any VOCs confirmed under Permit Conditions X.D.2. through X.D.3.b. to exceed the applicable criteria specified in Permit Condition X.D.1. at the well.

TABLE XI-3

Table XI-3 [Reserved]

Compliance Monitoring Program

Supplemental Annual Appendix IX Constituent List

Hazardous Constituent	CAS #

Notes:

Samples shall be collected, analyzed, and evaluated in accordance with the Permit and Standalone Document No.7, Groundwater Monitoring Plan.

For a given compliance monitoring well, the supplemental annual Appendix IX constituent list will consist of any Appendix IX constituents not listed in Table XI-2 that are confirmed under Permit Condition XI.C.

TABLE XI-4

Table XI-4
Compliance Monitoring Program
Constituent-Specific Groundwater Concentration Limits [in (mg/l)]

Hazardous Constituent	CAS[1] Number	Groundwater Concentration Limit[2]	Risk Category[3]	Risk-Based Concentration for Cumulative Risk Evaluation [4]
Acenaphthene	83-32-9	0.0424	Tox	1,825
Acetone	67-64-1	10,000	Tox	27,400
Acetophenone	98-86-2	61	Tox	3,040
Acetonitrile	75-05-8	5,150	Tox	515
Acrolein	107-02-8	2.1	Tox	0.2100
Acrylonitrile	107-13-1	1.915	C, Tox	0.1915
Aldrin	309-00-2	0.0018	C, Tox	0.0167
Allyl Chloride	107-05-1	36	Tox	9,125
Aniline	62-53-3	0.01**	C, Tox	49.8051
Anthracene	120-12-7	0.01**	Tox	9,125
Aramite	140-57-8	0.001	C, Tox	11.3556
Benzene	71-43-2	17.5	C, Tox	25
Benzo[a]anthracene	56-55-3	0.01**	C	0.3889
Benzo[b]fluoranthene	205-99-2	0.01**	C	0.3889
Benzo[k]fluoranthene	207-08-9	0.01**	C	3.8889
Benzo[a]pyrene	50-32-8	0.01**	C	10
Benzyl Alcohol	100-51-6	429	Tox	54,750
Bis(2-Chloroethyl) Ether	111-44-4	0.5006	C	0.0501
Bis(2-Chloro-1-Methylethyl) Ether	108-60-1	0.0129	C	0.0013
Bis(2-ethylhexyl) Phthalate (DEHP)	117-81-7	0.01**	C, Tox	20.2778
Bromodichloromethane	75-27-4	67.4	C, Tox	400
Bromoform	75-25-2	31	C, Tox	400
Bromomethane	75-83-9	152	Tox	43.3500
Butyl Benzyl Phthalate	85-68-7	0.0269	Tox	36,500
Carbon Disulfide	75-15-0	11.9	Tox	5,214.2857

Table XI-4
Compliance Monitoring Program
Constituent-Specific Groundwater Concentration Limits [in (mg/l)]

Hazardous Constituent	CAS[1] Number	Groundwater Concentration Limit[2]	Risk Category[3]	Risk-Based Concentration for Cumulative Risk Evaluation [4]
Carbon Tetrachloride	56-23-5	7.93	C, Tox	25
Chlordane	57-74-9	0.00056	C, Tox	10
Chloroaniline, p- (4-Chloroaniline)	106-47-8	53	Tox	730
Chlorobenzene	18-90-7	4.72	Tox	500
Chlorobenzilate	510-15-6	0.10	C, Tox	1.0514
Chlorodibromomethane (Dibromochloromethane)	124-48-1	26	C, Tox	400
Chloroethane	75-0-3	57	C, Tox	19.75
Chloroform	67-66-3	79.2	C, Tox	400
Chloromethane	74-87-3	64.5	C, Tox	11.40
Chloronaphthalene, 2- (beta-Chloronaphthalene)	91-58-7	0.12	Tox	2,435
Chlorophenol, 2-	95-57-8	220	Tox	152
Chloroprene (2-Chloro-1,3-Butadiene)	126-99-8	220	Tox	71.5
Chrysene	218-01-9	0.01**	C	38.8890
Cresol, o-(2-Methylphenol)	95-48-7	260	Tox	9,125
Cresol, m- (3-Methylphenol)	108-39-4	180	Tox	9,125
Cresol, p- (4-Methylphenol)	106-44-5	180	Tox	915
DDD	72-54-8	0.0009	C	1.1829
DDE	72-55-9	0.0012	C	0.835
DDT	50-29-3	0.00025	C, Tox	0.835
Diallate	2303-16-4	0.14	C	4.6539
Dibenz[a,h]anthracene	53-70-3	0.01**	C	0.0389
Dibenzofuran	132-64-9	0.031	Tox	61
Dibromo-3-Chloropropane, 1,2-(DBCP)	96-12-8	10.0*	C, Tox	1.0

Table XI-4
Compliance Monitoring Program
Constituent-Specific Groundwater Concentration Limits [in (mg/l)]

Hazardous Constituent	CAS[1] Number	Groundwater Concentration Limit[2]	Risk Category[3]	Risk-Based Concentration for Cumulative Risk Evaluation [4]
Dibromoethane, 1,2- (Ethylene Dibromide, EDB)	106-93-4	2.5	C,Tox	0.25
Dichlorobenzene, 1,2- (o-Dichlorobenzene)	95-50-1	1.56	Tox	3,000
Dichlorobenzene, 1,3- (m-Dichlorobenzene)	541-73-1	1.56	Tox	72.5
Dichlorobenzene, 1,4- (p-Dichlorobenzene)	106-46-7	0.74	C,Tox	375
Dichlorobenzidine, 3,3-	91-94-1	0.05**	C	0.6309
Dichlorodifluoromethane	75-71-8	2.8	Tox	1,970
Dichloroethane, 1,1-	75-34-3	50.6	Tox	3,990
Dichloroethane, 1,2-	107-6-2	85.2	C, Tox	25
Dichloroethene, 1,1-	75-35-4	22.5	Tox	35
Dichloroethene, cis-1,2	156-59-2	35	Tox	350
Dichloroethene, trans-1,2	156-60-5	63	Tox	500
Dichlorophenol, 2,4-	120-83-2	45	Tox	547.5
Dichlorophenoxyacetic Acid, 2,4- (2,4-D)	94-75-7	4	Tox	350
Dichloropropane, 1,2-	78-87-5	28	C, Tox	25
Dichloropropane, cis-1,3-	10061-1-5	18.25	C, Tox	1.825
Dichloropropane, trans-1,3-	10061-2-6	18.25	C,Tox	1.825
Dieldrin	60-57-1	0.00195	C, Tox	0.0177
Diethyl Phthalate	84-66-2	10.80	Tox	146,000
Dimethoate	60-51-5	238	Tox	36.5
Dimethylbenzidine, 3,3'-	119-93-7	1.2343	C	0.1234
Dimethylphenethylamine, alpha, alpha-	122-09-8	180	Tox	182.5
Dimethylphenol, 2,4-	105-67-9	78.7	Tox	3,650
Dimethyl Phthalate	131-11-3	42.9	Tox	1,825,000

Table XI-4
Compliance Monitoring Program
Constituent-Specific Groundwater Concentration Limits [in (mg/l)]

Hazardous Constituent	CAS[1] Number	Groundwater Concentration Limit[2]	Risk Category[3]	Risk-Based Concentration for Cumulative Risk Evaluation [4]
Di-n-Butyl Phthalate (Dibutyl Phthalate)	84-74-2	0.112	Tox	18,250
Di-n-Octyl Phthalate	117-84-0	0.01**	Tox	7,300
Dinitrobenzene, 1,3-	99-65-0	4.69	Tox	18.25
Dinitro-o-Cresol, 4,6- (4,6-Dinitro-2-methylphenol)	534-52-1	1.28	Tox	18.25
Dinitrophenol, 2,4-	51-28-5	27.9	Tox	365
Dinitrotoluene, 2,4-	121-14-2	2.70	Tox	365
Dinitrotoluene, 2-6-	606-20-2	1.82	Tox	182.5
Dinoseb	88-85-7	0.52	Tox	35
Dioxane, 1,4-	123-91-1	52*	C	5.2
Diphenylamine	122-39-4	0.53	Tox	4,565
Disulfoton	298-04-4	0.163	Tox	7.3
Endrin	72-20-8	0.0025	Tox	10
Ethylbenzene	100-41-4	1.69	Tox	3,500
Ethyl Methacrylate	97-63-2	0.20	Tox	2,740
Fluoranthene	206-44-0	0.01**	Tox	7,300
Fluorene	86-73-7	0.0198	Tox	1,215
HCH alpha (alpha-BHC)	319-84-6	0.05**	C, Tox	0.0451
HCH beta (beta-HCH)	319-85-7	0.05**	C, Tox	0.1577
HCH gamma (gamma-BHC, Lindane)	58-89-9	0.068	C, Tox	1.0
Heptachlor	76-44-8	0.0018	C, Tox	0.25
Heptachlor Epoxide	1024-57-3	0.002	C, Tox	1.0
Hexachlorobenzene	118-74-1	0.062	C, Tox	5.0
Hexachlorobutadiene	87-68-3	0.0323	C, Tox	55
Hexachlorocyclopentadiene	77-47-4	0.018	Tox	250
Hexachloroethane	67-72-1	0.50	C, Tox	20.2778
Hexachlorophene	70-30-4	1.40	Tox	55

Table XI-4
Compliance Monitoring Program
Constituent-Specific Groundwater Concentration Limits [in (mg/l)]

Hazardous Constituent	CAS[1] Number	Groundwater Concentration Limit[2]	Risk Category[3]	Risk-Based Concentration for Cumulative Risk Evaluation [4]
Indeno [1,2,3-cd]pyrene	193-39-5	0.01**	C	0.3889
Isobutyl Alcohol (Isobutanol)	78-83-1	850	Tox	9,125
Isophorone	78-59-1	120	C,Tox	289.8304
Kepone	143-50-0	0.3549	C, Tox	0.0355
Methacrylonitrile	126-98-7	52	Tox	5.2
Methoxychlor	72-43-5	0.00045	Tox	200
Methyl Ethyl Ketone (2-Butanone)	78-93-3	2200	Tox	34,840
Methyl Methacrylate	80-62-6	141	Tox	7,100
Methyl Parathion	298-00-0	0.55	Tox	4565
Methyl-2-Pentanone, 4-	108-10-1	190	Tox	9,950
Methylene Bromide (Dibromomethane)	74-95-3	117	Tox	304
Methylene Chloride	75-09-2	130	C, Tox	25
Naphthalene	91-20-3	0.31	Tox	31
Nitroaniline, 2-Methyl-5- (5-Nitro-o-toluidine)	99-55-8	86.0269	C	8.6027
Nitroaniline, 2- (o-Nitroaniline)	88-74-4	12.6	Tox	550
Nitroaniline, 3- (m-Nitroaniline)	99-09-2	8.90	C, Tox	13.5185
Nitroaniline, 4- (p-Nitroaniline)	100-01-6	8.0	C, Tox	13.5185
Nitrobenzene	98-95-3	20.9	Tox	17
Nitrophenol, 4-(p-Nitrophenol)	100-02-7	0.0804	Tox	1,460
N-Nitrosodi-n-butylamine	924-16-3	0.1030	C	0.0103
N-Nitroso di-n-propylamine	621-64-7	0.4056	C	0.0406
N-Nitrosodiethylamine	55-18-5	0.0189	C	0.0019
N-Nitrosodimethylamine	62-75-9	0.0557	C, Tox	0.0056

Table XI-4
Compliance Monitoring Program
Constituent-Specific Groundwater Concentration Limits [in (mg/l)]

Hazardous Constituent	CAS[1] Number	Groundwater Concentration Limit[2]	Risk Category[3]	Risk-Based Concentration for Cumulative Risk Evaluation [4]
N-Nitrosodiphenylamine	86-30-6	0.351	C, Tox	57.9365
N-Nitroso-N-methylethylamine (N-Nitrosomethylethylamine)	10595-95-6	0.1290	C	0.0129
N-Nitrosopyrrolidine	930-55-2	1.3519	C	0.1352
Parathion	56-38-2	0.103	Tox	1,095
PCB Aroclor 1016	12674-11-2	0.007	C, Tox	2.5
PCB Aroclor 1221	11104-28-2	0.007	C, Tox	2.5
PCB Aroclor 1232	11141-16-5	0.007	C, Tox	2.5
PCB Aroclor 1242	53469-21-9	0.007	C, Tox	2.5
PCB Aroclor 1248	12672-29-6	0.007	C, Tox	2.5
PCB Aroclor 1254	11097-69-1	0.007	C, Tox	2.5
PCB Aroclor 1260	11096-82-5	0.007	C, Tox	2.5
Pentachlorobenzene	608-93-5	2.40	Tox	146
Pentachloronitrobenzene	82-68-8	0.05**	Tox	1.0919
Pentachlorophenol	87-86-5	19.5	C, Tox	5
Phenol	108-95-2	828	Tox	54,750
Phenylenediamine, p- (4-Phenylenediamine)	106-50-3	380	Tox	34,675
Phorate	298-02-2	0.50	Tox	36.5
Pronamide	23950-58-5	0.15	Tox	13,690
Pyrene	129-00-0	0.01**	Tox	915
Pyridine	110-86-1	1,825	Tox	182.5
Silvex; 2-(2,4,5-Trichlorophenoxy) Propionic Acid	93-72-1	1.40	Tox	1,460
Styrene	100-42-5	3.10	Tox	500
T, 2,4,5- (2,4,5-Trichlorophenoxyacetic Acid)	93-76-5	2.20	Tox	1,825

Table XI-4
Compliance Monitoring Program
Constituent-Specific Groundwater Concentration Limits [in (mg/l)]

Hazardous Constituent	CAS[1] Number	Groundwater Concentration Limit[2]	Risk Category[3]	Risk-Based Concentration for Cumulative Risk Evaluation [4]
TCDD 2,3,7,8- (Dioxin)	1746-01-6	0.000193	C	0.0002
Tetrachlorobenzene, 1,2,4,5-	95-94-3	0.003	Tox	55
Tetrachloroethane, 1,1,1,2-	630-20-6	22.0914	C, Tox	2.2091
Tetrachloroethane, 1,1,2,2-	79-34-5	2.83*	C, Tox	0.283
Tetrachloroethene	127-18-4	2	C, Tox	25
Tetrachlorophenol, 2,3,4,6-	58-90-2	10	Tox	5,475
Tetraethyl Dithiopyrophosphate (Sulfotepp)	3689-24-5	0.25	Tox	91.5
Toluene	108-88-3	5.26	Tox	5,000
Toluidine, o-(2-Methylaniline)	95-53-4	11.8287	C	1.1829
Toxaphene	8001-35-2	0.0074	C	15
Trichlorobenzene, 1,2,4-	120-82-1	3	Tox	350
Trichloroethane, 1,1,1-	71-55-6	13.3	Tox	1,000
Trichloroethane, 1,1,2-	79-0-5	44.2	C, Tox	25
Trichloroethene	79-1-6	11	C, Tox	25
Trichlorofluoromethane	75-69-4	11	Tox	6,441
Trichlorophenol, 2,4,5-	95-95-4	12	Tox	250
Trichlorophenol, 2,4,6-	88-06-2	8	C, Tox	18.25
Trichloropropane, 1,2,3-	96-18-4	0.0818	C, Tox	0.0082
Trinitrobenzene, 1,3,5- (sym-trinitrobenzene)	99-35-4	3.50	Tox	5,475
Vinyl Acetate	108-05-4	200	Tox	2,060
Vinyl Chloride	75-1-4	27.6	C, Tox	10
Xylenes	1330-20-7	1.10	Tox	50,000
Antimony	7440-36-0	300	Tox	30
Arsenic	7440-38-2	500	C, Tox	50

Table XI-4
Compliance Monitoring Program
Constituent-Specific Groundwater Concentration Limits [in (mg/l)]

Hazardous Constituent	CAS[1] Number	Groundwater Concentration Limit[2]	Risk Category[3]	Risk-Based Concentration for Cumulative Risk Evaluation [4]
Barium	7440-39-3	100,000	Tox	10,000
Beryllium	7440-41-7	200	Tox	20
Cadmium	7440-43-9	250	Tox	25
Chromium VI	18540-29-9	5,000	Tox	500
Cobalt	7440-48-4	36,500	Tox	3,650
Copper	7440-50-8	65,000	Tox	6,500
Cyanide (free)	57-12-5	10,000	Tox	1,000
Lead	7439-92-1	750	Tox	75
Mercury	7487-94-7	100	Tox	10
Nickel	7440-02-0	36,500	Tox	3,650
Selenium	7782-49-2	2,500	Tox	250
Silver	7440-22-4	9,125	Tox	913
Thallium	7440-28-0	100	Tox	10
Tin	7440-31-5	1,000,000	Tox	109,500
Vanadium	7440-62-2	1,825	Tox	183
Zinc	7440-66-6	547,500	Tox	54,750

Notes:

[1]CAS = Chemical Abstract Services

[2]These groundwater concentration limits for organic hazardous constituents are based on one percent of the aqueous solubility limit for each hazardous constituent and are used as alternate concentration limits (ACLs) under 40 CFR 264.98. Where one percent of the aqueous solubility limit for a hazardous constituent exceeds the ACL (without the 10 percent safety factor) as determined in *Demonstration Report: Development of Sitewide Alternate Concentration Limits in Groundwater* (CWM and CH2M Hill 2007), the determined ACL is used (shown with an asterisk * in the table). Also, where one percent of the aqueous solubility limit for a hazardous constituent is less than the reporting limit for the hazardous constituent, the reporting limit is used (shown with two asterisks** in the table). The groundwater concentration limits for inorganic hazardous constituents are the ACLs (without the 10 percent safety factor and capped at one million parts per million where necessary).
[3] C = Carcinogenic; Tox = Noncarcinogenic (i.e., systemic toxicant)
[4]The risk-based concentrations for the Selah Member are based on the RBC for carcinogenic and non-carcinogenic ACLs, whichever is the lower concentration limit, times the 10 percent safety factor. These values will be used, if compliance monitoring becomes necessary, to assess the cumulative risk posed by detected constituents in groundwater. The values are not artificially capped because doing so would bias the cumulative risk calculation and not allow an accurate evaluation of cumulative risk to be completed.

[THIS PAGE INTENTIONALLY BLANK]

XII. CORRECTIVE ACTION

All historic hazardous waste operations at Permittee's Facility have been authorized and regulated by the Department pursuant to permits. Both EPA and the Department have investigated and evaluated the Permittee's Facility for the presence of any unidentified solid waste management unit (SWMU) including from December 1985 through April 1989 and in 2002. Neither EPA nor the Department has identified the presence of a SWMU that has not been regulated by this Permit or previous permit issuance. Permit Conditions in this Section XII are included as a precautionary matter should a new SWMU be identified in the future. ‡ **Rev. 3**

XII.A Standard Conditions

XII.A.1.

ORS 466.105(10) and 40 CFR 264.101 require that hazardous waste Permits address corrective action for releases of hazardous wastes including hazardous constituents from any solid waste management unit (SWMU) at the Facility, regardless of when the waste was placed in the unit.

XII.A.2.

All future plans and schedules required by this section of this Permit, including plans and schedules pursuant to Permit Condition XII.A.5., are upon approval by the Department, incorporated into this Permit by reference. Extensions of the due dates for submittals may be granted by the Manager either in writing or in accordance with 40 CFR 270.41 or 40 CFR 270.42.

XII.A.3.

[Reserved]

XII.A.4.a.

Any release of a hazardous constituent into the environment from any solid waste management units (SWMUs) which is not a Permitted unit or a past practice unit, as defined in Permit Condition IX.A, shall require the Permittee to notify in writing the Department's Eastern Region Hazardous Waste Program Manager within 15 days of discovery.

XII.A.4.b.

The Department shall review the notification and provide an opportunity for the Permittee to comment before deciding if the release should be referred to the Department's Eastern Region Clean-up program. ‡ **Rev. 3**

XII.A.5.

All referred corrective action activity initiated from Permit Condition XII.A. 4. shall be implemented by the Department's Clean-up Program pursuant to an agreement with provisions as set forth in Permit Condition IX.E.3. ‡ **Rev. 3**

XII.B NOTIFICATION REQUIREMENTS FOR AND ASSESSMENT OF NEWLY--IDENTIFIED SOLID WASTE MANAGEMENT UNITS

XII.B.1.

The Permittee shall notify the Hazardous Waste Program Manager of any newly-identified SWMU found at the Facility which is not a SWMU previously identified in the administrative record. Such written notification shall be made within 15 days of discovery.

XII.B.2.

After such notification, the Hazardous Waste Manager may request in writing that the Permittee prepare a SWMU Assessment Plan and a proposed schedule of implementation and completion of the Plan for any newly-identified SWMU discovered after the effective date of this Permit. The Permittee shall submit the SWMU Assessment Plan to the Department's Eastern Region Hazardous Waste Manager.

XII.B. 3.

After the Permittee submits the SWMU Assessment Plan, the Eastern Region Hazardous Waste Manager shall either approve or disapprove the Plan in writing. If the Manager approves the Plan, the Permittee shall begin to implement the Plan within 30 calendar days after receiving such written approval. If the Manager disapproves the Plan, the Manager shall notify the Permittee in writing of the Plan's deficiencies and specify a due date for submittal of a revised Plan. If the Manager approves the revised Plan the Permittee shall implement the Plan after 30 calendar days of receiving written approval. The Manager's approval of a plan shall not be considered a modification of this Permit.

XII.C. Additional Corrective Action Permit Conditions

XII.C.1.

Unless otherwise approved by the Department after consultation with the Permittee, prior to decommissioning any monitoring well or piezometer that is not routinely sampled in the detection or compliance monitoring programs at the Facility, the Permittee shall assess the potential for the monitoring well or piezometer to have acted as a vertical conduit for migration of contamination from the vadose zone to groundwater. This assessment shall consider, at a minimum, the proximity of the monitoring well or piezometer to unlined landfill areas and previously closed Solid Waste Management Units. If the Department reasonably determines based on the above assessment that a potential exists for migration of contamination from the vadose zone to groundwater, the Permittee shall collect a groundwater sample from the monitoring well or piezometer to be decommissioned in accordance with procedures in Standalone Document No. 7, Groundwater Monitoring Plan [A.R. 06080] and analyze the sample for the constituents and parameters listed in Table IX-3 and report the analytical results to the Department.

[THIS PAGE INTENTIONALLY BLANK]

XIII. AMENDMENTS TO STANDALONE DOCUMENTS

XIII.A. Amendments to the Waste Analysis Plan [Standalone No. 1]‡ Rev. 4

XIII.B. Amendments to the Security Procedures, Hazard Prevention, Training Plan [Standalone No. 2]

[Reserved]

XIII.C. Amendments to the Inspection Plan [Standalone No. 3]

XIII.C.1.‡ **Rev. 4**

XIII.D. Amendments to the Contingency Plan [Standalone No. 4]

[Reserved]

XIII.E. Amendments to the Closure/Post-Closure Plan, Cost Estimates, Financial Assurance, Insurance [Standalone No. 5]

[Reserved]

XIII.G. Amendments to the Groundwater Monitoring Plan [Standalone No. 7]

[Reserved]

XIII.H. Amendments to the Bulk Liquid Storage/Treatment Plan, [Standalone No. 8]

[Reserved]

XIII.I. Amendments to the Container Storage Design and Operations Plan [Standalone No. 9]

[Reserved]

XIII.J. Amendments to the Stabilization/Chemical Treatment Plan [Standalone No. 10]

[Reserved]

XIII.K. Amendments to the Debris Treatment Plan [Standalone No. 11]

[Reserved]

XIII.L. Amendments to the Containment Building Design and Operations Plan [Standalone No. 12]

XIII.L.1. ‡ **Rev. 4**

XIII.L.2. ‡ **Rev. 4**

XIII.M. Amendments to the <u>Surface Impoundments Design and Operations Plan</u> [Standalone No. 13]

[Reserved]

XIII.N. Amendments to the Landfill Design and Operations Plan [Standalone No. 14]

[Reserved]

XIII.O. Amendments to the Landfill Response Action Plans [Standalone No. 15]

[Reserved]

XIII.P. Amendments to the Construction Quality Assurance Plan [Standalone No. 16]

XIII.P.1.

Before any additional landfill L-14 cells are constructed, or and new lined hazardous waste unit is constructed, the Permittee shall submit a project-specific Quality Assurance Plan (QAP), as described in Section 1.1 in Standalone Document No. 16, in accordance with 40 CFR 270.42. No construction may begin until the Department approves the modification.

XIII.P.2.

The Permittee may only use a Geosynthetic Installer, as described in section 1.2.5 of Standalone Document No. 16, that has a minimum experience of installing 10,000,000 ft^2 of geosynthetic material.

XIII.P.3.

Before the Permittee constructs an engineered soil liner, using soils that are different, or characteristically different, than the soil liners at landfill L-12 or L-13, the Permittee shall submit for Department approval an in-situ permeability test in accordance with 40 CFR 270.42. The Permittee may not begin emplacement of the soil liner until the Department approves in writing the results of the in-situ test.

XIII.P.4.

Regardless of any statement in Standalone Document No. 16, the Permittee shall include in project-specific QAPs (as described in section 1.1 of Standalone Document No. 16) mandatory conformance testing for all geosynthetic materials used in the project.

XIII.P.5.

Section 9.7.4A on page 9-11A of Standalone Document No. 16 Construction Quality Assurance Plan, first paragraph, second sentence, shall read, "Such trial seams shall be made at the beginning of each seaming period, and at least once each five hours, for each production seaming apparatus and for each seaming personnel used that day."

XIII.P.6.

Section 9.9.2A on page 9-16A of Standalone Document No. 16, Construction Quality Assurance Plan, first bulleted item, shall read, "A minimum frequency of one test location per 500 ft (152 m) of production seam length performed by each welding machine. This frequency is to be determined as an average taken throughout the entire facility."

XIII.P.7.

Section 13.7 on page 13.7 of Standalone Document No. 16 Construction Quality Assurance Plan, last paragraph, third sentence, shall read, "The hydrated material shall be covered with new dry GCL material, removed and replaced with new dry GCL material."

XIII.Q. Amendments to the Landfill Final Cover Design Plan [Standalone No. 17]

[Reserved]

XIII.R. Amendments to the Landfill Design Drawings [Standalone No. 18]

[Reserved]

XIII.S. Amendments to the Bioremediation Facility and Organic Recovery Unit Design and Operations Plan [Standalone No. 19]

XIII.S.1‡ **Rev. 4**

[THIS PAGE INTENTIONALLY BLANK]

XIV. PCB DISPOSAL PERMIT

XIV.A. PCB Disposal Permit Facility Establishment

This section of the hazardous waste document is a separate PCB disposal facility permit from the hazardous waste Permit in Sections I through XII. Attached to the Hazardous Waste Permit, this Section XIV is the Permit for PCB storage, treatment and disposal at the Chemical Waste Management of the Northwest, Inc., facility located near Arlington in Gilliam County. This PCB disposal facility permit could have been issued as a separate document, but, for efficiency, it is attached to the hazardous waste permit so that the requirements for storage, treatment and disposal of hazardous waste and storage, treatment and disposal of PCB are in one volume.

This PCB disposal facility Permit is issued in accordance with ORS 466.065 and 466.250 through 466.355, and the rules promulgated at OAR Chapter 340 Division 110 and consistent with the Toxic Substance Control Act and the regulations promulgated at 40 CFR Part 761. This permit issuance terminates permit license HW-1 issued in 1980.

This Permit shall be identified as PCB-1 and is effective as of August 21, 2006, and shall remain in effect until August 21, 2016, unless revoked and reissued, terminated, or continued in accordance with OAR 340-105-0051.

Issued To:

Chemical Waste Management of the Northwest, Inc.

17629 Cedar Springs Lane

Arlington, OR 97812

Issued By:

_____ _____

Lynn Hampton, Chair Date

Oregon Environmental Quality Commission

_____ _____

Joni Hammond, Regional Administrator Date

Oregon Department of Environmental Quality

State of Oregon
Department of
Environmental
Quality

XIV.B. Standard Conditions

XIV.B.1. Effect of Permit

The Permittee is authorized to store, to treat and to dispose PCB or PCB items in accordance with the Conditions of this Permit. Any disposal of PCB or PCB items by the Permittee at this Facility that is not authorized by this Permit and for which a Permit is required under Section 6 of TSCA and ORS 466.255 is prohibited. The definitions found in OAR 340-100-0010 and OAR 340-110-0003 are incorporated into this Permit.

XIVI.B.2. Personal and Property Rights

This Permit does not convey any property rights of any sort, or any exclusive privilege, nor does this Permit authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local laws or regulations.

XIV.B. 3. Permit Actions

XIV.B.3.a.

This Permit may be modified, revoked and reissued, or terminated for cause by the Department as specified in 40 CFR 270.41, 270.42, 270.43, and OAR 340 Divisions 105 and 106.

XIV.B.3.b.

The filing of a request for a Permit modification, or revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance on the part of the Permittee shall not stay the applicability or enforceability of any Permit Condition except as provided in 40 CFR 270.41, 270.42, 270.43, and OAR Divisions 105 and 106.

XIV.B.4. Severability

XIV.B.4.a.

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. Invalidation of any state or federal statutory or regulatory provision, which forms the basis for any condition of this Permit, does not affect the validity of any other state or federal statutory or regulatory basis for said condition.

XIV.B.4.b.

In the event that a Condition of this Permit is stayed for any reason, the Permittee shall continue to comply with the related applicable and relevant conditions found in the previously expired permit until final resolution of the stayed Condition unless compliance with the related applicable and relevant conditions in the previously expired-permit would be technologically incompatible with compliance with other conditions of this Permit, which have not been stayed.

XIV.B.5. Duty to Comply

XIV.B.5.a.

The Permittee shall comply with all Conditions of this Permit, except that the Permittee need not comply with the Conditions of this Permit to the extent and for the duration such noncompliance is authorized in an emergency permit issued by the Department or Environmental Protection Agency. Any Permit noncompliance, except under the terms of an emergency permit, constitutes

a violation of the applicable provision of Oregon State law or rule and is grounds for enforcement action, Permit termination, modification or revocation and reissuance of the Permit, or denial of a Permit renewal application.

XIV.B.5.b.

Compliance with the terms of the Permit does not constitute a defense to any action brought under ORS 459, 465, 466.180, 466.185, 466.190, 466.200, 466.210, 466.225,, or Sections 3007, 3008, 3013 and 7003 of RCRA (42 U.S.C. 6934 and 6973), Section 7 of the Toxic Substances Control Act (TSCA), or Section 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) [42 U.S.C. 9606(a)], as amended by the Superfund Amendments and Reauthorization Act of 1986, or any other federal or state law governing protection of public health or the environment from any imminent and substantial endangerment to human health or the environment.

However, compliance with the terms of this Permit does constitute a defense to any action alleging failure to comply with the applicable law upon which this Permit is based. ‡ **Rev. 3**

XIV.B.6. Duty to Reapply

If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittee shall apply for and obtain a new Permit, utilizing 40 CFR 270.30(b). The Permittee shall submit such Permit application at least 180 calendar days prior to the expiration date of this Permit, unless the Manager has granted permission for a later date (but no later than the expiration date of the existing Permit) in accordance with 40 CFR 270.10(h).

XIV.B.7. Continuation of Expiring Permit

This Permit, all Conditions herein and Standalone Documents No. 20, PCB Operations Plan, shall continue in force until the effective date of a new Permit if the Permittee has submitted a timely, complete application, and, through no fault of the Permittee, the Commission does not issue a new Permit under 40 CFR 124.15 on or before the expiration date of the previous Permit.

XIV.B.8. Need to Halt or Reduce Activity Not Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the Permitted activity in order to maintain compliance with the Conditions of this Permit.

XIV.B.9. Duty to Mitigate

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.

XIV.B.10. Proper Operation and Maintenance

The Permittee shall at all times operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee so as to achieve compliance with the Conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This Condition requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the Conditions of this Permit.

XIV.B.11. Duty to Provide Information

The Permittee shall furnish to the Manager, or his designee, within a reasonable time, any relevant information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit. The Permittee shall also furnish to the Manager and Inspector, upon request, copies of records required to be kept by this Permit.

XIV.B.12. Inspection and Entry

The Permittee shall allow the Department, or its authorized representatives, upon the presentation of credentials and other documents as may be required by law, to:

XIV.B.12.a.

Enter at reasonable times upon the Permittee's premises where regulated PCB management units or activities are located or conducted, or where records shall be kept under the Conditions of this Permit;

XIV.B.12.b.

Have access to and copy, at reasonable times, any records that shall be kept under the Conditions of this Permit;

XIV.B.12.c.

Inspect at reasonable times any portion of the Facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and

XIV.B.12.d.

Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by TSCA or Oregon Law, any substances or parameters at any PCB Disposal Facility location.

XIV.B.13. Monitoring and Records

The Permittee will monitor and record PCB disposal activities in accordance with 40 CFR 761.75(b)(8)(iv) and 40 CFR 761.180(b), (d) and (f) and Standalone Document No. 20, PCB Operations Plan [A.R. 06093].

XIV.B.14. Reporting Planned Changes

The Permittee shall give notice to the Manager, as soon as possible of any planned physical alterations or additions to the permitted PCB Disposal Facility.

XIV.B.15. Anticipated Noncompliance

The Permittee shall give advance notice to the Manager of any planned changes in the permitted PCB Disposal Facility or activity that might result in noncompliance with Permit requirements.

XIV.B.16. Transfer of Permit

This Permit is personal to the Permittee and is transferable only in accordance with OAR 340-110-0075.

XIV.B.17. Twenty-four Hour Reporting

XIV.B.17.a.

The Permittee shall verbally report to the Manager or Inspector, any PCB noncompliance with this Permit which may endanger health or the environment, within 24 hours from the time the Permittee becomes aware of the noncompliance. The report shall include:

XIV.B.17.b.

Information concerning release of any PCB waste that might cause an endangerment to public drinking water supplies; and,

XIV.B.17.c.

Any information of a release or discharge of PCB waste or of a fire or explosion from the PCB Disposal Facility that might threaten human health or the environment. The description of the occurrence shall include the information requirements in Permit Condition I.T.2.

XIV.B.18. Other Noncompliance

The Permittee shall report to the Manager all other instances of PCB noncompliance with this Permit not otherwise reported at the time monitoring reports are submitted.

XIV.B.19. Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant PCB facts in the Permit application, or submitted incorrect information in the Permit application or in any report to the Manager or Inspector, the Permittee shall promptly submit such facts or corrected information to the appropriate persons.

XIV.B.20. Signature and Certification

All written applications, reports required by this Permit and other information requested by the Manager, when submitted to the Manager, or Inspector, by the Permittee shall be signed and certified as required by 40 CFR Part 761 in accordance with 40 CFR 761.3.

XIV.B.21 Confidential Information

Information submitted by the Permittee to the Manager or Inspector that is claimed as trade secret, confidential, or confidential business information by the Permittee will be handled in accordance with the applicable provisions of OAR 340-100-0003.

XIV.B.22. Fees

The Permittee shall pay fees as required under ORS 466.325, 466.345, 466.350 and as promulgated at OAR 340-105, and other state statutes and related rules. This Condition does not preclude the Permittee from challenging any future promulgation or adoption of a statute, rule, or administrative action imposing any fee on the Permittee.

XIV.C. Storage, Treatment, And Disposal Standards

XIV.C.1.

This Permit hereby incorporates into this PCB Permit by reference Standalone Document No. 20 PCB Operation Plan [A.R. 06093].

XIV.C.2.

All notifications and correspondence sent to the Environmental Protection Agency, in accordance with the PCB Operation Plan, shall also be sent to the Department of Environmental Quality Eastern Region Hazardous Waste Manager.

XIV.D. Requirement for Groundwater Monitoring or Waiver

The Permittee shall not place PCB or PCB items into landfill L-14 until there is an in-place groundwater monitoring system unless a waiver has been issued by the Department in accordance with 40 CFR 761.75(c)(4).

XIV.E. Additional Disposal Requirements

XIV.E.1.

The Permittee may dispose of PCB or PCB items only in Landfills L-12, L-13, and L-14.

XIV.E.2.

In the event of a PCB spill, the Permittee shall comply with Standalone Document No. 4, Contingency Plan [A.R. 06077].

XIV.E.3.

The Permittee shall comply with OAR 340-110-0061(6) regarding waste oils containing PCB.

XIV.E.4.

If the Permittee uses containers described in 40 CFR 761.65(c)(7)(i), the Permittee shall have and implement a Spill Prevention Control and Countermeasure plan in accordance with OAR 340-110-0065(2).

XIV.F. Groundwater Monitoring

XIV.F.1.

Groundwater monitoring requirements found in Section X of the Hazardous Waste Permit are incorporated and made part of this PCB Permit.

XIV.F.2.

The Permittee shall perform the groundwater tasks and procedures as set forth in Section X of the Hazardous Waste Permit in a manner consistent with 40 CFR 761.75(b)(6).

XIV.F.3.

The Permittee shall sample and analyze for PCBs, pH, and specific conductance in the groundwater in accordance with Section X of the Hazardous Waste Permit in a manner consistent with 40 CFR 761.75(b).

XIV.G. ORS 466.065 Conditions

XIV.G.1.

The Permittee shall not accept for treatment or disposal during the ten-year term of this Permit an amount of PCB more than 110 percent of the PCB treated or disposed by the Facility under any permit without approval of the Department in accordance with ORS 466.065.

XIV.G.2.

The Permittee shall comply with all applicable federal and Oregon technological requirements for treating and disposing of PCB.

XIV.G.3.

The Permittee shall comply with all applicable Oregon and federal requirements for financial and technical capability to properly construct and operate the PCB disposal Facility [ORS 466.065(4).]

XIV.G.4.

The Permittee shall own, or contract with, an emergency response provider or coordinator that can provide for timely response to a PCB spill or release in Oregon of PCB being transported to the Facility by a motor vehicle owned by the Permittee [ORS 466.065(5).]

XIV.G.5.

The Permittee shall require that any transporter of PCB hired by the Permittee, owns, or has a contract with, an emergency response provider or coordinator that can provide for timely response to a spill or release in Oregon of PCB being transported by a motor vehicle to the Facility [ORS 466.065(6).]

XIV.G.6.

Upon arrival at the facility of any motor vehicle transporting PCB not described in Permit Conditions XIV.G.5. and XIV.G.4., the Permittee shall request to review the transporter's authorization to transport PCB in Oregon and the driver's authorization to drive a motor vehicle transporting PCB in Oregon. The Permittee shall report to the Department the name of any transporter or driver failing to demonstrate the requested authorization [ORS 466.065(7).]

XIV.H. Equivalent Materials/Information

If certain equipment, materials, procedures, and administrative information (such as names, phone numbers, addresses, obsolete forms, addition of new forms and to forms, deletion from forms of units certified as closed, etc.) are specified in this Permit, the Permittee is allowed to use an equivalent or superior substitute or deletion. Use of such equivalent or superior substitute or deletion shall not be considered a modification of the Permit, but the Permittee shall present the proposed change to the Department, and then with Department approval that the item is equivalent or superior (such approval may be verbal or written) submit to the Department by written letter the revision, accompanied by a narrative explanation, and the date the revision becomes effective which may be the date of the submittal or a later date. The Department may judge the soundness of the revision as to whether the item is equivalent or superior. If the Department determines that the change is not in accordance with the approval, the Department will by letter direct the Permittee to submit the change again. The format of tables or forms is not subject to the requirements of this Permit and may be revised at the Permittee's discretion.

[THIS PAGE INTENTIONALLY BLANK]

x:\chem waste 2006 permit\permit\current permit\cwm aug 2006 final permit.doc

OPERATIONS PLAN

Organic Recovery Unit

Chemical Waste Management of the Northwest, Inc.

May 7, 2012

TABLE OF CONTENTS

Section **Page**

1.0 OVERVIEW 4
1.1 General System Description 4

2.0 COMPONENT DETAILS 6
2.1 Material Handling and Processing 6
2.1.1 Feed Hopper 3000-01 6
2.1.2 Hopper Variable Speed Conveyor #3100-01 6
2.1.3 Feed Belt Conveyor #3110-01 7
2.1.4 Inlet Dump Valve #3200-01 7
2.1.5 Screw Feeder #3210-01 7
2.1.6 Slurry Pump (Not Currently Utilized) 7
2.1.7 Discharge Dump Valve #3301-01 7
2.1.8 Discharge Screw Conveyor #3302-01 8
2.1.9 Pugmill Cooler #3303-01 8
2.1.10 Discharge Belt Conveyor #3304-01 8
2.2 Thermal Desorption System 8
2.2.1 Desorber #1200-01 9
2.2.2 Water to Desorber Via Solenoid Valve #EV 2311 9
2.2.3 N_2 to Desorber Via Solenoid Valve #EV 2411 10
2.2.4 Water to the Pugmill Via Valve #EV 5311 10
2.3 Condensor System 10
2.3.1 Quench #4200-01 10
2.3.2 Venturi #4210-01 10
2.3.3 VRU Outlet Pump #4820-01 10
2.3.4 Water Supply Pump #5120-01 11
2.3.5 Scrubber #4300-01 11
2.3.6 Heat Exchanger #4600-01 11
2.3.7 ID fan #1200-01 11
2.3.8 Oxygen Analyzer #AE4023 11
2.3.9 Detonation Flame Arrestor #4101-01 11
2.3.10 Flare #4410-01 12
2.3.11 Oil/Water Separator #5200-01 12
2.3.12 Process Oil Tank #5110-01 12

2.3.13 Sludge Feed Pump #M5220-01 12
2.3.14 Sludge Feed Pump #M5220-02 12
2.3.15 Cooling Towers #4500-01, -02, and -03 13
2.3.16 Cooled Water Supply Pumps #M4840-01 and 02 13
2.3.17 Cooling Tower Makeup and Blowdown 13
2.3.18 Water Tank #5100-01 13
2.3.19 Centrifuge #5250-01 13
2.3.20 Centrifuge #4900-01 13

ED_002469_00000091-00002

TABLE OF CONTENTS (Continued)

Section **Page**

2.3.21 Sludge Bin #4910-01 14
2.3.22 Sludge Bin #5251-01 14
2.3.23 Oil Storage Tanks #5300-01, -02, and -03 14
2.3.24 Centrifuge Receiver Tank #5200-06 14
2.3.25 Heated Tank #5252-01 14
2.3.26 Heated Tank #5200-04 14
2.3.27 Heated Tank #5200-05 15
2.3.28 Weir Tank #5200-02 15
2.3.29 NaOH Metering Pump #5110-01 15
2.4 Utilities 15
2.4.1 Plant Air Supply 15
2.4.2 Nitrogen Supply 15
2.4.3 Plant Water Supply 15
2.4.4 Electric Supply 16
2.4.5 Propane and LFG 16

3.0 STANDARD STARTUP AND SHUTDOWN PROCEDURES 17
3.1 System Startup Procedures 17
3.1.1 Utilities Startup Procedure 17
3.1.2 Condensor System Startup Procedure 19
3.1.3 Desorber Startup Procedure 19
3.2 Plant Shutdown Procedures 21
3.2.1 Hopper Shutdown Procedure 21
3.2.2 Desorption System Shutdown 21
3.2.3 VRU System Shutdown Procedure 22
3.2.3 Utilities Shutdown Procedure 22
3.3 Emergency Shutdown Procedures 22

4.0 CONTROL SYSTEMS AND INSTRUMENTATION 24
4.1 Motor Control Center 24
4.2 Programmable Logic Controller 24
4.3 PLC Alarm Annunciator Panel 24
4.4 Burnel Control Panel 24
4.5 Level Transmitters 25
4.3 PLC Alarm Annunciator Panel 24

5.0 PROCEDURES 26
5.1 Materials Receiving Procedures 26
5.1.1 Liquid Materials 26
5.1.2 Solid Materials 26
5.1.3 Tank Level Procedure 26
5.1.4 Tank Off-Loading 26

ED_002469_00000091-00003

TABLE OF CONTENTS (Continued)

Section **Page**

5.2 Saftey Device Inspection and Testing 26
5.2.1 Tank Vents 26
5.2.2 If Differential Pressure Cells Are Used 27
5.2.3 Oxygen Sensor 27
5.3 Lockout and Tag-Out Procedure 27

6.0 DRAWINGS 28

General Arrangement Plan View
General Arrangement Elevation View
Enhanced Water Treatment System General Arrangement Plan View
Piping and Instrumentation Diagram 1
Piping and Instrumentation Diagram 2
Piping and Instrumentation Diagram 3
Piping and Instrumentation Diagram 4

ED_002469_00000091-00004

1 OVERVIEW

The organic recovery unit is designed to accept soil and other media contaminated with fuel and other organics, and recover organics, and clean the media solids prior to disposal. The waste streams are supplied to the unit in solid or sludge form. A material handling system is employed to convey the wastes into the thermal desorption system. The recovered organics will be sold to the fuels market or incinerated off site. The treated media will be disposed on site.

1.1 General System Description

The ORU is comprised of the following systems:

- Material handling systems
- Desorption unit and Pugmill Cooler
- Vapor treatment system
- Process instrumentation and control systems
- Utilities

An illustration of the system layout is provided in the site layout plan located in the drawings. A detailed description of the equipment included in these systems is provided in section 2.0. Details of how the equipment is tied together are provided in the piping and instrumentation diagrams, also located in the drawings. **Manufacturer's operating manuals should be consulted for detailed information about a particular piece of equipment.**

The treatment facility is installed on a concrete pad adjacent to the south side of Containment Building B-5. A plot plan is located in the drawings.

The thermal desorption system has been designed to treat contaminated media to meet U.S. EPA Land Disposal Restrictions (LDR) and Universal Treatment Standards (UTS) and health-based hazardous waste de-listing specifications in a simple, single pass thermal treatment system.

The process instrumentation and controls designed into the facility allow the unit to be run efficiently and safely, with all the equipment being monitored from a single control room. The operators can monitor each process component as well as most processing variables from the control room. The control room contains the Motor Control Center (MCC) including the circuit breakers, starters and overload relays for powering all the equipment used on the unit. It also contains the Programmable Logic Controller (PLC), which is used for controlling the startup, shutdown, and emergency shutdown of all equipment. The PLC is programmed to limit the operation of individual system components if downstream operations are not capable of handling the unit's operating load. Over-amperage signals, high or low tank levels, high temperatures, or other shutdown alarms will cease operations to prevent equipment damage or upset conditions. Various pressures, temperatures, flows, and processing data are monitored and controlled through the use of meters, process instrumentation diagram (PID) control loops, and variable frequency drives (VFDs). All of the meters and controls are tied into the PLC, and operators control the PLC and the system via a HMI (Human Machine Interface), keyboard and mouse. An alarm will sound when the PLC relays have been activated due to an alarm condition, and a light on the HMI will

ED_002469_00000091-00005

show the operators which alarm has been activated, so that they will quickly be able to resolve the situation. The system also has field mounted control panels, and ancillary equipment has local start/stop switches, which are mounted in the various control panels.

Utilities include compressed air, propane gas, plant water, electricity, and nitrogen. Each utility is used for various purposes. Water is used to create steam for purging the desorber drum, and cooling and quenching. Propane gas is used to fire the burners, which provide heat for the desorber, with the option for later use of LFG (landfill gas). The flare will also use the propane gas for the pilot. Compressed air is used to power pneumatic devices on the unit and pneumatic tools if needed. Compressed air for certain applications (e.g., instrument air, control valve air), will be dried and de-oiled as per manufactures requirements. Electricity is used to power an array of motors, and other components.

ED_002469_00000091-00006

2. COMPONENT DETAILS

A more detailed description of the plant systems and their individual components is provided in the following section. The components specifications are given as needed as well as their function and relationship to other components. Key control interlocks with the PLC are discussed along with important maintenance issues. Individual components can be located according to their alphanumeric code in the piping and instrumentation diagrams given in the drawings. **Detailed vendor information for each unit is provided in their respective manuals.** These manuals should be referred to whenever maintenance is to be performed on the equipment, or when starting up the plant.

2.1 Material Handling and Processing

The material handling and processing system is designed to convey the solids into the thermal treatment system, and convey the product out to the treated solids receiving area while maintaining an airlock between the heated thermal desorber, and the solids cooling unit, and the atmosphere. Other than the heated thermal desorber, solids cooling unit and the feed hopper conveying screw, each unit employs fixed drives and set gear reductions with local motor actuation. The desorber drum, ID (induced draft) fan, and hopper variable speed conveyor have VFD electrical variable speed controllers that are adjusted to increase or decrease the rate at which they turn, thereby allowing the operator to vary the amount of feed being processed and the speed at which it is run through the system. Some pumps may also be variable speed. Every component of the material handling system that is driven by an electrical motor has an amperage indicator, which is tied to the PLC in the Motor Control Center. The amperage levels are displayed on their respective meters and the meters are programmed to detect high amperage draw on any of the motors. If a high amperage draw is detected, it will produce an alarm, warning the operator that a problem may have developed. If the amperage draw is excessively high, the PLC will shutdown the motor(s) that is being overloaded, along with any upstream equipment to prevent material pluggage and equipment damage. Upon equipment shutdown, the operator will have to inspect the equipment for pluggage or damage, clean or replace what is needed, then reset the alarm in order to restart the equipment.

2.1.1 Feed Hopper 3000-01

The feed hopper is designed to hold approximately 5 cubic yards of solid waste. It is a four sided, and is equipped with a live bottom hopper variable speed conveyor which sets the feed rate to the system.

2.1.2 Hopper Variable Speed Conveyor #3100-01

Solids exit the feed hopper via the Hopper Variable Speed Conveyor. Upon detection of a high amperage draw, the PLC will sound an alarm or if the high-high alarm set-point is reached the PLC will shutdown the conveyor. The shut-down of any equipment downstream of this conveyor also shuts down this conveyor. A safety cable pull switch is located on the conveyor.

ED_002469_00000091-00007

2.1.3 Feed Belt Conveyor #3110-01

This is a 30" belt conveyor and uses a fixed speed gear reducer. The belt conveyor is equipped with a weigh bridge that shows the rate of material passing over it. An amperage meter is mounted in the control room and monitors the amperage draw of the drive motor. Upon detection of high amperage draw, the PLC will sound an alarm or if the high-high alarm set-point is reached the PLC will shutdown the conveyor. The shut-down of any equipment downstream of the conveyor also shuts down the conveyor. A safety cable pull switch is located on the conveyor. The conveyor transfers solids from #3100-01 to the Dump Valve # 3200-01.

2.1.4 Inlet Dump Valve #3200-01

A pneumatically operated double gated tipping valve is utilized on the front end of the desorber to minimize the amount of fugitive air entering the unit. The valve is manufactured out of carbon steel, with manual clean outs. The wearing surfaces of the valve are replaceable to insure dependable and long valve life. See the manufacturer supplied information for specific details about this device.

2.1.5 Screw Feeder #3210-01

The tube-type screw conveyor is utilized to feed the material into the rotating desorber drum. It is mounted to the desorber inlet hood and extends into the hood approximately 6 feet. The discharge of the conveyor utilizes an open-ended geometry with the drive located at the opposite end.

The covers and shaft seals for this conveyor are designed to maintain the airtight integrity of the screw conveyor, so as to limit any infiltration of outside air into the desorber.

The conveyor drive utilizes a constant speed, shaft mounted torque arm reducer with integral electric motor mount. The explosion-proof motor is connected to the reducer through a V- belt drive arrangement. The feed conveyors and dump valves are interlocked to prevent pluggage caused by equipment failure. The screw feeder is equipped with a local start/stop/jog station for clearing jams.

2.1.6 Slurry Pump (Not currently utilized)

This optional pump supplies slurry from a tank and pumps it directly into the desorber inlet screw conveyor for processing. The pump is a diaphragm type designed for solids or liquid handling. A flowmeter monitors flow and the operator can adjust flowrate from the control room. An emergency stop station is provided at the pump. The pump is started from the PLC.

2.1.7 Discharge Dump Valve #3301-01

The pneumatically operated double gated tipping valve minimizes the amount of fugitive air entering the unit. The valve is manufactured out of carbon steel, with manual clean outs. The wearing seals of the valve are replaceable to insure dependable and long valve life. See the manufacturer-supplied information for specific details about this device.

ED_002469_00000091-00008

2.1.8 Discharge Screw Conveyor #3302-01

The conveyor receives treated solids from Discharge Dump Valve #3301-01 and discharges them into the pugmill # 3303-01. It uses a fixed speed gear reducer. An amperage meter monitors the amperage draw of the motor attached to it. Upon detection of a high amperage draw, the PLC will sound an alarm or if the high alarm set-point is reached the PLC will shutdown the pugmill and all up-stream equipment feeding it. It is approximately 24' long and is driven by a 3-phase explosion-proof TEFC (totally enclosed, fan cooled) motor. The screw feeder is equipped with a local start/stop/jog station for clearing jams.

2.1.9 Pugmill Cooler #3303-01

A pugmill cooler treats solids, which are gravity fed to it from the #3302-01 screw conveyor. The pugmill is designed to reduce the temperature of the treated solids by adding water, and producing a product with an appropriate temperature for final disposal and in a friable state without free water. The pugmill is a double arm design, continuous flow type with wear liner and abrasion resistant paddles. The material feeds into the top at one end and drops out of the opposite end at the bottom. Spray nozzles are incorporated to inject the cooling water.

When operating at maximum capacity and temperature, solids are fed into the cooling unit at approximately 20,000 pounds per hour. The temperature of the solids is reduced to approximately 150 °F prior to discharge from the cooler. Water is sprayed into the pugmill at approximately 7 gpm (gallons per minute) at a temperature of 80 °F to cool the solids. Some steam driven off in the cooler is condensed in the pugmill hood with the remainder venting to the condenser system.

Operation of the cooler is tied-in with downstream equipment operation via the PLC. An amperage meter is also mounted in the control room and monitors the power used by the cooler. If the amperage draw on the motor becomes high, an alarm bell will sound, warning the operator that a problem may have developed. If the amperage draw exceeds the high limit setpoint, the PLC will shutdown the cooling unit along with any upstream equipment to prevent pluggage and equipment damage. See the manufacturer supplied information in the manual for specific details about this device.

2.1.10 Discharge Belt Conveyor #3304-01

The high temperature belt conveyor receives treated solids from the pugmill and discharges it onto a concrete pad for removal by front end loaders, or into roll-off boxes. The conveyor is powered by an electrical motor and uses a fixed speed gear reducer. An amperage meter monitors the amperage draw of the motor attached to it. Upon detection of a high amperage draw the PLC will sound an alarm or if the high alarm set-point is reached the PLC will shutdown the conveyor and all up-stream equipment feeding it. A safety cable pull switch is located on the conveyor.

2.2 Thermal Desorption System

The thermal desorption system is an indirect fired process, which means that products of combustion from the burners are not in contact with the solids fed to the unit and the vapor stream

ED_002469_00000091-00009

leaving the desorber. The outside of the drum is heated and the heat transferred to the material through the shell of the drum. The solids are fed into the rotating drum through a double dump gate airlock valve and a screw conveyor. Inside the rotating drum, the solids make contact with the hot inner surface. Spiral feed flights and turning bars combined with the continuous rotation of the drum causes the feedstock to turn over as it moves down the drum. This exposes the individual particles to heat, which evaporates moisture and organic matter. The slope of the drum, plus its rotation, conveys the particles from the feed end to the discharge end.

The solids are heated to approximately 1200 °F. The water vapor produced by high moisture materials, in combination with the inlet and discharge double-dump gate airlock valves, helps maintain an oxygen deficient atmosphere and prevents combustion of the material. Water is injected into the drum when processing low moisture materials to provide the same protection, and on startup and shutdown. Nitrogen may also be injected for creation of an inert atmosphere.

A two (2) zone furnace, each zone containing two (2) gas/oil burners, heats the air surrounding the rotating drum. The burners will be configured for propane (vaporized) or LFG (landfill gas). Furnace gases exit from two (2) exhaust stacks. The total burner capacity of the unit is 21 MM Btu/hour. All exposed surfaces are insulated for equipment efficiency and to provide personnel protection.

Vapors are removed through the discharge so that a co-current vapor flow is achieved. This maintains high moisture throughout the drum and reduces the chances of combustion inside the drum. The vapors then pass to the vapor condensing and recovery unit.

See the manufacturer-supplied manual for detailed start-up, operation, shutdown and maintenance procedures.

2.2.1 Desorber #1200-01

The rotating drum of the thermal desorber is 84" diameter × 48' long and made of 3/8" RA 330 stainless steel (SS). This material will hold its strength up to ± 1500° F, however, maximum temperature limits are set at 1250 °F. Spiral flighting in the first 6 feet of the feed end moves material away from the front of the drum and into the heated zone of the unit. Parallel flighting in the heated zone is designed to turn the material over while maintaining it near or on the shell surface. The residence time of the material in the unit can be altered by changing the rate of rotation and the slope of the drum. Bed height in the desorber is controlled by the use of dams, or weirs, one in the middle and one at the end. The middle dam allows the solids to build up a level and remain in the first half (zone 1) of the drum longer. This is where most of the thermal desorption work is done.

2.2.2 Water to Desorber Via Solenoid Valve #EV 2311

Water is fed to the desorber to create steam to create an inert atmosphere inside the drum and purge air on startup and also during operation with some feedstocks.

ED_002469_00000091-00010

2.2.3 N2 to Desorber Via Solenoid Valve #EV 2411

N2 is available for purge during power outages and forced outages and when water is unavailable to provide an inert atmosphere in the drum.

2.2.4 Water to the pug mill via Valve #EV 5311

Water is added to the pugmill to cool and moisturize the product.

2.3 Condenser System

The condenser system is designed to condense and remove the liquids from the gas stream leaving the desorber, and condition them prior to their entering the flare. It uses a cooling and condensing process that removes water and the hydrocarbon portion of the vapors generated and prepares the hydrocarbons for beneficial reuse.

A 3000 cfm (cubic feet per minute) ID fan is used to generate vacuum on the system. The first stage of gas cooling takes place in the VRU (vapor recovery unit), composed of a horizontal water spray quench, a venturi, and cyclonic slinger, and a sump. After passing through the quench, the vapors are then routed through a venturi scrubber with 6" diameter adjustable throat. The vapors are then passed through a horizontal cyclonic slinger, then through a demister, and a packed bed secondary condenser that further reduces the temperature and condenses much of the vapor stream. The condensed hydrocarbons, along with the water from the quench slinger sump, are pumped to an oil/water separator. Condensate from the secondary condenser gravity drains to sump. The ID fan pushes the treated vapors through a detonation flame arrestor and an elevated enclosed flare.

2.3.1 Quench #4200-01

The quench is the first stage of cooling in the vapor control system. It is a horizontal vessel with a series of full cone spray nozzles. After passing through the quench, the gases enter a converging-diverging venturi with an adjustable throat where they are cooled further to approximately 155 °F. The excess cooling water, along with the water containing the condensed liquids, is collected and is pumped to the oil/water separator tank. The uncondensed vapors then pass to the scrubber.

2.3.2 Venturi #4210-01

The gases pass through a converging-diverging venturi with an adjustable throat with approximately 8" w.c. (water column) pressure drop maintained via a DP (differential pressure) cell and butterfly valve. The venturi removes particulates by capturing them in water droplets, which are then removed in the slinger and demister. The venturi also provides additional cooling and condensation.

2.3.3 VRU Outlet Pump #4820-01

This pump pulls water from the sump and sends it to the oil/water separator. The Griswold pump is a centrifugal pump with motor mounted on a common base. Pumps are started from the PLC.

ED_002469_00000091-00011

2.3.4 Water Supply Pump #5120-01

This pump pulls water from the process water tank #5100-02 and runs it through a heat exchanger (#4600-01), and supplies the VRU and the scrubber (#4300-01). The pump is a centrifugal type, with motor mounted on a common base. The pump is started from the PLC.

2.3.5 Scrubber #4300-01

The scrubber cools and condenses the gases to approximately 105 °F. It is a vertical cylindrical design. Gases enter horizontally, then turn and move vertically through a bed of packing. A course spray of water is introduced axially near the top and flows downward over the packing, in counterflow to the rising gases. A chevron demister section is located near the gas exit to collect entrained liquid droplets. The scrubber is manufactured of 316 SS with polypro packing. Blowdown from this unit discharges into VRU sump by gravity. The scrubber has a DP cell across the packing to allow operators to monitor for fouling.

2.3.6 Heat Exchanger #4600-01

This shell and tube exchanger transfers heat from the water after it is treated through the oil/water separator (#5200-01) and collects in the process water tank (#5100-01). The water from the heat exchanger is coooled prior to going to VRU and scrubber. The process water is on the tube side to allow periodic cleaning of fouling. It has 316 SS tubes and tube sheet. The shell side receives water from the cooling towers (#4500-01). Local and remote temperature gauges are provided at the inlet and outlet of pipes of each stream, as well as pressure drop monitoring of the tube side liquid flow.

2.3.7 ID fan #4100-01

The ID fan is VFD controlled to provide the required draft in the desorber and maintain flow through the condenser system to the flare. A PID control loop including a draft DP cell, and VFD are used to control the blower speed. There may be a pulse in the desorber draft level associated with the routine operation of the airlocks. This is normal, but should be balanced out as best as possible.

2.3.8 Oxygen Analyzer #AE4023

A field portable oxygen analyzer is used during startup and for troubleshooting It will provide information on oxygen levels and inferred rates of air leakage into the desorber. It can be used at a port prior to the flare, or by taking a sample of the gas leaving the desorber. When testing at the desorber, gas must be run through a ¼" copper tube coil set in a water bucket to cool the gas and condense much of the water before it enters the unit.

2.3.9 Detonation Flame Arrestor #4101- 01

The detonation flame arrestor (DFA) is placed upstream of the flare (#4410-01). It is an inline type, carbon steel body with stainless steel element. It is mounted vertically to prevent liquid

ED_002469_00000091-00012

buildup. It is used to prevent a flashback from the flare into the upstream system. A high temperature cutoff #TE4413 and alarm is provided.

2.3.10 Flare #4410-01

This is an elevated shielded free-standing flare mounted at ground level and extending to a height of 50 feet. It is carbon steel with a SS tip. The flare tip itself is a flame arrestor. The unit is complete with pilot, gas train and safeties, and ultraviolet (UV) flame detection system. The gas train has an optional fuel bypass to allow additional heating value to the fume if required.

2.3.11 Oil/Water Separator #5200-01

This unit is designed to provide primary separation of oil and water and sludge. It is a coated carbon steel vessel with an internal weir arranged to provide oil/water separation and a cone bottom to allow sludges to settle, drain and thicken. Level indication, alarm, and control are provided. The separator receives liquid from the VRU sump tank (#4230-01). Water is drained off to the water tank (#5100-01) by gravity. Oil is sent to the process oil tank (#5210-01) by a 2-inch line using gravity. Liquid between the oil and sludge layers in oil/water separator tank profile, drains by gravity to the large centrifuge for further solids removal. The oil/water separator tank cone bottom feeds the large centrifuge (#5250-01) by a 4-inch line using gravity, with sludge pumped from the bottom of the oil/water separator periodically. The cleaned liquid from the small centrifuge (#4900-01) is returned to the oil/water separator.

2.3.12 Process Oil Tank #5210-01

This unit is designed to provide secondary separation of oil and water and sludge. It is a coated carbon steel vessel with a cone bottom to allow water and sludges to settle and drain and thicken. Level indication, alarm, and control are provided. The process oil tank receives liquid from the oil water separator via gravity fed 2-inch line. Water and sludge and emulsions are sent to the small centrifuge from the cone bottom continuously, with the exception of when the centrifuge is used to clear the sludge periodically from the oil/water separator tank. The liquid from the small centrifuge is returned to the oil/water separator.

2.3.13 Sludge Feed Pump 1 #M5220-01

This pump takes the sludge/water mix from the cone bottom of the oil/water separator tank and sends it to the small centrifuge. The pump is a motor driven positive displacement type designed for sludge. Pumps are started from the PLC.

2.3.14 Sludge Feed Pump 2 #M5220-02

This pump takes the sludge/water mix from the cone bottom of the process oil tank and takes it to the small centrifuge. The pump is a motor driven positive displacement type designed for oily sludge. Pumps are started from the PLC.

ED_002469_00000091-00013

2.3.15 Cooling Towers #4500-01, -02 and -03

Three cooling towers are used to provide cooling water to the heat exchanger. The towers are open, wet type, with cross flow fans, TEFC motors, and water level controls/alarms and winter freeze protection. During cool and dry weather, only 1 or 2 cooling towers may be needed.

2.3.16 Cooled Water Supply Pumps M4840-01 and 02

These pumps take water from the cooling tower sump and supply it to the heat exchanger, and return it to the cooling towers. The pumps are centrifugal type with TEFC motor mounted on a common base. Pumps are started from the PLC.

2.3.17 Cooling Tower Makeup and Blowdown

Plant makeup water is supplied to the cooling towers via automatic float valves. A small blowdown stream is taken off after the cooled water supply pumps and before the heat exchanger. The blowdown, which will have somewhat elevated salt content, can be used in the pugmill or sent off for disposal.

2.3.18 Water Tank #5100-01

This tank receives water from the oil/water separator and supplies the water supply pump (#5120-01) feeding the tube side of the heat exchanger. It is a FRP (fibre-reinforced plastic) vessel with a cone bottom. It is supplied with level indication, control, and alarm.

2.3.19 Centrifuge #5250-01

This centrifuge system is designed to provide primary removal of solids from oily process water and the sludge received from the oil water separator. Effluent from the large centrifuge can be processed through either of two storage tanks depending on ambient temperatures. Heated Tank #5252-01 is used during cold climatic conditions. Centrifuge Receiver Tank #5200-06 is used when ambient temperatures are sufficiently warm. The sludge from the large centrifuge is pumped (#5255-01) into Heated Tank #5200-05 for further oil removal processing, and the remaining sludge from the large centrifuge goes to the sludge bin (#5251-01).

2.3.20 Centrifuge #4900-01

The centrifuge system is designed to provide secondary removal of solids from oily process water and sludge received from the oil water separator, the process oil tank, and to do a final cleanup on oil from the 3 oil storage tanks (#5300-01 through #5300-03) prior to shipping. The sludge is pumped into the small centrifuge, clean liquid is pumped away by the small centrifuge by pump #4920-01 to the oil/water separator, and sludge from the small centrifuge goes to sludge bin #4910-01.

ED_002469_00000091-00014

2.3.21 Sludge Bin #4910-01

The sludge bin receives dewatered sludge from the centrifuge. The sludge can be disposed of, or blended with feedstock.

2.3.22 Sludge Bin #5251-01

The sludge bin receives the remaining sludge from the large centrifuge that is not removed for processing in Heated Tank #5200-05. The sludge can be disposed of, or blended with feedstock.

2.3.23 Oil Storage Tanks #5300-01, -02 and -03

These tanks receive oil from the process oil tank via gravity. Tanks are valved, so that a particular product can be routed to a particular tank. Oils from other feedstocks may be destined for cement kilns or operations with permits to burn hazardous waste derived fuels. The tanks are carbon steel vessel complete with cover, supplied with level indication, control, and alarm. Some water may accumulate over time in the tanks, and can be tapped off prior to off-loading oil. The outlet plumbing on the tanks allows them to drained to the small centrifuge for further cleanup and solids removal prior to shipping product. These tanks will be Subpart CC controlled by venting through a carbon vessel.

2.3.24 Centrifuge Receiver Tank #5200-06

The Centrifuge Receiver Tank #5200-06 receives effluent from the large centrifuge during operation in warm climatic conditions. Depending on the nature of the effluent from the large centrifuge, the water from the Centrifuge Receiver Tank #5200-06 can be pumped (#M5253-01) to either 1) Water Tank #5100-01 for use as process water, 2) sent to Process Oil Tank #5210-01 further oil removal, or 3) sent to Heated Tank #5200-04 for further oil/water separation.

2.3.25 Heated Tank #5252-01

The Heated Tank #5252-01 receives effluent from the large centrifuge during operation in cold weather. Depending on the nature of the effluent from the large centrifuge, the water from the Heated Tank #5252-01 can be pumped (#M5254-01) to either the Water Tank #5100-01 for use as process water or sent to Heated Tank #5200-04 for further oil/water separation.

2.3.26 Heated Tank #5200-04

The Heated Tank #5200-04 receives effluent from the large centrifuge during operation in cold weather. The cone-bottomed tank provides further separation of oil and water layers in the process water from the large centrifuge. The oily water layer in the effluent from the Heated Tank #5200-04 is sent to Process Oil Tank #5210-01 for further oil recovery. The cleaner water in the bottom of the Heated Tank #5200-04 is sent to Water Tank #5100-01 for use as process water.

ED_002469_00000091-00015

2.3.27 Heated Tank #5200-05

The Heated Tank #5200-05 receives sludge from the large centrifuge. The cone-bottomed tank provides further separation of oil and water layers in the sludge from the large centrifuge. Depending on the nature of the process water at the bottom of the Heated Tank #5200-05, the water can be pumped (#M5255-01) to Process Oil Tank #5210-01 for further oil recovery or to the Weir Tank #5200-02 for further oil and water separation.

2.3.28 Weir Tank #5200-02

The Weir Tank #5200-02 receives water from Heated Tank #5200-05 for further solids removal. sludge from the large centrifuge. The cone-bottomed tank provides further separation of oil and water layers in the sludge from the large centrifuge. Depending on the nature of the process water at the bottom of the Heated Tank #5200-05, the water can be pumped (#M5255-01) to Process Oil Tank #5210-01 for further oil recovery or to the Weir Tank #5200-02 for further solids removal.

2.3.29 NaOH Metering Pump # 5110-01

This pump supplies liquid caustic when pH in the water loop drops below 7.5 standard units via an automatic control loop. The caustic will be heated to prevent freezing in cold weather.

2.4 Utilities

Compressed air, electricity, plant water and fuel are supplied by CWMNW to the treatment facility. Electricity will be supplied at the control room.

2.4.1 Plant Air Supply

Plant air is used to operate pneumatically controlled valves and pneumatically operated tools. Supply stations are located at several areas so that the pneumatically operated tools can be used for maintenance purposes. A block valve is located at the plant boundary limit. This is the main shutoff valve for the air source. Airflow should be terminated at the main for extended shutdowns or turnarounds if air operated tools are not needed.

2.4.2 Nitrogen Supply

Nitrogen is supplied to the plant to provide inert purge for the desorber to reduce the possibility of combustion of hydrocarbons in the desorber. N_2 supply is via bulk Dewar tank.

2.4.3 Plant Water Supply

Plant water is supplied by CWMNW and is used in the treatment facility as makeup water for tanks and to supply water to various wash down stations located throughout the unit.

ED_002469_00000091-00016

2.4.4 Electric Supply

Electricity service is 480 Volt, 3 phase 60 Hz. The service is provided through the main breaker in CWMNW substation and delivered directly to the Motor Control Center main breaker.

2.4.5 Propane and LFG

Liquid propane will be supplied from a tank on a hill to the east of the pad. It will be vaporized and piped to the pad area. LFG may be used. It will be compressed to an appropriate pressure and piped to the pad area. Switching from one fuel to the other on the fly will require a second set of regulators, valves and other gas train items.

ED_002469_00000091-00017

3 STANDARD STARTUP AND SHUTDOWN PROCEDURES

Detailed startup and shutdown procedures for individual operations and overall startup and shutdown sequences are provided in the following section. Individual startup procedures are referenced where appropriate at the bottom of each operation block. Each referenced procedure should be followed in its entirety before initiating subsequent operations. In many instances there are critical interlocks programmed into the PLC, which prevent activating individual operations out of sequence.

3.1 System Startup Procedures

The following section describes the various system startup procedures. These procedures are used for the normal starting and stopping of the plant, and are applicable for the startup when the proper shutdown has been accomplished.

- Material Handling systems
- Desorption System
- Condenser (vapor recovery) System
- Utilities

3.1.1 Utilities Startup Procedure

The utility connections to the plant include the compressed air supply, plant water supply, propane gas/landfill gas, electrical supply, and nitrogen supply. During startup of the plant, these will be the first components to be turned on and it is very important from a safety standpoint that the proper procedures are followed to prevent any accidents or equipment damage.

Natural Gas Supply (or LFG Supply)

1. Before opening the natural gas supply line valve make sure all flanged connections in the line are properly tightened to avoid any leaks.
2. Be sure system side gas valves main gas hand valves are closed.
3. Open gas company side main gas valve.
4. Slowly open plant side gas valves.
5. Verify gas pressure on pressure gauge.
6. If no pressure registers on gauge, check with gas company.
7. Before opening bleed valve to purge air from piping, be sure no ignition sources are present in the surrounding area.
8. Slowly open bleed valve.
9. Check for water discharge out bleed valve.
10. If no water discharge out bleed valve, close bleed valve.
11. If water discharges out bleed valve, keep open in one minute intervals until water discharge stops. Vent to outside or provide adequate ventilation. This is done on initial setup only.
12. Set regulators #7001, 7009, 7019, and 7028 @ 20'' water column for initial setup and tuning.

ED_002469_00000091-00018

13. The pilot regulators have to be set during setup and should not have to be changed, only checked.
14. Check line for leaks with soap and water solution.

Propane Gas Supply

1. Before opening the propane supply line valve make sure all flanged connections in the line are properly tightened to avoid any leaks.
2. Be sure system gas valves are closed.
3. Open propane tank main liquid propane valve.
4. Open vaporizer liquid inlet valve, start vaporizers and run until they are up to temperature (see vaporizer mfgr instructions).
5. Slowly open plant hand valves.
6. Verify gas pressure on pressure gauge.
7. If no pressure registering on gauge, check upstream equipment.
8. Before opening bleed valve, be sure no ignition sources are present in the surrounding area.
9. Slowly open bleed valve.
10. Check for water discharge out bleed valve.
11. If no water discharge out bleed valve, close bleed valve.
12. If water discharges out bleed valve, keep open in one minute intervals until water discharge stops. Vent to outside or provide adequate ventilation. This is performed on setup and does not have to be repeated.
15. Set regulators #7001, 7009, 7019, and 7028 @ 15" water column for initial setup and tuning.
13. The pilot regulators have to be set during setup and should not have to be changed, only checked.
14. Check line for leaks with soap and water solution.

Compressed Air Supply

1. Before opening compressed air supply line valve, be sure all connections are properly tightened to avoid leaks.
2. Be sure system plant air station valves are closed.
3. Open system air valve.
4. Check for air pressure on gauge. Pressure should be 80-120 psi.
5. If dryers are used for instrument air, verify that they are operational.
6. Open all instrument airline valves.
7. Verify proper control valve operation.
8. Check lines for leaks

Plant Water Supply

1. Before opening plant water valve, be sure all connections are properly tightened to avoid leaks.
2. Be sure all system valves are closed.

ED_002469_00000091-00019

3. Slowly open cooling tower makeup water valve.
4. Turn on cooled water supply pump.
5. Check for adequate pressure on plant water supply gauge. Pressure should be 60 – 100 psi.
6. Check line for leaks.

Electrical Supply

1. BE SURE MAIN BREAKER IN CONTROL ROOM IS OFF PRIOR TO ACTIVATION OF UPSTREAM CWMNW ELECTRICAL FEED BREAKER.
2. BE SURE ALL INDIVIDUAL MOTOR CONTROL CENTER BREAKERS ARE OFF BEFORE ACTIVATION OF MAIN BREAKER IN CONTROL ROOM.
3. BE SURE ALL POWER LEADS HAVE BEEN PROPERLY CONNECTED TO ALL PROCESS EQUIPMENT BEFORE ACTIVATING INDIVIDUAL BREAKERS IN CONTROL ROOM.
4. Activate CWMNW electrical feed breaker.
5. After activation of feed breaker to motor control center, check voltage at main breaker in control center.
6. If voltage in proper range, activate main breaker in control room.
7. Check for proper power feed to breakers and all process equipment.

3.1.2 Condenser System Startup Procedure

1 Establish power to PLC, instrumentation, and MCC.
2 Set pumps in automatic mode.
3 Check that liquid level control systems are functioning properly on VRU and related tanks.
4 Start cooling tower fans.
5 Open water supply valve to all spray nozzles on the VRU and set back pressure to 30 psi.
6 Check water supply to cooling towers.
7 Establish set-point of desorber draft @ 0.2"w.c. in controller.
8 Check all related pressure gauges for pluggage in system.

NOTE: Visually inspect all vacuum/pressure relief valves for proper operation bi-annually.

3.1.3 Desorber Start-up Procedure

This procedure should be followed to start the TDU (Thermal Desorber Unit).

1. Follow Utilities Startup Procedures.
2. Open compressed air supply to the desorber.
3. Open the fuel gas supply to the desorber.
4. Start the equipment in the following order:
   Discharge Belt Conveyor #3304-01
   Pugmill Cooler #3303-01

Discharge Screw Conveyor #3302-01
Discharge Dump Valve #3301-01

5. Apply power to the desorber drive VFD, set drive to 15 Hz.
6. Start the Screw Feeder #3200-01.
7. Start the burner combustion blowers.
8. Add water at 1-2 gpm to feed end to generate steam in the drum. Check to ensure water is going into drum.
9. Start flare pilot and flare stack fan.
10. Start the feed end burner – keep in low fire mode.
11. Start the discharge end burner -- keep in low fire mode.
12. Allow the drum skin temperatures to reach approximately 900 °F. **Skin temperatures should never go over 1250 °F.**
13. Open manual valve for fume flow at flare, start ID fan, check desorber draft setting to ensure it is functioning properly.
14. Start flare pilot and flare stack fan.
15. Start inlet dump valve, feed belt conveyor, and feed hopper variable speed conveyors. Start with low feed rate, about ½ of normal operation.
16. Adjust the desorber drive VFD to the appropriate Hz (rpm) as determined from operating experience.
17. After material is discharged from pugmill cooler, stop water going to desorber for steam purge.
18. Start water to the pugmill when solids enter it.
19. Monitor all levels, temperatures and pressures of the unit.
20. Start NaOH addition system.
21. When there is sufficient oil in the process oil tank, start centrifuge and related pumps.

- **Drum Skin Temperature** - This temperature is automatically controlled and should be set at 1200 °F. The burner controls will try to maintain this temperature by increasing the rate at which the burner fires as feed enters the system. The feed inlet end of the drum should run quite a bit cooler than the set-point, even with the burner at high fire. This is due to the higher moisture in the solids in that end of the drum, and higher load on the drum.

- **Mid desorber solids temperature via internal thermocouple** - This temperature should be between 200 °F and 225 °F. This is the temperature of the solids before they overflow the dam in the middle of the drum.

- **Hot solids discharge** - The target temperature of the solids before discharge from the drum should be at least 900 °F until operating experience dictates differently. The speed of the drum may be decreased to increase the residence time of the solids, and therefore the product temperature. Likewise, speeding up the drum decreases both residence time and product temperature.

ED_002469_00000091-00021

- **Drum draft** - The draft on the drum will fluctuate, but should remain close to 0.2" w.c. The blower VFD will automatically adjust to keep the draft steady, but may need to be placed in manual mode at times.

3.2 Plant Shutdown Procedures

The treatment plant is best run continuously. However, it can be run or a shorter schedule, e.g., a 12 hour a day, 5 day week. Routine shutdown is detailed below. Other shutdown situations include equipment failure or emergency shutdown, which are discussed section 3.3 (Emergency Shutdown Procedures).

3.2.1 Hopper Shutdown Procedure

The Hopper System should be shutdown as follows:

1. Empty the hopper if possible.
2. Stop hopper variable speed conveyor.
3. Run feed belt conveyor until it is empty.
4. Stop feed belt conveyor .
5. Stop infeed dump valve.
6. Keep screw feeder running during shutdown.
7. Make certain that there is 1-2 gpm of water for steam purge going into drum.

3.2.2 Desorption System Shutdown

The Thermal Desorption System should be shutdown as follows:

1. Follow Hopper System shutdown procedure.
2. Allow the desorber to operate normally for approximately 30 minutes. Adjust burners to maintain temperatures, shutting off burners as they are not needed.
3. Cut back on water to pugmill as required as solids discharge rate drops.
4. Turn both burner systems off.
5. Turn desorber drum water off.
6. Allow the burners to complete their purge cycles.
7. Leave combustion air blowers on to cool furnace and drum.
8. Allow the drum skin temperature to drop below 250 °F.
9. Stop the drum. Do not stop drum if desorber gas temperature is above 400 °F. If necessary, add more water or nitrogen to drum to control this temperature and reduce it to less than 250 °F.
10. ID fan is on automatic. Stop ID fan when it is not needed.
11. Turn off flare pilot and flare fan.
12. Stop the combustion blowers.
13. Turn off propane vaporizer.
14. Allow discharge system to run approximately 5 minutes.
15. Stop discharge dump valve, discharge screw conveyor, pugmill, and discharge belt conveyor.

ED_002469_00000091-00022

16. Follow VRU shutdown procedure.
17. Shutdown ID fan.
18. Close manual fume valve at flare.

3.2.3 VRU System Shutdown Procedure

The VRU System should be shutdown according to the following procedure:

1. Follow the feed shutdown procedure.
2. Follow the desorber shutdown procedure.
3. Allow the desorber offgas outlet temperature to drop below 250 °F.
4. Stop centrifuge feed pump.
5. Keep centrifuge running and add water or oil to centrifuge for cleaning; stop centrifuge after cleaning.
6. Stop all pumps.
7. Stop cooling tower fans.

3.2.4 Utilities Shutdown Procedure

During normal shutdowns at the end of each shift, the utilities will not have to be shutdown. They will be closed in with their respective valves so that no flow will be allowed to the unit, but only if the unit is to be unattended for extended periods of time will they need to be shutdown. If this does happen, the following procedure should be followed:

1. Close compressed air supply valve.
2. Close plant water supply valve.
3. Close gas or propane supply valve and turn off propane vaporizers.
4. Drain plant water system at lowest point if long term shutdown and freezing is anticipated.
5. Drain water tank, oil water separator tank, VRU sump and heat exchanger if long term shutdown and freezing is anticipated.
6. Close nitrogen supply valve at Dewar bulk tank.
7. Shutdown all individual breakers in control room.
8. After shutdown of PLC, ready to leave plant, shutdown main breaker in control room.
9. Shut off the primary power supply to the unit.

3.3 Emergency Shutdown Procedures

Emergency situations may require immediate shutdown of the ORU. These could include power loss, fires, explosions, and leaks. Therefore, if an emergency situation does arise, an emergency shutdown should immediately be implemented.

Worker Injured: Caught in machinery

- ☐ turn off power to the affected machinery.
- ☐ summon offsite help if needed.

ED_002469_00000091-00023

- ☐ sound the emergency alarm.
- ☐ notify the onsite supervisor.
- ☐ have the onsite supervisor determine whether the site should be shut down.
- ☐ **DO NOT** disconnect the main power circuit breaker unless directed by the onsite supervisor.

Worker Injured: Not caught in machinery

- ☐ sound the emergency alarm.
- ☐ summon offsite help if needed.
- ☐ notify the onsite supervisor.
- ☐ have the onsite supervisor determine whether the site should be shut down.
- ☐ **DO NOT** disconnect the main power circuit breaker unless directed by the onsite supervisor.

No Worker Injured, Only Machinery Damaged:

- ☐ turn off power, water and or steam supply to affected unit.
- ☐ notify onsite supervisor.
- ☐ have the onsite supervisor determine whether the site should be shut down for repairs.
- ☐ **DO NOT** let the machinery upstream of the damaged machinery continue to feed it material.
- ☐ **DO NOT** turn off main electrical power unless directed to by the onsite supervisor.

ED_002469_00000091-00024

4 CONTROL SYSTEMS AND INSTRUMENTATION

Operators can monitor most process parameters from the control room. The control room contains: the MCC (Motor Control Center), the programmable logic controller (PLC), HMI interface, VFDs and burner management system. The major components are discussed in detail below.

4.1 Motor Control Center

The motor control center contains the breakers for powering up all electrical equipment used on the facility and the corresponding motor starter buckets for motors used in the system. Many motor starter buckets have amperage overload relay protectors. These are used to protect the motors from damage due to an overload situation. If a motor that is being driven begins to overload and draws excessive amps, the overload relay will trip out, removing power to the motor and protecting it from being damaged. Output contacts from the motor starter buckets are wired into PLC inputs to tell the PLC whether the motors are running or not running. Current Transformers (CT's) are used on conveyors and other motors to monitor the running amps of each conveyor. Signals are sent to the PLC where alarm set points can be entered.

4.2 Programmable Logic Controller

The PLC, or programmable logic controller, consists of: A power supply to convert 115 volts AC to 24 volts DC, a central processing unit and modular bus units for digital input and output operation. The PLC is programmed via software. The 15 pin serial port on the CPU can be used for connecting the PLC to the laptop computer when programming, or the PLC can be programmed from off site via modem. The small printed circuit card labeled EPROM is the CPU memory sub-module and necessary for the operation of the control program. In addition, there is a backup battery located inside the CPU. Removal of the backup battery completely resets the operating program, but will not erase the stored program. The PLC is located in the "control panel" enclosure in the control room.

The PLC receives a variety of process inputs, some of which may be outside the realm of expected normal operating conditions. The PLC is coupled with an annunciator panel that produces an audible alarm and warning lights for alarm conditions in the plant. Warning alarms are provided to alert operators that an upset condition may occur if specific operating conditions are not attended to. Though warning alarm conditions may have a moderate severity level with respect to safe operating conditions, they are often precursors to shutdown (high or low limit) conditions and should be attended to immediately.

4.3 PLC Alarm Annunciator Panel

The annunciator panel is part of the HMI located in the control room.

4.4 Burner Control Panel

Burner control is via HMI. The burner management system is located in the control panel.

ED_002469_00000091-00025

4.5 Level Transmitters

Monitoring the level of certain tanks in the plant is accomplished by several instruments. Output from the instruments is converted and displayed into a tank level on the HMI screens.

ED_002469_00000091-00026

5. PROCEDURES

The following section provides miscellaneous operation procedures for the treatment plant. Procedures include material receiving, sampling protocol for various product streams, lockout procedures, etc.

5.1 Materials Receiving Procedures

Per CWMNW existing SOPs (Standard Operating Procedures).

5.1.1 Liquid Materials

Liquids and sludges are pumped to the storage tank or tank trucks and are blended with solids to produce a friable, soil like consistency for feeding to the desorber.

5.1.2 Solid Materials

Solid (non-pumpable) materials are received and dumped on the slab floor of the Containment Building B-5. They are then subject to feed preparation to produce a feed with less than 2" top size and one which is in a friable, soil like consistency.

5.1.3 Tank Level Procedure

All tank level readings are to be recorded on a daily basis.

5.1.4 Tank Off-Loading

1. Ensure that vacuum truck or other tankers should have grounding lead connected to a suitable ground before connecting hoses and transferring liquids.
2. Off-loading of tanks will cause draft on the tank, and tanks vents must be open to prevent collapse.

5.2 Safety Device Inspection and Testing

There are numerous safety devices and instruments in the process unit that will require routine maintenance and/or inspection.

5.2.1 Tank Vents

The tanks are vented to the atmosphere via activated carbon. The vent system must be inspected on a semi-yearly basis, including removal and inspection of the flame arrestor in the line to the carbon tank, and defouling of the piping if needed. All inspections must be recorded and records maintained at the site. Use the following procedures for inspection.

ED_002469_00000091-00027

5.2.2 If Differential Pressure Cells Are Used

All tank levels are monitored with differential pressure cells. The calibration on these instruments must be checked yearly, or sooner if there is any evidence of inaccuracy. Inspection are to be recorded and maintained at the site.

5.2.3 Oxygen Sensor

The oxygen levels are monitored via a field portable analyzer. The calibration on this instrument must be checked yearly, or sooner if there is any evidence of inaccuracy and the inspections recorded and maintained at the site.

5.3 Lockout and Tag-Out Procedure

ANY TIME MAINTENANCE IS PERFORMED ON EQUIPMENT, PROPER LOCKOUT AND TAGOUT PROCEDURES MUST BE FOLLOWED TO ENSURE PERSONNEL SAFETY.

ED_002469_00000091-00028

6. DRAWINGS

08019-GA-005	Thermal Desorber – General Arrangement – Plan View
08019-GA-006	Thermal Desorber – General Arrangement – Elevation View
C1	Enhanced Water Treatment System – General Arrangement – Plan View
08019-I 001	Thermal Desorber – Piping & Instrumentation – Legend
08019-I-002	Thermal Desorber – Piping & Instrumentation – Desorber
PID 2.0	Thermal Desorber – Piping & Instrumentation – Vapor Recovery Unit
08019-I-004	Thermal Desorber – Piping & Instrumentation – Burners
PID 4.0	Piping & Instrumentation – Enhanced Water Treatment System

ED_002469_00000091-00029

Message

From: Knittel, Janette [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a955f914e8d34cb19b6f63ac60707d32-Knittel, Janette]
Sent: 8/1/2017 9:10:08 PM
To: Davies, Lynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=169eb6cbdebb4caf85f76390b8ab2674-LDavie12]; Valdez, Heather [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eb323347294d44009a369c3576798bdf-Valdez, Heather]
Subject: FW: Chemical Waste Management of the Northwest, Inc. Submittal: Class One Hazardous Waste Permit Modification

Hi. This listserv is a good way to hear about public notices re: CWMNW (or other Oregon topics as you choose). I think if you click on the Manage Subscriptions link at the bottom you can subscribe.
-Janette
PS – I find it interesting that Dan Duso instead of Rich Duval is listed as the contact.

From: DEQ Online Subscriptions [mailto:ordeq@public.govdelivery.com]
Sent: Tuesday, August 01, 2017 1:47 PM
To: Knittel, Janette <Knittel.Janette@epa.gov>
Subject: Chemical Waste Management of the Northwest, Inc. Submittal: Class One Hazardous Waste Permit Modification

Chemical Waste Management of the Northwest, Inc. Submittal: Class One Hazardous Waste Permit Modification

The Oregon Department of Environmental Quality (DEQ) is authorized by EPA to regulate hazardous waste in Oregon. DEQ is required to notify the public when a change occurs in a hazardous waste permit for any facility regulated under OAR 340-100-0002(1) pursuant to 40CFR 270.42 (a).

This notice is to inform all persons on the Chemical Waste Management of the Northwest, Inc. (CWMNW) facility mailing list of a Class I modification to the Permit. CWMNW proposed this modification to the DEQ on May 31, 2017 with additional information being submitted on July 10, 2017. The modification and notification are subject to the requirements in 40 CFR 270.42(a) adopted by OAR 340-100-0002.

The modification was submitted to the DEQ for the purpose of extending the closure completion date for Landfill L-12 to document that the L-12 closure is consistent with the approved evapotranspiration cap design or present a course of action to address any documented deficiencies. In this Class 1 permit modification CWMNW requested to extend the final closure date for Landfill L-12 to May 2018.

The DEQ approved this modification on August 1, 2017.

For more information about how DEQ regulates hazardous waste in Oregon, visit us online: DEQ Hazardous Waste Management

If you have any additional questions regarding this modification, please contact one of the following people:

Mr. James Denson
Chemical Waste Management of the Northwest, Inc.
17629 Cedar Springs Lane Arlington, OR 97812

(602) 757-3352
jdenson@wm.com

Mr. Dan Duso
Oregon Department of Environmental Quality
800 SE Emigrant Ave, Suite 330
Pendleton, OR 97801
(541) 278-4618
duso.dan@deq.state.or.us

NEWS AND ANNOUNCEMENTS:

Follow us on Twitter Find us on Facebook or

Visit Oregon Department of Environmental Quality (DEQ)

SUBSCRIBER SERVICES:
Manage Subscriptions | Unsubscribe All | Help

This email was sent to knittel.janette@epa.gov using GovDelivery Communications Cloud on behalf of the Oregon Department of Environmental Quality (DEQ) · 700 NE Multnomah St., Suite #600, Portland, OR 97232 · 503-229-5696

A.1a. THERMAL INCINERATOR FOR VOC CONTROL–FACILITY A

ED_002469_00000095-00001

"This page intentionally left blank."

ED_002469_00000095-00002

EXAMPLE COMPLIANCE ASSURANCE MONITORING

Thermal Incinerator for VOC Control: Facility A - Example 1

I. Background

A. Emissions Unit

Description:	Coater 1, Coater 2, and Coater 3
Identification:	Stack No. XXX/ Ct. YYYYY
Stack designation:	Incinerator
APC Plant ID No.	XXXXX
Facility:	Facility A Anytown, USA

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.:	Permit
Regulated pollutant (PSEU):	VOC
Emission limit:	95 percent reduction
Monitoring requirements in permit:	Continuously monitor chamber temperature [NOTE 1]

C. Control Technology: Thermal oxidizer

II. Monitoring Approach

The key elements of the monitoring approach, including the indicators to be monitored, indicator ranges, and performance criteria are presented in Table A.1a-1.

Note that this CAM submittal is intended as an example of monitoring the operation of the incinerator and does not address capture efficiency. Capture efficiency is a critical component of the overall control efficiency of the air pollution control system, and indicators of the performance of the capture system should be incorporated into the monitoring approach. However, sufficient information was not available from this case study to include monitoring of the capture system performance.

III. Data Availability [NOTE 2]

The minimum data availability for each semiannual reporting period, defined as the number of hours for which monitoring data are available divided by the number of hours during which the process operated (times 100) will be:

Chamber temperature: 90 percent

The data availability determination will not include periods of control device start up and shut down. For an hour to be considered a valid hour of monitoring data, a minimum of 45 minutes of data must be available.

ED_002469_00000095-00003

TABLE A.1a-1. MONITORING APPROACH

	Indicator No. 1	Indicator No. 2
I. Indicator	Chamber temperature	Work practice
Measurement Approach	The chamber temperature is monitored with a thermocouple.	Inspection and maintenance of the burner; observation of the burner flame.
II. Indicator Range	An excursion is defined as temperature readings less than 1500°F; excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as failure to perform annual inspection or daily flame observation.
QIP Threshold[a]	No more than six excursions below the indicator range in any semi-annual reporting period.	Not applicable
III. Performance Criteria A. Data Representativeness[b]	The sensor is located in the incinerator chamber as an integral part of the incinerator design. The minimum tolerance of the thermocouple is ±4°F or ±0.75% (of temperature measured in degrees Celius), whichever is greater. The minimum chart recorder sensitivity (minor division) is 20°F.	Not applicable
B. Verification of Operational Status	Not applicable	Not applicable
C. QA/QC Practices and Criteria[b]	Accuracy of the thermocouple will be verified by a second, or redundant, thermocouple probe inserted into the incinerator chamber with a hand held meter. This validation check will be conducted at least annually. The acceptance criterion is ±30°F.	Not applicable
D. Monitoring Frequency	Measured continuously.	Annual inspection of the burner; daily observation of the burner flame.
Data Collection Procedure	Recorded continuously on a circular chart recorder.	Record results of annual inspections and daily observations.
Averaging Period	No average is taken.	Not applicable

[a]The QIP is an optional tool for States; QIP thresholds are not required in the CAM submittal.

[b]Values listed for accuracy specifications are specific to this example and are not intended to provide the criteria for this type of measurement device in general.

Note: Capture efficiency is a critical component of the overall control efficiency of the air pollution control system, and indicators of the performance of the capture system should be incorporated into the monitoring approach. However, sufficient information was not available from this case study to include monitoring of the capture system performance.

MONITORING APPROACH JUSTIFICATION

I. Background

This is a coating facility that performs polyester film coating and paper liner coating with solvent based coatings. Three coaters are operated at the facility. Emissions from the three coaters are vented to the thermal incinerator. Emissions from mixing, coating, and drying operations are vented to this incinerator; some mixing vessels can also be vented to other oxidizers. A total of 27 sources are connected to the thermal incinerator.

II. Rationale for Selection of Performance Indicators

The incinerator chamber temperature was selected because it is indicative of the thermal incinerator operation (combustion occurring within the chamber). If the chamber temperature decreases significantly, complete combustion may not occur.

It has been shown that the control efficiency achieved by a thermal incinerator is a function of its operating temperature, or outlet temperature. By maintaining the operating temperature at or above a minimum, a level of control efficiency can be expected to be achieved. Attachment 1 presents information from the literature on incinerator control efficiency as a function of temperature.

The work practice comprised of an annual inspection and tuning of the incinerator burner was selected because an inspection verifies equipment integrity and periodic tuning will maintain proper burner operation and efficiency. In addition, a daily observation of the burner flame selected to monitor proper operation of the burner (blue flame) is appropriate.

[Sufficient information regarding bypass of the control device is not available. The damper on the bypass line, or purge line, on each coater must be closed during coating process operation to ensure that the vent stream is routed to the thermal incinerator.]

III. Rationale for Selection of Indicator Ranges

The selected indicator range for the incinerator chamber temperature is "greater than 1500°F at all times." When an excursion occurs corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. Furthermore, if the duration of a temperature excursion exceeds 10 minutes, the coating line operation will be curtailed. All excursions will be documented and reported. The selected QIP threshold level is six excursions per semiannual reporting period [see NOTE 3]. This level is less than 0.05 percent of the process operating time (based on 2,800 operating hours). If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented. This QIP threshold is supported by 6-months of monitoring data following the performance test.

The air pollution control permit issued by the State agency specifies that the incinerator must be designed to operate with a minimum operating temperature of 1500°F measured at the center of the incinerator chamber. Attachment 1 indicates that a thermal incinerator is expected to achieve 95 percent or greater destruction efficiency (DRE) at this temperature. The permit requirement is 95 percent DRE. The incinerator employs a temperature controller that maintains the desired chamber temperature by using a natural gas-fired auxiliary burner; the temperature controller is set to maintain a temperature of at least 1500°F.

ED_002469_00000095-00005

Review of historical monitoring data for a 6-month period (July-December 1993) indicates that 1500°F can be maintained on a routine basis with some excursions. The historical monitoring data for temperature indicate that normal loading to the incinerator will result in chamber temperatures of 1500°F and higher loadings to the device will result in periods of higher operating temperatures for short durations, such as during the performance test. The historical monitoring data indicate that the indicator range was exceeded seven times in the 6-month period; two of the excursions were momentary.

The performance test confirms acceptable performance of the incinerator; the incinerator achieved the required DRE of 95 percent. During the performance test, the incinerator was operating with a temperature of at least 1500°F (in the range of 1540° to 1800°F). During the performance tests the incinerator temperature was generally nearer 1700°F than 1500°F. The higher temperatures during the performance test occurred because the facility was operated near the maximum production rate with higher VOC loadings to challenge the incinerator with maximum VOC loading. The higher operating temperatures during the performance test are not the result of a change in operation of the incinerator (i.e., changing the burner set point temperature).

The performance test of the thermal incinerator was conducted in October 1993 using EPA Reference Method 25. Three test runs (1 hour each) were conducted with 11 out of 27 sources operating and venting to the incinerator; this number of operating sources is considered normal. During the performance test, the chamber temperature was measured continuously and recorded on a circular chart (Attachment 2).

The total hydrocarbon (THC) emission limit is 154 pounds per hour (lb/hr); this limit was met. The facility's operating permit requires 95 percent reduction from the thermal incinerator. During the performance test, the thermal incinerator achieved a destruction efficiency of greater than 95 percent for all three runs (95.4, 95.5, and 97.8); average DRE for the three test runs is 96.2 percent).

The production rate during the performance test was representative of highest VOC loading to the incinerator. During the performance test, the VOC input calculated from coating usage and content was XXX lb/hr [facility requested coating usage not be presented]. By comparison, for the 6 month period for which monitoring data were reviewed, the average VOC loading to the system when all three coaters were operating (calculated as the sum of the average VOC input rate, lb/hr, of each coater) was 80 percent of the amount during the performance test.

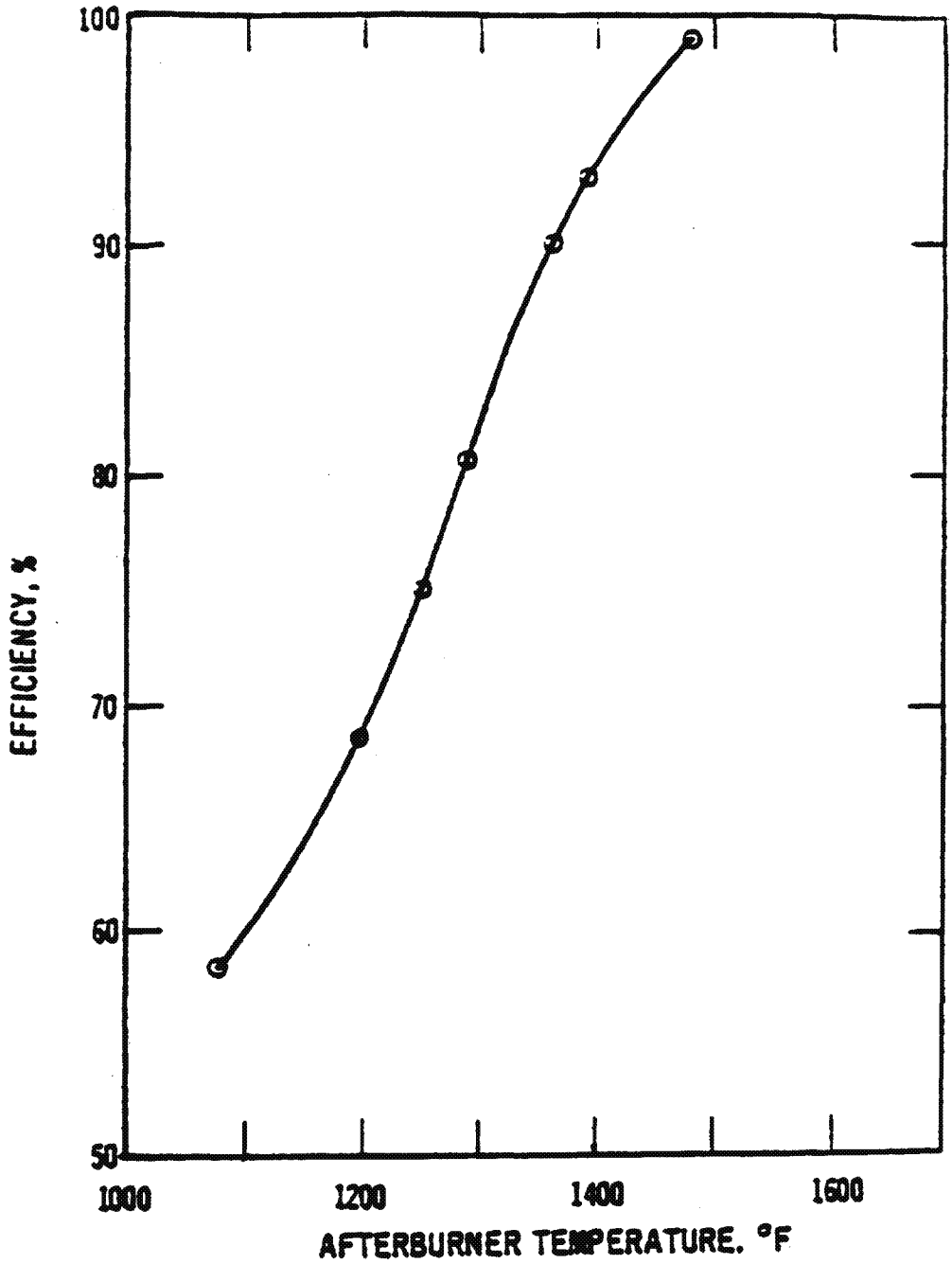
NOTE 1: CO monitoring also is a requirement in the facility's permit; however, for the purposes of this example CAM Plan, CO monitoring was not selected as an indicator. See CAM plan No. A.1b.

NOTE 2: Submittal of proposed data availability is optional; it is not a requirement of a CAM submittal.

ED_002469_00000095-00006

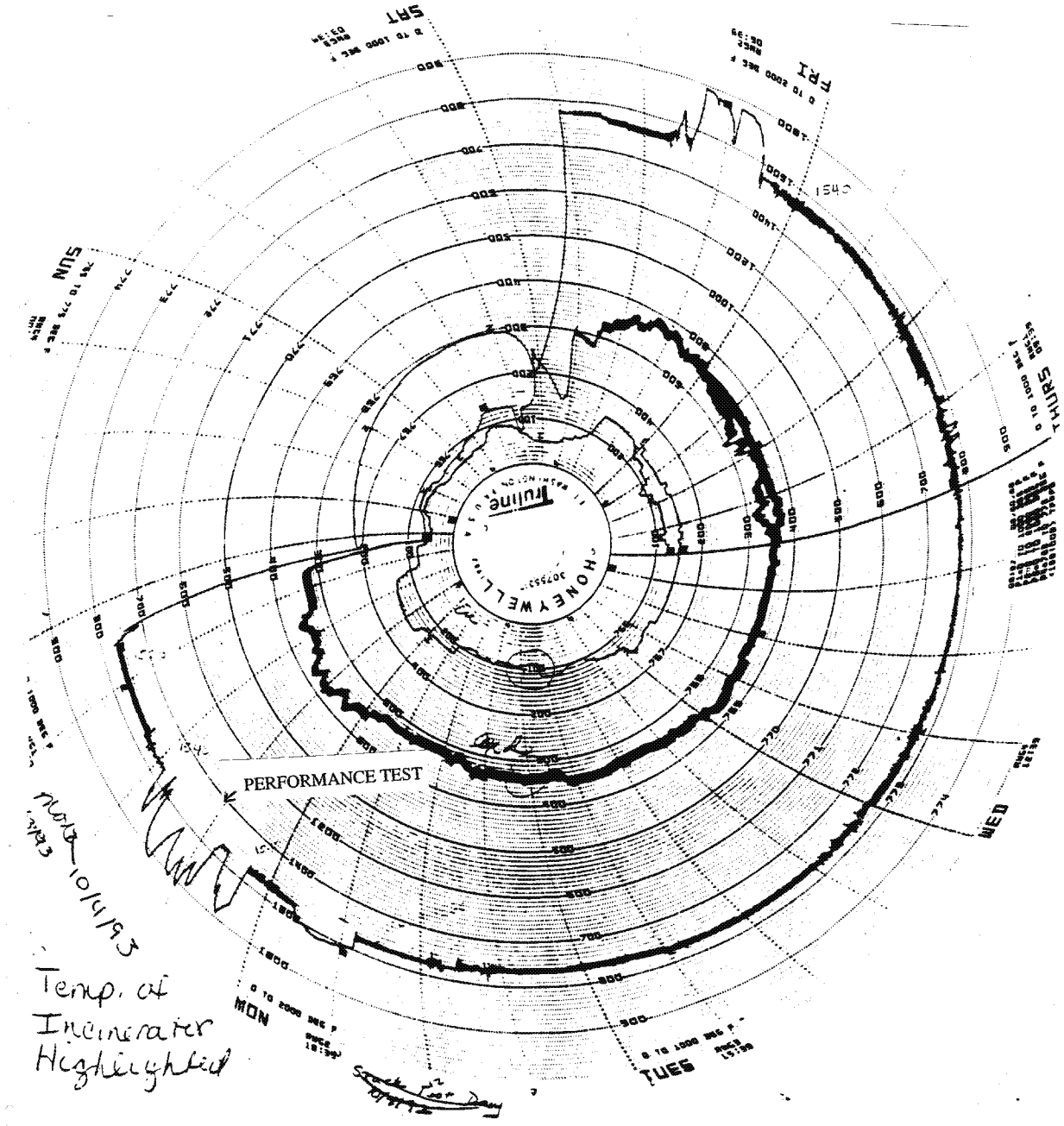
NOTE 3: Submittal of a QIP threshold is optional; it is not a requirement of a CAM submittal.

ED_002469_00000095-00007



Attachment 1. Direct-flame afterburner efficiency as a function of temperature.
Air Pollution Engineering Manual, Chapter 5 - Control Equipment for Gases and Vapors.

ED_002469_00000095-00008



Attachment 2. Temperature chart during October 1993 performance test.

ED_002469_00000095-00009

ED_002469_00000095-00010

ED_002469_00000095-00011

ED_002469_00000095-00012

ED_002469_00000095-00013

"This page intentionally left blank."

ED_002469_00000095-00014

A.1b. THERMAL INCINERATOR FOR VOC CONTROL–FACILITY A

ED_002469_00000095-00015

"This page intentionally left blank."

ED_002469_00000095-00016

EXAMPLE COMPLIANCE ASSURANCE MONITORING

Thermal Incinerator for VOC Control: Facility A - Example 1b

I. Background

A. Emissions Unit

Description:	Coater 1, Coater 2, and Coater 3
Identification:	Stack No. XXX/ Ct. YYYYY
Stack designation:	Incinerator
APC Plant ID No.	XXXXX
Facility:	Facility A Anytown, USA

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.:	Permit
Regulated pollutant (PSEU):	VOC
Emission limit:	95 percent reduction
Monitoring requirements in permit:	Continuously monitor chamber temperature Continuously monitor CO concentration

C. Control Technology: Thermal oxidizer

II. Monitoring Approach

The key elements of the monitoring approach, including the indicators to be monitored, indicator ranges, and performance criteria are presented in Table A.1b-1.

Note that this CAM submittal is intended as an example of monitoring the operation of the incinerator and does not address capture efficiency. Capture efficiency is a critical component of the overall control efficiency of the air pollution control system, and indicators of the performance of the capture system should be incorporated into the monitoring approach. However, sufficient information was not available from this case study to include monitoring of the capture system performance.

III. Data Availability [NOTE 1]

The minimum data availability for each semiannual reporting period, defined as the number of hours for which monitoring data are available divided by the number of hours during which the process operated (times 100) will be:

Chamber temperature:	90 percent
Outlet CO concentration:	95 percent

The data availability determination does not include periods of control device start up and shut down. For an hour to be considered a valid hour of monitoring data, a minimum of 45 minutes of data must be available.

ED_002469_00000095-00017

TABLE A.1b-1. MONITORING APPROACH

	Indicator No. 1	Indicator No. 2
I. Indicator	Chamber temperature	Outlet CO concentration
Measurement Approach	The chamber temperature is monitored with a thermocouple.	The CO concentration is measured with a CEMS meeting 40 CFR 60 Appendix B, Performance Specifications.
II. Indicator Range	An excursion is defined as temperature readings less than 1500°F; excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as a 1-hr average greater than 50 ppm (emission limit); excursions trigger an inspection, corrective action, and a reporting requirement.
QIP Threshold[a]	No more than six excursions below the indicator range in any semiannual reporting period.	No more than 14 excursions above the indicator range in any semiannual reporting period.
III. Performance Criteria A. Data Representativeness[b]	The sensor is located in the incinerator chamber as an integral part of the incinerator design. The minimum tolerance of the thermocouple is ±4°F or ±0.75% (of temperature measured in degrees Celius), whichever is greater. The minimum chart recorder sensitivity (minor division) is 20°F.	The system meets 40 CFR 60 Appendix B, Performance Specification 4 criteria.
B. Verification of Operational Status	Not applicable	Not applicable
C. QA/QC Practices and Criteria[b]	Accuracy of the thermocouple will be verified by a second, or redundant, thermocouple probe inserted into the incinerator chamber with a hand held meter. This validation check will be conducted at least annually. The acceptance criterion is ±30°F.	Calibration drift will be automatically checked every 24 hours by zero air and span gas.
D. Monitoring Frequency	Measured continuously.	CO concentration is measured continuously.
Data Collection Procedure	Recorded continuously on a circular chart recorder.	The average of six 10-second readings are recorded once per minute by the DAS (electronic record).
Averaging Period	No average is taken.	1-hour average of 60 1-minute readings.

[a]The QIP is an optional tool for States; QIP thresholds are not required in the CAM submittal.
[b]Values listed for accuracy specifications are specific to this example and are not intended to provide the criteria for this type of measurement device in general.
Note: Capture efficiency is a critical component of the overall control efficiency of the air pollution control system, and indicators of the performance of the capture system should be incorporated into the monitoring approach. However, sufficient information was not available from this case study to include monitoring of the capture system performance.

MONITORING APPROACH JUSTIFICATION

I. Background

This facility performs polyester film coating and paper liner coating with solvent based coatings. Three coaters are operated. Emissions from the three coaters are vented to the thermal incinerator. Emissions from mixing, coating, and drying operations are vented to this incinerator; some mixing vessels can also be vented to other oxidizers. A total of 27 sources are connected to the thermal incinerator.

II. Rationale for Selection of Performance Indicators

The incinerator chamber temperature was selected because it is indicative of the thermal incinerator operation (combustion occurring within the chamber). If the chamber temperature decreases significantly, complete combustion may not occur.

It has been shown that the control efficiency achieved by a thermal incinerator is a function of its operating temperature, or outlet temperature. By maintaining the operating temperature at or above a minimum, a level of control efficiency can be expected to be achieved. Attachment 1 presents information from the literature on incinerator control efficiency as a function of temperature.

The CO concentration at the outlet of the thermal incinerator is an indicator of incomplete combustion. Significant increases in CO indicate that combustion efficiency has decreased and corrective action should be taken.

[Sufficient information regarding bypass of the control device is not available. The damper on the bypass line, or purge line, on each coater must be closed during coating process operation to ensure that the vent stream is routed to the thermal incinerator.]

III. Rationale for Selection of Indicator Ranges

A. Thermal Incinerator Temperature

The selected indicator range for the incinerator chamber temperature is "greater than 1500°F at all times." When an excursion occurs corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. Furthermore, if the duration of a temperature excursion exceeds 10 minutes, the coating line operation will be curtailed. All excursions will be documented and reported. The selected QIP threshold level is six excursions per semiannual reporting period (see NOTE 2). This level is less than 0.05 percent of the process operating time (based on 2,800 operating hours). If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented. This QIP is supported by 6 months of monitoring data following the performance test.

The air pollution control permit issued by the State agency specifies that the incinerator must be designed to operate with a minimum operating temperature of 1500°F measured at the center of the incinerator chamber. Attachment 1 indicates that a thermal incinerator is expected to achieve 95 percent or greater destruction efficiency (DRE) at this temperature. The permit requirement is 95 percent DRE. The incinerator employs a temperature controller that maintains the desired chamber temperature by

ED_002469_00000095-00019

using a natural gas-fired auxiliary burner; the temperature controller is set to maintain a temperature of at least 1500°F.

Review of historical monitoring data for a 6-month period (July to December 1993) indicates that 1500°F can be maintained on a routine basis with some excursions. The historical monitoring data for temperature indicate that normal loading to the incinerator will result in chamber temperatures of 1500°F and higher loadings to the device will result in periods of higher operating temperatures for short durations, such as during the performance test. The historical monitoring data indicate that the indicator range was exceeded seven times in the 6-month period; two of the excursions were momentary.

The performance test confirms acceptable performance of the incinerator; the incinerator achieved the required DRE of 95 percent. During the performance test, the incinerator was operating with a temperature of at least 1500°F (in the range of 1540° to 1800°F). During the performance tests the incinerator temperature was generally nearer 1700°F than 1500°F. The higher temperatures during the performance test occurred because the facility was operated near the maximum production rate with higher VOC loadings to challenge the incinerator with maximum VOC loading. The higher operating temperatures during the performance test are not the result of a change in operation of the incinerator (i.e., changing the burner set point temperature).

The performance test of the thermal incinerator was conducted in October 1993 using EPA Reference Method 25. Three test runs (1 hour each) were conducted with 11 out of 27 sources operating and venting to the incinerator; this number of operating sources is considered normal. During the performance test, the chamber temperature was measured continuously and recorded on a circular chart (Attachment 2).

The THC emission limit is 154 pounds per hour (lb/hr); this limit was met during the test. The facility's operating permit requires 95 percent reduction from the thermal incinerator. During the performance test, the thermal incinerator achieved a destruction efficiency of greater than 95 percent for all three runs (95.4, 95.5, and 97.8); the average DRE for the three test runs is 96.2 percent. The average outlet CO concentration for each of the three performance test runs was 2.3, 10.2, and 1.6 ppmvd.

The production rate during the performance test was representative of highest VOC loading to the incinerator. During the performance test, the VOC input calculated from coating usage and content was XXX lb/hr [facility requested coating usage not be presented]. By comparison, for the 6-month period for which monitoring data were reviewed, the average VOC loading to the system when all three coaters were operating (calculated as the sum of the average VOC input rate, lb/hr, of each coater) was 80 percent of the amount during the performance test.

B. Outlet CO Concentrations

The selected indicator range for the 1-hour average CO concentration is "less than 50 ppmvd, as measured." When an excursion occurs corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported. The selected QIP threshold level is 14 excursions per semiannual reporting period. This level is less than 0.5 percent of the process operating time (based on 2,800 operating hours). If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented. This QIP is supported by 3 months of monitoring data following the performance test.

ED_002469_00000095-00020

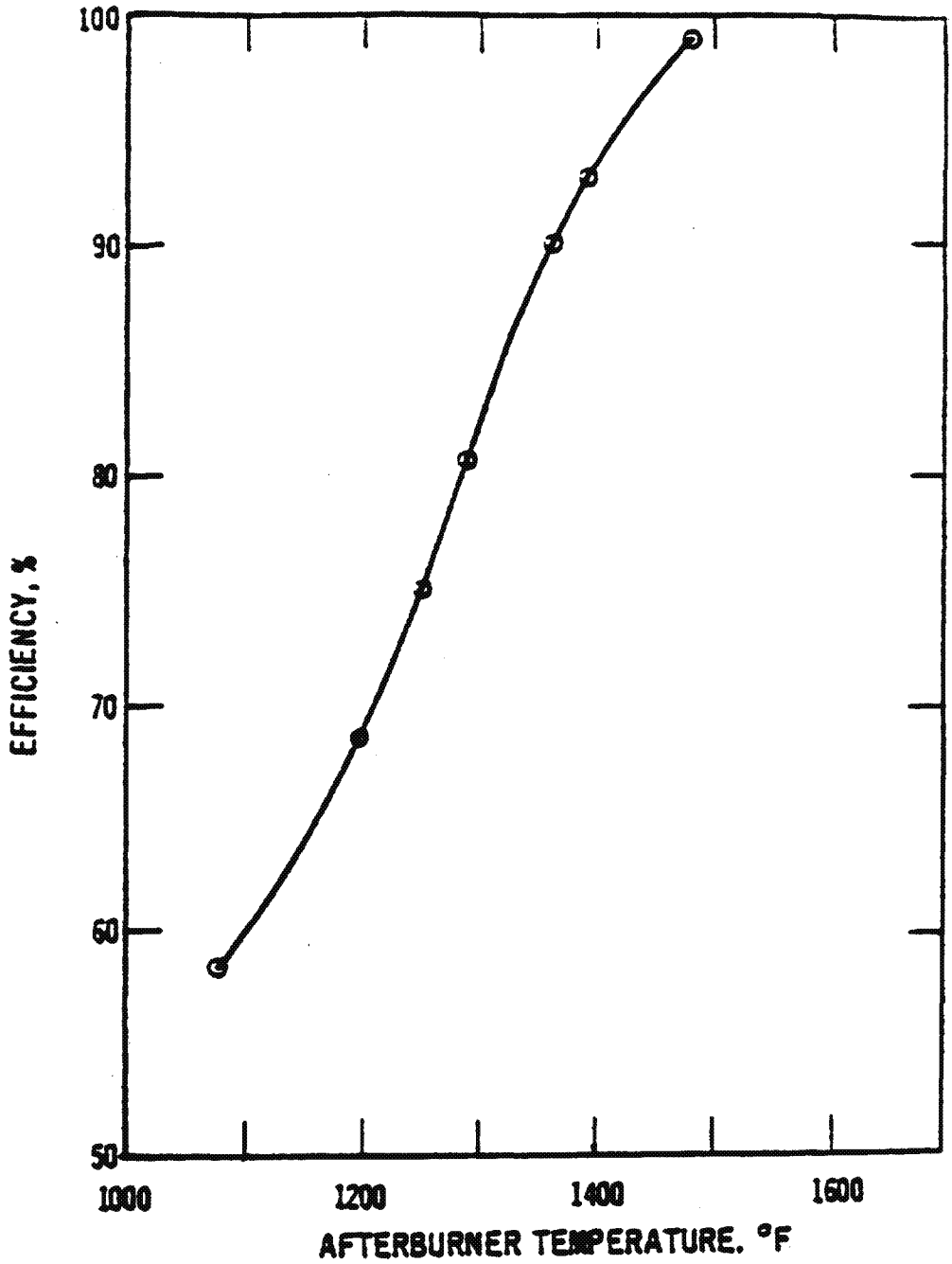
Review of historical monitoring data for a 3-month period (September through December 1993) indicates that the 50 ppmvd CO concentration limit can be maintained on a routine basis with some excursions. The historical monitoring data indicate that the indicator range was exceeded eight times in the 3-month period. Based upon these historical data, the threshold for excursions is no more than 14 excursions above 50 ppmvd in a 6-month period (i.e., 7 excursions per quarter).

The performance test conducted in October 1993 is discussed above in section III.A. The CO concentrations were well under the 50 ppmvd limit (measured CO) for all three runs during the test.

NOTE 1: Submittal of proposed data availability is optional; it is not a requirement of a CAM submittal.

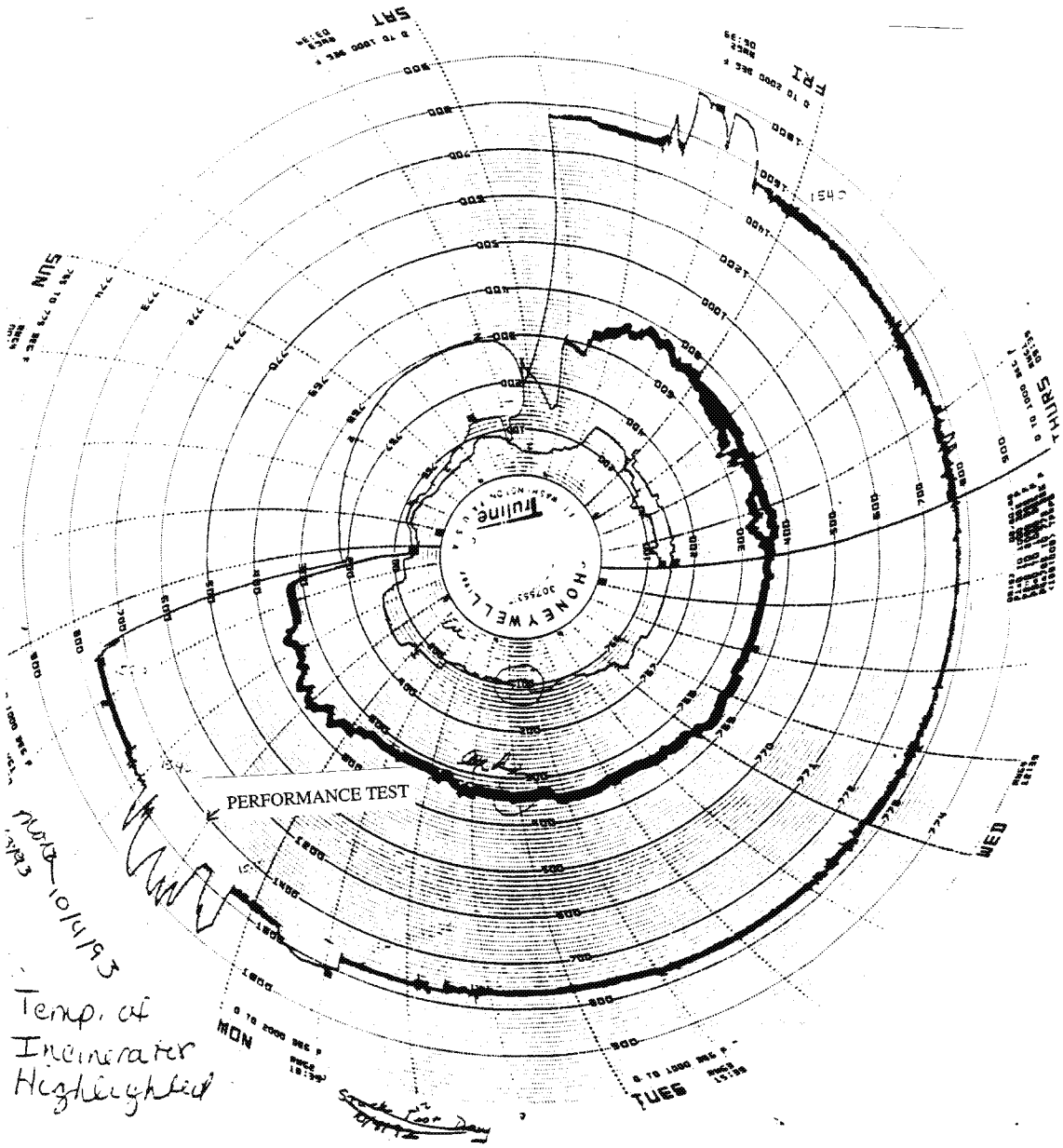
NOTE 2: Submittal of a QIP Threshold is optional; it is not a requirement of a CAM submittal.

ED_002469_00000095-00021



Attachment 1. Direct-flame afterburner efficiency as a function of temperature.
Air Pollution Engineering Manual, Chapter 5 - Control Equipment for Gases and Vapors.

ED_002469_00000095-00022



Attachment 2. Temperature chart during October 1993 performance test.

ED_002469_00000095-00023

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health
and Environmental Control

Part 70 Air Quality Permit

Giant Cement Company
Post Office Box 218
Harleyville, South Carolina 29448
(permit updated 6/8/06)

In accordance with the provisions of the Pollution Control Act, Sections 48-1-50(5) and 48-1-110(a), and the 1976 Code of Laws of South Carolina, as amended, Regulation 61-62, the above named permittee is hereby granted permission to discharge air contaminants into the ambient air. The Bureau of Air Quality authorizes the operation of this facility and its applicable equipment specified herein in accordance with valid construction permits, and the plans, specifications, and other information submitted in the Title V permit application dated September 3, 2002 and the PSD construction permit application dated June 24, 2002.

This permit is subject to and conditioned upon the terms, limitations, standards, and schedules contained in or specified on the 213 pages, with the accompanying attachments, of this permit.

Permit Number:	**TV-0900-0002**	**Effective Date:**	**April 1, 2003**
Issue Date:	**February 11, 2003**	**Expiration Date:**	**March 31, 2008**

Director, Engineering Services Division
Bureau of Air Quality

RECORD OF REVISIONS			
Revision Number	**Final Revision Date**	**Type of Revision (AA, MM, SM)**	**Description of Change (Specific Parts, Sections, and Tables Revised or Added)**
1	7/22/03	AA	Plant modification associated with construction permit 0900-0002-DO.
2	7/22/03	AA	Extended permit life to 5 years
3	8/14/03	AA	Corrected typographical errors found on pages 21, 32, 68, 69, 81, 94, 117, 152, 157, 185, 195, 202 and 205
4	9/3/04	MM	Added the requirements of SC Regulation 61-62.99 and addressed other facility requests.
5	6/8/06		Updated equipment due to minor changes associated with the construction of the new kiln system and associated equipment. Updated the current equipment being removed from service.

AA = Administrative Amendment
MM = Minor Modification
SM = Significant Modification

Send copies of all revisions to Permit File, Main File, Regional EQC Office, US EPA, and Environmental Contact.

TABLE OF CONTENTS

Part 1.0 GENERAL INFORMATION

A. Applicable Permit Dates
B. Facility Information
C. Facility Address
D. Facility Billing Address

Part 2.0 APPLICABILITY

Part 3.0 GENERAL CONDITIONS

A. Permit Issuance
B. Permit Expiration and Renewal
C. Severability
D. Fee Assessment and Payment
E. Submittal of Information
F. Public Participation
G. Permit Reopening
H. Temporary Sources
I. Emergency Provisions
J. Property Rights
K. Economic Incentives, Marketable Permits, Emission Trading
L. Title IV Sources
M. Administrative Permit Amendments
N. Minor Permit Modifications
O. Significant Modification Procedures
P. Duty to Comply
Q. Inspection and Entry
R. Compliance Requirements
S. Record keeping Requirements
T. Schedule of Compliance
U Need to Halt or Reduce Activity Not a Defense
V. Operational Flexibility

Part 4.0 FACILITY WIDE REQUIREMENTS

A. Limitations, Standards, and Other Requirements
B. Facility Wide Conditions

Part 5.0 EMISSION UNIT REQUIREMENTS

A. Emission Unit Description
B. Control Devices Description
C. Equipment Description
D. Emissions Limits and Standards
E. Emission Unit Conditions

Part 6.0 MONITORING AND REPORTING REQUIREMENTS

A. Monitoring and Reporting
B. Monitoring and Reporting Conditions
C. Title V Reporting Schedule

Part 7.0 ADDITIONAL CONDITIONS

A. Specific Conditions
B. Operational Flexibility
C. Compliance Schedule
D. Permit Shield

ATTACHMENT A - Modeled Emission Rates
ATTACHMENT B - Insignificant Activities
ATTACHMENT C - Applicable and Non-applicable Federal and State Regulations

PART 1.0 GENERAL INFORMATION

A. APPLICABLE PERMIT DATES

ISSUE DATE:	February 11, 2003
EFFECTIVE DATE:	April 1, 2003
EXPIRATION DATE:	March 31, 2008
RENEWAL APPLICATION DUE:	September 30, 2007

B. FACILITY INFORMATION

ENVIRONMENTAL CONTACT:	Mr. Clint Roberts
CONTACT TELEPHONE NUMBER:	803-496-5033
CONTACT FAX NUMBER:	803-496-2195
INTERNET E-MAIL ADDRESS:	croberts@grr-giant.com
FACILITY LOCATION:	654 Judge Street, SC Route 453 and I-26
COUNTY:	Dorchester
SIC CODE(S):	3241
NAICS CODE(S):	327310
AFS CODE:	4503500002

C. FACILITY ADDRESS

FACILITY NAME:	Giant Cement Company
ADDRESS:	Post Office Box 218
CITY, STATE, ZIP CODE:	Harleyville, South Carolina 29448

D. FACILITY BILLING ADDRESS

FACILITY BILLING NAME:	Giant Cement Company
ADDRESS:	Post Office Box 218
CITY, STATE, ZIP CODE:	Harleyville, South Carolina 29448

PART 2.0 APPLICABILITY [SC Regulation 61-62.70.3(a)]

The following sources are subject to permitting requirements of Part 70:

1. Any major source;

2. Any source, including an area source, subject to a standard, limitation, or other requirement under Section 111 of the Clean Air Act (Act);

3. Any source, including an area source, subject to a standard or other requirement under Section 112 of the Act, except that a source is not required to obtain a permit solely because it is subject to regulations or requirements under Section 112(r) of the Act;

4. Any affected source under the Title IV Acid Rain Program;

5. Any source in a source category designated by the Administrator of the US Environmental Protection Agency (US EPA) (Administrator) pursuant to this Section; and

6. Any source listed in SC Regulation 61-62.70.3(a) that is exempt from the requirement to obtain a permit under SC Regulation 61-62.70.3(b) may opt to apply for a permit under this Part 70 program.

The following source categories are exempted from the obligation to obtain a Part 70 permit, but are not exempted from other SC Department of Health and Environmental Control (Department) and US EPA requirements [SC Regulation 61-62.70.3(b)(4)]:

1. All sources and source categories that would be required to obtain a permit solely because they are subject to 40CFR60, Subpart AAA - Standards of Performance for New Residential Wood Heaters; and

2. All sources and source categories that would be required to obtain a permit solely because they are subject to 40 CFR 61, Subpart M - National Emission Standard for Hazardous Air Pollutants for Asbestos, Section 61.145, Standard for Demolition and Renovation.

Any person that operates or proposes to operate a particular source or installation may submit a request in writing that the Department makes a determination as to whether a particular source or installation is subject to the permit requirements of this regulation. The request must contain such information as is believed sufficient for the Department to make the requested determination. [SC Regulation 61-62.70.3(e)]

PART 3.0 GENERAL CONDITIONS

This section describes conditions and provisions applicable to all Part 70 sources. Specific source category conditions and requirements are contained in Part 5.0 of this permit. (Revised 05/21/99)

A. PERMIT ISSUANCE [SC Regulation 61-62.70.7(a)(1)]

A permit, permit modification, or renewal may be issued only if the following conditions have been met:

1. The Department has received a complete application for a permit, permit modification, or permit renewal;

2. Except for modifications qualifying for minor permit modification procedures under SC Regulation 61-62.70.7(e)(2) and (3), the Department has complied with the requirements for public participation under SC Regulation 61-62.70.7(h);

3. The Department has complied with the requirements for notifying and responding to affected States under SC Regulation 61-62.70.8(b);

4. The conditions of the permit provide for compliance with all applicable requirements and the requirements of Part 70; and

5. The Administrator has received a copy of the proposed permit and any notices required under SC Regulation 61-62.70.8(a) and (b), and has not objected to issuance of the permit under SC Regulation 61-62.70.8(c) within the required time frame.

A Title V operating permit does not excuse any facility from the preconstruction permitting requirements under SC Regulation 61-62.1.

B. PERMIT EXPIRATION AND RENEWAL [SC Regulation 61-62.70.7(c)] (Revised 11/13/98)

Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with SC Regulation 61-62.70.5(a)(1)(iii), 62.70.5(a)(2)(iv), and 62.70.7(b). In this case, the permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the permit including any permit shield that may be granted pursuant to SC Regulation 61-62.70.6(f) shall remain in effect until the renewal permit has been issued or denied.

Permits being renewed are subject to the same procedural requirements, including those for public participation, affected State and US EPA review, that apply to initial permit issuance.

C. SEVERABILITY [SC Regulation 61-62.70.6(a)(5)]

The provisions of this permit are severable, and if any provision of this permit, or application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

D. FEE ASSESSMENT AND PAYMENT [SC Regulation 61-62.70.6(a)(7)]

The owners or operators of Part 70 sources shall pay fees to the Department consistent with the fee schedule approved pursuant to South Carolina Regulation 62.70.9.

E. SUBMITTAL OF INFORMATION [SC Regulation 61-62.70.6(a)(6)(v)]

The permittee shall furnish to the Department, within a reasonable time, any information that the Department may request, in writing, to determine whether cause exists for modifying, revoking, reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Department copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. The Department may also request that the permittee furnish such records directly to the Administrator along with a claim of confidentiality.

F. PUBLIC PARTICIPATION [SC Regulation 61-62.70.7(h)]

Except for modifications qualifying for minor permit modification procedures, all permit proceedings, including initial permit issuance, significant modifications, and renewals, shall provide adequate procedures for public notice including offering an opportunity for public comment and hearing on the draft permit. These procedures shall meet all requirements of SC Regulation 61-62.70.7(h).

G. PERMIT REOPENING [SC Regulation 61-62.70.7(f)] (Revised 05/21/99)

This permit shall be reopened and revised under any of the following circumstances:

1. Additional applicable requirements under the Act become applicable to a major Part 70 source for which three or more years remain on the original term of the permit. Such revisions shall be made not later than eighteen (18) months following promulgation of relevant standards or regulations unless the regulation specifically provides for a longer compliance period. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to SC Regulation 61-62.70.7(c)(1)(ii).

2. Additional requirements, including excess emission requirements, become applicable to an affected source under the acid rain program. Excess emissions offset plans shall be deemed to be incorporated into this permit upon approval by the Administrator.

3. The Department or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

4. The Administrator or the Department determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

In addition, the permit may be modified, revoked, reopened, and reissued, or terminated for cause by the Department. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [SC Regulation 61-62.70.6(a)(6)(iii)]

Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Such reopenings shall be as expeditious as practicable. Reopenings shall not be initiated before a notice of such intent is provided to the Part 70 source by the Department at least thirty (30) days in advance of the date that the permit is to be reopened, except that the Department may provide a shorter time period in the case of an emergency.

H. TEMPORARY SOURCES [SC Regulation 61-62.70.6(e)]

In accordance with SC Regulation 61-62.70.6(e), the Department may issue a single permit authorizing emissions from similar operations by the same source owner or operator at multiple temporary locations. The operation must be temporary and involve at least one change in location during the term of the permit. No sources subject to Title IV of the Act shall be permitted as a temporary source.

I. EMERGENCY PROVISIONS [SC Regulation 61-62.70.6(g)(3)] (Revised 05/21/99)

In the case of an emergency, as defined in SC Regulation 61-62.70.6(g), the permittee shall verify an affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

2. The permitted facility was at the time being properly operated; and

3. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.;

Additionally, the permittee shall submit verbal notification of the emergency to the Department within twenty-four (24) hours of the time when emission limitations were exceeded, followed by written notifications within thirty (30) days. This notice fulfills the requirement of SC Regulation 61-62.70.6(a)(3)(iii)(B). This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

This provision is in addition to any emergency or upset provision contained in any applicable requirement. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

J. PROPERTY RIGHTS [SC Regulation 61-62.70.6(a)(6)(iv)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

K. ECONOMIC INCENTIVES, MARKETABLE PERMITS, EMISSION TRADING [SC Regulation 61-62.70.6(a)(8)]

No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

L. TITLE IV SOURCES [SC Regulation 61-62.70.6(a)(4)]

The permittee is prohibited from emissions exceeding any allowances that the source lawfully holds under Title IV of the Act or the regulations promulgated thereunder. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. No limit shall be placed on the number of allowances held by a source. The source may not, however, use allowances as a defense for noncompliance with any other applicable requirement. Any such allowances shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Act.

Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator. [SC Regulation 61-62.70.6(a)(1)(ii)]

M. ADMINISTRATIVE PERMIT AMENDMENTS [SC Regulation 61-62.70.7(d)(3)]

An administrative permit amendment as defined in SC Regulation 61-62.70.7(d) can be made by the Department consistent with the following:

1. The Department shall take no more than sixty (60) days from receipt of a request for an administrative permit amendment to take final action on such request, and may incorporate such changes without providing notice to the public or affected States provided that it designates any such permit revisions as having been made pursuant to this paragraph.

2. The Department shall submit a copy of the revised permit to the Administrator.

3. The source may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request, except transfer/ownership which must comply with SC Regulation 61-62.1, Section II(E).

N. MINOR PERMIT MODIFICATIONS [SC Regulation 61-62.70.7(e)(2)]

Minor permit modifications can be made by the Department in accordance with SC Regulation 61-62.70.7(e)(2)(i). An application requesting the use of minor permit modification procedures shall meet the requirements of SC Regulation 61-62.70.5(c) and shall include items as specified in SC Regulation 61-62.70.7(e)(2)(ii).

The Department may modify the procedure outlined in SC Regulation 61-62.70.7(e)(2) to process groups of a source's applications for certain modifications eligible for minor permit modification processing. Group processing of minor permit applications will proceed as outlined in SC Regulation 61-62.70.7(e)(3).

O. SIGNIFICANT MODIFICATION PROCEDURES [SC Regulation 61-62.70.7(e)(4)]

Significant permit modification procedures shall be used for applications requesting permit modifications listed in SC Regulation 61-62.70.7(e)(4)(i). Significant permit modifications shall meet all requirements of this Part 70, including those for applications, public participation, review by affected States, and review by EPA, as they apply to permit issuance and permit renewal.

P. DUTY TO COMPLY [SC Regulation 61-62.70.6(a)(6)(i)]

The permittee must comply with all of the conditions of this permit. Any permit noncompliance constitutes a violation of the SC Pollution Control Act and/or the Federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of permit renewal application.

Q. INSPECTION AND ENTRY [SC Regulation 61-62.70.6(c)(2)]

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Department or an authorized representative to perform the following:

1. Enter upon the permittee's premises where a Part 70 source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit.

3. Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

4. As authorized by the Act and/or the SC Pollution Control Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

R. COMPLIANCE REQUIREMENTS [SC Regulation 61-62.70.6(c)(5)] (Revised 05/21/99)

Consistent with SC Regulation 61-62.70.6(a)(3), this permit contains compliance certification, testing, monitoring, reporting, and record keeping requirements sufficient to assure compliance with the terms and conditions of this permit. Any document (including reports) shall contain a certification by a responsible official or designee that meets the requirements of SC Regulation 61-62.70.5(d).

The responsible official or designee shall certify, annually, compliance with the conditions of this permit. The compliance certification shall include the following:

1. The identification of each term or condition of the permit that is the basis of the certification.

2. The identification of the methods or means used for determining the compliance status with each term and condition during the certification period, and whether such methods or means provide continuous or intermittent data.

3. The status of compliance with the terms and conditions of the permit for the period covered by the certification.

4. Such other facts as the Department may require to determine the compliance status of the source.

5. All compliance certifications shall be submitted to the Administrator as well as to the Department.

The annual compliance certification shall be sent to the Environmental Protection Agency (EPA) and the South Carolina Department of Health and Environmental Control - Bureau of Air Quality (SC DHEC - BAQ) at the following addresses:

US EPA, Region 4
Air Enforcement Branch
61 Forsyth Street
Atlanta, GA 30303

SC DHEC - BAQ
Technical Management Section
2600 Bull Street
Columbia, SC 29201

S. SCHEDULE OF COMPLIANCE [SC Regulation 61-62.70.5(c)(8)] (Revised 5/21/99)

The permittee shall submit a compliance schedule that contains the following for all Part 70 sources that are not in compliance with all applicable rules:

1. A description of the source's compliance status and where appropriate a compliance schedule with respect to all applicable requirements as follows:

(a) For applicable requirements with which the source is in compliance, a statement that during the permit term the source will continue to comply with such requirements.

(b) For applicable requirements that will become effective during the permit term, a statement that the source will meet such requirements on a timely basis, unless a more detailed schedule is expressly required by the applicable requirement.

(c) A schedule of compliance for sources that are not in compliance with all applicable requirements at the time of permit issuance. This schedule shall include a narrative description of how the source will achieve compliance, a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with all applicable requirements. This compliance schedule shall be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

2. A schedule for submission of certified progress reports no less frequently than every six (6) months for sources required to have a schedule of compliance to remedy a violation. Progress reports shall meet the requirements of SC Regulation 61-62.70.6(c)(4)(i) and (ii).

3. The compliance plan content requirements specified in this paragraph shall apply and be included in the acid rain portion of a compliance plan for an affected source, except as specifically superseded by regulations promulgated under Title IV of the act with regard to the schedule and method(s) the source will use to achieve compliance with acid rain emissions limitations.

T. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE
[SC Regulation 61-62.70.6(a)(6)(ii)]

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. OPERATIONAL FLEXIBILITY [SC Regulation 61-62.70.7(e)(5)]

In accordance with SC Regulation 61-62.70.7(e)(5), a permitted facility is authorized to make changes within their facility without requiring a permit revision, if the changes are not modifications under Title I of the Act and the changes do not exceed the emissions allowable under this permit. The permitted facility shall provide the Administrator and the Department written notification as required by SC Regulation 61-62.70.7(e)(5) at least seven (7) days prior to such changes.

PART 4.0 FACILITY WIDE REQUIREMENTS

A. LIMITATIONS, STANDARDS, AND OTHER REQUIREMENTS

Table 4.1 contains summaries of facility wide limitations, standards, and other requirements.

TABLE 4.1 EMISSION LIMITS AND STANDARDS

Pollutant	Limit/Standard	Regulation	State Only Requirement	Condition Number
State New Source Review	As Specified in Attachment A	SC 61-62.1, Section II (A)	Yes	4.B.2 4.B.3
Toxic Air Pollutants	As Specified in Attachment A	SC 62.5, Std No. 8	Yes	4.B.3
Hazardous Air Pollution	Comply with Regulation	SC 61-62.4	No	N/A
Open Burning	Comply With Regulation	SC 61-62.2	No	N/A
Fugitive Emissions	Comply With Regulation	SC 61-62.6, Sec III	No	N/A
Ozone Depleting Substances	Specific To Subpart	40CFR82, Subpart F	No	4.B.7
Asbestos	Specific To Subpart	40CFR61.145	No	4.B.8

The maximum allowable emission limits above are derived from the various Federal and State regulations that govern the operation of this type of facility. All applicable facility wide emission limits and corresponding regulations are listed above. Additional operating requirements which may be more stringent than those above are contained in Part 5.0, Part 6.0, and Part 7.0 of this permit.

B. FACILITY WIDE CONDITIONS

Condition Number	Condition
4.B.1	In accordance with SC Regulation 61-62.1, Section II, the permittee must comply with all applicable statutes and regulations of the United States and the State of South Carolina. This permit does not relieve the permittee from compliance with applicable local laws, ordinances, and regulations.

Condition Number	Condition
4.B.2	Air dispersion modeling (or other method) has demonstrated that this facility's operation will not interfere with the attainment and maintenance of any state or federal standard. Any changes in the parameters used in the air dispersion modeling may require a review by the facility to determine continuing compliance with these standards. These potential changes include any decrease in stack height, decrease in stack velocity, increase in stack diameter, decrease in stack exit temperature, increase in building height or building additions, increase in emission rates, decrease in distance between stack and property line, changes in vertical stack orientation, and installation of a rain cap that impedes vertical flow. Parameters that are not required in the determination will not invalidate the demonstration if they are modified. The emission rates used in the determination are listed in Attachment A of this permit. Higher emission rates may be administratively incorporated into Attachment A of this permit provided a demonstration using these higher emission rates shows the attainment and maintenance of any state or federal standard or with any other applicable requirement. Variations from the input parameters in the demonstration shall not constitute a violation unless the maximum allowable ambient concentrations identified in the standard are exceeded.
4.B.3	The owner/operator shall maintain this facility in compliance with the pollutant limitations in Part 4, Part 5, Part 6, Part 7, and/or the emission rates as listed in Attachment A of this Part 70 operating permit, whichever is more restrictive. This is a State Only enforceable requirement. Should the facility wish to increase the emission rates listed in Attachment A, it may do so by the administrative process specified in condition 4.B.2
4.B.4	A list of equipment which are considered insignificant pursuant to SC Regulation 61-62.70.5(c) has been submitted with your Title V application and reviewed by our staff. The list, including source descriptions and citation for exemption, is summarized in Attachment B of the permit. Attachment B excludes those activities identified in Part A of the insignificant activities list. Written notification to the Bureau of Air Quality is required for the addition of any new equipment which may meet the definition of insignificant or exempt as described above, excluding those sources listed in Part A of the insignificant activities list. (Revised 11/13/98)
4.B.5	In accordance with SC Regulation 61-62.1 Section II, (C)(3), for all sources not required to have continuous emissions monitors, in the event of any malfunction of air pollution control equipment or system, process upset or other equipment failure which results in discharges of air contaminants lasting for one hour or more and which are greater than those discharges described for normal operation in the permit application shall be reported to the local Environmental Quality Control (EQC) District office within twenty-four (24) hours after the beginning of the occurrence. The permittee shall also submit a written report within thirty (30) days of the occurrence. This report shall be submitted to the Manager of the Technical Management Section, Bureau of Air Quality (BAQ). The report shall contain as a minimum, the following: the identity of the emission unit and associated equipment where excess emissions occurred, the magnitude of excess emissions, the time and duration of excess emissions, the steps taken to remedy the malfunction and to prevent a recurrence, documentation that control equipment and processes were at all times maintained and operated, to the maximum extent practicable, in a manner that was consistent with good practice for minimizing emissions. Such a report shall in no way serve to excuse, otherwise justify, or in any manner affect any potential liability or enforcement action resulting from the occurrence. This defines the Department's definition of prompt in its relation to the degree of reporting as specified by SC Regulation 61-62.70.6(a)(3)(iii)(b).
4.B.6	The owners or operators of Part 70 sources shall complete and submit emissions inventories as required consistent with the schedule approved pursuant to SC Regulation 61-62.1, Section III. This requirement notwithstanding, an emissions inventory may be required at any time in order to determine the compliance status of any facility.

Condition Number	Condition
4.B.7	The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40CFR82, Subpart F, Protection of Stratospheric Ozone, Recycling and Emissions Reduction, except as provided for motor vehicle air conditioners (MVAC's) in Subpart B. If the permittee performs a service on motor (fleet) vehicles that involves ozone-depleting substance refrigerant in MVAC's, the permittee is subject to all applicable requirements of 40CFR82, Subpart B, Servicing of MVAC's.
4.B.8	The permittee shall comply with the standards of performance for asbestos abatement operations pursuant to 40CFR61.145 and SC Regulation 61-86.1, including, but not limited to, requirements governing training, licensing, notification, work practice, cleanup, and disposal.

PART 5.0 EMISSION UNIT REQUIREMENTS

A. EMISSION UNIT DESCRIPTION

Tables 5.1 and 5.2 are a description of emission units located at this facility.

TABLE 5.1 CURRENT EMISSION UNIT DESCRIPTIONS		
Current Unit ID	**Current Unit Description**	**Current Control Device Description**
C-01	Quarry/Marl Handling Equipment	None (Wet Process)
C-02	**Marl Drying System Equipment (VOID)**	**Baghouse and Wet Scrubber (VOID)**
C-03	Coal/Coke Crushing and Processing Equipment	Baghouses
C-04	Waste Fuel Processing and Storage Equipment	Baghouse Vapor Incinerator (Existing Kilns) Carbon Adsorber
C-05	Cement Clinker Production Equipment	Baghouses
C-06	Kiln Ancillary Feed Equipment	None
C-07	Clinker Handling and Storage Equipment	Baghouses
C-08	Dust Handling and Storage Equipment	Baghouses
C-09	Gypsum Processing Equipment	None
C-10	Clinker Finish Mill Equipment	Baghouses
C-11	Cement Storage and Bulk Loading Equipment	Baghouses
C-12	Cement Packing Equipment	Baghouses
C-13	Steam Boiler	None
C-14	Slurry Storage Equipment	None (Wet Process)
C-15	Raw Mill Equipment	None (Wet Process)

TABLE 5.2 FUTURE EMISSION UNIT DESCRIPTIONS		
Future Unit ID	**Future Unit Description**	**Future Control Device Description**
F-01	Quarry/Marl Handling Equipment	None
F-02	Coal/Coke Crushing Equipment	Baghouses
F-03	Waste Fuel Processing and Storage Equipment	Baghouse Vapor Incinerator (New Kiln System) Carbon Adsorption System
F-04	Cement Clinker Production Equipment	Baghouses
F-05	Clinker Handling and Storage Equipment	Baghouses
F-06	Dust Handling and Storage Equipment	Baghouses
F-07	Gypsum Processing Equipment	Baghouses
F-08	Clinker Finish Mill Equipment	Baghouses
F-09	Cement Storage and Bulk Loading Equipment	Baghouses
F-10	Cement Packing Equipment	Baghouses
F-11	Steam Boiler	None
F-12	New Material Transfer and Storage Equipment	Baghouses

B. CONTROL DEVICE DESCRIPTIONS

Tables 5.3 through 5.11 are a description of control devices located at this facility.

TABLE 5.3 CURRENT UNIT ID C-02 (CURRENT MARL DRYING SYSTEM EQUIPMENT CONTROL DEVICES)				
Current Control Device ID	**Current Control Device Description**	**Install Date**	**Pollutant Controlled**	**Removed From Service Date**
D-10	**Peabody Model 9'6D x 13'9H Wet Scrubber (VOID)**	1952	PM	**8/05**
D-15	**Norblo Model 216A Baghouse (VOID)**	1952	PM	**8/05**

TABLE 5.4 CURRENT UNIT ID C-03 (CURRENT COAL/COKE CRUSHING EQUIPMENT CONTROL DEVICES)				
Current Control Device ID	**Current Control Device Description**	**Install Date**	**Pollutant Controlled**	**Removed From Service Date**
CH-38W	C. E. Raymond Model Baghouse	1981	PM	In Service
CH-38E	C. E. Raymond Model Baghouse	1981	PM	In Service
CH-140	Pulse Jet Cleaning Baghouse Chicago Model 3255D-2	Unknown	PM	In Service

TABLE 5.5 CURRENT UNIT ID C-04 (CURRENT WASTE FUEL PROCESSING AND STORAGE EQUIPMENT CONTROL DEVICES)				
Current Control Device ID	**Current Control Device Description**	**Install Date**	**Pollutant Controlled**	**Removed From Service Date**
K-250	Vapor Incinerator Existing Kiln No.2 (F.L. Smidth, 11'3 x 425')	1951	VOC, HAP	In Service
K-350	Vapor Incinerator Existing Kiln No.3 (F.L. Smidth, 11'3 x 425')	1956	VOC, HAP	In Service
K-434	**Vapor Incinerator (VOID) Existing Kiln No.4 (F.L. Smidth, 11'3 x 425')**	1961	VOC, HAP	**3/05**
KF-1	**Vapor Incinerator (VOID) Existing Kiln No.5 (Fuller 12'6 x 425')**	1973	VOC, HAP	**1/05**
STACU	2 Barnabey Sutcliffe 1-Ton Carbon Adsorber Units (Used as a back-up to the Vapor Incinerators)	1998	VOC, HAP	In Service

TABLE 5.6 CURRENT UNIT ID C-05 (CURRENT CEMENT CLINKER PRODUCTION EQUIPMENT CONTROL DEVICES)				
Current Control Device ID	**Current Control Device Description**	**Install Date**	**Pollutant Controlled**	**Removed From Service Date**
DCK-200	Kiln No.2 Baghouse Fuller Model 10BTS61 (7500 x 10)	1999	PM	In Service
DCK-300	Kiln No.3 Baghouse Fuller Model 10BTS61 (7500 x 10)	1972	PM	In Service
K-480	**Kiln No.4 Baghouse Fuller Model (7500 x 10) (VOID)**	1987	PM	**3/05**
DCE-38	**Kiln No.5 Baghouse Fuller Model (7500 x 10) (VOID)**	1996	PM	**1/05**
K-268	Clinker Cooler No.2 Pulse Jet Cleaning Baghouse Fuller Model 640S12	1990	PM	In Service
K-368	Clinker Cooler No.3 Pulse Jet Cleaning Baghouse Fuller Model 128-7-11728	1990	PM	In Service
K-451	**Clinker Cooler No.4 Baghouse Fuller Model 78-7-5684 (VOID)**	1989	PM	**3/05**
DCF-16	**Clinker Cooler No.5 Baghouse Mikro Model 36S10-45 (VOID)**	1973	PM	**1/05**

TABLE 5.7 CURRENT UNIT ID C-07 (CURRENT CLINKER HANDLING AND STORAGE EQUIPMENT CONTROL DEVICES				
Current Control Device ID	**Current Control Device Description**	**Install Date**	**Pollutant Controlled**	**Removed From Service Date**
K-67	Staclean Model 212-12-A Baghouse	Unknown	PM	In Service
K-19	Norblo Model 6b-2 ams Baghouse	1961	PM	In Service
F-527	Staclean Model 81-12-A Baghouse	Unknown	PM	In Service
K-13	Air Filtration Systems Model 1212 Baghouse	1956	PM	In Service
K-80	Air Filtration Systems Model 1010 Baghouse	Unknown	PM	In Service

TABLE 5.8 CURRENT UNIT ID C-08 (CURRENT DUST HANDLING AND STORAGE EQUIPMENT CONTROL DEVICES)				
Current Control Device ID	**Current Control Device Description**	**Install Date**	**Pollutant Controlled**	**Removed From Service Date**
K-155	Air Pulse Cleaning Baghouse Fuller Model 640S12	1956	PM	In Service
DCK-200	Kiln No.2 Baghouse Fuller Model 10BTS61 (7500 x 10)	1999	PM	In Service
DCK-300	Kiln No.3 Baghouse Fuller Model 10BTS61 (7500 x 10)	1972	PM	In Service
K-480	**Kiln No.4 Baghouse Fuller Model (7500 x 10) (VOID)**	1987	PM	**3/05**
DCE-38	**Kiln No.5 Baghouse Fuller Model (7500 x 10) (VOID)**	1996	PM	**1/05**
512-BF-01	Air Pulse Cleaning Baghouse Mikro Model 36S1045	1986	PM	In Service

TABLE 5.9 CURRENT UNIT ID C-10 (CURRENT CLINKER FINISH MILL EQUIPMENT CONTROL DEVICES)				
Current Control Device ID	**Current Control Device Description**	**Install Date**	**Pollutant Controlled**	**Removed From Service Date**
F-123	**Pulse Jet Cleaning Baghouse Norblo Model 216A (VOID)**	1948	PM	**12/04**
F-317	**Pulse Jet Cleaning Baghouse Staclean Model 121-10-A (VOID)**	1956	PM	**12/04**
F-540	**Pulse Jet Cleaning Baghouse Staclean Model 300-10-A (VOID)**	1956	PM	**10/05**
F-609A	Pulse Jet Cleaning Baghouse Staclean Model 2X340-12-B	1960	PM	In Service
FG-733A	Mikro Model 420S10TRH Baghouse	1984	PM	In Service
F-628	Mikro Model 30S8-20 Baghouse	1984	PM	In Service
FG-78	Mikro Model 30S8-20 Baghouse	1984	PM	In Service

TABLE 5.10 CURRENT UNIT ID C-11 (CURRENT CEMENT STORAGE AND BULK LOADING EQUIPMENT CONTROL DEVICES)				
Current Control Device ID	**Current Control Device Description**	**Install Date**	**Pollutant Controlled**	**Removed From Service Date**
P-165-2 P-165-6 P-165-8	Staclean Model 36-10-B Baghouse	Unknown	PM	In Service
P-320	Mac Model #28 Baghouse	1961	PM	In Service
P-330	Mac Model #28 Baghouse	1961	PM	In Service
P-201	Norblo Model 216MA Baghouse	1958	PM	In Service
P-335	Buel Model HE-91C Baghouse	1979	PM	In Service

TABLE 5.11 CURRENT UNIT ID C-12 (CURRENT CEMENT PACKING EQUIPMENT CONTROL DEVICES)				
Current Control Device ID	**Current Control Device Description**	**Install Date**	**Pollutant Controlled**	**Removed From Service Date**
P-132	Pulse Jet Cleaning Baghouse Staclean Model 121-10-A	1978	PM	In Service
P-133	Pulse Jet Cleaning Baghouse Staclean Model 121-10-A	1978	PM	In Service

Tables 5.12 through 5.21 list descriptions of the future air pollution control devices to be located at this facility after plant modifications are complete.

TABLE 5.12 FUTURE UNIT ID F-02 (FUTURE COAL/COKE CRUSHING EQUIPMENT CONTROL DEVICES)			
Future Control Device ID	**Future Control Device Description**	**Install Date**	**Pollutant Controlled**
CH-38W	C.E. Raymond Model Baghouse	1981	PM
CH-38E	C.E. Raymond Model Baghouse	1981	PM
461-BF-20	Amerex Baghouse Model RPC-10-52 D4	2003-2005	PM
461-BF-21	Amerex Baghouse Model RPC-10-52 D4	2003-2005	PM

TABLE 5.13 FUTURE UNIT ID F-03 (FUTURE WASTE FUEL PROCESSING AND STORAGE EQUIPMENT CONTROL DEVICES)			
Future Control Device ID	**Future Control Device Description**	**Install Date**	**Pollutant Controlled**
CH-140	Pulse Jet Cleaning Baghouse Chicago Model 3255D-2	Unknown	PM
STACU	2 Barnabey Sutcliffe 1-Ton Carbon Adsorber Units (Used as a back-up in case the New Vapor Incinerator is out of service)	1998	VOC, HAP
321 421 431	New Vapor Incinerator (New Kiln System) (In-Line Kiln/Raw Mill System)	2003-2005	VOC, HAP

TABLE 5.14 FUTURE UNIT ID F-04 (FUTURE CEMENT CLINKER PRODUCTION EQUIPMENT CONTROL DEVICES)			
Future Control Device ID	**Future Control Device Description**	**Install Date**	**Pollutant Controlled**
331-BF-19	Solios Baghouse Model TGT (8 Compartment)	2003-2005	PM
451-BF-15	Fuller Baghouse Model 7500 (10 Unit)	2003-2005	PM

TABLE 5.15 FUTURE UNIT ID F-05 (FUTURE CLINKER HANDLING AND STORAGE EQUIPMENT CONTROL DEVICES)			
Future Control Device ID	**Future Control Device Description**	**Install Date**	**Pollutant Controlled**
K-67	Staclean Model 144-12-A Baghouse	Unknown	PM
F-527	Staclean Model 81-12-A Baghouse	Unknown	PM
K-80	Air Filtration Systems Model 1010 Baghouse	Unknown	PM
471-BF-21	Amerex Baghouse Model RPC-10-52 D4	2003-2005	PM
471-BF-19	Amerex Baghouse Model RP-10-110 D6 (11 x 10)	2003-2005	PM

TABLE 5.16 FUTURE UNIT ID F-06 (FUTURE DUST HANDLING AND STORAGE EQUIPMENT CONTROL DEVICES)			
Future Control Device ID	**Future Control Device Description**	**Install Date**	**Pollutant Controlled**
451-BF-15	Fuller Baghouse Model 7500 (10 Unit)	2003-2005	PM
512-BF-01	Air Pulse Cleaning Baghouse Mikro Model 36S1045	1968	PM

TABLE 5.17 FUTURE UNIT ID F-07 (FUTURE GYPSUM PROCESSING EQUIPMENT CONTROL DEVICES)			
Future Control Device ID	**Future Control Device Description**	**Install Date**	**Pollutant Controlled**
513-BF-16	Amerex Baghouse Model RP-10-72 D6 (9 x 8)	2003-2005	PM
513-BF-17	Amerex Baghouse Model RP-10-36 D6 (6 x 6)	2003-2005	PM

TABLE 5.18 FUTURE UNIT ID F-08 (FUTURE CLINKER FINISH MILL EQUIPMENT CONTROL DEVICES)			
Future Control Device ID	**Future Control Device Description**	**Install Date**	**Pollutant Controlled**
F-628	Mikro Model 30S8-20 Baghouse	1984	PM
F-609A	Pulse Jet Cleaning Baghouse Staclean Model 2X340-12-B	1960	PM
FG-733A	Mikro Model 420S10TRH Baghouse	1984	PM
FG-78	Mikro Model 30S8-20 Baghouse	1984	PM
533-BF-16	Amerex Baghouse Model RP-12-495 D6 (15 x 33)	2003-2005	PM
533-BF-18	(2) Amerex Baghouse Model RP-12-795 D6 (15 x 51)	2003-2005	PM
533-BF-23	Amerex Baghouse Model RP-10-72 D6 (9 x 8)	2003-2005	PM

TABLE 5.19 FUTURE UNIT ID F-09 (FUTURE CEMENT STORAGE AND BULK LOADING EQUIPMENT CONTROL DEVICES)			
Future Control Device ID	**Future Control Device Description**	**Install Date**	**Pollutant Controlled**
P-165-2 P-165-6 P-165-8	Staclean Model 36-10-B Baghouse	Unknown	PM
P-320	Mac Model #28 Baghouse	1961	PM
P-330	Mac Model #28 Baghouse	1961	PM
P-201	Norblo Model 216MA Baghouse	1958	PM
P-335	Buel Model HE-91C Baghouse	1979	PM

TABLE 5.20 FUTURE UNIT ID F-10 (FUTURE CEMENT PACKING EQUIPMENT CONTROL DEVICES)			
Future Control Device ID	**Future Control Device Description**	**Install Date**	**Pollutant Controlled**
P-132	Pulse Jet Cleaning Baghouse Staclean Model 121-10-A	1978	PM
P-133	Pulse Jet Cleaning Baghouse Staclean Model 121-10-A	1978	PM

TABLE 5.21 FUTURE UNIT ID F-12 (FUTURE NEW MATERIALTRANSFER AND STORAGE EQUIPMENT CONTROL DEVICES)			
Future Control Device ID	**Future Control Device Description**	**Install Date**	**Pollutant Controlled**
341-BF-03	Amerex Baghouse Model RP-10-36 D6 (6 x 6)	2003-2005	PM
351-BF-78	Amerex Baghouse Model RP-10-42 D6 (7 x 6)	2003-2005	PM
341-BF-14	Amerex Baghouse Model RP-10-36 D6 (6 x 6)	2003-2005	PM
351-BF-02	Amerex Baghouse Model RP-10-56 D6 (8 x 7)	2003-2005	PM
351-BF-22	Amerex Baghouse Model RP-10-72 D6 (9 x 8)	2003-2005	PM
235-BF-34	Amerex Baghouse Model RP-10-72 D6 (9 x 8) BV	2003-2005	PM
245-BF-41	Amerex Baghouse Model RP-10-25 D6 (5 x 5)	2003-2005	PM

C. EQUIPMENT DESCRIPTIONS

A description of the equipment located at this facility is provided in the following tables:

TABLE 5.22 CURRENT UNIT ID C-01 (CURRENT QUARRY/MARL HANDLING EQUIPMENT)							
Current Giant ID	**Install Date**	**Current Equipment Description**	**Design Capacity**	**Current Control Device Description**	**Current Control Device ID**	**Current Exhaust Point ID**	**Removed From Service Date**
Q-112	1998	Quarry Crusher (Reduces marl size)	1,500 tph	None	None	Q-112	In Service
Q-104 Q-105 Q-106	1997 Each	Quarry Marl Conveyor Belts	1,500 tph Each	None	None	Q-104 Q-105 Q-106	In Service
Q-113	1999	Quarry Marl Conveyor Belt	1,500 tph	None	None	Q-113	In Service
Q-108 Q-109 Q-110	1998 Each	Quarry Marl Conveyor Belts	1,500 tph Each	None	None	Q-108 Q-109 Q-110	In Service

TABLE 5.23 CURRENT UNIT ID C-01 (CURRENT QUARRY/MARL HANDLING EQUIPMENT)							
Current Giant ID	**Install Date**	**Current Equipment Description**	**Design Capacity**	**Current Control Device Description**	**Current Control Device ID**	**Current Exhaust Point ID**	**Removed From Service Date**
Q-210 Q-211 Q-212 Q-212A	1997 Each	Quarry Marl Conveyor Belts	1,500 tph Each	None	None	Q-210 Q-211 Q-212 Q-212A	In Service
Q-114	1997	Back-up Quarry Crusher (Reduces marl size)	1,500 tph	None	None	Q-114	In Service

TABLE 5.24 CURRENT UNIT ID C-02 (CURRENT MARL DRYING SYSTEM EQUIPMENT)								
Current Giant ID	**Install Date**	**Current Equipment Description**	**Design Capacity**	**Permitted Fuels**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
D-3	**1956**	**Raw Marl Dryer (VOID)**	60 tph	N/A	Wet Scrubber	D-10	20	**8/05**
D-13 D-14	**1956 Each**	**Marl Dryer Conveyor Belts (VOID)**	60 tph Each	N/A	Baghouse	D-15	19	**8/05**
D-16	**1956**	**Marl Dryer Vibrating Screen (VOID)**	60 tph	N/A	Baghouse	D-15	19	**8/05**

TABLE 5.25 CURRENT UNIT ID C-03 (CURRENT COAL/COKE CRUSHING AND PROCESSING EQUIPMENT)							
Current Giant ID	**Current Equipment Description**	**Install Date**	**Design Capacity**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
CH-33E	East Coal Mill (Processes raw coal and coke) (Feeds Kiln No.4 and No.5)	1982	22 tph 528 tpd	Baghouse	CH-38E	11	In Service
CH-33W	West Coal Mill (Processes raw coal and coke) (Feeds Kiln No.2 and No.3)	1982	22 tph 528 tpd	Baghouse	CH-38W	12	In Service
CH-3	2 Coal Feeders (Feeds Coal Conveyor)	1981	150 tph 3,600 tpd	None	None	CH-3	In Service
CH-4	2 Coal Hoppers (Feeds Coal Conveyor Belt CH-5)	1982	150 tph 3,600 tpd	None	None	CH-4	In Service
CH-5	Coal Conveyor Belt CH-5	1981	150 tph 3,600 tpd	None	None	CH-5	In Service
CH-7	Coal Radial Stacker	1981	400 tph 9,600 tpd	None	None	CH-7	In Service
CH-8	Coal Transfer Hopper (Used during coal unloading) (Feeds Coal Conveyor Belt CH-13)	1981	150 tph 3,600 tpd	None	None	CH-8	In Service

TABLE 5.26 CURRENT UNIT ID C-03 (CURRENT COAL/COKE CRUSHING AND PROCESSING EQUIPMENT)							
Current Giant ID	**Current Equipment Description**	**Install Date**	**Design Capacity**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
CH-13	Coal Conveyor Belt CH-13 (Conveys Coal to Coal Storage Silo CH-16)	1981	150 tph 3,600 tpd	None	None	CH-13	In Service
CH-16	Coal Storage Silo	1983	3,500 tons	None	None	CH-16	In Service
CH-27	Coal Conveyor Belt CH-27 (Conveys Coal from Coal Storage Silo CH-16 to East Coal Mill CH-33E and West Coal Mill CH-33W)	1981	200 tph 4,800 tpd	None	None	CH-27	In Service
CH-127	Carbon Black Storage Bin	1982	50 tph	Baghouse	CH-140	30	In Service

TABLE 5.27 CURRENT UNIT ID C-04 (CURRENT WASTE FUEL PROCESSING AND STORAGE EQUIPMENT)							
Current Giant ID	**Current Equipment Description**	**Design Capacity**	**Install Date**	**Current Control Device Description**	**Current Control Device ID**	**Current Exhaust Point ID**	**Removed From Service Date**
GR-1	Hazardous Waste Storage Building (Totally enclosed handling and storage unit for Solid Hazardous Waste Fuels)	2000 yd^3	1995	Vapor Incinerator	K-250 K-350	05 06	In Service
K-701	**Pug Mill (VOID)**	17.6 tph	1989	Vapor Incinerator	K-250 K-350	05 06	**12/04**
K-702	Vibrating Screen (Screens solid waste/raw material)	17.6 tph	1989	Vapor Incinerator	K-250 K-350	05 06	In Service
K-703	Shredder (Reduces solid fuel size for conveying)	20 tph	1996	Vapor Incinerator	K-250 K-350	05 06	In Service
K-750B	7 Screw Conveyors (Conveys solid fuel to Solid Fuel Storage Tank System (K-761and K-762))	7.5 tph	1996	Vapor Incinerator	K-250 K-350	05 06	In Service
K-761	Solid Fuel Storage Tank System (Stores solid fuel)	7.5 tph	1990	Vapor Incinerator	K-250 K-350	05 06	In Sevice
K-762	**Solid Fuel Storage Tank System (VOID)**	7.5 tph	1990	Vapor Incinerator	K-250 K-350	05 06	**5/05**
K-750A	12 Screw Conveyors (Conveys solid fuel from Solid Fuel Storage Tank System (K-761 and K-762) to Kilns No.2 and No.3)	7.5 tph	1996	Vapor Incinerator	K-250 K-350	05 06	In Service
K-755	Kiln No.2/No.3 Solid Fuel Metering Bin	7.5 tph	1996	Vapor Incinerator	K-250 K-350	05 06	In Service
K-775	**Kiln No.4/No.5 Solid Fuel Metering Bin (VOID)**	7.5 tph	1994	Vapor Incinerator	K-250 K-350	05 06	**3/05**
FC-1 to FC-12	**12 Screw Conveyors (VOID)**	7.5 tph	1994	Vapor Incinerator	K-250 K-350	05 06	**3/05**

TABLE 5.28 CURRENT UNIT ID C-04 (CURRENT WASTE FUEL PROCESSING AND STORAGE EQUIPMENT)							
Current Giant ID	**Current Equipment Description**	**Design Capacity**	**Install Date**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
K-666	1 Liquid Waste Fuel Storage Tank	52,000 gallon	1994	Vapor Incinerator and Carbon Adsorption (Backup)	K-250, K-350 STACU	05 06 48	In Service
K-801 K-802 K-803	3 Liquid Waste Fuel Storage Tanks (Steel with Vertical Fixed Roof)	80,000 gallon Each	2001 Each	Vapor Incinerator and Carbon Adsorption (Backup)	K-250, K-350 STACU	05 06 48	In Service

TABLE 5.29 CURRENT UNIT ID C-05 (CURRENT CEMENT CLINKER PRODUCTION EQUIPMENT)								
Current Giant ID	**Current Equipment Description**	**Install Date**	**Design Capacity**	**Permitted Fuels**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
K-250	Existing Kiln No.2 F.L. Smidth Model 11'3'' x 425' (Produces clinker)	1951	70 tph slurry	See Condition 6.B.24(fff)	Baghouse	DCK-200	06	In Service
K-350	Existing Kiln No.3 F.L. Smidth Model 11'3'' x 425' (Produces clinker)	1956	70 tph slurry	See Condition 6.B.24(fff)	Baghouse	DCK-300	06	In Service
K-434	**Existing Kiln No.4 (VOID)**	1961	70 tph slurry	N/A	Baghouse	K-480	05	**3/05**
KF-1	**Existing Kiln No.5 (VOID)**	1973	85 tph slurry	N/A	Baghouse	DCE-38	06	**1/05**
K-270	Existing Clinker Cooler No.2 (Cools clinker)	1951	49 tph (Based on 70% of Slurry Feed Rates)	N/A	Pulse Jet Cleaning Baghouse	K-268	07	In Service
K-370	Existing Clinker Cooler No.3 (Cools clinker)	1956	49 tph (Based on 70% of Slurry Feed Rates)	N/A	Pulse Jet Cleaning Baghouse	K-368	08	In Service
K-407	**Existing Clinker Cooler No.4 (VOID)**	1956	49 tph (Based on 70% of Slurry Feed Rates)	N/A	Baghouse	K-451	09	**3/05**
KF-9	**Existing Clinker Cooler No.5 (VOID)**	1973	59.5 tph (Based on 70% of Slurry Feed Rates)	N/A	Baghouse	DCF-16	10	**1/05**

TABLE 5.30 CURRENT UNIT ID C-06 (CURRENT KILN ANCILLARY FEED EQUIPMENT)							
Current Giant ID	**Current Equipment Description**	**Install Date**	**Design Capacity**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
RMH-5	**Kiln No.5 Raw Material Hopper (VOID)**	1998	5.0 tph	None	None	RMH-5	**1/05**
RMC-5	**Kiln No.5 Raw Material Conveyor (VOID)**	1998	5.0 tph	None	None	RMC-5	**1/05**
BUK-5	**Kiln No.5 Raw Material Conveyor (VOID)**	1998	5.0 tph	None	None	BUK-5	**1/05**

TABLE 5.31 CURRENT UNIT ID C-07 (CURRENT CLINKER HANDLING AND STORAGE EQUIPMENT)							
Current Giant ID	**Current Equipment Description**	**Install Date**	**Design Capacity**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
K-1	Drag Conveyor K-1 (Conveys clinker from Clinker Coolers No.2 and No.3 to Elevator No.1 (K-3) and No.2 (K-4))	1951	100 tph	Baghouse	K-13	27	In Service
K-3	Elevator No.1 (West Elevator to Elevator No.3 (K-7) or B Belt Conveyor K-17)	1957	100 tph	Baghouse	K-13	27	In Service
K-4	Elevator No.2 (East Elevator to Elevator No.4 (K-8) or B Belt Conveyor K-17)	1957	100 tph	Baghouse	K-13	27	In Service
K-7	Elevator No.3 (West Elevator to Drag Conveyor K-11 or Clinker Storage Silo K-36)	1957	100 tph	Baghouse	K-13	27	In Service
K-8	Elevator No.4 (East Elevator to Drag Conveyor K-9 or Drag Conveyor K-11 or Clinker Storage Silo K-36)	1957	100 tph	Baghouse	K-13	27	In Service
K-17	B Belt Conveyor (Conveys Clinker to C Belt Conveyor K-18)	1959	100 tph	Baghouse	K-19	25	In Service
K-18	**C Belt Conveyor (VOID)**	1962	100 tph	Baghouse	K-19	25	**12/04**

TABLE 5.32 CURRENT UNIT ID C-07 (CURRENT CLINKER HANDLING AND STORAGE EQUIPMENT)							
Current Giant ID	**Current Equipment Description**	**Install Date**	**Design Capacity**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
K-605	**Clinker Reclaim Conveyor Belt K-605 (VOID)**	1944	20 tph	None	None	K-605	**1/05**
K-607	**Clinker Reclaim Conveyor Belt K-607 (VOID)**	1944	20 tph	None	None	K-607	**1/05**
K-609	**Clinker Reclaim Conveyor Belt K-609 (VOID)**	1944	20 tph	None	None	K-609	**1/05**
K-603	**Clinker Reclaim Elevator K-603 (VOID)**	1944	20 tph	None	None	K-603	**1/05**
K-608	**Clinker Reclaim Elevator K-608 (VOID)**	1944	20 tph	None	None	K-608	**1/05**
K-9	Drag Conveyor K-9 (Conveys Clinker to Drag Conveyor K-10 and Clinker Storage Silo K-37)	1951	100 tph	Baghouse	F-527	37	In Service
K-10	Drag Conveyor K-10 (Conveys Clinker to Clinker Storage Silo K-38)	1951	100 tph	Baghouse	F-527	37	In Service
K-11	Drag Conveyor K-11 (Conveys Clinker to Clinker Storage Silo K-35)	1951	100 tph	Baghouse	F-527	37	In Service
K-33 K-34	**2 Clinker Storage Tanks (VOID)**	1947 Each	64 tph Each	Baghouse	F-527	37	**12/04**
K-35 K-36 K-37 K-38	4 Clinker Storage Silos (Clinker storage north of Finish Mill No.5)	1957 Each	64 tph Each	Baghouse	F-527	37	In Service
K-49	Clinker Storage Tower	1956	64 tph	Baghouse	F-527	37	In Service
K-66	Clinker Elevator (Conveys clinker to Drag Conveyor K-11 Clinker Storage Silo K-36, Drag Conveyor K-10 and Clinker Storage Silo K-37)	1956	25 tph	Baghouse	F-527	37	In Service
F-501	Clinker Feeder (Feeds clinker under Clinker Bin No.6)	1956	50 tph	Baghouse	F-527	37	In Service
F-502	**Clinker Feeder (VOID)**	1956	50 tph	Baghouse	F-527	37	**12/04**

TABLE 5.33 CURRENT UNIT ID C-07 (CURRENT CLINKER HANDLING AND STORAGE EQUIPMENT)							
Current Giant ID	**Current Equipment Description**	**Install Date**	**Design Capacity**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
F-503	Clinker Feeder (Feeds clinker under Clinker Bin No.7)	1956	50 tph	Baghouse	F-527	37	In Service
F-504	Clinker Feeder (Feeds clinker under Clinker Bin No.8)	1956	50 tph	Baghouse	F-527	37	In Service
F-506	**Clinker Feeder (VOID)**	1956	50 tph	Baghouse	F-527	37	**12/04**
F-528	Dust Screw Conveyor F-528 (Returns clinker dust from F-527 to Finish Mill No.5)	1956	10 tph	Baghouse	F-527	37	In Service
K-65	A-Conveyor Belt (Conveys clinker to Clinker Elevator K-66)	1959	100 tph	Baghouse	F-527 K-67	26 37	In Service
K-51	**Drag Conveyor K-51 (VOID)**	1960	100 tph	Baghouse	K-67	26	**3/05**
K-53	**Drag Conveyor K-53 (VOID)**	1960	100 tph	Baghouse	K-67	26	**3/05**
K-54	Elevator No.5 (Conveys clinker to Drag Conveyor K-58, A-Conveyor Belt K-65 and the Clinker Shed)	1956	100 tph	Baghouse	K-67	26	In Service
K-55	Elevator No.6 (Conveys Clinker to Drag Conveyor K-58 Clinker Shed)	1956	100 tph	Baghouse	K-67	26	In Service
K-58	Drag Conveyor K-58 (Conveys clinker to Conveyor Belt K-79)	1994	100 tph	Baghouse	K-67	26	In Service
K-77	Elevator No.9 (Conveys Clinker at the west wall to Finish Mill No.6 and No.7)	1986	64 tph	Baghouse	K-80	29	In Service
K-78	Drag Conveyor K-78 (Conveys Clinker to Finish Mill No.6 Bin F-620, Finish Mill No.7 Bin FG-71 or the Clinker Shed)	1959	100 tph	Baghouse	K-80	29	In Service
K-79	Conveyor Belt K-79 (Conveys Clinker to Drag Conveyor K-78)	1956	64 tph	Baghouses	K-67 K-80	26 29	In Service
F-620	Finish Mill No.6 Bin (Discharges to Conveyor Belt F-602)	1960	65 tph	None	None	F-620	In Service
FG-71	Finish Mill No.7 Bin (Discharges to Conveyor Belt FG-73)	1972	65 tph	None	None	FG-71	In Service
K-602	**Clinker Reclaim Crusher (VOID)**	1944	20 tph	None	None	K-602	**1/05**

TABLE 5.34 CURRENT UNIT ID C-08 (CURRENT DUST HANDLING AND STORAGE EQUIPMENT)							
Current Giant ID	**Current Equipment Description**	**Install Date**	**Design Capacity**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
K-152	Dust Tank K-152 (Dust loading from Kiln No.2/No.3)	1944	20 tph	Air Pulse Cleaning Baghouse	K-155	28	In Service
F-122	**Screw Conveyor F-122 (VOID)**	1951	15 tph	Air Pulse Cleaning Baghouse	K-155	28	**12/04**
F-124	**Screw Conveyor (VOID)**	1956	15 tph	Air Pulse Cleaning Baghouse	K-155	28	**12/04**
K-290	Kiln No.2 Dust Insufflation Pump (Dust recycle from Kiln No.2)	1998	12 tph	Air Pulse Cleaning Baghouse	K-155	28	In Service
K-293	Kiln No.2 Dust Insufflation Feeder (Dust recycle from Kiln No.2)	1998	12 tph	Air Pulse Cleaning Baghouse	K-155	28	In Service
K-294	Kiln No.2 Dust Insufflation Feeder (Dust recycle from Kiln No.2)	1998	12 tph	Air Pulse Cleaning Baghouse	K-155	28	In Service
K-390	Kiln No.3 Dust Insufflation Pump (Dust recycle from Kiln No.3)	1998	12 tph	Air Pulse Cleaning Baghouse	K-155	28	In Service
K-393	Kiln No.3 Dust Insufflation Feeder (Dust recycle from Kiln No.3)	1998	12 tph	Air Pulse Cleaning Baghouse	K-155	28	In Service
K-394	Kiln No.3 Dust Insufflation Feeder (Dust recycle from Kiln No.3)	1998	12 tph	Air Pulse Cleaning Baghouse	K-155	28	In Service
DCE-76	Kiln No.4/No.5 Dust Storage Bin	1995	55 tons	Kiln No.4 and Kiln No.5 Baghouse	K-480 DCE-38	05	In Service
DBK-4	**Kiln No.4 Dust Overflow Bin (VOID)**	1961	75 tons	Kiln No.4 and Kiln No.5 Baghouse	K-480 DCE-38	05	**3/05**

TABLE 5.35 CURRENT UNIT ID C-08 (CURRENT DUST HANDLING AND STORAGE EQUIPMENT)							
Current Giant ID	**Current Equipment Description**	**Install Date**	**Design Capacity**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
DBK-5	Kiln No.5 Dust Overflow Bin	1973	75 tons	Kiln No.4 and Kiln No.5 Baghouse	K-480 DCE-38	05	In Service
512-BN-01	Finish Mill No.7 Fringe Bin	1986	100 tons	Air Pulse Cleaning Baghouse	512-BF-01	512-BF-01	In Service
F-682	Finish Mill No.6 Feeder	1962	52 tph	Air Pulse Cleaning Baghouse	512-BF-01	24	In Service
F-683	Finish Mill No.7 Feeder	1973	65 tph	Air Pulse Cleaning Baghouse	512-BF-01	24	In Service
PM-SL	**Pug Mill Silo (VOID)**	2000	150 tph	None	None	PM-SL	**3/05**
PM-23	Kiln No.2/No.3 Pug Mill (Conditions cement Kiln dust)	1998	150 tph	None	None	PM-23	In Service
451-PM-18	Kiln No.4/No.5 Pug Mill (Conditions cement Kiln dust)	1998	150 tph	None	None	451-PM-18	In Service
DCK-220	Kiln No.2/No.3 Excess Dust Storage Bin	1972	3,000 ft^3	Kiln No.2 and Kiln No.3 Baghouse	DCK-200 DCK-300	06	In Service
DBK-2	Kiln No.2 Dust Overflow Bin	1951	75 tons	Kiln No.2 and Kiln No.3 Baghouse	DCK-200 DCK-300	06	In Service
DBK-3	Kiln No.3 Dust Overflow Bin	1955	75 tons	Kiln No.2 and Kiln No.3 Baghouse	DCK-200 DCK-300	06	In Service

TABLE 5.36 CURRENT UNIT ID C-09 (CURRENT GYPSUM PROCESSING EQUIPMENT)							
Current Giant ID	**Current Equipment Description**	**Install Date**	**Design Capacity**	**Current Control Device Description**	**Current Control Device ID**	**Current Exhaust Point ID**	**Removed From Service Date**
FG-760	Gypsum Conveyor FG-760	1997	50 tph	None	None	FG-760	In Service
FG-761	Gypsum Hopper	1997	50 tph	None	None	FG-761	In Service
FG-761A	Screw Feeder FG-761A (Feeds Gypsum Conveyor FG-760)	1999	50 tph	None	None	FG-761A	In Service
FG-762	Gypsum Drag Conveyor FG-762	1997	50 tph	None	None	FG-762	In Service
F-505	**Clinker/Gypsum Feeder F-505 (VOID)**	1956	10 tph	None	None	F-505	**12/04**
G-53	Gypsum Conveyor Belt G-53	1997	200 tph	None	None	G-53	In Service
K-40	**Gypsum Storage Silo (VOID)**	1957	100 tph	None	None	K-40	**12/04**
F-621	Gypsum Hopper	Unknown	50 tph	None	None	F-621	In Service
FG-75	Gypsum Bin	Unknown	50 tph	None	None	FG-75	In Service

TABLE 5.37 CURRENT UNIT ID C-10 (CURRENT CLINKER FINISH MILL EQUIPMENT DESCRIPTIONS)							
Current Giant ID	**Current Equipment Description**	**Install Date**	**Design Capacity**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
F-601	Gypsum Conveyor Belt F-601	1961	3.12 tph	Baghouse	F-628	15	In Service
F-602	Conveyor Belt F-602 (Conveys Clinker to Drag Conveyor F-603)	1961	43.3 tph	Baghouse	F-628	15	In Service
F-603	Drag Conveyor F-603 (Conveys clinker to Finish Mill No.6)	1961	65 tph	Baghouse	F-628	15	In Service
FG-73	Conveyor Belt FG-73 (Clinker Spill Screw Conveyor to Drag Conveyor FG-79)	1972	61.1 tph	Baghouse	FG-78	16	In Service
FG-73A	Conveyor Belt FG-73A (Spill Screw to Drag Conveyor FG-79)	1972	61.1 tph	Baghouse	FG-78	16	In Service
FG-77	Conveyor Belt FG-77 (Gypsum Weigh Feeder Belt to Drag Conveyor FG-79)	1972	3.9 tph	Baghouse	FG-78	16	In Service
FG-77A	Conveyor Belt FG-77A Gypsum Spill Screw Conveyor (Conveys gypsum to Drag Conveyor FG-79)	1972	3.9 tph	Baghouse	FG-78	16	In Service
FG-79	Drag Conveyor FG-79 (Conveys clinker to Finish Mill No.7)	1973	65 tph	Baghouse	FG-78	16	In Service

TABLE 5.38 CURRENT UNIT ID C-10 (CURRENT CLINKER FINISH MILL EQUIPMENT DESCRIPTIONS)							
Current Giant ID	**Current Equipment Description**	**Install (Modify) Date**	**Design Capacity**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
F-106	**Finish Mill No.1 System (VOID)**	1948	27.5 tph	Pulse Jet Cleaning Baghouse	F-123	21	**12/04**
F-108	**Finish Mill No.2 System (VOID)**	1948	27.5 tph	Pulse Jet Cleaning Baghouse	F-123	21	**12/04**
F-305	**Finish Mill No.3 System (VOID)**	1956	27.5 tph	Pulse Jet Cleaning Baghouse	F-317	22	**12/04**
F-308	**Finish Mill No.4 (VOID)**	1956	27.5 tph	Pulse Jet Cleaning Baghouse	F-317	22	**12/04**
F-311	**Air Slide F-311 (VOID)**	1954 (2004)	100 tph	Pulse Jet Cleaning Baghouse	F-317	22	**12/04**
F-312	**No.3 Air Separator (VOID)**	1954	100 tph	Pulse Jet Cleaning Baghouse	F-317	22	**12/04**
F-508	**Finish Mill No.5 (VOID)**	1956	31.5 tph	Pulse Jet Cleaning Baghouse	F-540	23	**12/04**
F-512	**Air Separator F-512 (VOID)**	1956	200 tph	Pulse Jet Cleaning Baghouse	F-540	23	**12/04**
F-519	**Air Slide F-519 (VOID)**	1956	200 tph	Pulse Jet Cleaning Baghouse	F-540	23	**12/04**
F-524	**Spill Bin (VOID)**	1956	200 tph	Pulse Jet Cleaning Baghouse	F-540	23	**12/04**
F-604	Finish Mill No.6 (Mills clinker product)	1961	52 tph	Pulse Jet Cleaning Baghouse	F-609A	13	In Service
F-608	Air Separator F-608 (Separate product into course and fines)	1961	300 tph	Pulse Jet Cleaning Baghouse	F-609A	13	In Service
FG-656	Cement Cooler (Cools cement)	1961	300 tph	Pulse Jet Cleaning Baghouse	F-609A	13	In Service
FG-714	Finish Mill No.7 (Mills clinker product)	1973	65 tph	Baghouse	FG-733A	14	In Service
FG-726	Cement Cooler (Cools cement)	1973	400 tph	Baghouse	FG-733A	14	In Service
FG-732	Air Separator (Separates cement)	1973	400 tph	Baghouse	FG-733A	14	In Service

TABLE 5.39 CURRENT UNIT ID C-11 (CURRENT CEMENT STORAGE AND BULK LOADING EQUIPMENT)							
Current Giant ID	**Current Equipment Description**	**Install Date**	**Design Capacity**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
P-150	Silo Bank No.1 (Silos No.1 through 13) 13 Bagging Cement Storage Silos	1948	68 tph	Baghouse	P-165-2 P-165-6 P-165-8	36 35 34	In Service
P-321	West Cement Bulk Loading	1989	375 tph	Baghouse	P-320	32	In Service
P-331	East Cement Bulk Loading	1989	375 tph	Baghouse	P-330	33	In Service
P-341	Silo Bank No.2 (Silos No.14 through 23) 10 Bulk Load Cement Storage Silos	1956	220 tph	Baghouse	P-201	17	In Service
P-342	Silo Bank No.3 (Silos No.24 through 37) 14 Bulk Load Cement Storage Silos	1959	220 tph	Baghouse	P-335	18	In Service

TABLE 5.40 CURRENT UNIT ID C-12 (CURRENT CEMENT PACKING EQUIPMENT)							
Current Giant ID	**Current Equipment Description**	**Install Date**	**Design Capacity**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
P-401	Ventomatic 12-Spout Packing Machine (Package cement product)	2001	200 tph	Pulse Jet Cleaning Baghouse	P-132 P-133	02 01	In Service

TABLE 5.41 CURRENT UNIT ID C-13 (CURRENT STEAM BOILER)								
Current Giant ID	**Current Equipment Description**	**Install Date**	**Design Capacity**	**Permitted Fuels**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
K-655	Boiler (Supplies steam where needed)	1987	2.1E+06 Btu/hr	See Permit	None	None	K-655	In Service

TABLE 5.42 CURRENT UNIT ID C-14 (CURRENT SLURRY STORAGE EQUIPMENT)							
Current Giant ID	**Current Equipment Description**	**Install Date**	**Design Capacity**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
RE-4 RE-5 RE-6 RE-7 RE-8	5 Slurry Storage Tanks (Slurry storage tanks 14 through 18)	1973	500,000 gallon Each	None	None	N/A	In Service
K-103	Kiln No.2/No.3 Feed Tank	1951	90,000 gallon	None	None	N/A	In Service
K-202-T	Kiln No.2 Feed Tank	1956	90,000 gallon	None	None	N/A	In Service
K-302-T	Kiln No.3 Feed Tank	1961	90,000 gallon	None	None	N/A	In Service
K-472-T	**Kiln No.4 Feed Tank (VOID)**	1973	90,000 gallon	None	None	N/A	**3/05**
RE-24-T	**Kiln No.5 Feed Tank (VOID)**	1973	90,000 gallon	None	None	N/A	**1/05**
R-701 R-702 R-703 R-704 R-705 R-706 R-707 R-708 R-709	**9 Steel Slurry Storage Tanks (VOID)**	1945	45,000 gallon Each	None	None	N/A	**1/05**
R-710 R-711 R-712 R-713	**4 Concrete Slurry Storage Tanks (VOID)**	1957	90,000 gallon Each	None	None	N/A	**1/05**
R-902	**Slurry Storage Basin (VOID)**	1956	543,110 gallon	None	None	N/A	**1/05**

TABLE 5.43 CURRENT UNIT ID C-15 (CURRENT RAW MILL EQUIPMENT)							
Current Giant ID	**Current Equipment Description**	**Install Date**	**Design Capacity**	**Current Control Device Description**	**Current Control Device ID**	**Current Stack ID**	**Removed From Service Date**
R-107	Raw Mill No.1 (Mills raw materials into slurry)	1952	250 tph	None	None	R-107	In Service
R-207	Raw Mill No.2 (Mills raw materials into slurry)	1952	250 tph	None	None	R-207	In Service
R-307	Raw Mill No.3 (Mills raw materials into slurry)	1956	250 tph	None	None	R-307	In Service
RD-16	Raw Mill No.4 (Mills raw materials into slurry)	1972	400 tph	None	None	RD-16	In Service

Tables 5.44 through 5.61 list descriptions of the future equipment to be located at this facility after plant modifications are complete.

TABLE 5.44 FUTURE UNIT ID F-01 (FUTURE QUARRY/MARL HANDLING EQUIPMENT)						
Future Giant ID	**Install Date**	**Future Equipment Description**	**Design Capacity**	**Future Control Device Description**	**Future Control Device ID**	**Future Exhaust Point ID**
Q-112	1998	Quarry Crusher (Reduces marl size)	1,500 tph	None	None	Q-112
Q-104 Q-105 Q-106	1997 Each	Quarry Marl Conveyor Belts	1,500 tph Each	None	None	Q-104 Q-105 Q-106
Q-113	1999	Quarry Marl Conveyor Belt	1,500 tph	None	None	Q-113
Q-108 Q-109 Q-110	1998 Each	Quarry Marl Conveyor Belts	1,500 tph Each	None	None	Q-108 Q-109 Q-110
Q-210 Q-211 Q-212 Q-212A	1997 Each	Quarry Marl Conveyor Belts	1,500 tph Each	None	None	Q-210 Q-211 Q-212 Q-212A
Q-114	1997	Back-up Quarry Crusher (Reduces marl size)	1,500 tph	None	None	Q-114
221-AF-01	2006	Apron Feeder	1,500 tph	None	None	221-AF-01
221-DH-01	2006	Dump Hopper	1,500 tph	None	None	221-DH-01
221-RC-01	2006	Roller Crusher	1,500 tph	None	None	221-RC-01
221-BC-01	2006	Belt Conveyor	1,500 tph	None	None	221-BC-01

TABLE 5.45 FUTURE UNIT ID F-02 (FUTURE COAL/COKE CRUSHING AND PROCESSING EQUIPMENT)						
Future Giant ID	**Future Equipment Description**	**Install (Modify) Date**	**Design Capacity (tph/tpd)**	**Future Control Device Description**	**Future Control Device ID**	**Future Exhaust Point ID**
CH-33E	East Coal Mill Processes Raw Coal and Coke	1982	22/528	Baghouse	CH-38E	11
CH-33W	West Coal Mill Processes Raw Coal and Coke	1982	22/528	Baghouse	CH-38W	12
CH-3	2 Coal Feeders (Feeds Coal Conveyor)	1981	150/3,600	None	None	CH-3
CH-4	2 Coal Hoppers (Feeds Coal Conveyor Belt CH-5)	1982	150/3,600	None	None	CH-4

TABLE 5.46 FUTURE UNIT ID F-02 (FUTURE COAL/COKE CRUSHING AND PROCESSING EQUIPMENT)						
Future Giant ID	**Future Equipment Description**	**Install (Modify) Date**	**Design Capacity (tph/tpd)**	**Future Control Device Description**	**Future Control Device ID**	**Future Exhaust Point ID**
CH-5	Coal Conveyor Belt CH-5	1981	150/3,600	None	None	CH-5
CH-7	Coal Radial Stacker	1981	400/9,600	None	None	CH-7
CH-8	Coal Transfer Hopper Coal Unloading (Feeds Coal Conveyor Belt CH-13)	1981	150/3,600	None	None	CH-8
CH-13	Coal Conveyor Belt CH-13 (Conveys Coal to Coal Storage Silo CH-16)	1981	150/3,600	None	None	CH-13
CH-16	Coal Storage Silo	1983	3,500 tons	None	None	CH-16
CH-27	Coal Conveyor Belt CH-27 (Conveys coal from Coal Storage Silo CH-16 to East and West Coal Mill (CH-33E, CH-33W))	1981	200/4,800	None	None	CH-27
CH-127	Carbon Black Storage Bin	1982	50 tph	Baghouse	CH-140	30
461-BN-31 461-BL-53	Coal Bin/Pump	2003-2005	12/40	Baghouse	S3-20	461-BF-20
461-BN-42 461-BL-51	Coal Bin/Pump	2003-2005	12/40	Baghouse	S3-21	461-BF-21
461-AH-01	Coal Mill Heater	2003-2005	5000 ft^3/hr	Baghouse	CH-38E CH-38W	11, 12

TABLE 5.47 FUTURE UNIT ID F-03 (FUTURE WASTE FUEL PROCESSING AND STORAGE EQUIPMENT)						
Future Giant ID	**Future Equipment Description**	**Design Capacity**	**Install (Modify) Date**	**Future Control Device Description**	**Future Control Device ID**	**Future Exhaust Point ID**
GR-1	Hazardous Waste Storage Building (Totally enclosed handling and storage unit for solid hazardous waste fuels)	2000 yd^3	1995	Vapor Incinerator and Carbon Adsorption System	321-RM-11 321-SR-12 421 431 STACU	331-ES-21

TABLE 5.48 FUTURE UNIT ID F-03 (FUTURE WASTE FUEL PROCESSING AND STORAGE EQUIPMENT)						
Future Giant ID	**Future Equipment Description**	**Design Capacity**	**Install (Modify) Date**	**Future Control Device Description**	**Future Control Device ID**	**Future Exhaust Point ID**
K-702	Vibrating Screen (Screens solid waste/raw material)	17.6 tph	1989	Vapor Incinerator	321 421 431	331-ES-21
K-703	Shredder (Reduces solid fuel size for conveying)	20 tph	1996	Vapor Incinerator	321 421 431	331-ES-21
K-666	1 Liquid Waste Fuel Storage Tank	52,000 gallon	1994	Vapor Incinerator and Carbon Adsorption System	321 421 431 STACU	331-ES-21
K-801 K-802 K-803	3 Liquid Waste Fuel Storage Tanks (Steel with Vertical Fixed Roof)	80,000 gallon Each	2001	Vapor Incinerator and Carbon Adsorption System	321 421 431 STACU	331-ES-21

TABLE 5.49 FUTURE UNIT ID F-04 (FUTURE CEMENT CLINKER PRODUCTION EQUIPMENT)							
Future Giant ID	**Future Equipment Description**	**Install (Modify) Date**	**Design Capacity**	**Permitted Fuels**	**Future Control Device Description**	**Future Control Device ID**	**Future Exhaust Point ID**
321 421 431	New Kiln System In-Line Kiln/Raw Mill System (Replacement Kiln system for the 4 existing wet process Kilns)	2003-2005	154.2 tph 3,700 tpd	See Condition 6.B.24(fff)	Baghouse	331-BF-19	331-ES-21
441-CC-01	New Clinker Cooler	2003-2005	See Above	None	Baghouse	331-BF-19	331-ES-21
321-AH-02	Auxiliary Raw Mill Heater	2003-2005	70E+06 Btu/hr	Natural Gas	Baghouse	331-BF-19	331-ES-21
451	Alkali Bypass	2003-2005	15% of the New Kiln System exit gas flow on a mass basis	N/A	Baghouse	451-BF-15	331-ES-21

TABLE 5.50 FUTURE UNIT ID F-05 (FUTURE CLINKER HANDLING AND STORAGE EQUIPMENT)						
Future Giant ID	**Future Equipment Description**	**Install (Modify) Date**	**Design Capacity (tph)**	**Future Control Device Description**	**Future Control Device ID**	**Future Exhaust Point ID**
K-65	A-Belt Conveyor	1959	100	Baghouse	F-527, K-67	37, 26
F-620	No.6 FM bin F-620	1960	65	Baghouse	None	F-620
K-54	Elevator No.5	1956	100	Baghouse	K-67	26
K-55	Elevator No.6	1956	100	Baghouse	K-67	26
K-58	Conveyor K-58	1994	100	Baghouse	K-67	26
K-77	Elevator No.9	1986	64	Baghouse	K-80	29
K-78	Drag Conveyor K-78	1959	100	Baghouse	K-80	29
K-79	Conveyor K-79	1956	64	Baghouse	K-80	29
471-VF-08	Hopper 471-VF-08	2003-2005	225	None	None	471-VF-08
513-CV-11	Hopper 513-CV-11	2003-2005	225	None	None	513-CV-11
471-DB-01	Conveyor 471-DB-01	2003-2005	225	Baghouse	471-BF-21	471-BF-21
471-DB-03	Conveyor 471-DB-03	2003-2005	225	Baghouse	471-BF-21	471-BF-21
471-BC-09	Conveyor 471-DB-09	2003-2005	225	Baghouse	471-BF-21	471-BF-21

TABLE 5.51 FUTURE UNIT ID F-05 (FUTURE CLINKER HANDLING AND STORAGE EQUIPMENT)						
Future Giant ID	**Future Equipment Description**	**Install (Modify) Date**	**Design Capacity (tph)**	**Future Control Device Description**	**Future Control Device ID**	**Future Exhaust Point ID**
471-BC-05	Conveyor 471-BC-05	2003-2005	225	Baghouse	471-BF-19	471-BF-19
513-BC-13	Conveyor 513-BC-13	2003-2005	225	Baghouse	471-BF-19	471-BF-19
513-SI-10	Clinker Silo 513-SI-10	2003-2005	100	Baghouse	471-BF-19	471-BF-19
K-9	Drag Conveyor K-9	1951	100	Baghouse	F-527	37
K-10	Drag Conveyor K-10	1951	100	Baghouse	F-527	37
K-11	Belt Conveyor K-11	1951	100	Baghouse	F-527	37
K-35	No.4 FM Bin	1957	64	Baghouse	F-527	37
K-36	No.5 FM Bin	1957	64	Baghouse	F-527	37

TABLE 5.52 FUTURE UNIT ID F-05 (FUTURE CLINKER HANDLING AND STORAGE EQUIPMENT)						
Future Giant ID	**Future Equipment Description**	**Install (Modify) Date**	**Design Capacity (tph)**	**Future Control Device Description**	**Future Control Device ID**	**Future Exhaust Point ID**
K-37	Storage Silo K-37	1957	64	Baghouse	F-527	37
K-38	Storage Silo K-38	1957	64	Baghouse	F-527	37
K-49	Storage Tower K-49	1956	64	Baghouse	F-527	37
K-66	Elevator K-66	1956	25	Baghouse	F-527	37
F-501	Feeder F-501	1956	50	Baghouse	F-527	37
F-502	Feeder F-502	1956	50	Baghouse	F-527	37
F-503	Feeder F-503	1956	50	Baghouse	F-527	37
F-504	Feeder F-504	1956	50	Baghouse	F-527	37
F-506	Feeder F-506	1956	50	Baghouse	F-527	37
F-528	Conveyor F-528	1956	10	Baghouse	F-527	37
FG-71	No.7 FM Bin	1972	65	None	None	FG-71

TABLE 5.53 FUTURE UNIT ID F-06 (FUTURE DUST HANDLING AND STORAGE EQUIPMENT)						
Future Giant ID	**Future Equipment Description**	**Install (Modify) Date**	**Design Capacity (tph)**	**Future Control Device Description**	**Future Control Device ID**	**Future Exhaust Point ID**
DCE-76	Kiln 4/5 Dust Bin	1995	55	Baghouse	451-BF-15	331-ES-21
512-BN-01	Finish Mill 7 Fringe Bin	1986	30	Baghouse	512-BF-01	24
F-682	Finish Mill No.6 Feeder	1962	52	Baghouse	512-BF-01	24
F-683	Finish Mill No.7 Feeder	1973	65	Baghouse	512-BF-01	24
451-PM-18	Kiln No.1 Bypass Pugmill	1998	150	None	None	451-PM-18

TABLE 5.54 FUTURE UNIT ID F-07 (FUTURE GYPSUM PROCESSING EQUIPMENT)						
Future Giant ID	Future Equipment Description	Install (Modify) Date	Design Capacity (tph)	Future Control Device Description	Future Control Device ID	Future Exhaust Point ID
FG-760	Conveyor FG-760	1997	50	None	None	FG-760
FG-761	Gypsum Hopper FG-761	1997	50	None	None	FG-761
FG-761A	Screw Feeder FG-761A	1999	50	None	None	FG-761A
FG-762	Drag Conveyor FG-762	1997	50	None	None	FG-762
G-53	Conveyor/Hopper G-53	1997	75	None	None	G-53
F-621	Gypsum Hopper F-621	Unknown	50	None	None	F-621
FG-75	Gypsum Bin FG-75	Unknown	50	None	None	FG-75
513-BN-06	Gypsum Bin 513-BN-06	2003-2005	50	Baghouse	513-BF-17	513-BF-17
513-BN-03	Limestone Bin 513-BN-03	2003-2005	100	Baghouse	513-BF-17	513-BF-17
513-WF-02	Conveyor 513-WF-02	2003-2005	120	Baghouse	513-BF-16	513-BF-16
513-WF-05	Conveyor 513-WF-05	2003-2005	60	Baghouse	513-BF-16	513-BF-16
513-WF-08	Conveyor 513-WF-08	2003-2005	10	Baghouse	513-BF-16	513-BF-16
513-BC-09	Conveyor 513-BC-09	2003-2005	103	Baghouse	513-BF-16	513-BF-16
513-DH-01	Dump Hopper 513-DH-01	2005	10	None	None	513-DH-01
513-SC-01	Conveyor 513-SC-01	2005	10	None	None	513-SC-01
513-BC-01	Conveyor 513-BC-01	2005	10	None	None	513-BC-01

TABLE 5.55 FUTURE UNIIT ID F-08 (FUTURE CLINKER FINISH MILL EQUIPMENT)						
Future Giant ID	Future Equipment Description	Install (Modify) Date	Design Capacity (tph)	Future Control Device Description	Future Control Device ID	Future Exhaust Point ID
F-601	Conveyor F-601	1961	3.12	Baghouse	F-628	15
F-602	Conveyor F-602	1961	43.38	Baghouse	F-628	15
F-603	Drag Conveyor F-603	1961	65	Baghouse	F-628	15

TABLE 5.56 FUTURE UNIIT ID F-08 (FUTURE CLINKER FINISH MILL EQUIPMENT)						
Future Giant ID	Future Equipment Description	Install (Modify) Date	Design Capacity (tph)	Future Control Device Description	Future Control Device ID	Future Exhaust Point ID
FG-73	Conveyor FG-73	1972	61.1	Baghouse	FG-78	16
FG-73A	Conveyor FG-73A	1972	61.1	Baghouse	FG-78	16
FG-77	Gypsum Weigh Feeder FG-77	1972	3.9	Baghouse	FG-78	16
FG-77A	Gypsum Spill Screw FG-77A	1972	3.9	Baghouse	FG-78	16
FG-79	Drag Conveyor FG-79	1973	65	Baghouse	FG-78	16
F-604	Finish Mill No.6	1961	52	Baghouse	F-609A	13
F-608	Air Separator	1961	300	Baghouse	F-609A	13
FG-656	Cement Cooler	1961	300	Baghouse	F-609A	13
FG-714	Finish Mill No.7	1973	65	Baghouse	FG-733A	14
FG-726	Cement Cooler	1973	400	Baghouse	FG-733A	14
FG-732	Air Separator	1973	400	Baghouse	FG-733A	14
533-BM-06	Finish Mill 533-BM-06	2003-2005	343	Baghouse	533-BF-16 533-BF-18	533-ES-16
533-AS-14	Air Gravity Conveyor 533-AS-14	2003-2005	240	Baghouse	533-BF-16 533-BF-18	533-ES-16
533-SR-13	High Efficiency Separator 533-SR-13	2003-2005	343	Baghouse	533-BF-16 533-BF-18	533-ES-16
543-AS-01	Air Gravity Conveyor 543-AS-01	2003-2005	328	Baghouse	533-BF-23	533-BF-23
533-AS-10	Air Gravity Conveyor 533-AS-10	2003-2005	150	Baghouse	533-BF-23	533-BF-23
533-AS-20	Air Gravity Conveyor 533-AS-20	2003-2005	150	Baghouse	533-BF-23	533-BF-23
533-AS-25	Air Gravity Conveyor 533-AS-20	2003-2005	60	Baghouse	533-BF-23	533-BF-23
533-BE-11	Bucket Elevator 533-BE-11	2003-2005	343	Baghouse	533-BF-23	533-BF-23
543-BE-70	Bucket Elevator 533-BE-70	2003-2005	150	Baghouse	533-BF-23	533-BF-23
613-AS-03	Air Gravity Conveyor 613-AS-03	2003-2005	175	Baghouse	533-BF-23	533-BF-23

TABLE 5.57 FUTURE UNIT ID F-09 (FUTURE CEMENT STORAGE AND BULK LOADING EQUIPMENT)						
Future Giant ID	**Future Equipment Description**	**Install (Modify) Date**	**Design Capacity (tph)**	**Future Control Device Description**	**Future Control Device ID**	**Future Exhaust Point ID**
P-150	Silo Bank No.1	1948	68	Baghouse	P-165-2,6,8	34,35,36
P-341	Silo Bank No.2	1956	220	Baghouse	P-201	17
P-342	Silo Bank No.3	1959	220	Baghouse	P-335	18
543-AS-02	Air Gravity Conveyor 543-AS-02	2003-2005	175	Baghouse	P-335	18
543-AS-03	Air Gravity Conveyor 543-AS-03	2003-2005	175	Baghouse	P-335	18
543-AS-04	Air Gravity Conveyor 543-AS-04	2003-2005	175	Baghouse	P-335	18
543-AS-05	Air Gravity Conveyor 543-AS-05	2003-2005	175	Baghouse	P-335	18
543-AS-06	Air Gravity Conveyor 543-AS-06	2003-2005	175	Baghouse	P-335	18
543-AS-07	Air Gravity Conveyor 543-AS-07	2003-2005	175	Baghouse	P-335	18
543-BE-70	Bucket Elevator 543-BE-70	2003-2005	175	Baghouse	P-335	18
P-321	Railcar Bulk Loading	1989	375	Baghouse	F-320	32
P-331	Truck Bulk Loading	1989	375	Baghouse	F-330	33

TABLE 5.58 FUTURE UNIT ID F-10 (FUTURE CEMENT PACKING EQUIPMENT)						
Future Giant ID	**Future Equipment Description**	**Install Date**	**Design Capacity**	**Future Control Device Description**	**Future Control Device ID**	**Future Exhaust Point ID**
P-401	Ventomatic 12-Spout Packing Machine (Package cement product)	2001	200 tph	Pulse Jet Cleaning Baghouse	P-132 P-133	02 01

TABLE 5.59 FUTURE UNIT ID F-11 (FUTURE STEAM BOILER)							
Current Giant ID	**Future Equipment Description**	**Install Date**	**Design Capacity**	**Permitted Fuels**	**Future Control Device Description**	**Future Control Device ID**	**Future Exhaust Point ID**
K-655	Boiler (Supplies steam where needed)	1987	2.1E+06 Btu/hr	See Condition 6.B.14(a)	None	None	K-655

TABLE 5.60 FUTURE UNIT ID F-12 (FUTURE NEW MATERIAL TRANSFER AND STORAGE EQUIPMENT)						
Future Giant ID	**Future Equipment Description**	**Install (Modify) Date**	**Design Capacity (tph)**	**Future Control Device Description**	**Future Control Device ID**	**Future Exhaust Point ID**
311-BN-01	Storage Bin 311-BN-01	2003-2005	200	None	None	311-BN-01
311-BN-02	Storage Bin 311-BN-02	2003-2005	120	None	None	311-BN-02
311-BN-03	Storage Bin 311-BN-03	2003-2005	100	None	None	311-BN-03
311-WF-06	Conveyor 311-WF-06	2003-2005	30	None	None	311-WF-06
311-WF-08	Conveyor 311-WF-08	2003-2005	45	None	None	311-WF-08
311-WF-10	Conveyor 311-WF-10	2003-2005	5	None	None	311-WF-10
311-BC-13	Conveyor 311-BC-13	2003-2005	400	None	None	311-BC-13
311-BC-14	Conveyor 311-BC-14	2003-2005	400	None	None	311-BC-14
311-CV-26	Hopper 311-CV-26	2003-2005	250	None	None	311-CV-26
311-BC-27	Conveyor 311-BC-27	2003-2005	250	None	None	311-BC-27
311-BC-28	Conveyor 311-BC-28	2003-2005	250	None	None	311-BC-28
311-CV-30	Conveyor 311-CV-30	2003-2005	350	None	None	311-CV-30
341-AS-01	Air Gravity Conveyor 341-AS-01	2003-2005	320	Baghouse	341-BF-03	341-BF-03
341-AS-02	Air Gravity Conveyor 341-AS-02	2003-2005	320	Baghouse	341-BF-03 or 351-BF-02	341-BF-03 or 351-BF-02
351-BN-70	Dust Bin 351-BN-70	2003-2005	160	Baghouse	351-BF-78	351-BF-78
351-BE-76	Bucket Elevator 351-BE-76	2003-2005	160	Baghouse	351-BF-78	351-BF-78
331-SC-22	Screw Conveyor 331-SC-22	2003-2005	160	Baghouse	351-BF-78	351-BF-78
351-SC-31	Screw Conveyor 351-SC-31	2003-2005	160	Baghouse	351-BF-78	351-BF-78
341-BE-05	Bucket Elevator 341-BE-05	2003-2005	325	Baghouse	341-BF-14	341-BF-14
341-AS-07	Air Gravity Conveyor 341-AS-07	2003-2005	330	Baghouse	341-BF-14	341-BF-14
341-AS-07AS3	Air Gravity Conveyor 341-AS-07AS3	2003-2005	330	Baghouse	341-BF-14	341-BF-14
341-AS-07AS4	Air Gravity Conveyor 341-AS-07AS4	2003-2005	330	Baghouse	341-BF-14	341-BF-14

TABLE 5.61 FUTURE UNIT ID F-12 (FUTURE NEW MATERIAL TRANSFER AND STORAGE EQUIPMENT)						
Future Giant ID	**Future Equipment Description**	**Install (Modify) Date**	**Design Capacity (tph)**	**Future Control Device Description**	**Future Control Device ID**	**Future Exhaust Point ID**
341-SI-10SI1 341-SI-10SI2 341-SI-10SI3 341-SI-10SI4 341-SI-10SI5 341-SI-10SI6	Raw Meal Silo No.1 Raw Meal Silo No.2 Raw Meal Silo No.3 Raw Meal Silo No.4 Raw Meal Silo No.5 Raw Meal Silo No.6	2003-2005	1,000 (each)	Baghouse	341-BF-14	341-BF-14
341-SI-10SI7 341-SI-10SI8	Interstice Silo No.7 Interstice Silo No.8	2003-2005	400 (each)	Baghouse	341-BF-14	341-BF-14
341-AS-16AS1	Air Gravity Conveyor 341-AS-16AS1	2003-2005	143	Baghouse	351-BF-02	351-BF-02
341-AS-16AS2	Air Gravity Conveyor 341-AS-16AS2	2003-2005	143	Baghouse	351-BF-02	351-BF-02
351-AS-01	Air Gravity Conveyor 351-AS-01	2003-2005	300	Baghouse	351-BF-02	351-BF-02
351-BE-10	Bucket Elevator 351-BE-10	2003-2005	375	Baghouse	351-BF-02	351-BF-02
351-SC-75	Screw Conveyor 351-SC-75	2003-2005	20	Baghouse	351-BF-02	351-BF-02
351-AS-11	Air Gravity Conveyor 351-AS-11	2003-2005	375	Baghouse	351-BF-22	351-BF-22
351-BN-12	Storage Bin 351-BN-12	2003-2005	55	Baghouse	351-BF-22	351-BF-22
351-AS-14	Air Gravity Conveyor 351-AS-14	2003-2005	285	Baghouse	351-BF-22	351-BF-22
235-BN-35	Weigh Bin 235-BN-35	2003-2005	25	Baghouse	245-BF-41	245-BF-41
245-SP-45	Screw Pump Hopper 245-SP-45	2003-2005	25	Baghouse	245-BF-41	245-BF-41
351-AL-15	Aeropol	2003-2005	285	Baghouse	341-BF-14 351-BF-22	341-BF-14 351-BF-22
235-BN-30	Fly Ash Silo	2003-2005	6,000	Baghouse	235-BF-34	235-BF-34

D. EMISSION LIMITS AND STANDARDS

Tables 5.62 through 5.76 contains summaries of emission unit emission limits and standards for the current equipment.

TABLE 5.62 CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-01 QUARRY/MARL HANDLING EQUIPMENT)						
ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
Q-112 Q-114	FUGITIVE EMISSIONS from Quarry Crusher Back-up Quarry Crusher	15% Opacity	Method 9 and 40CFR60.675(c) 40CFR60.11(b)	40CFR60.672(c)	No	5.E.1(a)
Q-104 Q-105 Q-106 Q-113 Q-108 Q-109 Q-110 Q-210 Q-211 Q-212 Q-212A	FUGITIVE EMISSIONS from Quarry Conveyor Belt Transfer Points	No Visible Emissions from Each conveyor transfer point when conveying saturated materials	Method 22	40CFR60.672(h)	No	5.E.1(b)
Q-104 Q-105 Q-106 Q-113 Q-108 Q-109 Q-110 Q-210 Q-211 Q-212 Q-212A	FUGITIVE EMISSIONS from Quarry Conveyor Belt Transfer Points	10% Opacity from Each conveyor transfer point when conveying unsaturated materials	Method 9 and 40CFR60.675(c) 40CFR60.11(b)	40CFR60.672(b)	No	5.E.1(b)

TABLE 5.63 CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-03 COAL/COKE CRUSHING AND PROCESSING EQUIPMENT)						
Current Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
CH-33E CH-33W CH-3 CH-4 CH-7 CH-8 CH-16 CH-127	VISIBLE EMISSIONS from East Coal Mill CH-33E West Coal Mill CH-33W 2 Coal Feeders CH-3 2 Coal Hoppers CH-4 Coal Radial Stacker CH-7 Coal Transfer Hopper CH-8 Coal Storage Silo CH-16 Carbon Black Storage Bin	See Condition	Method 9	40CFR60.252(c) and 40CFR63.1348	No	5.E.2(a)
CH-5 CH-13 CH-27	CONVEYOR TRANSFER POINT VISIBLE EMISSIONS from Coal Conveyor Belt CH-5 Coal Conveyor Belt CH-13 Coal Conveyor Belt CH-27	20% Opacity From Each Transfer Point	Method 9	40CFR60.252(c)	No	5.E.2(b)

TABLE 5.64 CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-04 WASTE FUEL PROCESSING AND STORAGE EQUIPMENT)						
Current Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
K-750B K-750A	CONVEYOR TRANSFER POINT VISIBLE EMISSIONS from 7 Screw Conveyors (K-750B) 12 Screw Conveyors (K-750A)	20% Opacity From Each Transfer Point	Method 9	SC Regulation 62.5 Standard 4 Section IX(B)	No	5.E.3(a)
GR-1 K-701 K-702 K-703 K-761 K-755	VISIBLE EMISSIONS from Hazardous Waste Storage Building Pug Mill K-701 Vibrating Screen K-702 Shredder K-703 Solid Fuel Tank System K-761 Kiln No.2/No.3 Solid Fuel Metering Bin	20% Opacity Each	Method 9	SC Regulation 62.5 Standard 4 Section IX(B)	No	5.E.3(b)
STACU	Carbon Adsorption System Performance Specifications	See Condition	See Condition	40CFR63.693(d)(1)	No	5.E.3(c)

TABLE 5.65 CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-05 CEMENT CLINKER PRODUCING EQUIPMENT)						
Current Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
K-250 K-350	Vapor Incinerator (Existing Kilns) Performance Specifications	See Condition	See Condition	40CFR61.349(a)(2) and 40CFR63.693(f)(1)	No	5.E.4(a)
K-250 K-350	Hydrochloric Acid and Chlorine Gas Emissions from Existing Kiln No.2 Existing Kiln No.3	130.0 ppm @ 7.0% O_2 (Combined HCl, Cl_2) Each Kiln	Method 26A or Method 320 or Method 321	40CFR63.1204(a)(6)	No	5.E.4(b)
K-250 K-350	PM EMISSIONS from Existing Kiln No.2 Existing Kiln No.3	0.30 lb/ton dry feed Each Kiln	Method 5	40CFR63.1204(a)(7)	No	5.E.4(c)
K-270 K-370	VISIBLE EMISSIONS from Clinker Cooler No.2 Clinker Cooler No.3	10% Opacity Each Clinker Cooler	COMS	40CFR63.1345(a)(2)	No	5.E.4(d)
K-250 K-350	Benzene-Containing Waste Treatment Process Performance Specifications	See Condition	Method 25	40CFR61.348(a)	No	5.E.4(e)
K-250 K-350	VISIBLE EMISSIONS from Existing Kiln No.2 Existing Kiln No.3	20% Opacity Each Kiln	COMS	SC Regulation 62.5 Standard 4 Section IX(B) and 40CFR63.1204(a)(7)	No	5.E.4(f)
K-250 K-350	Existing Kiln DRE	See Condition	See Condition	SC Regulation 61-62.5 Standard 3 Section III(L)(2) and 40CFR63.1204(c)(1)	No	5.E.4(g)
K-270 K-370	PM EMISSIONS from Clinker Cooler No.2 Clinker Cooler No.3	0.10/lb ton dry feed Each Clinker Cooler	Method 5	40CFR63.1345(a)(1)	No	5.E.4(h)

TABLE 5.66 CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-05 CEMENT CLINKER PRODUCING EQUIPMENT)						
Current Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
K-250 K-350	Existing Kiln Carbon Monoxide and Hydrocarbon Emissions	See Condition	CEMS	40CFR63.1204(a)(5)	No	5.E.4(i)
K-250 K-350	Existing Kiln Dioxin/Furan Emissions	See Condition	Method 23 or Method 23A	40CFR63.1204(a)(1)	No	5.E.4(j)
K-250 K-350	Existing Kiln Arsenic, Beryllium and Chromium Emissions	56.0 µg/dscm @ 7.0% O_2 (Combined As, Cr, Be)	Method 29	40CFR63.1204(a)(4)	No	5.E.4(k)
K-250 K-350	Existing Kiln Mercury Emissions	See Condition	Method 29	40CFR63.1204(a)(2)	No	5.E.4(l)
K-250 K-350	Existing Kiln Nickel Emissions	6.00E-3 lb Ni/106 Btu THI	Method 29	SC Regulation 61.62.5 Standard 3 Section III Table III	No	5.E.4(m)
K-250 K-350 K-434 KF-1	Existing Kiln Lead and Cadmium Emissions	330.0 µg/dscm @ 7.0% O2 (Combined Pb, Cd)	Method 29	40CFR63.1204(a)(3)	No	5.E.4(n)
K-250 K-350	Existing Kiln Alternative Emission Standards	See Condition	N/A	40CFR63.1206(b)(10)	No	5.E.4(o)

TABLE 5.67 CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-07 CLINKER HANDLING AND STORAGE EQUIPMENT)						
Current Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
K-58 K-77	TRANSFER POINT VISIBLE EMISSIONS from Drag Conveyor K-58 Elevator No.9 (K-77)	10% Opacity From Each Transfer Point	Method 9	40CFR63.1348	No	5.E.5(a)

TABLE 5.68 CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-07 CLINKER HANDLING AND STORAGE EQUIPMENT)						
Current Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
K-35 K-36 K-37 K-38 K-49 F-620 K-602	VISIBLE EMISSIONS from 4 Clinker Storage Silos Clinker Storage Tower Finish Mill No.6 Bin Clinker Reclaim Crusher	10% Opacity Each	Method 9	40CFR63.1348	No	5.E.5(b)
FG-71	VISIBLE EMISSIONS from Finish Mill No.7 Bin	10% Opacity	Method 9	40CFR63.1348	No	5.E.5(c)
K-1 K-3 K-4 K-7 K-8 K-9 K-10 K-11 K-17 K-18 K-65 K-66 K-78 K-79 F-501 F-502 F-503 F-504 F-506 F-528 K-54 K-55	TRANSFER POINT VISIBLE EMISSIONS from Drag Conveyor K-1 Elevator No.1 (K-3) Elevator No.2 (K-4) Elevator No.3 (K-7) Elevator No.4 (K-8) Drag Conveyor K-9 Drag Conveyor K-10 Drag Conveyor K-11 A-Conveyor Belt K-65 Clinker Elevator K-66 Clinker Feeder F-501 Clinker Feeder F-502 Clinker Feeder F-503 Clinker Feeder F-504 Clinker Feeder F-506 Dust Screw Conveyor F-528 B Belt Conveyor K-17 C Belt Conveyor K-18 Elevator No.5 (K-54) Elevator No.6 (K-55) Drag Conveyor K-78 Conveyor Belt K-79	10% Opacity From Each Transfer Point	Method 9	40CFR63.1348	No	5.E.5(d)

TABLE 5.69 CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-08 DUST HANDLING AND STORAGE EQUIPMENT)						
Current Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
K-293 K-294 K-393 K-394 F-683	TRANSFER POINT VISIBLE EMISSIONS from Kiln No.2 Dust Insufflation Feeder K-293 Kiln No.2 Dust Insufflation Feeder K-294 Kiln No.3 Dust Insufflation Feeder K-393 Kiln No.3 Dust Insufflation Feeder K-394 Finish Mill No.7 Feeder F-683	10% Opacity From Each Transfer Point	Method 9	40CFR63.1348	No	5.E.6(a)
K-152 DBK-2 DBK-3 DCE-76	VISIBLE EMISSIONS from Dust Tank Kiln No.2 Dust Overflow Bin Kiln No.3 Dust Overflow Bin Kiln No.4/No.5 Dust Storage Bin	10% Opacity Each	Method 9	40CFR63.1348	No	5.E.6(b)
F-682	TRANSFER POINT VISIBLE EMISSIONS from Finish Mill No.6 Feeder F-682	10% Opacity From Each Transfer Point	Method 9	40CFR63.1348	No	5.E.6(c)
K-290 K-390 DCK-220 DBK-5 512-BN-01 PM-23 PM-45	VISIBLE EMISSIONS from Kiln No.2 Dust Insufflation Pump Kiln No.3 Dust Insufflation Pump Kiln No.2/No.3 Dust Storage Bin Kiln No.5 Dust Overflow Bin Finish Mill No.7 Fringe Bin Kiln No.2/No.3 Pug Mill Kiln No.4/No.5 Pug Mill	10% Opacity Each	Method 9	40CFR63.1348	No	5.E.6(d)

TABLE 5.70 CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-09 GYPSUM PROCESSING EQUIPMENT)						
Current Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
FG-761 F-621 FG-75	VISIBLE EMISSIONS from Gypsum Hopper FG-761 Gypsum Hopper F-621 Gypsum Bin	10% Opacity Each	Method 9	40CFR63.1348	No	5.E.7(a)
FG-760 FG-761A FG-762 G-53	TRANSFER POINT VISIBLE EMISSIONS from Gypsum Conveyor FG-760 Screw Feeder FG-761A Gypsum Drag Conveyor FG-762 Gypsum Conveyor Belt G-53	10% Opacity From Each Transfer Point	Method 9	40CFR63.1348	No	5.E.7(b)

TABLE 5.71 CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-10 CLINKER FINISH MILL EQUIPMENT)						
Current Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
F-604 F-608 FG-656 FG-732 FG-726	VISIBLE EMISSIONS from Finish Mill No.6 Air Separator F-608 Cement Cooler FG-656 Air Separator FG-732 Cement Cooler FG-726	10% Opacity Each	Method 9	40CFR63.1347 and 40CFR63.1348	No	5.E.8(a)
F-601 F-602 F-603 FG-73 FG-73A FG-77 FG-77A FG-79	CONVEYOR TRANSFER POINT VISIBLE EMISSIONS from Gypsum Conveyor Belt F-601 Conveyor Belt F-602 Drag Conveyor F-603 Conveyor Belt FG-73 Conveyor Belt FG-73A Conveyor Belt FG-77 Conveyor Belt FG-77A Drag Conveyor FG-79	10% Opacity From Each Transfer Point	Method 9	40CFR63.1348	No	5.E.8(b)
FG-714	VISIBLE EMISSIONS from Finish Mill No.7	10% Opacity	Method 9	40CFR63.1347	No	5.E.8(c)

TABLE 5.72 CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-11 CEMENT STORAGE AND BULK LOADING EQUIPMENT)						
Current Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
P-321 P-331 P-150 P-341 P-342	VISIBLE EMISSIONS from West Cement Bulk Loading East Cement Bulk Loading Silo Bank No.1 Silo Bank No.2 Silo Bank No.3	10% Opacity Each	Method 9	40CFR63.1348	No	5.E.9(a)

TABLE 5.73 CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-12 CEMENT PACKING EQUIPMENT)						
Current Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
P-401	VISIBLE EMISSIONS from 12-Spout Packing Machine	10% Opacity	Method 9	40CFR63.1348	No	5.E.10(a)

TABLE 5.74 CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-13 STEAM BOILER)						
Current Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
K-655	VISIBLE EMISSIONS from Boiler	20% Opacity	Method 9	SC Regulation 62.5 Standard 1 Section I	No	5.E.11(a)
K-655	PM EMISSIONS from Boiler	0.6 lb/10^6 Btu	Method 5 or Equivalent	SC Regulation 62.5 Standard 1 Section II	No	5.E.11(a)
K-655	SO_2 EMISSIONS from Boiler	3.5 lb/10^6 Btu	Method 6	SC Regulation 62.5 Standard 1 Section III	No	5.E.11(a)

TABLE 5.75 CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-14 SLURRY STORAGE EQUIPMENT)						
Current Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
RE-4 RE-5 RE-6 RE-7 RE-8 K-103 K-202-T K-302-T	VISIBLE EMISSIONS from Kiln No.5 Feed Tank (RE-24-T) 5 Slurry Storage Tanks (RE-4 to RE-8) Kiln No.2/No.3 Feed Tank K-103 Kiln No.2 Feed Tank (K-202-T) Kiln No.3 Feed Tank (K-302-T)	10% Opacity Each	Method 9	40CFR63.1348	No	5.E.12(a)

TABLE 5.76 CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-15 RAW MILL EQUIPMENT)						
Current Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
R-107 R-207 R-307 RD-16	VISIBLE EMISSIONS from Raw Mill No.1 Raw Mill No.2 Raw Mill No.3 Raw Mill No.4	10% Opacity Each	Method 9	40CFR63.1348	No	5.E.13(a)

Tables 5.77 through 5.93 contain summaries of emission limits and standards for the future emission units.

TABLE 5.77 FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-01 QUARRY/MARL HANDLING EQUIPMENT						
Future Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
Q-112 Q-114 221-RC-01	FUGITIVE EMISSIONS from Quarry Crusher Back-up Quarry Crusher Roller Crusher	15% Opacity Each	Method 9 and 40CFR60.675(c) 40CFR60.11(b)	40CFR60.672(c)	No	5.E.14(a)
Q-104 Q-105 Q-106 Q-113 Q-108 Q-109 Q-110 Q-210 Q-211 Q-212 Q-212A 221-AF-01 221-BC-01	FUGITIVE EMISSIONS from Quarry Conveyor Belt Transfer Points	No Visible Emissions from Each conveyor transfer point when conveying saturated materials or 10% Opacity from each conveyor transfer point when conveying unsaturated materials	Method 22 Method 9 and 40CFR60.675(c) 40CFR60.11(b)	40CFR60.672(h) 40CFR60.672(b)	No	5.E.14(b)
221-DH-01	FUGITIVE EMISSIONS from Dump Hopper	10% Opacity	Method 9 and 40CFR60.675(c) 40CFR60.11(b)	40CFR60.672(b)	No	5.E.14(c)

TABLE 5.78 FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-02 COAL/COKE CRUSHING AND PROCESSING EQUIPMENT)						
Future Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
CH-33E CH-33W CH-3 CH-4 CH-7 CH-8 CH-16 CH-127 461-BN-31 461-BL-53 461-BN-42 461-BL-51	VISIBLE EMISSIONS from East Coal Mill CH-33E West Coal Mill CH-33W 2 Coal Feeders CH-3 2 Coal Hoppers CH-4 Coal Radial Stacker CH-7 Coal Transfer Hopper CH-8 Coal Storage Silo CH-16 Carbon Black Storage Bin Coal Bin/Pump (461-BN-31, 461-BL-53) Coal Bin/Pump (461-BN-42, 461-BL-51) Coal Mill Heater	See Condition	Method 9	40CFR60.252(a)(2) 40CFR60.252(c) and 40CFR63.1348	No	5.E.15(a)

TABLE 5.79 FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-02 COAL/COKE CRUSHING AND PROCESSING EQUIPMENT)						
Future Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
CH-5 CH-13 CH-27	CONVEYOR TRANSFER POINT VISIBLE EMISSIONS from Coal Conveyor Belt CH-5 Coal Conveyor Belt CH-13 Coal Conveyor Belt CH-27	20% Opacity From Each Transfer Point	Method 9	40CFR60.252(c)	No	5.E.17(b)

TABLE 5.80 FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-03 WASTE FUEL PROCESSING AND STORAGE EQUIPMENT)						
Future Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
GR-1 K-702 K-703	VISIBLE EMISSIONS from Hazardous Waste Storage Building Vibrating Screen K-702 Shredder K-703	20% Opacity Each	Method 9	SC Regulation 62.5 Standard 4 Section IX(B)	No	5.E.18(a)
STACU	Carbon Adsorption System Performance Specifications	See Condition	BAQ Approved Method	40CFR63.693(d)(1)	No	5.E.18(b)

TABLE 5.81 FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT F-04 CEMENT CLINKER PRODUCTION EQUIPMENT)						
Future Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
321 421 431	New Vapor Incinerator Performance Specifications	See Condition	BAQ Approved Method	40CFR61.349(a)(2) and 40CFR63.693(f)(1)	No	5.E.19(a)
321 421 431	New Kiln System Mercury Emissions	See Condition	Method 29	40CFR63.1204(b)(2)	No	5.E.19(b)
321 421 431	New Kiln System Dioxin/Furan Emissions	See Condition	Method 23 or Method 23A	40CFR63.1204(b)(1)	No	5.E.19(c)
321 421 431	New Kiln System Combined Arsenic, Beryllium and Chromium Emissions	54.0 µg/dscm @ 7.0% O_2	Method 29	40CFR63.1204(b)(4)	No	5.E.19(d)
321 421 431	New Kiln System Nickel Emissions	6.0E-03 lb/10^6 Btu THI While burning any waste other than virgin fuels	Method 29	SC Regulation 61-62.5 Standard 3 Section III Table III	Yes	5.E.19(e)
321 421 431	New Kiln System Combined Lead and Cadmium Emissions	180.0 µg/dscm @ 7.0% O_2	Method 29	40CFR63.1204(b)(3)	No	5.E.19(f)

TABLE 5.82 FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT F-04 CEMENT CLINKER PRODUCTION EQUIPMENT)						
Future Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
321 421 431	New Kiln System Hydrochloric Acid and Chlorine Gas Emissions	86.0 ppm @ 7.0% O_2 (HCl Equivalents, dry basis)	Method 26A or Method 320 or Method 321	40CFR63.1204(b)(6)	No	5.E.19(g)
321 421 431	VISIBLE EMISSIONS from New Kiln System New Clinker Cooler	See Condition	COMS	40CFR63.1204(b)(7) and 40CFR63.1345(a)(1)	No	5.E.19(h)
321 421 431	COMBINED PM EMISSIONS from New Kiln System New Clinker Cooler	See Condition	Method 5	SC Regulation 61-62.5 Standard 4 Section IV(A) and 40CFR63.1204(b)(7) 40CFR63.1345(a)(1)	No	5.E.19(i)
321 421 431	New Kiln System Carbon Monoxide and Hydrocarbon Emissions	See Condition	CEMS	SC Regulation 61-62.5 Standard 7 and 40CFR63.1204(b)(5)	No	5.E.19(j)
321 421 431	New Kiln System Alternative Emission Standards	See Condition	N/A	40CFR63.1206(b)(10)	No	5.E.19(k)
321 421 431	Benzene-Containing Waste Treatment Process Performance Specifications	See Condition	BAQ Approved Method	40CFR61.348(a)	No	5.E.19(l)
321 421 431	New Kiln System DRE	See Condition	See Condition	40CFR63.1204(c)(1)	No	5.E.19(m)
321 421 431	Emission Limits for the Feeding of Hazardous Waste to the New Kiln System at a Location Other than the End Where Products are Normally Discharged and Where Fuels are Normally Fired	See Condition	N/A	40CFR63.1206(b)(13)(i)(B)	No	5.E.19(n)

TABLE 5.83 FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT F-05 CLINKER HANDLING AND STORAGE EQUIPMENT)						
Future Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
K-35 K-36 K-37 K-38 K-49 F-620 FG-71 471-VF-08 513-CV-11 513-SI-10	VISIBLE EMISSIONS from No.4 FM Bin No.5 FM Bin Storage Silo K-37 Storage Silo K-38 Storage Tower K-49 No.6 FM Bin F-620 No.7 FM Bin FG-71 Hopper 471-VF-08 Hopper 513-CV-11 Clinker Silo 513-SI-10	10% Opacity Each	Method 9	40CFR63.1348	No	5.E.20(a)
K-9 K-10 K-11 K-66 F-501 F-502 F-503 F-504 F-506 F-528 K-65 K-54 K-55 K-58 K-77 K-78 K-79 471-DB-01 471-DB-03 471-BC-09 471-BC-05 513-BC-13	TRANSFER POINT VISIBLE EMISSIONS from Drag Conveyor K-9 Drag Conveyor K-10 Belt Conveyor K-11 Elevator K-66 Feeder F-501 Feeder F-502 Feeder F-503 Feeder F-504 Feeder F-506 Conveyor F-528 A-Belt Conveyor Elevator No.5 Elevator No.6 Conveyor K-58 Elevator No.9 Drag Conveyor K-78 Conveyor K-79 Conveyor 471-DB-01 Conveyor 471-DB-03 Conveyor 471-BC-09 Conveyor 471-BC-05 Conveyor 513-BC-13	10% Opacity From Each Transfer Point	Method 9	40CFR63.1348	No	5.E.20(b)

TABLE 5.84 FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT F-06 DUST HANDLING AND STORAGE EQUIPMENT)						
Future Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
DCE-76 512-BN-01 PM-45	VISIBLE EMISSIONS from Kiln 4/5 Dust Bin Finish Mill 7 Fringe Bin Pugmill	10% Opacity Each	Method 9	40CFR63.1348	No	5.E.21(a)

TABLE 5.85 FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT F-06 DUST HANDLING AND STORAGE EQUIPMENT)						
Future Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
F-682 F-683	TRANSFER POINT VISIBLE EMISSIONS from Finish Mill No.6 Feeder Finish Mill No.7 Feeder	10% Opacity From Each Transfer Point	Method 9	40CFR63.1348	No	5.E.21(b)

TABLE 5.86 FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-07 GYPSUM PROCESSING EQUIPMENT)						
Future Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
FG-761 G-53 F-621 FG-75 513-BN-06 513-BN-03 513-DH-01	VISIBLE EMISSIONS from Gypsum Hopper FG-761 Conveyor/Hopper G-53 Gypsum Hopper F-621 Gypsum Bin FG-75 Gypsum Bin 513-BN-06 Limestone Bin 513-BN-03 Dump Hopper 513-DH-01	10% Opacity Each	Method 9	40CFR63.1348	No	5.E.22(a)
FG-760 FG-761A FG-762 513-WF-02 513-WF-05 513-WF-08 513-BC-09 513-BC-01 513-SC-01	TRANSFER POINT VISIBLE EMISSIONS from Conveyor FG-760 Screw Feeder FG-761A Drag Conveyor FG-762 Conveyor 513-WF-02 Conveyor 513-WF-05 Conveyor 513-WF-08 Conveyor 513-BC-09 Conveyor 513-BC-01 Conveyor 513-SC-09	10% Opacity From Each Transfer Point	Method 9	40CFR63.1348	No	5.E.22(b)

TABLE 5.87 FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT F-08 CLINKER FINISH MILL EQUIPMENT)						
Future Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
F-604 F-608 FG-656 FG-714 FG-726 FG-732 533-BM-06 533-SR-13	VISIBLE EMISSIONS from Finish Mill No.6 (F-604) Air Separator F-608 Cement Cooler FG-656 Finish Mill No.7 (FG-714) Cement Cooler FG-726 Air Separator FG-732 Finish Mill 533-BM-06 High Efficiency Separator	See Condition	Method 9	40CFR63.1347 and 40CFR63.1348	No	5.E.23(a)
F-601 F-602 F-603 FG-73 FG-73A FG-77 FG-77A FG-79 533-AS-14 533-AS-10 533-AS-20 533-AS-25 533-BE-11	TRANSFER POINT VISIBLE EMISSIONS from Conveyor F-601 Conveyor F-602 Drag Conveyor F-603 Conveyor FG-73 Conveyor FG-73A Gypsum Weigh Feeder FG-77 Gypsum Spill Screw FG-77A Drag Conveyor FG-79 Air Gravity Conveyor 533-AS-14 Air Gravity Conveyor 533-AS-10 Air Gravity Conveyor 533-AS-20 Air Gravity Conveyor 533-AS-25 Bucket Elevator 533-BE-11	10% Opacity From Each Transfer Point	Method 9	40CFR63.1348	No	5.E.23(b)

TABLE 5.88 FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-09 CEMENT STORAGE AND BULK LOADING EQUIPMENT)						
Future Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
P-150 P-341 P-342 P-321 P-331	VISIBLE EMISSIONS from Silo Bank No.1 Silo Bank No.2 Silo Bank No.3 Railcar Bulk Loading Truck Bulk Loading	10% Opacity Each	Method 9	40CFR63.1348	No	5.E.24(a)

TABLE 5.89 FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-09 CEMENT STORAGE AND BULK LOADING EQUIPMENT)						
Future Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
543-AS-01 543-AS-02 543-AS-03 543-AS-04 543-AS-05 543-AS-06 543-AS-07 543-BE-70	TRANSFER POINT VISIBLE EMISSIONS from Air Gravity Conveyor 543-AS-01 Air Gravity Conveyor 543-AS-02 Air Gravity Conveyor 543-AS-03 Air Gravity Conveyor 543-AS-04 Air Gravity Conveyor 543-AS-05 Air Gravity Conveyor 543-AS-06 Air Gravity Conveyor 543-AS-07 Bucket Elevator 543-BE-70	10% Opacity Each	Method 9	40CFR63.1348	No	5.E.24(b)

TABLE 5.90 FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-10 CEMENT PACKING EQUIPMENT)						
Future Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
P-401	VISIBLE EMISSIONS from 12-Spout Packing Machine	10% Opacity	Method 9	40CFR63.1348	No	5.E.25(a)

TABLE 5.91 FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-11 STEAM BOILER)						
Future Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
K-655	Boiler VISIBLE EMISSIONS	20% Opacity	Method 9	SC Regulation 62.5 Standard 1 Section I	No	5.E.26(a)
K-655	Boiler PM EMISSIONS	0.6 lb/10^6 Btu	Method 5 or Equivalent	SC Regulation 62.5 Standard 1 Section II	No	5.E.26(a)
K-655	Boiler SO_2 EMISSIONS	3.5 lb/10^6 Btu	Method 6	SC Regulation 62.5 Standard 1 Section III	No	5.E.26(a)

TABLE 5.92 FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT F-12 NEW MATERIAL TRANSFER AND STORAGE EQUIPMENT)						
Future Giant ID	**Pollutant/Standard**	**Limit**	**Reference Method**	**Regulation**	**State Only**	**Condition Number**
311-BN-01 311-BN-02 311-BN-03 311-CV-26 351-BN-70 341-SI-10SI1 341-SI-10SI2 341-SI-10SI3 341-SI-10SI4 341-SI-10SI5 341-SI-10SI6 341-SI-10SI7 341-SI-10SI8 351-BN-12 235-BN-35 245-SP-45 351-AL-15 235-BN-30	VISIBLE EMISSIONS from Storage Bin 311-BN-01 Storage Bin 311-BN-02 Storage Bin 311-BN-03 Hopper 311-CV-26 Dust Bin 351-BN-70 Raw Meal Silos (Nos. 1 to 6) Interstice Silos (Nos. 7 to 8) Storage Bin 311-BN-12 Weigh Bin 235-BN-35 Screw Pump Hopper 245-SP-45 Aeropol Fly Ash Silo 235-BN-30	10% Opacity Each	Method 9	40CFR63.1348	No	5.E.27(a)
311-WF-06 311-WF-08 311-WF-10 311-BC-13 311-BC-14 311-BC-27 311-BC-28 311-CV-30 341-AS-01 341-AS-02 351-BE-76 331-SC-22 351-SC-31 341-BE-05 341-AS-07 341-AS-07AS3 341-AS-07AS4 341-AS-16AS1 341-AS-16AS2 351-AS-01 351-BE-10 351-SC-75 351-AS-11 351-AS-14 613-AS-03	TRANSFER POINT VISIBLE EMISSIONS from Conveyor 311-WF-06 Conveyor 311-WF-08 Conveyor 311-WF-10 Conveyor 311-BC-13 Conveyor 311-BC-14 Conveyor 311-BC-27 Conveyor 311-BC-28 Conveyor 311-CV-30 Air Gravity Conveyor 341-AS-01 Air Gravity Conveyor 341-AS-02 Bucket Elevator 351-BE-76 Screw Conveyor 331-SC-22 Screw Conveyor 351-SC-31 Bucket Elevator 341-BE-05 Air Gravity Conveyor 341-AS-07 Air Gravity Conveyor 341-AS-07AS3 Air Gravity Conveyor 341-AS-07AS4 Air Gravity Conveyor 341-AS-16AS1 Air Gravity Conveyor 341-AS-16AS2 Air Gravity Conveyor 351-AS-01 Bucket Elevator 351-BE-10 Screw Conveyor 351-SC-75 Air Gravity Conveyor 351-AS-11 Air Gravity Conveyor 351-AS-14 Air Gravity Conveyor 613-AS-03	10% Opacity From Each Transfer Point	Method 9	40CFR63.1348	No	5.E.27(b)

The maximum allowable emission limits above are derived from the various Federal and State regulations that govern the operation of this type of source. All applicable facility wide emission limits and corresponding regulations are listed above. Additional operating requirements, which may be more stringent than those above, are contained in Part 4.0 and Part 7.0 of this permit.

E. EMISSION UNIT CONDITIONS

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-01 QUARRY/MARL HANDLING EQUIPMENT)	
Condition Number	**Condition**
5.E.1(a)	(40CFR60.11(c) and 40CFR60.672(c)) Fugitive emissions from the Quarry Crusher (Q-112) and Back-up Quarry Crusher (Q-114) shall each not exhibit an opacity that exceeds 15% as determined by 40CFR60 Appendix A Method 9 and the procedures of 40CFR60.675(c) and 40CFR60.11(b). This visible emission standard applies at all times except during periods of startup, shutdown and malfunction.
5.E.1(b)	(40CFR60.11(c), 40CFR60.672(b) and 40CFR60.676(h)) Fugitive emissions from each conveyor transfer point of each Quarry Marl Conveyor Belt (Q-104 to Q-110)(Q-210, Q-211, Q-212, Q-212A) shall not exhibit an opacity that exceeds 10% when conveying non-saturated materials as determined by 40CFR60 Appendix A Method 9 and the procedures of 40CFR60.675(c) and 40CFR60.11(b). Fugitive emissions from each conveyor transfer point of each Quarry Marl Conveyor Belt shall exhibit no visible emissions when conveying saturated materials. This visible emission standard applies at all times except during periods of startup, shutdown and malfunction.

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-03 COAL/COKE CRUSHING AND PROCESSING EQUIPMENT)	
Condition Number	**Condition**
5.E.2(a)	(40CFR60.11(c), 40CFR60.252(c), 40CFR63.6(h) and 40CFR63.1348) Visible emissions from the East Coal Mill (CH-33E),West Coal Mill (CH-33W), 2 Coal Feeders (CH-3), 2 Coal Hoppers (CH-4), Coal Radial Stacker (CH-7), Coal Transfer Hopper (CH-8), Coal Storage Silo (CH-16) shall each not exhibit an opacity greater than 20% as determined by 40CFR60 Appendix A Method 9. The Carbon Black Storage Bin shall not exhibit an opacity that exceeds 10% as determined by 40CFR60 Appendix A Method 9. These visible emission standards apply at all times except during periods of startup, shutdown and malfunction.
5.E.2(b)	(40CFR60.11(c) and 40CFR60.252(c)) Visible emissions from each conveyor transfer point of Coal Conveyor Belt CH-27, Coal Conveyor Belt CH-5 and Coal Conveyor Belt CH-13 shall not exhibit an opacity greater than 20% as determined by 40CFR60 Appendix A Method 9. This visible emission standard applies at all times except during periods of startup, shutdown and malfunction.

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-04 WASTE FUEL PROCESSING AND STORAGE EQUIPMENT)	
Condition Number	**Condition**
5.E.3(a)	(SC Regulation 62.5 Standard 4 Section IX(B)) Visible emissions from each conveyor transfer point of 7 Screw Conveyors (K-750B), 12 Screw Conveyors (K-750A) and 12 Screw Conveyors (FC-1, FC-2, FC-3, FC-4, FC-5, FC-6, FC-7, FC-8, FC-9, FC-10, FC-11, FC-12) shall not exhibit an opacity greater than 20% as determined by 40CFR60 Appendix A Method 9.
5.E.3(b)	(SC Regulation 62.5 Standard 4 Section IX(B)) Visible emissions from the Hazardous Waste Storage Building (GR-1), Pug Mill (K-701), Vibrating Screen (K-702), Shredder (K-703), Solid Fuel Storage Tank System (K-761), Kiln No.2/No.3 Solid Fuel Metering Bin (K-755) and Kiln No.4/No.5 Solid Fuel Metering Bin (K-775) shall each not exhibit an opacity greater than 20% as determined by 40CFR60 Appendix A Method 9.
5.E.3(c)	(40CFR63.693(d)(1)) When in operation, the Carbon Adsorption System shall recover 95% or more, on a weight-basis, of the TOC, less methane and ethane, contained in the vent stream entering the Carbon Adsorption System or recover 95% or more, on a weight-basis, of the total HAP listed in 40CFR63 Subpart DD Table 1 contained in the vent stream entering the Carbon Adsorption System.

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-05 CEMENT CLINKER PRODUCING EQUIPMENT)	
Condition Number	**Condition**
5.E.4(a)	<u>Existing Kiln Used as a Vapor Incinerator</u> (40CFR61.349(a)(2) and 40CFR63.693(f)(1)) When an existing Kiln (if still in operation) is used as a Vapor Incinerator to control emissions from the Waste Fuel Processing and Storage Equipment, it shall be operated to achieve one(1) of the performance options listed in paragraphs (a)(1) through (a)(3) of this condition. If Giant Cement is in compliance with the performance options as specified by paragraphs (a)(1) through (a)(3) of this condition, it also considered to be in compliance with the requirements of 40CFR61.349(a)(2) if the total annual benzene quantity is equal to or greater than 10 Mg/yr (11 tpy). (a)(1) Maintain the conditions in the Vapor Incinerator (Kiln) combustion chamber at a residence time of 0.5 seconds or longer and at a temperature of 760°C or higher. (a)(2) Destroy the TOC, less methane and ethane, contained in the vent stream entering the Vapor Incinerator (Kiln) either by 95% or more, on a weight-basis, or achieve a total incinerator outlet concentration for the TOC, less methane and ethane, of less than or equal to 20 ppmv corrected to 3% O_2, dry basis as determined by 40CFR60 Appendix A Method 25. (a)(3) Destroy the HAP listed in 40CFR63 Subpart DD Table 1 contained in the vent stream entering the Vapor Incinerator (Kiln) either by 95% or more, on a total HAP weight-basis, or achieve a total incinerator outlet concentration for the HAP of less than or equal to 20 ppmv corrected to 3% O_2, dry basis as determined by 40CFR60 Appendix A Method 25.

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-05 CEMENT CLINKER PRODUCING EQUIPMENT)	
Condition Number	**Condition**
5.E.4(b)	Existing Kiln Hydrochloric Acid and Chlorine Gas Emission Standard (40CFR63.1206(b)(1)(i)) Combined Hydrochloric Acid and Chlorine Gas emissions from each existing Kiln (if still in operation) (K-250, K-350) shall not exceed 130 ppmv corrected to 7% O_2 expressed as HCl equivalents, dry basis. This emission standard applies at all times for all existing Kiln operations except during periods of SSM provided that hazardous waste is not in a Kiln's combustion chamber (i.e., the hazardous waste feed to the combustor (Kiln) has been cutoff for a period of time not less than the hazardous waste residence time) during those periods of operation.
5.E.4(c)	Existing Kiln PM Emission Standards (40CFR63.1204(a)(7) and 40CFR63.1206(b)(1)(i)) Particulate matter emissions from Kiln No.2 and Kiln No.3, (if each still in operation) (K-250, K-350) shall each not exceed 0.30 lb/ton of dry feed. This emission standard applies at all times for all existing Kiln operations except during periods of SSM provided that hazardous waste is not in an existing Kiln's combustion chamber (i.e., the hazardous waste feed to the combustor (Kiln) has been cutoff for a period of time not less than the hazardous waste residence time) during those periods of operation.
5.E.4(d)	Existing Clinker Cooler Visible Emission Standard (40CFR63.6(h) and 40CFR63.1345(a)(2)) Visible emissions from each existing Clinker Cooler (if still in operation) (K-270, K-370) shall each not exhibit an opacity greater than 10% as determined by 40CFR60 Appendix A Method 9. This visible emission limit standard applies at all times except during periods of startup, shutdown and malfunction.
5.E.4(e)	Existing Kiln Benzene-Containing Waste Treatment Standards 40CFR61.342(a) and 40CFR61.348(a)) If the total annual benzene quantity is equal to or greater than 10 Mg/yr (11 tpy) and when an existing Kiln (if still in operation) is used as a Benzene-Containing Waste Treatment Process, it shall be operated to achieve one(1) of the performance options listed in paragraphs (e)(1) through (e)(3) of this condition. (e)(1) Remove benzene from the waste stream to a level less than 10 ppmw on a flow-weighted annual average basis. For the purpose of complying with the requirements of this paragraph, the intentional or unintentional reduction in the benzene concentration of a waste stream by dilution of the waste stream with other wastes or materials is not allowed. (e)(2) Remove benzene from the waste stream by 99% or more on a mass basis. (e)(3) Destroy benzene in the waste stream by incinerating the waste to achieve a destruction efficiency of 99% or greater for benzene.
5.E.4(f)	Existing Kiln Visible Emission Standard (SC Regulation 61-62.5 Standard 4 Section IX(B), 40CFR63.1204(a)(7) and 40CFR63.1206(b)(1)(i)) Visible emissions from each existing Kiln (if still in operation) (K-250, K-350) shall not exhibit an opacity greater than 20% as determined by 40CFR60 Appendix A Method 9. This emission standard applies at all times for all existing Kiln operations except during periods of SSM provided that hazardous waste is not in an existing Kiln's combustion chamber (i.e., the hazardous waste feed to the combustor (Kiln) has been cutoff for a period of time not less than the hazardous waste residence time) during those periods of operation.

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-05 CEMENT CLINKER PRODUCING EQUIPMENT)	
Condition Number	**Condition**
5.E.4(g)	Existing Kiln DRE Standard (SC Standard 3 Section III(L)(2), 40CFR63.1204(c)(1), 40CFR63.1204(c)(3) and 40CFR63.1206(b)(7)) Each existing Kiln (if still in operation) shall achieve a DRE of 99.99% for each designated POHC. Giant Cement shall calculate the DRE for each POHC as specified by equation (g)(1) of this condition and treat the POHCs in the waste feed that it specifies to the extent required. Giant Cement shall specify one or more POHCs from the list of hazardous air pollutants established by 42 U.S.C. 7412(b)(1), excluding caprolactam (CAS number 105602) for each waste to be burned. Giant Cement must base this specification on the degree of difficulty of incineration of the organic constituents in the waste and on their concentration or mass in the waste feed, considering the results of waste analyses or other data and information. Giant Cement must document compliance with this DRE standard only once provided that it does not modify a Kiln after the DRE performance test in a manner that could affect its ability to achieve the standard. Giant Cement may use any DRE performance test data that shows an existing Kiln achieves the required level of DRE provided that Giant Cement has not modified its design or operation in a manner that could effect its ability to achieve the DRE standard since the DRE performance test was performed and the DRE performance test data meet quality assurance objectives determined on a site-specific basis. (g)(1) DRE = [1-(Wout / Win)] x 100% Win = mass feedrate of POHC in a waste feedstream. Wout = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.
5.E.4(h)	Existing Clinker Cooler PM Emission Standard (40CFR63.6(f) and 40CFR63,1345(a)(1)) Particulate matter emissions from each existing Clinker Cooler (if still in operation) (K-270, K-370) shall each not exceed 0.10 lb/ton dry feed. This emission standard applies at all times except during periods of startup, shutdown and malfunction.
5.E.4(i)	Existing Kiln CO and Hydrocarbon Emission Standards (40CFR63.1204(a)(5)(ii) and 40CFR63.1206(b)(1)(i)) Giant Cement shall operate each existing Kiln (if still in operation) (K-250, K-350) to achieve one(1) of the Carbon Monoxide and/or Hydrocarbon performance specifications listed in paragraphs (i)(1) and (i)(2) of this condition. This emission standard applies at all times for all existing Kiln operations except during periods of SSM provided that hazardous waste is not in an existing Kiln's combustion chamber (i.e., the hazardous waste feed to the combustor (Kiln) has been cutoff for a period of time not less than the hazardous waste residence time) during those periods of operation. (i)(1) Hydrocarbons in the Main Stack of each existing Kiln shall not exceed 20 ppmv, over an hourly rolling average (monitored continuously with a CEMS), dry basis, reported as propane and corrected to 7%O_2. (i)(2) Carbon Monoxide in the Main Stack of each existing Kiln shall not exceed 100 ppmv, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7% O_2. If Giant Cement elects to comply with this Carbon Monoxide standard rather than the Hydrocarbon standard listed in paragraph (i)(1), it also must document that, during the DRE performance test runs or their equivalent, that Hydrocarbons in the main stack do not exceed 20 ppmv during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O_2, and reported as propane.

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-05 CEMENT CLINKER PRODUCING EQUIPMENT)	
Condition Number	**Condition**
5.E.4(j)	Existing Kiln Dioxin/Furan Emission Standard (40CFR63.1204(a)(1) and 40CFR63.1206(b)(1)(i)) Dioxin/Furan emissions from each existing Kiln (if still in operation) (K-250, K-350) shall not exceed 0.20 ng TEQ/dscm corrected to 7% O_2. Dioxin/Furan emissions from each existing Kiln may exceed 0.20 ng TEQ/dscm but no more than 0.40 ng TEQ/dscm corrected to 7%O_2 provided that the combustion gas temperature at the inlet to the initial dry PMCD is 400°F or lower based on the average of the test run average temperatures. This emission standard applies at all times for all existing Kiln operations except during periods of SSM provided that hazardous waste is not in an existing Kiln's combustion chamber (i.e., the hazardous waste feed to the combustor (Kiln) has been cutoff for a period of time not less than the hazardous waste residence time) during those periods of operation.
5.E.4(k)	Existing Kiln Arsenic, Beryllium and Chromium Emission Standards (40CFR63.1204(a)(4) and 40CFR63.1206(b)(1)(i)) Combined Arsenic, Beryllium and Chromium emissions from each existing Kiln (if still in operation) (K-250, K-350) shall not exceed 56 ug/dscm corrected to 7% O_2. This new emission standard applies at all times for all existing Kiln operations except during periods of SSM provided that hazardous waste is not in an existing Kiln's combustion chamber (i.e., the hazardous waste feed to the combustor (Kiln) has been cutoff for a period of time not less than the hazardous waste residence time) during those periods of operation.
5.E.4(l)	Existing Kiln Mercury Emission Standard (40CFR63.1204(a)(2) and 40CFR63.1206(b)(1)(i) and 40CFR63.1206(b)(15)) Mercury emissions from each existing Kiln (if still in operation) (K-250, K-350 shall not exceed 120.0 µg/dscm @ 7.0% O_2. In lieu of complying with this applicable Mercury standard, Giant Cement may instead elect to comply with an alternative Mercury standard consisting of Giant Cement not exceeding a hazardous waste feedrate corresponding to a MTEC of 120 µg/dscm on a twelve-hour(12) rolling average. To document compliance with this operating requirement, Giant Cement shall conduct monitoring and recordkeeping according to paragraphs (l)(1) through (l)(4) of this condition. In lieu of the requirements specified by paragraphs (l)(1) through (l)(4) of this condition, Giant Cement may identify in the Notification of Compliance a minimum gas flowrate limit and a maximum feedrate limit of mercury from all hazardous waste feedstreams that ensures the MTEC calculated in paragraph (l)(3) is below the MTEC of 120 µg/dscm on a twelve-hour rolling average and interlock the minimum gas flowrate limit and maximum feedrate limits to the AWFCO system to stop hazardous waste burning when the gas flowrate or mercury feedrate exceeds the minimum gas flow rate or maximum feedrate of Mercury. Giant Cement shall also notify the RCRA authority in writing that it intends to comply with the alternative standard. These emission standards apply at all times for all existing Kiln operations except during periods of SSM provided that hazardous waste is not in an existing Kiln's combustion chamber (i.e., the hazardous waste feed to the combustor (Kiln) has been cutoff for a period of time not less than the hazardous waste residence time) during those periods of operation. (l)(1) Monitor and record the feedrate of Mercury for each hazardous waste feedstream. (l)(2) Monitor with a CMS and record in the operating record the gas flowrate (either directly or by monitoring a surrogate parameter that has been correlated to gas flowrate) (l)(3) Continuously calculate and record in the operating record a MTEC assuming mercury from all hazardous waste feedstreams is emitted. (l)(4) Interlock the MTEC calculated in paragraph (l)(3) to the AWFCO system to stop hazardous waste burning when the MTEC exceeds 120 µg/dscm on a twelve-hour(12) rolling average.

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-05 CEMENT CLINKER PRODUCING EQUIPMENT)	
Condition Number	**Condition**
5.E.4(m)	Existing Kiln Nickel Emission Standard (SC Regulation 61-62.5 Standard 3 Section III Table III) Nickel emissions from each existing Kiln (if still in operation) (K-250, K-350) shall not exceed 6.0E-03 lb/10^6 Btu THI while burning any waste other than virgin fuel.
5.E.4(n)	Existing Kiln Lead and Cadmium Emission Standards (40CFR63.1204(a)(3) and 40CFR63.1206(b)(1)(i)) Combined Lead and Cadmium emissions from each existing Kiln (if still in operation) (K-250, K-350) shall not exceed 330.0 ug/dscm corrected to 7% O_2. This new emission standard applies at all times for all existing Kiln operations except during periods of SSM provided that hazardous waste is not in an existing Kiln's combustion chamber (i.e., the hazardous waste feed to the combustor (Kiln) has been cutoff for a period of time not less than the hazardous waste residence time) during those periods of operation.
5.E.4(o)	Alternative Existing Kiln Emission Standards (40CFR63.1206(b)(10)) Giant Cement may submit a written petition to the Department and EPA recommending alternative combustor (Kiln) Semivolatile Metal, Low Volatile Metal, Mercury and/or Hydrochloric Acid/Chlorine Gas emission standards for the existing Kilns (if still in operation) (K-250, K-350) . It may petition if it cannot achieve one(1) or more of these standards while using MACT because of raw material contributions to emissions of the regulated metals or Hydrochloric Acid/Chlorine Gas or it determines that Mercury is not present at detectable levels in its raw materials. The alternative standard recommended may be an operating requirement, such as a hazardous waste feedrate limitation for metals and/or Chlorine, and/or an emission limitation. It shall also include a requirement to use MACT or better, applicable to the standard(s) for which the Giant Cement is seeking relief. The alternative standard petition submitted shall include data or information documenting that raw material contributions to emissions prevent Giant Cement from complying with the emission standard(s) even though it is using MACT for the standard(s) for which it is seeking relief. If required, it shall also include data or information documenting that Mercury is not present at detectable levels in its raw materials, that increased Chlorine feedrate associated with the burning of hazardous waste, when compared to non-hazardous waste operations, do not significantly increase metal emissions attributable to raw materials and that emissions of the regulated metals and Hydrochloric Acid/Chlorine gas attributable to the hazardous waste only will not exceed the emission standards. Giant Cement shall not operate pursuant to its recommended alternative standards in lieu of the emission standards specified in this permit unless the Department approves the provisions of the alternative standard petition request or establishes other alternative standards and until Giant Cement submits a revised Notification of Compliance that incorporates the revised standards. For purposes of this alternative standard provision, MACT for new hazardous waste burning cement kilns is defined as listed in paragraphs (o)(1) through (o)(4). (o)(1) For Mercury, a hazardous waste feedrate corresponding to an MTEC of 88 µg/dscm or less. (o)(2) For Semivolatile Metals, a hazardous waste feedrate corresponding to an MTEC of 31,000 µg/dscm or less, and use of a PMCD that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less. (o)(3) For Low Volatile Metals, a hazardous waste federate corresponding to an MTEC of 54,000 µg/dscm or less and use of a PMCD that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less. (o)(4) For Hydrochloric Acid/Chlorine Gas, a hazardous waste Chlorine feedrate corresponding to an MTEC of 720,000 µg/dscm or less.

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-07 CLINKER HANDLING AND STORAGE EQUIPMENT)	
Condition Number	**Condition**
5.E.5(a)	(40CFR63.6(h) and 40CFR63.1348) Visible emissions from each transfer point of Drag Conveyor K-58 and Elevator No.9 (K-77) shall not exhibit an opacity greater than 10% as determined by 40CFR60 Appendix A Method 9. This visible emissions standard applies at all times except during periods of startup, shutdown and malfunction.
5.E.5(b)	(40CFR63.6(h) and 40CFR63.1348) Visible emissions from 2 Clinker Storage Tanks (K-33, K-34), 4 Clinker Storage Silos (K-35, K-36, K-37, K-38), Clinker Storage Tower K-49, Finish Mill No.6 Bin F-620 and Clinker Reclaim Crusher K-602 shall each not exhibit an opacity greater than 10% as determined by 40CFR60 Appendix A Method 9. This visible emission standard applies at all times except during periods of startup, shutdown and malfunction.
5.E.5(c)	(40CFR63.6(h) and 40CFR63.1348) Visible emissions from the Finish Mill No.7 Bin FG-71 shall not exhibit an opacity greater than 10% as determined by 40CFR60 Appendix A Method 9. This visible emissions standard applies at all times except during periods of startup, shutdown and malfunction.
5.E.5(d)	(40CFR63.6(h) and 40CFR63.1348) Visible emissions from each transfer point of Drag Conveyor K-1, Elevator No.1 (K-3), Elevator No.2 (K-4), Elevator No.3 (K-7), Elevator No.4 (K-8), Drag Conveyor K-9, Drag Conveyor K-10, Drag Conveyor K-11, A-Conveyor Belt K-65, Clinker Elevator K-66, Clinker Feeder F-501, Clinker Feeder F-502, Clinker Feeder F-503, Clinker Feeder F-504, Clinker Feeder F-506, Dust Screw Conveyor F-528, B Belt Conveyor K-17, C Belt Conveyor K-18, Elevator No.5 (K-54), Elevator No.6 (K-55), Drag Conveyor K-78 and Conveyor Belt K-79 shall not exhibit an opacity that exceeds 10% as determined by 40CFR60 Appendix A Method 9. This visible emission standard applies at all times except periods of startup, shutdown and malfunction.

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-08 DUST HANDLING AND STORAGE EQUIPMENT)	
Condition Number	**Condition**
5.E.6(a)	(40CFR63.6(h) and 40CFR63.1348) Visible emissions from each transfer point of Kiln No.2 Dust Insufflation Feeder K-293, Kiln No.2 Dust Insufflation Feeder K-294, Kiln No.3 Dust Insufflation Feeder K-393 and Kiln No.3 Dust Insufflation Feeder K-394 shall not exhibit an opacity greater than 10% as determined by 40CFR60 Appendix A Method 9. This visible emissions standard applies at all times except during periods of startup, shutdown and malfunction.
5.E.6(b)	(40CFR63.6(h) and 40CFR63.1348) Visible emissions from the Dust Tank K-152, Kiln No.2 Dust Overflow Bin DBK-2, Kiln No.3 Dust Overflow Bin DBK-3 and Kiln No.4/No.5 Dust Storage Bin DCE-76 shall each not exhibit an opacity greater than 10% as determined by 40CFR60 Appendix A Method 9. This visible emission standard applies at all times except periods of startup, shutdown and malfunction.
5.E.6(c)	(40CFR63.6(h) and 40CFR63.1348) Visible emissions from each transfer point of Finish Mill No.6 Feeder F-682 shall not exhibit an opacity greater than 10% as determined by 40CFR60 Appendix A Method 9. This visible emission standard applies at all times except periods of startup, shutdown and malfunction.

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-08 DUST HANDLING AND STORAGE EQUIPMENT)	
Condition Number	**Condition**
5.E.6(d)	(40CFR63.6(h) and 40CFR63.1348) Visible emissions from the Kiln No.2 Dust Insufflation Pump K-290, Kiln No.3 Dust Insufflation Pump K-390, Kiln No.2/No.3 Excess Dust Storage Bin DCK-220, Kiln No.5 Dust Overflow Bin DBK-5, Finish Mill No.7 Fringe Bin (512-BN-01), Kiln No.2/No.3 Pug Mill (PM-23) and Kiln No.4/No.5 Pug Mill (PM-45) shall each not exhibit an opacity greater than 10% as determined by 40CFR60 Appendix A Method 9. This visible emissions standard applies at all times except during periods of startup, shutdown and malfunction.

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-09 GYPSUM PROCESSING EQUIPMENT)	
Condition Number	**Condition**
5.E.7(a)	(40CFR63.6(h) and 40CFR63.1348) Visible emissions from Gypsum Hopper FG-761, Gypsum Hopper F-621, Gypsum Bin and the Gypsum Storage Silo shall each not exhibit an opacity greater than 10% as determined by 40CFR60 Appendix A Method 9. This visible emissions standard applies at all times except during periods of startup, shutdown and malfunction.
5.E.7(b)	(40CFR63.6(h) and 40CFR63.1348) Visible emissions from each transfer point of the Clinker/Gypsum Feeder, Gypsum Conveyor FG-760, Screw Feeder FG-761A, Gypsum Drag Conveyor FG-762 and Gypsum Conveyor Belt G-53 shall not exhibit an opacity greater than 10% as determined by 40CFR60 Appendix A Method 9. This visible emissions standard applies at all times except during periods of startup, shutdown and malfunction.

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-10 CLINKER FINISH MILL EQUIPMENT)	
Condition Number	**Condition**
5.E.8(a)	(40CFR63.6(h), 40CFR63.1347 and 40CFR63.1348) Visible emissions discharged from the mill sweep or air separator air pollution control devices of the Finish Mill No.6 F-604, Air Separator FG-732 and Air Separator F-608 shall not exhibit an opacity greater than 10%. Visible emissions from Cement Cooler FG-656 and Cement Cooler FG-726 shall each not exhibit an opacity greater than 10%. Compliance with these visible emissions standards shall determined by 40CFR60 Appendix A Method 9 and they apply at all times except periods of startup, shutdown and malfunction.
5.E.8(b)	(40CFR63.6(h) and 40CFR63.1348) Visible emissions from each conveyor transfer point of Gypsum Conveyor Belt F-601, Conveyor Belt F-602, Drag Conveyor F-603, Conveyor Belt FG-73, Conveyor Belt FG-73A, Conveyor Belt FG-77, Conveyor Belt FG-77A and Drag Conveyor FG-79 shall not exhibit an opacity greater than 10% as determined by 40CFR60 Appendix A Method 9. This visible emission standard applies at all times except periods of startup, shutdown and malfunction.
5.E.8(c)	(40CFR63.6(h) and 40CFR63.1347) Visible emissions discharged from the mill sweep or air separator air pollution control device of Finish Mill No.7 (FG-714) shall not exhibit an opacity greater than 10% as determined by 40CFR60 Appendix A Method 9. This visible emission standard applies at all times except during periods of startup, shutdown and malfunction.

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-11 CEMENT STORAGE AND BULK LOADING EQUIPMENT)	
Condition Number	**Condition**
5.E.9(a)	(40CFR63.6(h) and 40CFR63.1348) Visible emissions from West Cement Bulk Loading (P-321), East Bulk Cement Loading (P-331), Silo Bank No.1 (P-150), Silo Bank No.2 (P-341) and Silo Bank No.3 (P-342) shall each not exhibit an opacity greater than 10% as determined by 40CFR60 Appendix A Method 9. This visible emission standard applies at all times except during periods of startup, shutdown and malfunction.

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-12 CEMENT PACKING EQUIPMENT)	
Condition Number	**Condition**
5.E.10(a)	(40CFR63.6(h) and 40CFR63.1348) Visible emissions from the 12-Spout Packing Machine shall not exhibit an opacity that greater than 10% as determined by 40CFR60 Appendix A Method 9. This visible emission standard applies at all times except during periods of startup, shutdown and malfunction.

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-13 STEAM BOILER)	
Condition Number	**Condition**
5.E.11(a)	(SC Regulation 62.5 Standard 1 Section I, Section II and Section III) Visible emissions from the Steam Boiler shall not exhibit an opacity greater than 20%. The Boiler shall also be operated such that particulate matter emissions do not exceed 0.6 lb/10^6 Btu and sulfur dioxide emissions do not exceed 3.5 lb/10^6 Btu.

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-14 SLURRY STORAGE EQUIPMENT)	
Condition Number	**Condition**
5.E.12(a)	(40CFR63.6(h) and 40CFR63.1348) Until removed from service, visible emissions from Kiln No.5 Feed Tank (RE-24-T), 5 Slurry Storage Tanks (RE-4 to RE-8), Kiln No.2/No.3 Feed Tank (K-103), Kiln No.2 Feed Tank (K-202-T) and Kiln No.3 Feed Tank (K-302-T) shall each not exhibit an opacity greater than 10% as determined by 40CFR60 Appendix A Method 9. This visible emission standard applies at all times except during periods of startup, shutdown and malfunction.

CURRENT EMISSION LIMITS AND STANDARDS (CURRENT UNIT ID C-15 RAW MILL EQUIPMENT)	
Condition Number	**Condition**
5.E.13(a)	(40CFR63.6(h) and 40CFR63.1348) Until removed from service, visible emissions from Raw Mill No.1 (R-107), Raw Mill No.2 (R-207), Raw Mill No.3 (R-307) and Raw Mill No.4 (RD-16) shall each not exhibit an opacity greater than 10% as determined by 40CFR60 Appendix A Method 9. This visible emission standard applies at all times except during periods of startup, shutdown and malfunction.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-01 QUARRY/MARL HANDLING EQUIPMENT)	
Condition Number	**Condition**
5.E.14(a)	(40CFR60.11(c) and 40CFR60.672(c)) Fugitive emissions from the Quarry Crusher (Q-112) , Back-up Quarry Crusher (Q-114) and Roller Crusher (221-RC-01) shall each not exhibit an opacity that exceeds 15% as determined by 40CFR60 Appendix A Method 9 and the procedures of 40CFR60.675(c) and 40CFR60.11(b). This visible emission standard applies at all times except during periods of startup, shutdown and malfunction.
5.E.14(b)	(40CFR60.11(c), 40CFR60.672(b) and 40CFR60.676(h)) Fugitive emissions from each conveyor transfer point of each Quarry Marl Conveyor Belt (Q-104 to Q-106, Q-108 to Q-110, Q-113)(Q-210, Q-211, Q-212, Q-212A) (221-AF-01, 221-BC-01) shall not exhibit an opacity that exceeds 10% when conveying non-saturated materials as determined by 40CFR60 Appendix A Method 9 and the procedures of 40CFR60.675(c) and 40CFR60.11(b). Fugitive emissions from each conveyor transfer point of each Quarry Marl Conveyor Belt shall exhibit no visible emissions when conveying saturated materials. This visible emission standard applies at all times except during periods of startup, shutdown and malfunction.
5.E.14(c)	(40CFR60.11(c) and 40CFR60.672(b)) Fugitive emissions from the Dump Hopper shall not exhibit an opacity greater than 10% as determined by 40CFR60 Appendix A Method 9 and the procedures of 40CFR60.675(c) and 40CFR60.11(b). This visible emission standard applies at all times except during periods of startup, shutdown and malfunction

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-02 COAL/COKE CRUSHING AND PROCESSING EQUIPMENT)	
Condition Number	**Condition**
5.E.15(a)	(40CFR60.11(c), 40CFR60.252(a)(2), 40CFR60.252(c), 40CFR63.6(h) and 40CFR63.1348) After plant modifications are complete, visible emissions from the East Coal Mill (CH-33E) , West Coal Mill (CH-33W), 2 Coal Feeders (CH-3), 2 Coal Hoppers (CH-4), Coal Radial Stacker (CH-7), Coal Transfer Hopper (CH-8), Coal Storage Silo (CH-16) and the Coal Mill Heater shall each not exhibit an opacity that exceeds 20% as determined by 40CFR60 Appendix A Method 9. Visible emissions from the Carbon Black Storage Bin, Coal Bin/Pump (461-BN-31, 461-BL-53) and Coal Bin/Pump (461-BN-42, 461-BL-51) shall each not exhibit an opacity that exceeds 10% as determined by 40CFR60 Appendix A Method 9. These visible emission standards apply at all times except during periods of startup, shutdown and malfunction.
5.E.15(b)	(40CFR60.11(c) and 40CFR60.252(c)) After plant modifications are complete, visible emissions from each conveyor transfer point of Coal Conveyor Belt CH-27, Coal Conveyor Belt CH-5 and Coal Conveyor Belt CH-13 shall not exhibit an opacity that exceeds 20% as determined by 40CFR60 Appendix A Method 9. This visible emission standard applies at all times except during periods of startup, shutdown and malfunction.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-03 WASTE FUEL PROCESSING AND STORAGE EQUIPMENT)	
Condition Number	**Condition**
5.E.18(a)	(SC Regulation 62.5 Standard 4 Section IX(B)) Visible emissions from the Hazardous Waste Storage Building (GR-1), Vibrating Screen (K-702) and Shredder (K-703) shall each not exhibit an opacity greater than 20% as determined by 40CFR60 Appendix A Method 9.
5.E.18(b)	(40CFR63.693(d)(1)) After plant modifications are complete and when in operation, the Carbon Adsorption System shall recover 95% or more, on a weight-basis, of the TOC, less methane and ethane, contained in the vent stream entering the Carbon Adsorption System or recover 95% or more, on a weight-basis, of the total HAP listed in 40CFR63 Subpart DD Table 1 contained in the vent stream entering the Carbon Adsorption System.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT)	
Condition Number	**Condition**
5.E.19(a)	New Kiln System Used As Vapor Incinerator (40CFR61.349(a)(2) and 40CFR63.693(f)(1)) When the New Kiln System (when placed in operation) is used as a Vapor Incinerator to control emissions from the Waste Fuel Processing and Storage Equipment, it shall be operated to achieve one(1) of the performance options listed in paragraphs (a)(1) through (a)(3) of this condition. If Giant Cement is in compliance with the performance options as specified by paragraphs (a)(1) through (a)(3) of this condition, it also considered to be in compliance with the requirements of 40CFR61.349(a)(2) if the total annual benzene quantity is equal to or greater than 10 Mg/yr (11 tpy). (a)(1) Maintain the conditions in the Vapor Incinerator (Kiln) combustion chamber at a residence time of 0.5 seconds or longer and at a temperature of 760°C or higher. (a)(2) Destroy the TOC, less methane and ethane, contained in the vent stream entering the Vapor Incinerator (Kiln) either by 95% or more, on a weight-basis, or achieve a total incinerator outlet concentration for the TOC, less methane and ethane, of less than or equal to 20 ppmv corrected to 3% O_2, dry basis as determined by 40CFR60 Appendix A Method 25. (a)(3) Destroy the HAP listed in 40CFR63 Subpart DD Table 1 contained in the vent stream entering the Vapor Incinerator (Kiln) either by 95% or more, on a total HAP weight-basis, or achieve a total incinerator outlet concentration for the HAP of less than or equal to 20 ppmv corrected to 3% O_2, dry basis as determined by 40CFR60 Appendix A Method 25.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT)	
Condition Number	**Condition**
5.E.19(b)	New Kiln System Mercury Emission Standard (40CFR63.1204(b)(2) and 40CFR63.1206(b)(1) and 40CFR63.1206(b)(15)) Mercury emissions from the New Kiln System shall not exceed 120.0 µg/dscm @ 7.0% O_2. In lieu of complying with this applicable Mercury standard, Giant Cement may instead elect to comply with an alternative Mercury standard consisting of Giant Cement not exceeding a hazardous waste feedrate corresponding to a MTEC of 120 µg/dscm on a twelve-hour(12) rolling average. To document compliance with this operating requirement, Giant Cement shall conduct monitoring and recordkeeping according to paragraphs (b)(1) through (b)(4) of this condition. In lieu of the requirements specified by paragraphs (b)(1) through (b)(4) of this condition, Giant Cement may identify in the Notification of Compliance a minimum gas flowrate limit and a maximum feedrate limit of mercury from all hazardous waste feedstreams that ensures the MTEC calculated in paragraph (b)(3) is below the MTEC of 120 µg/dscm on a twelve-hour rolling average and interlock the minimum gas flowrate limit and maximum feedrate limits to the AWFCO system to stop hazardous waste burning when the gas flowrate or mercury feedrate exceeds the minimum gas flowrate or maximum feedrate of Mercury. Giant Cement shall also notify the RCRA authority in writing that it intends to comply with the alternative standard. These emission standards apply at all times for all New Kiln System operations except during periods of SSM provided that hazardous waste is not in the New Kiln System's combustion chamber (i.e., the hazardous waste feed to the combustor (New Kiln System) has been cutoff for a period of time not less than the hazardous waste residence time) during those periods of operation. (b)(1) Monitor and record the feedrate of Mercury for each hazardous waste feedstream. (b)(2) Monitor with a CMS and record in the operating record the gas flowrate (either directly or by monitoring a surrogate parameter that you have correlated to gas flowrate) (b)(3) Continuously calculate and record in the operating record a MTEC assuming mercury from all hazardous waste feedstreams is emitted. (b)(4) Interlock the MTEC calculated in paragraph (b)(3) to the AWFCO system to stop hazardous waste burning when the MTEC exceeds 120 µg/dscm on a twelve-hour(12) rolling average.
5.E.19(c)	New Kiln System Dioxin/Furan Emission Standard (40CFR63.1204(b)(1) and 40CFR63.1206(b)(1)(i)) Dioxin/Furan emissions from the New Kiln System (when placed in operation) shall not exceed 0.20 ng TEQ/dscm corrected to 7% oxygen. Dioxin/Furan emissions from the New Kiln System may exceed 0.20 ng TEQ/dscm but no more than 0.40 ng TEQ/dscm corrected to 7% oxygen provided that the combustion gas temperature at the inlet to the initial dry PMCD is 400°F or lower based on the average of the test run average temperatures. This emission standard applies at all times for all New Kiln System operations except during periods of SSM provided that hazardous waste is not in the New Kiln System's combustion chamber (i.e., the hazardous waste feed to the combustor (New Kiln) has been cutoff for a period of time not less than the hazardous waste residence time) during those periods of operation.
5.E.19(d)	New Kiln System Combined Arsenic, Beryllium and Chromium Emission Standard (40CFR63.1204(b)(4) and 40CFR63.1206(b)(1)(i)) Combined Arsenic, Beryllium and Chromium emissions from the New Kiln System (when placed in operation) shall not exceed 54.0 µg/dscm @ 7.0% O_2. This emission standard applies at all times for all New Kiln System operations except during periods of SSM provided that hazardous waste is not in the New Kiln System's combustion chamber (i.e., the hazardous waste feed to the combustor (New Kiln System) has been cutoff for a period of time not less than the hazardous waste residence time) during those periods of operation.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT)	
Condition Number	**Condition**
5.E.19(e)	New Kiln System Nickel Emission Standard (SC Regulation 61-62.5 Standard 3 Section III Table III) Nickel emissions from the New Kiln System (when placed in operation) shall not exceed 6.0E-03 lb/10^6 Btu THI while burning any waste other than virgin fuel.
5.E.19(f)	New Kiln System Combined Lead and Cadmium Emission Standard (40CFR63.1204(b)(3) and 40CFR63.1206(b)(1)(i)) Combined Lead and Cadmium emissions from the New Kiln System (when placed in operation) shall not exceed 180.0 µg/dscm @ 7.0% O_2. This emission standard applies at all times for all New Kiln System operations except during periods of SSM provided that hazardous waste is not in the New Kiln System's combustion chamber (i.e., the hazardous waste feed to the combustor (New Kiln System) has been cutoff for a period of time not less than the hazardous waste residence time) during those periods of operation.
5.E.19(g)	New Kiln System Combined Hydrochloric Acid and Chlorine Gas Emission Standard (40CFR63.1204(b)(6) and 40CFR63.1206(b)(1)(i)) Combined Hydrochloric Acid and Chlorine Gas emissions from the New Kiln System (when placed in operation) shall not exceed 86.0 ppm @ 7.0% O_2 Dry Basis, HCl equivalents. This emission standard applies at all times for all New Kiln operations except during periods of SSM provided that hazardous waste is not in the New Kiln System's combustion chamber (i.e., the hazardous waste feed to the combustor (New Kiln System) has been cutoff for a period of time not less than the hazardous waste residence time) during those periods of operation.
5.E.19(h)	New Kiln System and New Clinker Cooler Visible Emission Standard (40CFR63.1204(b)(7), 40CFR63.1345(a)(2) and 40CFR63.1206(b)(1)(i)) The New Kiln System and New Clinker Cooler (when placed in operation) will exhaust at a common emission point (Main Stack). Visible emissions from the Main Stack shall not exceed 20% opacity This emission standard applies at all times for all New Kiln System operations except during periods of SSM provided that hazardous waste is not in the New Kiln System's combustion chamber (i.e., the hazardous waste feed to the combustor (New Kiln System) has been cutoff for a period of time not less than the hazardous waste residence time) during those periods of operation.
5.E.19(i)	New Kiln System and New Clinker Cooler PM Emission Standards (SC Regulation 62.5 Standard 4 Section IV and 40CFR63.1345(a)(2)) Particulate matter emissions (E) from the New Kiln System (when placed in operation) shall not exceed the most restrictive particulate matter emission limit calculated from between the two(2) equations specified in paragraphs (i)(1) and (i)(2) of this condition. Particulate matter emissions (E) from the New Clinker Cooler (when placed in operation) shall not exceed the allowable particulate matter emission limit as specified in paragraph (i)(3). The total allowable particulate matter emissions from both shall be the sum of each allowable individual particulate matter emission limit since both exhaust at a common emission point (Main Stack). (i)(1) $E(lb/hr) = ((3.269E\text{-}05)(P^3)) - ((0.01049)(P^2)) + ((1.164)(P)) + 2.823$ (P in tph) (i)(2) E = 0.30 lb/ton of dry feed (i)(3) E = 0.10 lb/ton of dry feed

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT)	
Condition Number	**Condition**
5.E.19(j)	New Kiln System CO and Hydrocarbon Emission Standards (SC Regulation 61-62.5 Standard 7, 40CFR63.1204(b)(5) and 40CFR63.1206(b)(6)) The New Kiln System (when placed in operation) shall be operated to achieve one(1) of the performance specifications for Carbon Monoxide and Hydrocarbon emissions as specified by paragraphs (j)(1) and (j)(2) of this condition. If Giant Cement complies with these emissions standards by documenting continuous compliance with the Carbon Monoxide standard using a CEMS and documenting compliance with the Hydrocarbon standard during the DRE performance test or its equivalent, then if a DRE performance test is acceptable as documentation of compliance with the DRE standard, Giant Cement may use the highest hourly rolling average Hydrocarbon level achieved during the DRE performance test runs to document compliance with the hydrocarbon standard. An acceptable DRE performance test is any test for which the data and results are determined to meet quality assurance objectives (on a site-specific basis) such that the results adequately demonstrate compliance with the DRE standard. If during this acceptable DRE performance test Giant Cement did not obtain hydrocarbon emissions data sufficient to document compliance with the hydrocarbon standard, it must perform, as part of the performance test, an equivalent DRE performance test to document compliance with the hydrocarbon standard. An equivalent DRE performance test shall be comprised of a minimum of three runs each with a minimum duration of one(1) hour during which the combustor (New Kiln System) is operated as close as reasonably possible to the operating parameter limits that were established based on the initial DRE performance test. The highest hourly rolling average hydrocarbon emission level achieved must be used during the equivalent DRE performance test to document compliance with the hydrocarbon standard. Giant Cement may also elect to perform a DRE performance test as part of the Comprehensive Performance Test. (j)(1) Carbon Monoxide emissions in the by-pass or midkiln gas sampling system shall not exceed 100 ppmv, over an hourly rolling average (monitored continuously with a CEMS), dry basis and corrected to 7% O_2. If Giant Cement elects to comply with this Carbon Monoxide emission standard rather than the Hydrocarbon emission standard specified in paragraph (j)(2), it also must document that, during the DRE performance test runs, that Hydrocarbon emissions do not exceed 10 ppmv during those runs, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% oxygen, and reported as propane. VOC emissions from the Main Stack shall not exceed 0.55 lb/ton of clinker (42 ppmv), three(3)- hour block average. (j)(2) Hydrocarbon emissions in the by-pass duct or midkiln gas sampling system shall not exceed 10 ppmv, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O_2 and reported as propane. Carbon Monoxide emissions from the Main Stack shall not exceed 6.8 lb/ton clinker, 30 day rolling average.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT)	
Condition Number	**Condition**
5.E.19(k)	Alternative New Kiln System Emission Standards (40CFR63.1206(b)(10)) Giant Cement may submit a written petition to the Department and EPA recommending alternative combustor (Kiln) Semivolatile Metal, Low Volatile Metal, Mercury and/or Hydrochloric Acid/Chlorine Gas emission standards for the New Kiln System (when placed in operation) . It may petition if it cannot achieve one(1) or more of these standards while using MACT because of raw material contributions to emissions of the regulated metals or Hydrochloric Acid/Chlorine Gas or it determines that Mercury is not present at detectable levels in its raw materials. The alternative standard recommended may be an operating requirement, such as a hazardous waste feedrate limitation for metals and/or Chlorine, and/or an emission limitation. It shall also include a requirement to use MACT or better, applicable to the standard(s) for which the Giant Cement is seeking relief. The alternative standard petition submitted shall include data or information documenting that raw material contributions to emissions prevent Giant Cement from complying with the emission standard(s) even though it is using MACT for the standard(s) for which it is seeking relief. If required, it shall also include data or information documenting that Mercury is not present at detectable levels in its raw materials, that increased Chlorine feedrate associated with the burning of hazardous waste, when compared to non-hazardous waste operations, do not significantly increase metal emissions attributable to raw materials and that emissions of the regulated metals and Hydrochloric Acid/Chlorine gas attributable to the hazardous waste only will not exceed the emission standards. Giant Cement shall not operate pursuant to its recommended alternative standards in lieu of the emission standards specified in this permit unless the Department approves the provisions of the alternative standard petition request or establishes other alternative standards and until Giant Cement submits a revised Notification of Compliance that incorporates the revised standards. For purposes of this alternative standard provision, MACT for new hazardous waste burning cement kilns is defined as listed in paragraphs (k)(1) through (k)(4). (k)(1) For Mercury, a hazardous waste feedrate corresponding to an MTEC of 7 µg/dscm or less. (k)(2) For Semivolatile Metals, a hazardous waste feedrate corresponding to an MTEC of 31,000 µg/dscm or less, and use of a PMCD that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less. (k)(3) For Low Volatile Metals, a hazardous waste feedrate corresponding to an MTEC of 15,000 µg/dscm or less and use of a PMCD that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less. (k)(4) For Hydrochloric Acid/Chlorine Gas, a hazardous waste Chlorine feedrate corresponding to an MTEC of 420,000 µg/dscm or less.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT)	
Condition Number	**Condition**
5.E.19(l)	New Kiln System Benzene-Containing Waste Treatment Standards (40CFR61.342(a) and 40CFR61.348(a)) If the total annual benzene quantity is equal to or greater than 10 Mg/yr (11 tpy) and when the New Kiln System (when placed in operation) is used as Benzene-Containing Waste Treatment Process, it shall be operated to achieve one(1) of the performance options listed in paragraphs (m)(1) through (m)(3) of this condition. (l)(1) Remove benzene from the waste stream to a level less than 10 ppmw on a flow-weighted annual average basis. For the purpose of complying with the requirements of this paragraph, the intentional or unintentional reduction in the benzene concentration of a waste stream by dilution of the waste stream with other wastes or materials is not allowed. (l)(2) Remove benzene from the waste stream by 99% or more on a mass basis. (l)(3) Destroy benzene in the waste stream by incinerating the waste to achieve a DRE of 99% or greater for benzene.
5.E.19(m)	New Kiln System DRE Standard (SC Standard 3 Section III(L)(2), 40CFR63.1204(c)(1), 40CFR63.1204(c)(3) and 40CFR63.1206(b)(7)) The New Kiln System (when placed in operation) shall achieve a DRE of 99.99% for each designated POHC. Giant Cement shall calculate the DRE for each POHC as specified by equation (m)(1) of this condition and treat the POHCs in the waste feed that it specifies to the extent required. Giant Cement shall specify one or more POHCs from the list of hazardous air pollutants established by 42 U.S.C. 7412(b)(1), excluding caprolactam (CAS number 105602) for each waste to be burned. Giant Cement must base this specification on the degree of difficulty of incineration of the organic constituents in the waste and on their concentration or mass in the waste feed, considering the results of waste analyses or other data and information. Giant Cement must document compliance with this DRE standard only once provided that it does not modify the New Kiln System after the DRE performance test in a manner that could affect its ability to achieve the standard. Giant Cement may use any DRE performance test data that shows the New Kiln System achieves the required level of DRE provided that Giant Cement has not modified the New Kiln System's design or operation in a manner that could effect its ability to achieve the DRE standard since the DRE performance test was performed and the DRE performance test data meet quality assurance objectives determined on a site-specific basis. Since Giant Cement may feed hazardous waste at a location in the New Kiln System's combustion system other than the normal flame zone, then it shall demonstrate compliance with the DRE standard during each Comprehensive Performance Test. Since Giant Cement will not have previous DRE performance test data for the New Kiln System to document conformance with the DRE standard then it must perform DRE testing during the initial Comprehensive Performance Test. (m)(1) DRE = [1-(Wout / Win)] x 100% Win = mass feedrate of POHC in a waste feedstream Wout = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT)	
Condition Number	**Condition**
5.E.19(n)	New Kiln CO and Hydrocarbon Emission Standards for Feeding Hazardous Waste at Other Locations (40CFR63.1206(b)(13)(i)(B)) Giant Cement shall not discharge or cause combustion gases to be emitted into the atmosphere that contain either Hydrocarbons in the Main Stack in excess of 20 ppmv, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O_2 and reported as propane or Hydrocarbons both in the by-pass duct and at a preheater tower combustion gas monitoring location in excess of 10 ppmv, at each location, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O_2 and reported as propane. If the only firing location of hazardous waste upstream (in terms of gas flow) of the point where combustion gases are diverted into the bypass duct is at the Kiln end where products are normally discharged, then both Hydrocarbons at the preheater tower combustion gas monitoring location must not exceed 10 ppmv, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O_2, reported as propane and either Hydrocarbons in the by-pass duct must not exceed 10 ppmv, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O_2, reported as propane or Carbon Monoxide must not exceed 100 ppmv, over an hourly rolling average (monitored continuously with a CEMS), dry basis, and corrected to 7% O_2. If Giant Cement complies with the Carbon Monoxide standard of 100 ppmv in the by-pass duct, then it must also not discharge or cause combustion gases to be emitted into the atmosphere that contain Hydrocarbons in the by-pass duct in excess of 10 ppmv, over an hourly rolling average (monitored continuously with a CEMS), dry basis, corrected to 7% O_2, reported as propane, at any time during the DRE performance test runs or their equivalent.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-05 CLINKER HANDLING AND STORAGE EQUIPMENT)	
Condition Number	**Condition**
5.E.20(a)	(40CFR63.6(h) and 40CFR63.1348) After plant modifications are complete, visible emissions from the No.4 FM bin, No.5 FM bin, Storage Silo K-37, Storage Silo K-38, Storage Tower K-49, No.6 FM bin F-620, No.7 FM bin FG-71, Hopper 471-VF-08, Hopper 513-CV-11 and Clinker Silo 513-SI-10 shall each not exhibit an opacity that exceeds 10% as determined by 40CFR60 Appendix A Method 9. These visible emission standards apply at all times except during periods of startup, shutdown and malfunction.
5.E.20(b)	(40CFR63.6(h) and 40CFR63.1348) After plant modifications are complete, visible emissions from each transfer point of Drag Conveyor K-9, Drag Conveyor K-10, Belt Conveyor K-11, Elevator K-66, Feeder F-501, Feeder F-502, Feeder F-503, Feeder F-504, Feeder F-506, Conveyor F-528, A-Belt Conveyor, Elevators No.5, Elevator No.6, Conveyor K-58, Elevator No.9, Drag Conveyor K-78, Conveyor K-79, Conveyor 471-DB-01, Conveyor 471-DB-03, Conveyor 471-BC-09, Conveyor 471-BC-05 and Conveyor 513-BC-13 shall not exhibit an opacity that exceeds 10% as determined by 40CFR60 Appendix A Method 9. These visible emission standards apply at all times except during periods of startup, shutdown and malfunction.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-06 DUST HANDLING AND STORAGE EQUIPMENT)	
Condition Number	**Condition**
5.E.21(a)	(40CFR63.6(h) and 40CFR63.1348) After plant modifications are complete, visible emissions from the Kiln 4/5 Dust Bin, Finish Mill No.7 Fringe Bin and Pugmill shall each not exhibit an opacity that exceeds 10% as determined by 40CFR60 Appendix A Method 9. These visible emission standards apply at all times except during periods of startup, shutdown and malfunction.
5.E.21(b)	(40CFR63.6(h) and 40CFR63.1348) After plant modifications are complete, visible emissions from each transfer point of the Finish Mill No.6 Feeder and Finish Mill No.7 Feeder shall not exhibit an opacity that exceeds 10% as determined by 40CFR60 Appendix A Method 9. These visible emission standards apply at all times except during periods of startup, shutdown and malfunction.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-07 GYPSUM PROCESSING EQUIPMENT)	
Condition Number	**Condition**
5.E.22(a)	(40CFR63.6(h) and 40CFR63.1348) After plant modifications are complete, visible emissions from the Gypsum Hopper FG-761, Conveyor/Hopper G-53, Gypsum Hopper F-621, Gypsum Bin FG-75, Gypsum Bin 513-BN-06, Limestone Bin 513-BN-03, and the Dump Hopper 513-DH-01 shall each not exhibit an opacity that exceeds 10% as determined by 40CFR60 Appendix A Method 9. These visible emission standards apply at all times except during periods of startup, shutdown and malfunction.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-07 GYPSUM PROCESSING EQUIPMENT)	
Condition Number	**Condition**
5.E.22(b)	(40CFR63.6(h) and 40CFR63.1348) After plant modifications are complete, visible emissions from each transfer point of Conveyor FG-760, Screw Feeder FG-761A, Drag Conveyor FG-762, Conveyor 513-WF-02, Conveyor 513-WF-05, Conveyor 513-WF-08, Conveyor 513-BC-09, Conveyor 513-BC-01 and Conveyor 513-SC-01 shall not exhibit an opacity that exceeds 10% as determined by 40CFR60 Appendix A Method 9. These visible emission standards apply at all times except during periods of startup, shutdown and malfunction.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-08 CLINKER FINISH MILL EQUIPMENT)	
Condition Number	**Condition**
5.E.23(a)	(40CFR63.6(h), 40CFR63.1347 and 40CFR63.1348) After plant modifications are complete, visible emissions discharged from the mill sweep or air separator air pollution control device of Air Separator F-512, Finish Mill No.6 (F-604), Air Separator F-608, Finish Mill No.7 (FG-714), Air Separator FG-732, Finish Mill 533-BM-06 and the High Efficiency Separator 533-SR-13 shall not exhibit an opacity that exceeds10% as determined by 40CFR60 Appendix A Method 9. Visible emissions from Air Slide F-519, Spill Bin F-524, Cement Cooler FG-656, and Cement Cooler FG-726 shall each not exhibit an opacity that exceeds 10% as determined by 40CFR60 Appendix A Method 9. These visible emission standards apply at all times except during periods of startup, shutdown and malfunction.
5.E.23(b)	(40CFR63.6(h) and 40CFR63.1348) After plant modifications are complete, visible emissions from each transfer point of Conveyor F-601 Conveyor F-602, Drag Conveyor F-603, Conveyor FG-73, Conveyor FG-73A, Gypsum Weigh Feeder FG-77, Gypsum Spill Screw FG-77A, Drag Conveyor FG-79, Air Gravity Conveyor 533-AS-14, Air Gravity Conveyor 533-AS-10, Air Gravity Conveyor 533-AS-20, Air Gravity Conveyor 533-AS-25 and Bucket Elevator 533-BE-11 shall not exhibit an opacity that exceeds 10% as determined by 40CFR60 Appendix A Method 9. These visible emission standards apply at all times except during periods of startup, shutdown and malfunction.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-09 CEMENT STORAGE AND BULK LOADING EQUIPMENT)	
Condition Number	**Condition**
5.E.24(a)	(40CFR63.6(h) and 40CFR63.1348) After plant modifications are complete, visible emissions from Silo Bank No.1, Silo Bank No.2, Silo Bank No.3, Railcar Bulk Loading and Truck Bulk Loading shall each not exhibit an opacity that exceeds 10% as determined by 40CFR60 Appendix A Method 9. These visible emission standards apply at all times except during periods of startup, shutdown and malfunction.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-09 CEMENT STORAGE AND BULK LOADING EQUIPMENT)	
Condition Number	**Condition**
5.E.24(b)	(40CFR63.6(h) and 40CFR63.1348) After plant modifications are complete, visible emissions from Air Gravity Conveyor 543-AS-01, Air Gravity Conveyor 543-AS-02, Air Gravity Conveyor 543-AS-03, Air Gravity Conveyor 543-AS-04, Air Gravity Conveyor 543-AS-05, Air Gravity Conveyor 543-AS-06, Air Gravity Conveyor 543-AS-07, and Bucket Elevator 543-BE-70 shall each not exhibit an opacity that exceeds 10% as determined by 40CFR60 Appendix A Method 9. These visible emission standards apply at all times except during periods of startup, shutdown and malfunction.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-10 CEMENT PACKING EQUIPMENT)	
Condition Number	**Condition**
5.E.25(a)	(40CFR63.6(h) and 40CFR63.1348) After plant modifications are complete, visible emissions from the 12-Spout Packing Machine shall not exhibit an opacity that exceeds 10% as determined by 40CFR60 Appendix A Method 9. This visible emission standard applies at all times except during periods of startup, shutdown and malfunction.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-11 STEAM BOILER)	
Condition Number	**Condition**
5.E.26(a)	(SC Regulation 62.5 Standard 1 Section I, Section II and Section III) Visible emissions from the Steam Boiler shall not exhibit an opacity that exceeds 20%. The Boiler shall also be operated such that particulate matter emissions do not exceed 0.6 lb/10^6 Btu and sulfur dioxide emissions do not exceed 3.5 lb/10^6 Btu.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-12 NEW MATERIAL TRANSFER AND STORAGE EQUIPMENT)	
Condition Number	**Condition**
5.E.27(a)	(40CFR63.6(h) and 40CFR63.1348) After plant modifications are complete, visible emissions from Storage Bin 311-BN-01, Storage Bin 311-BN-02, Storage Bin 311-BN-03, Hopper 311-CV-26, Dust Bin 351-BN-70, Raw Meal Silos (Nos. 1 to 6), Interstice Silos (Nos. 7 and 8), Storage Bin 351-BN-12, Weigh Bin 235-BN-35, Screw Pump Hopper 245-SP-45, Aeropol, and Fly Ash Silo 235-BN-30 shall each not exhibit an opacity that exceeds 10% as determined by 40CFR60 Appendix A Method 9. These visible emission standards apply at all times except during periods of startup, shutdown and malfunction.

FUTURE EMISSION LIMITS AND STANDARDS (FUTURE UNIT ID F-12 NEW MATERIAL TRANSFER AND STORAGE EQUIPMENT)	
Condition Number	**Condition**
5.E.27(b)	(40CFR63.6(h) and 40CFR63.1348) After plant modifications are complete, visible emissions from each transfer point Conveyor 311-WF-06, Conveyor 311-WF-08, Conveyor 311-WF-10, Conveyor 311-BC-13, Conveyor 311-BC-14, Conveyor 311-BC-27, Conveyor 311-BC-28, Conveyor 311-CV-30, Air Gravity Conveyor 341-AS-01, Air Gravity Conveyor 341-AS-02, Bucket Elevator 351-BE-76, Screw Conveyor 331-SC-22, Screw Conveyor 351-SC-31, Bucket Elevator 341-BE-05, Air Gravity Conveyor 341-AS-07, Air Gravity Conveyor 341-AS-07AS3, Air Gravity Conveyor 341-AS-07AS4, Air Gravity Conveyor 341-AS-16AS1, Air Gravity Conveyor 341-AS-16AS2, Air Gravity Conveyor 351-AS-01, Bucket Elevator 351-BE-10, Screw Conveyor 351-SC-75, Air Gravity Conveyor 351-AS-11, Air Gravity Conveyor 351-AS-14, and Air Gravity Conveyor 613-AS-03 shall not exhibit an opacity that exceeds 10% as determined by 40CFR60 Appendix A Method 9. These visible emission standards apply at all times except during periods of startup, shutdown and malfunction.

PART 6.0 MONITORING AND REPORTING REQUIREMENTS

[SC Regulation 61-62.1, Section II]; [SC Regulation 61-62.70.6(a)(3)(i)(B)]

A. MONITORING AND REPORTING

Tables 6.1 through 6.49 contain summaries of the monitoring and reporting required of this facility.

TABLE 6.1 MONITORING AND REPORTING (FACILITY OPERATING RECORD REQUIREMENTS)							
Current Unit ID	**Future Unit ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-05	F-04	40CFR63 Subpart EEE Facility Operating Record Requirements	N/A	See Condition	N/A	N/A	6.B.1(a)

TABLE 6.2 MONITORING AND REPORTING (STARTUPS, SHUTDOWNS AND MALFUNCTIONS)							
Current Unit ID	**Future Unit ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-05	F-04	40CFR63 Subpart EEE SSM Plan Requirements	N/A	See Condition	N/A	N/A	6.B.2(a)

TABLE 6.3 MONITORING AND REPORTING (STARTUPS, SHUTDOWNS AND MALFUNCTIONS)							
Current Unit ID	**Future Unit ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-02 C-04 C-06 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-03 F-05 F-06 F-07 F-08 F-09 F-10 F-12	40CFR63 Subpart DD and 40CFR63 Subpart LLL SSM Plan Requirements	N/A	See Condition	N/A	N/A	6.B.2(b)
C-05	F-04	Development and Department Approval of 40CFR63 Subpart EEE SSM Plan	N/A	Submit Plan for Approval	N/A	N/A	6.B.2(c)
C-02 C-03 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-02 F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Operation and Maintenance of Sources Subject to 40CFR63 Subpart DD, 40CFR63 Subpart EEE and 40CFR63 Subpart LLL During SSM	N/A	See Condition	See Condition	See Condition	6.B.2(d)
C-02 C-03 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-02 F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Records of Corrective Actions Taken During Periods of SSM When Such Actions Are Consistent with the Procedures Specified in an Affected Source's SSM Plan	N/A	Recordkeeping	N/A	N/A	6.B.2(e)

TABLE 6.4 MONITORING AND REPORTING (STARTUPS, SHUTDOWNS AND MALFUNCTIONS)							
Current Unit ID	**Future Unit ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-02 C-03 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-02 F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Records of Corrective Actions Taken During Periods of SSM when Such Actions are Not Consistent with the Procedures Specified in an Affected Source's SSM Plan	N/A	Recordkeeping	N/A	N/A	6.B.2(f)
C-03 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-02 F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Records of the SSM Plan(s) Required by 40CFR63 Subpart DD and 40CFR63 Subpart LLL	N/A	Recordkeeping	N/A	N/A	6.B.2(g)
C-03 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-02 F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Revisions to a SSM Plan	N/A	See Condition	N/A	N/A	6.B.2(h)
C-03 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-02 F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	SSM Records for Process Equipment	N/A	Recordkeeping	N/A	N/A	6.B.2(i)

TABLE 6.5 MONITORING AND REPORTING (STARTUPS, SHUTDOWNS AND MALFUNCTIONS)							
Current Unit ID	**Future Unit ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-02 C-03 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-02 F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Immediate SSM Reports	N/A	Submit Report	N/A	See Condition	6.B.2(j)
C-02 C-03 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-02 F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Periodic SSM Reports	N/A	Submit Report	N/A	See Condition	6.B.2(k)
C-05	F-04	Kiln Operations Under The 40CFR63 Startup, Shutdown and Malfunction Plan	N/A	See Condition	N/A	N/A	6.B.2(l)
C-05	F-04	Compliance With AWFCO Requirements When Burning Hazardous Waste During Startups and Shutdowns	N/A	See Condition	N/A	N/A	6.B.2(m)
C-05	F-04	Excessive Exceedances During Kiln Malfunctions	N/A	See Condition	See Condition	See Condition	6.B.2(n)

TABLE 6.6 MONITORING AND REPORTING (CONTINUOUS MONITORING SYSTEMS)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	CMS Requirements for Combining of Effluents	N/A	See Condition	N/A	N/A	6.B.3(a)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Reporting Requirements for Multiple CMS	N/A	See Condition	N/A	See Condition	6.B.3(b)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	CMS Operation and Maintenance	N/A	See Condition	N/A	N/A	6.B.3(c)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	CMS Installation	N/A	See Condition	N/A	N/A	6.B.3(d)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Minimum Procedures for COMS	N/A	See Condition	N/A	N/A	6.B.3(e)
K-250 K-350 K-270 K-370	321-RM-11 321-SR-12 421 431 441-CC-01	Records of CMS Zero (Low-Level) and High-Level Calibration Drifts for CMS except CPMS	N/A	See Condition	Daily	N/A	6.B.3(f)
K-250 K-350	321 421 431 441-CC-01	CPMS System Response Checks	N/A	See Condition	Daily	N/A	6.B.3(g)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Records of All CMS Calibration Checks	N/A	Recordkeeping	N/A	N/A	6.B.3(h)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Records of All Adjustments and Maintenance Performed on CMS	N/A	Recordkeeping	N/A	N/A	6.B.3(i)

TABLE 6.7 MONITORING AND REPORTING (CONTINUOUS MONITORING SYSTEMS)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	CMS Quality Control Program	N/A	See Condition	N/A	N/A	6.B.3(j)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Records of CMS Malfunction or Inoperative Periods	N/A	Recordkeeping	N/A	N/A	6.B.3(k)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Out of Control CMS	N/A	See Condition	N/A	N/A	6.B.3(l)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Records of All Required CMS Measurements	N/A	Recordkeeping	N/A	N/A	6.B.3(m)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Records of the Date and Time that Identify Inoperative CMS Periods	N/A	Recordkeeping	N/A	N/A	6.B.3(n)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Records of the Date and Time that Identify Out of Control CMS Periods	N/A	Recordkeeping	N/A	N/A	6.B.3(o)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Records of Total Process Operating Time During the Reporting Period	N/A	Recordkeeping	N/A	N/A	6.B.3(p)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Records of the Specific Identification of Each Period of Excess Emissions and Parameter Monitoring Exceedances	N/A	Recordkeeping	N/A	N/A	6.B.3(q)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Records of CMS Malfunctions, Corrective Actions and Repairs	N/A	Recordkeeping	N/A	N/A	6.B.3(r)

TABLE 6.8 MONITORING AND REPORTING (CONTINUOUS MONITORING SYSTEMS)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Emission Data Units of Measurement	N/A	See Condition	N/A	N/A	6.B.3(s)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Use of Monitoring Data Recorded During Periods of Unavoidable CMS Breakdowns, Out-of-Control Periods, Repairs, Maintenance Periods, Calibration Checks and Zero (Low-Level) and High-Level Adjustments	N/A	See Condition	N/A	N/A	6.B.3(t)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Records of All CMS Measurements Needed to Demonstrate Compliance With a Relevant Standard	N/A	Recordkeeping	N/A	N/A	6.B.3(u)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Reduction of COMS and CEMS Data	N/A	See Condition	N/A	N/A	6.B.3(v)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Recording of CMS Data	N/A	See Condition	N/A	N/A	6.B.3(w)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Content and Submittal Dates for Excess Emissions and CMS Performance Reports	N/A	See Condition	N/A	See Condition	6.B.3(x)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Records of Procedures that are Part of a CMS Quality Control Program	N/A	Recordkeeping	N/A	N/A	6.B.3(y)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Summary Report Content Requirements	N/A	See Condition	N/A	N/A	6.B.3(z)

TABLE 6.9 MONITORING AND REPORTING (CONTINUOUS MONITORING SYSTEMS)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Submission of Only the Summary Report	N/A	See Condition	N/A	N/A	6.B.3(aa)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Reduction in the Frequency of Submitting Excess Emissions and CMS Performance and/or Summary Reports	N/A	See Condition	N/A	N/A	6.B.3(bb)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Submission of Both the Summary Report and the Excess Emissions and CMS Performance Report	N/A	See Condition	N/A	N/A	6.B.33(cc)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Excess Emissions and CMS Performance Reports and/or Summary Reports	N/A	Submit Reports	N/A	See Condition	6.B.3(dd)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Resumption of the Normal Frequency of Submitting Excess Emissions and CMS Performance and/or Summary Reports	N/A	See Condition	N/A	N/A	6.B.3(ee)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Request to Reduce Frequency of Excess Emissions and CMS Performance Reports	N/A	See Condition	N/A	N/A	6.B.3(ff)

TABLE 6.10 MONITORING AND REPORTING (AIR POLLUTION CONTROL EQUIPMENT)							
Current Unit ID	**Future Unit ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-02 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Air Pollution Control and Monitoring Equipment Maintenance Records	N/A	Recordkeeping	N/A	N/A	6.B.4(a)
C-02 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Operation and Maintenance of Air Pollution Control Equipment	N/A	See Condition	See Condition	N/A	6.B.4(b)
C-02 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Records of the Occurrence and Duration of Air Pollution Control and Monitoring Equipment	N/A	Recordkeeping	N/A	N/A	6.B.4(c)

TABLE 6.11 MONITORING AND REPORTING (REGULATION APPLICABILITY DETERMINATIONS)							
Current Unit ID	**Future Unit ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-01 C-02 C-03 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-01 F-02 F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Recordkeeping Requirement for Regulation Applicability Determinations	N/A	Recordkeeping	N/A	N/A	6.B.5(a)

TABLE 6.12 MONITORING AND REPORTING (CMS PERFORMANCE EVALUATIONS)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	CMS Performance Evaluations	N/A	Conduct Performance Evaluations	N/A	N/A	6.B.6(a)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Notification of CMS Performance Evaluations	N/A	Submit Notifications	N/A	N/A	6.B.6(b)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Content of CMS Performance Evaluation Test Plan	N/A	Develop Evaluation Test Plan	N/A	N/A	6.B.6(c)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Submission of CMS Performance Evaluation Test Plan	N/A	Submit Evaluation Test Plan	N/A	N/A	6.B.6(d)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Department Approval of the CMS Performance Evaluation Test Plan	N/A	See Condition	N/A	N/A	6.B.6(e)

TABLE 6.13 MONITORING AND REPORTING (CMS PERFORMANCE EVALUATIONS)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Department Failure to Approve or Disapprove a CMS Performance Evaluation Plan	N/A	See Condition	N/A	N/A	6.B.6(f)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Conduct of CMS Performance Evaluations and CMS Performance Evaluation Dates	N/A	See Condition	N/A	N/A	6.B.6(g)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Reporting of CMS Performance Evaluation Results	N/A	Submit Report	N/A	N/A	6.B.6(h)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Alternative to the CEMS Relative Accuracy Test	N/A	See Condition	N/A	N/A	6.B.6(i)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Department Rescission of Approval to use the Alternative to the CEMS Relative Accuracy Test	N/A	See Condition	N/A	N/A	6.B.8(j)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Content of Petition to use the Alternative to the CEMS Relative Accuracy Test	N/A	See Condition	N/A	N/A	6.B.6(k)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Stack Sampling Team and PM CEMS Correlation Tests	N/A	See Condition	N/A	N/A	6.B.6(l)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	PM CEMS Correlation Tests	N/A	See Condition	See Condition	N/A	6.B.6(m)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Department Approval or Disapproval of the PM CEMS Test Plan	N/A	See Condition	N/A	See Condition	6.B.6(n)
K-250 K-350 K-270 K-370	321 421 431 441-CC-01	Public Notice of Comprehensive and Confirmatory CMS Performance Evaluation Test Plans	N/A	See Condition	N/A	See Condition	6.B.6(o)

TABLE 6.14 MONITORING AND REPORTING (POLLUTANT PERFORMANCE TESTING)							
Current Unit ID (Current Giant ID)	**Future Unit ID (Future Giant ID)**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Initial Comprehensive Performance Test	N/A	Conduct Performance Test	See Condition	N/A	6.B.7(a)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Comprehensive Performance Test Frequency	N/A	See Condition	See Condition	N/A	6.B.7(b)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Completion of Comprehensive and Confirmatory Testing after Commencing Actual Testing	N/A	See Condition	N/A	N/A	6.B.7(c)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Confirmatory Performance Tests	N/A	Conduct Performance Test	See Condition	N/A	6.B.7(d)
C-02 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Notification of PPT	N/A	See Condition	N/A	See Condition	6.B.7(e)
C-02 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	PPT Plan Submissions	N/A	Submit Performance Test Plans	N/A	See Condition	6.B.7(f)

TABLE 6.15 MONITORING AND REPORTING (POLLUTANT PERFORMANCE TESTING)							
Current Unit ID (Current Giant ID)	**Future Unit ID (Future Giant ID)**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Comprehensive and Confirmatory Performance Test Plan Public Notice	N/A	See Condition	N/A	N/A	6.B.7(g)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Petitions for Time Extension if the Department Fails to Approve or Deny Comprehensive or Confirmatory Test Plans	N/A	See Condition	N/A	N/A	6.B.7(h)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Required Content of the Comprehensive Performance Test Plan and other Pollutant Performance Test Plans	N/A	See Condition	N/A	N/A	6.B.7(i)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Required Content of Confirmatory Performance Test Plan	N/A	See Condition	N/A	N/A	6.B.7(j)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Conduct of Comprehensive Confirmatory and Other Pollutant Performance Tests	N/A	See Condition	N/A	N/A	6.B.7(k)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Kiln Chlorine Feedrate During Comprehensive Performance Tests	N/A	See Condition	N/A	N/A	6.B.7(l)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	PMCD Cleaning Cycle During Comprehensive Performance Testing	N/A	See Condition	N/A	N/A	6.B.7(m)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Modes of Kiln Operation During Comprehensive Performance Tests	N/A	See Condition	N/A	N/A	6.B.7(n)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Kiln Steady-State Conditions During Comprehensive Performance Tests	N/A	See Condition	N/A	N/A	6.B.7(o)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Kiln CO (or Hydrocarbon) CEMS Emissions Levels During Confirmatory Tests	N/A	See Condition	N/A	N/A	6.B.7(p)

TABLE 6.16 MONITORING AND REPORTING (POLLUTANT PERFORMANCE TESTING)							
Current Unit ID (Current Giant ID)	**Future Unit ID (Future Giant ID)**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Operating Limits Established to Maintain Compliance With the Kiln Dioxin/Furan Emission Limit During Confirmatory Tests	N/A	See Condition	N/A	N/A	6.B.7(q)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Kiln Chlorine Feedrates During Confirmatory Performance Tests	N/A	See Condition	N/A	N/A	6.B.7(r)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Alternative Kiln Operation During Confirmatory Performance Tests	N/A	See Condition	N/A	N/A	6.B.7(s)
(K-250) (K-350)	(321-RM-11) (321-SR-12) (421) (431) (441-CC-01)	Kiln Operating Conditions During Subsequent Comprehensive Performance Testing	N/A	See Condition	N/A	N/A	6.B.7(t)
(K-250) (K-350)	(321-RM-11) (321-SR-12) (421) (431) (441-CC-01)	Time Extension for Subsequent Comprehensive and Confirmatory Performance Tests	N/A	See Condition	N/A	N/A	6.B.7(u)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Failure of Comprehensive Performance Test	N/A	See Condition	N/A	N/A	6.B.7(v)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Failure of Confirmatory Performance Test	N/A	See Condition	N/A	N/A	6.B.7(w)
C-02 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Waiver a of PPT	N/A	See Condition	N/A	N/A	6.B.7(x)

TABLE 6.17 MONITORING AND REPORTING (POLLUTANT PERFORMANCE TESTING)							
Current Unit ID (Current Giant ID)	**Future Unit ID (Future Giant ID)**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-02 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Failure of Other Pollutant Performance Tests	N/A	See Condition	N/A	N/A	6.B.7(y)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Determination of the Mercury, Semivolatile Metals, Low Volatile Metals or Total Chlorine or Chloride Feedrates for a Waiver of Performance Test	N/A	See Condition	N/A	N/A	6.B.7(z)
C-02 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Request to Waive PPT	N/A	See Condition	N/A	N/A	6.B.7(aa)
C-02 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Department Approval of the Request to Waive a PPT	N/A	See Condition	N/A	N/A	6.B.7(bb)

TABLE 6.18 MONITORING AND REPORTING (POLLUTANT PERFORMANCE TESTING)							
Current Unit ID (Current Giant ID)	**Future Unit ID (Future Giant ID)**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-02 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Final Written Reporting of PPT Results	N/A	See Condition	N/A	N/A	6.B.7(cc)
C-02 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	PPT Method Audit Program	N/A	See Condition	N/A	N/A	6.B.7(dd)
C-02 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	PPT Testing Facilities	N/A	See Condition	N/A	N/A	6.B.7(ee)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Reduction of COMS Data During a PPT	N/A	See Condition	N/A	N/A	6.B.7(ff)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Proper Operation of COMS During PPT	N/A	See Condition	N/A	N/A	6.B.7(gg)

TABLE 6.19 MONITORING AND REPORTING (POLLUTANT PERFORMANCE TESTING)							
Current Unit ID (Current Giant ID)	**Future Unit ID (Future Giant ID)**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-02 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Conduct of PPT and Reduction of Data	N/A	See Condition	N/A	N/A	6.B.7(hh)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Statement in Comprehensive Test Plan of Intentions to Comply with the Provisions for a Waiver of a PPT	N/A	See Condition	N/A	N/A	6.B.7(ii)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Use of COMS Data in Lieu of 40CFR60 Appendix A Method 9 Observations During a PPT	N/A	See Condition	N/A	N/A	6.B.7(jj)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Calculation of Hazardous Waste Residence Time	N/A	See Condition	N/A	N/A	6.B.7(kk)
C-02 C-04 C-06 C-05 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-03 F-04 F-05 F-06 F-07 F-08 F-09 F-10 F-12	Additional PPT	N/A	See Condition	N/A	N/A	6.B.7(ll)

TABLE 6.20 MONITORING AND REPORTING (POLLUTANT PERFORMANCE TESTING)							
Current Unit ID (Current Giant ID)	**Future Unit ID (Future Giant ID)**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Required Number of Comprehensive, Confirmatory and Other PPT Runs	N/A	See Condition	N/A	N/A	6.B.7(mm)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Demonstration of Benzene-Containing Waste Treatment Process Performance	N/A	See Condition	N/A	N/A	6.B.7(nn)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Benzene-Containing Waste Treatment Process Performance Certifications	N/A	See Condition	N/A	N/A	6.B.7(oo)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Records of Benzene-Containing Waste Treatment Process Performance Demonstrations	N/A	See Condition	N/A	N/A	6.B.7(pp)
(K-270) (K-370)	N/A	PPT for Clinker Cooler PM Emissions	N/A	Conduct Performance Test	See Condition	See Condition	6.B.7(qq)
(K-250) (K-350)	N/A	Data in Lieu of Conducting the Initial Comprehensive Performance Test	N/A	See Condition	N/A	See Condition	6.B.7(rr)
C-02, C-04 C-06, C-07 C-08, C-09 C-10, C-11 C-12, C-14 C-15	F-03, F-05 F-06, F-07 F-08, F-09 F-10, F-12	Initial Pollutant Performance Test for Visible Emissions from Sources Subject to 40CFR63.1348	N/A	Conduct Performance Test	See Condition	See Condition	6.B.7(ss)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Pollutant Performance Test for Kiln NO_x Emissions	N/A	Conduct Performance Test	See Condition	See Condition	6.B.7(tt)

TABLE 6.21 MONITORING AND REPORTING (PERIODIC VISIBLE EMISSIONS MONITORING OF SOURCES SUBJECT TO 40CFR63.1348)							
Current Unit ID	**Future Unit ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-02 C-06 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-05 F-06 F-07 F-08 F-09 F-10 F-12	Visible Emissions Monitoring of the Sources Subject to 40CFR63.1348 After Initial Visible Emissions Test has been Completed	N/A	See Condition	See Condition	N/A	6.B.8(a)
C-10	F-05 F-06 F-07 F-08 F-09 F-10 F-12	Visible Emissions Monitoring of a Finish Mill's Sweep and Air Separator PMCD After the Initial Visible Emissions Test has been Completed	N/A	See Condition	See Condition	N/A	6.B.8(b)

TABLE 6.22 MONITORING AND REPORTING (NOTIFICATION AND DOCUMENTATION OF COMPLIANCE)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Submittal of Notification of Compliance After Completion of Comprehensive Performance Test	N/A	See Condition	N/A	See Condition	6.B.9(a)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Submittal of Notification of Compliance After Completion of Confirmatory Test	N/A	See Condition	N/A	See Condition	6.B.9(b)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Notification of Compliance Status Content Requirements	N/A	See Condition	N/A	See Condition	6.B.9(c)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Failure to Submit a Timely Notification of Compliance	N/A	See Condition	N/A	N/A	6.B.9(d)

TABLE 6.23 MONITORING AND REPORTING (NOTIFICATION AND DOCUMENTATION OF COMPLIANCE)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Interim Burning of Hazardous Waste Prior to Submitting a Notification of Compliance	N/A	See Condition	N/A	N/A	6.B.9(e)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	40CFR63 Subpart EEE Documentation of Compliance	N/A	See Condition	N/A	N/A	6.B.9(f)

TABLE 6.24 MONITORING AND REPORTING (OPERATION, MAINTENANCE AND COMPLIANCE)							
Current Unit ID (Current Giant ID)	**Future Unit ID (Future Giant ID)**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-02 C-06 C-07 C-08 C-09 C-10 C-11 C-12 C-14 C-15	F-05 F-06 F-07 F-08 F-09 F-10 F-12	40CFR63 Subpart LLL Operation and Maintenance Plan	N/A	See Condition	N/A	N/A	6.B.10(a)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	40CFR63 Subpart EEE Operation and Maintenance Plan	N/A	See Condition	N/A	N/A	6.B.10(b)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Changes in The Design, Operation, or Maintenance of a Kiln that May Adversely Affect Compliance With Any 40CFR63 Subpart EEE Emission Standard that is not Monitored With a CEMS	N/A	See Condition	N/A	N/A	6.B.10(c)

TABLE 6.25 MONITORING AND REPORTING (OPERATION, MAINTENANCE AND COMPLIANCE)							
Current Unit ID (Current Giant ID)	**Future Unit ID (Future Giant ID)**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Changes in The Design, Operation, or Maintenance of a Kiln that Will Not Affect Compliance With Any 40CFR63 Subpart EEE Emission Standard that is not Monitored With a CEMS	N/A	See Condition	N/A	N/A	6.B.10(d)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	40CFR63 Subpart EEE Kiln Operating Requirements	N/A	See Condition	N/A	N/A	6.B.10(e)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Alternative Operation of the Kilns According to 40CFR63 Subpart LLL or Other Requirements	N/A	See Condition	N/A	N/A	6.B.10(f)

TABLE 6.26 MONITORING AND REPORTING (CURRENT UNIT ID C-01 AND FUTURE UNIT ID F-01 QUARRY/MARL HANDLING EQUIPMENT)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
See Condition	See Condition	Conveying Saturated and Unsaturated Materials on the Quarry Conveyor Belts	N/A	See Condition	N/A	See Condition	6.B.11(a)
All Quarry Equip.	All Quarry Equip.	Physical or Operational Change in Quarry Operations	N/A	Submit Notification	N/A	See Condition	6.B.11(b)
All Quarry Equip.	All Quarry Equip.	Quarry Equipment Replacement	N/A	See Condition	N/A	See Condition	6.B.11(c)
See Condition	See Condition	Visible Emission Monitoring of Quarry Equipment Processing Unsaturated Materials	N/A	Conduct Visual Observations	Weekly	N/A	6.B.11(d)
See Condition	See Condition	Quarry Equipment Inspections of Quarry Equipment Processing Unsaturated Materials	N/A	Conduct Inspections and Maintenance	Weekly	N/A	6.B.11(e)

TABLE 6.27 MONITORING AND REPORTING (CURRENT UNIT C-13 AND FUTURE UNIT ID F-11STEAM BOILER)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
K-655	K-655	Permitted Steam Boiler Fuels	See Condition	Recordkeeping	See Condition	N/A	6.B.12(a)

TABLE 6.28 MONITORING AND REPORTING (CURRENT UNIT ID C-03 AND FUTURE UNIT ID F-02) (COAL/COKE CRUSHING AND PROCESSING EQUIPMENT)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
See Condition	See Condition	Visible Emission Monitoring of Uncontrolled Coal/Coke Crushing and Processing Equipment	N/A	Conduct Visual Observations	Weekly	N/A	6.B.13(a)
N/A	461-AH-01	Coal Mill Heater Exhaust Gas Temperature Monitoring	N/A	CMS	Continuous	N/A	6.B.13(b)

TABLE 6.29 MONITORING AND REPORTING CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (CONTAINERS)							
Current Unit ID	**Future Unit ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-04	F-03	Transfer of Benzene-Containing Wastes into Containers by Pumping	N/A	See Condition	N/A	N/A	6.B.14(a)
C-04	F-03	Inspection of Benzene-Containing Waste Containers	N/A	Conduct Visual Inspections	See Condition	N/A	6.B.14(b)
C-04	F-03	Air Pollution Controls for Containers Storing Benzene-Containing Wastes	N/A	See Condition	N/A	N/A	6.B.14(c)
C-04	F-03	Inspection Requirements for Containers Using Level 3 Container Air Pollution Controls	N/A	See Condition	N/a	N/A	6.B.14(d)
C-04	F-03	Required Air Pollution Controls for Containers Having a Design Capacity greater than 0.46 m^3 (121.51 gallons) and in Light-Material Service	N/A	See Condition	N/A	N/A	6.B.14(e)
C-04	F-03	Standards for Level 1 Container Air Pollution Controls	N/A	See Condition	N/A	N/A	6.B.14(f)
C-04	F-03	Transfer of Regulated Material into or out of a Container Using Level 2 Container Air Pollution Controls	N/A	See Condition	N/A	N/A	6.B.14(g)
C-04	F-03	Standards for Level 2 Container Air Pollution Controls	N/A	See Condition	N/A	N/A	6.B.14(h)

TABLE 6.30 MONITORING AND REPORTING (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (CONTAINERS)							
Current Unit ID	**Future Unit ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-04	F-03	Required Air Pollution Controls For Containers Having a Design Capacity greater than 0.1 m^3 (26.41 gallons) and less than or equal to 0.46 m^3 (121.51 gallons)	N/A	See Condition	N/A	N/A	6.B.14(i)
C-04	F-03	Opening of a Closure Device or Cover for the Purpose of Adding Material to a Container Using Level 1 or Level 2 Container Air Pollution Controls	N/A	See Condition	N/A	N/A	6.B.14(j)
C-04	F-03	Standards for Level 3 Container Air Pollution Controls	N/A	See Condition	N/A	N/A	6.B.14(k)
C-04	F-03	Opening of a Closure Device or Cover for the Purpose of Removing Material From a Container Using Level 1 or Level 2 Container Air Pollution Controls	N/A	See Condition	N/A	N/A	6.B.14(l)
C-04	F-03	Inspection Requirements for Containers using Level 1 or Level 2 Container Air Pollution Controls when a Regulated-Material is already in the Container at the time that Giant Cement first Accepts Possession of the Container and the Container is not Empty	N/A	See Condition	N/A	N/A	6.B.14(m)
C-04	F-03	Other Allowable Openings of a Closure Device, Cover or Spring-Loaded Pressure-Vacuum Relief Valve, Conservation Vent, or Similar Type of Pressure Relief Device Which Vents to the Atmosphere	N/A	See Condition	N/A	N/A	6.B.14(n)
C-04	F-03	Required Air Pollution Controls for Containers Having a Design Capacity greater than 0.46 m^3 (121.51 gallons) and not in Light-Material Service	N/A	See Condition	N/A	N/A	6.B.14(o)
C-04	F-03	Inspection Requirements for Containers Using Container Level 1 or Level 2 Air Pollution Controls Fully or Partially Filled With Regulated-Materials And Remain Unopened On-Site For a Calendar Period of One Year or More	N/A	See Condition	N/A	N/A	6.B.14(p)

TABLE 6.31 MONITORING AND REPORTING (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (LIQUID WASTE FUEL STORAGE TANKS)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
K-666 K-801 K-802 K-803	K-666 K-801 K-802 K-803	Records of Liquid Waste Fuel Storage Tank Dimensions and Capacity	N/A	Recordkeeping	N/A	N/A	6.B.15(a)
K-666 K-801 K-802 K-803	K-666 K-801 K-802 K-803	Liquid Waste Fuel Storage Tank Inspections	N/A	Conduct Visual Inspections	See Condition	N/A	6.B.15(b)
K-666 K-801 K-802 K-803	K-666 K-801 K-802 K-803	Repair of Liquid Waste Fuel Storage Tank Defects	N/A	See Condition	N/A	N/A	6.B.15(c)
K-666 K-801 K-802 K-803	K-666 K-801 K-802 K-803	Records of Liquid Waste Fuel Storage Tank Inspections	N/A	Recordkeeping	N/A	N/A	6.B.15(d)
K-666 K-801 K-802 K-803	K-666 K-801 K-802 K-803	Liquid Waste Fuel Storage Tank Design Requirements	N/A	See Condition	N/A	N/A	6.B.15(e)
K-666 K-801 K-802 K-803	K-666 K-801 K-802 K-803	Liquid Waste Fuel Storage Tank Operational Requirements	N/A	See Condition	N/A	N/A	6.B.15(f)

TABLE 6.32 MONITORING AND REPORTING (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (WASTE TRANSFER SYSTEMS)							
Current Unit ID	**Future Unit ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-04	F-03	Control of Air Emissions from Waste Transfer Systems	N/A	See Condition	N/A	N/A	6.B.16(a)
C-04	F-03	Required Inspections for Waste Transfer Systems Equipped with Covers	N/A	See Condition	See Condition	N/A	6.B.16(b)
C-04	F-03	Requirements for Waste Transfer Systems Equipped with Covers	N/A	See Condition	N/A	N/A	6.B.16(c)

TABLE 6.33 MONITORING AND REPORTING (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (CLOSED-VENT SYSTEMS)							
Current Unit ID	**Future Unit ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-04	F-03	Inspection and Monitoring Requirements for Closed-Vent Systems Designed to Operate at a Pressure below atmospheric pressure	N/A	Conduct Visual Inspections	See Condition	N/A	6.B.17(a)
C-04	F-03	Closed-Vent System Design Requirements	N/A	See Condition	N/A	N/A	6.B.17(b)
C-04	F-03	Inspection and Monitoring Requirements for Closed Vent Systems Designed to Operate with No Detectible Organic Emissions	N/A	Conduct Visual Inspections	See Condition	N/A	6.B.17(c)
C-04	F-03	Records of Closed-Vent System Inspections	N/A	Recordkeeping	N/A	N/A	6.B.17(d)
C-04	F-03	Repair of Closed-Vent System Defects	N/A	See Condition	N/A	N/A	6.B.17(e)
C-04	F-03	Closed-Vent System Bypass Devices	N/A	See Condition	N/A	N/A	6.B.17(f)
C-04	F-03	Closed-Vent System Performance Certifications	N/A	Recordkeeping	N/A	N/A	6.B.17(g)

TABLE 6.34 MONITORING AND REPORTING (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (EQUIPMENT LEAKS)							
Current Unit ID	**Future Unit ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-04	F-03	Equipment Leaks	N/A	See Condition	N/A	N/A	6.B.18(a)
C-04	F-03	Affected Source for Equipment Leaks	N/A	See Condition	N/A	N/A	6.B.18(b)

TABLE 6.35 MONITORING AND REPORTING (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (VAPOR INCINERATOR AND CARBON ADSORPTION SYSTEM)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
K-250 K-350 STACU	321 421 431 441-CC-01	Establishment of Vapor Incinerator (Kiln) Minimum and/or Maximum Operating Temperature	N/A	See Condition	N/A	N/A	6.B.19(a)
K-250 K-350 STACU	321 421 431 441-CC-01	Vapor Incinerator (Kiln) Continuous Temperature Monitoring	N/A	CMS	Continuous	N/A	6.B.19(b)
K-250 K-350 STACU	321 421 431 441-CC-01 STACU	Records of Carbon Adsorption System and Vapor Incinerator (Kiln) Planned Routine Maintenance	N/A	Recordkeeping	N/A	N/A	6.B.19(c)
K-250 K-350 STACU	321 421 431 441-CC-01 STACU	Bypassing of all Vapor Incinerators (Kilns) and the Carbon Adsorption System for Performing Routine Maintenance on the Closed-Vent System	N/A	See Condition	N/A	N/A	6.B.19(d)
K-250 K-350 STACU	321 421 431 441-CC-01 STACU	Vapor Incinerator (Kiln) Operating Temperature Excursions	N/A	See Condition	N/A	N/A	6.B.19(e)
K-250 K-350 STACU	321 421 431 441-CC-01 STACU	Summary Report of All Vapor Incinerator (Kiln) Operating Temperature Excursions	N/A	Submit Report	N/A	Quarterly	6.B.19(f)
K-250 K-350 STACU	321 421 431 441-CC-01 STACU	Management of Used Carbon from the Carbon Adsorption System	N/A	See Condition	N/A	N/A	6.B.19(g)

TABLE 6.36 MONITORING AND REPORTING (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (VAPOR INCINERATOR AND CARBON ADSORPTION SYSTEM)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
K-250 K-350 STACU	321 421 431 441-CC-01 STACU	Records of Unexpected Carbon Adsorption System and Vapor Incinerator (Kiln) Malfunctions	N/A	Recordkeeping	N/A	N/A	6.B.19(h)
STACU	STACU	Carbon Adsorption System Operating Parameters	N/A	See Condition	N/A	N/A	6.B.19(i)

TABLE 6.37 MONITORING AND REPORTING (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (ALTERNATIVE INSPECTION AND MONITORING INTERVAL)							
Current Unit ID	**Future Unit ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-04	F-03	Alternative Inspection and Monitoring Intervals for the Liquid Waste Fuel Storage Tanks, Waste Transfer Systems and the Closed-Vent System	N/A	See Condition	See Condition	N/A	6.B.20(a)

TABLE 6.38 MONITORING AND REPORTING (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (BENZENE-CONTAINING WASTES)							
Current Unit ID	**Future Unit ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-04	F-03	Calculation of Total Annual Benzene Quantity	N/A	See Condition	N/A	N/A	6.B.21(a)
C-04	F-03	Transfer of Benzene-Containing Wastes and/or Waste Streams for Off-Site Treatment	N/A	See Condition	N/A	N/A	6.B.21(b)
C-04	F-03	Content of Report for Total Annual Benzene Quantity	N/A	See Condition	N/A	N/A	6.B.21(c)
C-04	F-03	Frequency of Reporting for the Total Annual Benzene Quantity less than 1 Mg/yr	N/A	See Condition	N/A	N/A	6.B.21(d)
C-04	F-03	Frequency of Reporting for the Total Annual Benzene Quantity Between 1 Mg/yr and 10 Mg/yr	N/A	See Condition	N/A	N/A	6.B.21(e)

TABLE 6.39 MONITORING AND REPORTING (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (BENZENE-CONTAINING WASTES)							
Current Unit ID (Current Giant ID)	**Future Unit (Future Giant ID)**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-04	F-03	Frequency of Reporting for The Total Annual Benzene Quantity Equal to or Greater than 10 Mg/yr (11 tpy)	N/A	See Condition	N/A	N/A	6.B.21(f)
(K-666) (K-801) (K-802) (K-803)	(K-666) (K-801) (K-802) (K-803)	Mixing of Benzene-Containing Waste and/or Waste Streams for Treatment	N/A	See Condition	N/A	N/A	6.B.21(g)
C-04	F-03	Records that Identify Benzene-Containing Wastes and/or Waste Streams	N/A	See Condition	N/A	N/A	6.B.21(h)
C-04	F-03	Records of Benzene-Containing Wastes and/or Waste Streams Exempt from Treatment	N/A	See Condition	N/A	N/A	6.B.21(i)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Measurements of Benzene-Containing Waste and/or Waste Stream Concentration After Treatment	N/A	See Condition	N/A	N/A	6.B.21(j)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Quarterly Report of Benzene-Containing Waste Treatment Process Exit Concentration Exceedances	N/A	Submit Report	N/A	See Condition	6.B.21(k)
(K-666) (K-801) (K-802) (K-803)	(K-666) (K-801) (K-802) (K-803)	Quarterly Certifications of Waste Management Unit and Associated Air Pollution Control Equipment Inspections	N/A	See Condition	N/A	N/A	6.B.21(l)
(K-250) (K-350)	(321) (421) (431) (441-CC-01)	Treatment Requirements for Benzene-Containing Wastes and/or Waste Streams	N/A	See Condition	N/A	N/A	6.B.21(m)
C-04	F-03	Exemption of Benzene-Containing Wastes and/or Waste Streams from Treatment Requirements	N/A	See Condition	N/A	N/A	6.B.21(n)

TABLE 6.40 MONITORING AND REPORTING (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE MATERIALS RECEIVED FROM OFF-SITE)							
Current Unit ID	**Future Unit ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-04	F-03	Waste Materials Received from Off-Site Not Subject To 40CFR63 Subpart DD	N/A	N/A	N/A	N/A	6.B.22(a)
C-04	F-03	Exemption of Certain Off-Site Materials from 40CFR63 Subpart DD	N/A	Recordkeeping	N/A	N/A	6.B.22(b)
C-04	F-03	Waste Materials Received from Off-Site Subject to 40CFR63 Subpart DD	N/A	N/A	N/A	N/A	6.B.22(c)

TABLE 6.41 MONITORING AND REPORTING (UNIT ID 04 WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (EXEMPTION OF OFF-SITE WASTE MATERIAL MANAGEMENT UNITS FROM 40CFR63 SUBPART DD)							
Current Unit ID	**Future Unit ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
C-04	F-03	Exemption of Off-Site Waste Material Management Units from 40CFR63 Subpart DD	N/A	See Condition	N/A	N/A	6.B.23(a)
C-04	F-03	Identification of Designated Exempt Off-Site Waste Material Management Units	N/A	See Condition	N/A	N/A	6.B.23(b)
C-04	F-03	Determination of Total Annual HAP in the Off-Site Waste Material Placed in the Designated Exempt Off-Site Waste Material Management Units	N/A	See Condition	See Condition	N/A	6.B.23(c)
C-04	F-03	Other Exemptions of Off-Site Waste Material Management Units from 40CFR63 Subpart DD	N/A	N/A	N/A	N/A	6.B.23(d)

TABLE 6.42 MONITORING AND REPORTING (UNIT ID 05 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
K-250 K-350 K-434 KF-1	321 421 431 441-CC-01	Continuous Monitoring of Kiln PM Emissions	N/A	CPMS	Continuous	N/A	6.B.24(a)
K-250 K-350 K-434 KF-1	321 421 431 441-CC-01	Use of a CEMS to Demonstrate Compliance with the Kiln Carbon Monoxide and Hydrocarbon Emission Limits	N/A	See Condition	Continuous	N/A	6.B.24(b)
K-250 K-350 K-434 KF-1	321 421 431 441-CC-01	Continuous Monitoring of Kiln Visible Emissions	N/A	COMS	Continuous	N/A	6.B.24(c)
K-270 K-370	N/A	Continuous Monitoring of Existing Clinker Cooler Visible Emissions	N/A	COMS	Continuous	N/A	6.B.24(d)
K-250 K-350	321 421 431 441-CC-01	Carbon Monoxide and Hydrocarbon CEMS Performance Specifications	N/A	See Condition	N/A	N/A	6.B.24(e)
K-250 K-350	321 421 431 441-CC-01	Carbon Monoxide Readings Exceeding the Span	N/A	See Condition	N/A	N/A	6.B.24(f)
K-250 K-350	321 421 431 441-CC-01	Petitions to Use CEMS for Other 40CFR63 Subpart EEE Emission Standards	N/A	See Condition	N/A	N/A	6.B.24(g)
K-250 K-350	321 421 431 441-CC-01	Calculation of Initial Rolling Averages for Carbon Monoxide or Hydrocarbon CEMS	N/A	See Condition	N/A	N/A	6.B.24(h)
K-250 K-350	321 421 431 441-CC-01	Hydrocarbon Readings Exceeding the Span	N/A	See Condition	N/A	N/A	6.B.24(i)

TABLE 6.43 MONITORING AND REPORTING (UNIT ID 05 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Monitoring**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
K-250 K-350	321 421 431 441-CC-01	Calculation of Rolling Averages for Carbon Monoxide or Hydrocarbon CEMS Upon Intermittent Operations	N/A	See Condition	N/A	N/A	6.B.24(j)
K-250 K-350	321 421 431 441-CC-01	Calculation of Rolling Averages for Carbon Monoxide or Hydrocarbon CEMS When the Hazardous Waste Feed is Cutoff	N/A	See Condition	N/A	N/A	6.B.24(k)
K-250 K-350	321 421 431 441-CC-01	Operating Parameter Limits for Hydrocarbons	N/A	See Condition	N/A	N/A	6.B.24(l)
K-250 K-350	321 421 431 441-CC-01	Other CMS Required by 40CFR63 Subpart EEE	N/A	See Condition	N/A	N/A	6.B.24(m)
K-250 K-350	321 421 431 441-CC-01	Calibration of Thermocouples and Pyrometers Required by 40CFR63 Subpart EEE	N/A	See Condition	N/A	N/A	6.B.24(n)
K-250 K-350	321 421 431 441-CC-01	Detector Span for Other CMS Required by 40CFR63 Subpart EEE	N/A	See Condition	N/A	N/A	6.B.24(o)
K-250 K-350	321 421 431 441-CC-01	Calculation of Rolling Averages for Other CMS Required by 40CFR63 Subpart EEE Upon Intermittent Operations	N/A	See Condition	N/A	N/A	6.B.24(p)
K-250 K-350	321 421 431 441-CC-01	Calculation of Initial Rolling Averages For Other CMS Required by 40CFR63 Subpart EEE	N/A	See Condition	N/A	N/A	6.B.26(q)
K-250 K-350	321 421 431 441-CC-01	Calculation of Rolling Averages for Other CMS Required by 40CFR63 Subpart EEE When the Hazardous Waste Feed is Cutoff	N/A	See Condition	N/A	N/A	6.B.24(r)
K-250 K-350	321 421 431 441-CC-01	Feedstream Analysis Plan	N/A	Develop Plan	N/A	N/A	6.B.24(s)

TABLE 6.44 MONITORING AND REPORTING (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
K-250 K-350	321 421 431 441-CC-01	Monitoring of Kiln Hazardous Waste Fuel Feedrate Limits	N/A	See Condition	See Condition	N/A	6.B.24(t)
K-250 K-350	321 421 431 441-CC-01	Analysis of Feedstreams	N/A	See Condition	See Condition	N/A	6.B.24(u)
K-250 K-350	321 421 431 441-CC-01	Waiver of Monitoring of Constituents in Certain Feedstreams	N/A	See Condition	N/A	N/A	6.B.24(v)
K-250 K-350	321 421 431 441-CC-01	Operating Parameters Applicable to Multiple Standards	N/A	See Condition	N/A	N/A	6.B.24(w)
K-250 K-350	321 421 431 441-CC-01	Establishing a Limit for the Minimum Combustion Chamber Temperature to Remain in Compliance with the DRE Standard	N/A	See Condition	See Condition	N/A	6.B.24(x)
K-250 K-350	321 421 431 441-CC-01	Establishing Operating Limits for the Maximum Flue Gas Flowrate or Production Rate to Remain in Compliance with the DRE Standard	N/A	See Condition	See Condition	N/A	6.B.24(y)
K-250 K-350	321 421 431 441-CC-01	Establishing an Operating Limit for the Maximum Hazardous Waste Feedrate to Remain in Compliance with the DRE Standard	N/A	See Condition	See Condition	N/A	6.B.24(z)
K-250 K-350	321 421 431 441-CC-01	Establishing Operating Limits for the Operation Of Waste Firing System to Remain in Compliance with the DRE Standard	N/A	See Condition	See Condition	N/A	6.B.24(aa)
K-250 K-350	321 421 431 441-CC-01	Establishing a Limit for the Gas Temperature at the Inlet to a Dry PMCD to Comply with the Dioxin/Furan Emission Limit	N/A	See Condition	See Condition	N/A	6.B.24(bb)

TABLE 6.45 MONITORING AND REPORTING (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
K-250 K-350	321 421 431 441-CC-01	Establishing an Operating Limit on the Maximum Flue Gas Flowrate or Production Rate to Comply with the Dioxin/Furan Emission Limit	N/A	See Condition	See Condition	N/A	6.B.24(dd)
K-250 K-350	321 421 431 441-CC-01	Establishing Limits for the Maximum Waste Feedrate to Comply with the Dioxin/Furan Emission Limit	N/A	See Condition	See Condition	N/A	6.B.24(ee)
K-250 K-350	321 421 431 441-CC-01	Establishing Limits for the Total Mercury Feedrate to Comply with the Mercury Emission Limit	N/A	See Condition	See Condition	N/A	6.B.24(ff)
K-250 K-350	321 421 431 441-CC-01	Establishing Operating Limits for the Maximum Flue Gas Flowrate or Production Rate to Comply with the Particulate Matter Emission Limit	N/A	See Condition	See Condition	N/A	6.B.24(gg)
K-250 K-350	321 421 431 441-CC-01	Establishing Operating Limits for the Maximum Inlet Temperature to the Dry PMCD to Comply with the Combined Cadmium and Lead and Combined Arsenic, Beryllium and Chromium Emission Standards	N/A	See Condition	See Condition	N/A	6.B.24(hh)
K-250 K-350	321 421 431 441-CC-01	Establishing Limits for the Maximum Feedrate of Semivolatile and Low Volatile Metals to Comply with the Combined Cadmium and Lead and Combined Arsenic, Beryllium and Chromium Emission Standards	N/A	See Condition	See Condition	N/A	6.B.24(ii)
K-250 K-350	321 421 431 441-CC-01	Feedrate Extrapolation in Lieu of Establishing Limits for the Maximum Feedrate of Semivolatile and Low Volatile Metals to Comply With the Combined Cadmium and Lead and Combined Arsenic, Beryllium and Chromium Emission Standards	N/A	See Condition	See Condition	N/A	6.B.24(jj)

TABLE 6.46 MONITORING AND REPORTING (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
K-250 K-350	321 421 431 441-CC-01	Establishing Limits for the Maximum Total Chlorine and Chloride Feedrate to Comply with the Combined Cadmium and Lead and Combined Arsenic, Beryllium and Chromium Emission Standards	N/A	See Condition	See Condition	N/A	6.B.24(kk)
K-250 K-350	321 421 431 441-CC-01	Establishing Operating Limits for the Maximum Flue Gas Flowrate or Production Rate to Comply with the Combined Cadmium and Lead and Combined Arsenic, Beryllium and Chromium Emission Standards	N/A	See Condition	See Condition	N/A	6.B.24(ll)
K-250 K-350	321 421 431 441-CC-01	Establishing Limits for the Feedrate of Total Chlorine and Chloride to Comply with the Hydrochloric Acid and Chlorine Gas Emission Limit	N/A	See Condition	See Condition	N/A	6.B.24(mm)
K-250 K-350	321 421 431 441-CC-01	Establishing Operating Limits for the Maximum Flue Gas Flowrate or Production Rate to Comply with the Hydrochloric Acid and Chlorine Gas Emission Limit	N/A	See Condition	See Condition	N/A	6.B.24(nn)
K-250 K-350	321 421 431 441-CC-01	Monitoring of the Maximum Combustion Chamber Pressure	N/A	See Condition	N/A	N/A	6.B.24(oo)
K-250 K-350	321 421 431 441-CC-01	Operating Under Different Modes of Operation	N/A	See Condition	N/A	N/A	6.B.24(pp)
K-250 K-350	321 421 431 441-CC-01	Retrieval Approach for Calculating Rolling Averages Under Different Modes of Operation	N/A	See Condition	N/A	N/A	6.B.24(qq)
K-250 K-350	321 421 431 441-CC-01	Start Anew Approach for Calculating Rolling Averages Under Different Modes of Operation	N/A	See Condition	N/A	N/A	6.B.24(rr)

TABLE 6.47 MONITORING AND REPORTING (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
K-250 K-350	321 421 431 441-CC-01	Seamless Transition Approach for Calculating Rolling Averages Under Different Modes of Operation	N/A	See Condition	N/A	N/A	6.B.24(ss)
K-250 K-350	321 421 431 441-CC-01	Kiln Combustion System Leaks	N/A	See Condition	N/A	N/A	6.B.24(tt)
K-250 K-350	321 421 431 441-CC-01	Kiln Operator Training and Certification	N/A	See Condition	N/A	N/A	6.B.24(uu)
K-250 K-350	321 421 431 441-CC-01	Maintenance of Kiln Control Room Operator Qualifications	N/A	See Condition	N/A	N/A	6.B.24(vv)
K-250 K-350	321 421 431 441-CC-01	Kiln Control Room Operator Training	N/A	See Condition	N/A	N/A	6.B.24(ww)
K-250 K-350	321 421 431 441-CC-01	Ducting of Kiln Combustion Gases During AWFCO	N/A	See Condition	N/A	N/A	6.B.24(xx)
K-250 K-350	321 421 431 441-CC-01	Restarting Waste Feed to a Kiln After AWFCO	N/A	See Condition	N/A	N/A	6.B.24(yy)
K-250 K-350	321 421 431 441-CC-01	AWFCO	N/A	See Condition	N/A	N/A	6.B.24(zz)
K-250 K-350	321 421 431 441-CC-01	Failure of the AWFCO	N/A	See Condition	N/A	N/A	6.B.24(aaa)

TABLE 6.48 MONITORING AND REPORTING (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
K-250 K-350	321 421 431 441-CC-01	Corrective Measures After AWFCO	N/A	See Condition	N/A	N/A	6.B.24(bbb)
K-250 K-350	321 421 431 441-CC-01	Excessive Exceedance Reporting for AWFCO	N/A	Submit Reports	See Condition	N/A	6.B.24(ccc)
K-250 K-350	321 421 431 441-CC-01	AWFCO Testing	N/A	See Condition	Weekly	N/A	6.B.24(ddd)
K-250 K-350	321 421 431 441-CC-01	Ramping Down the Waste Feed During AWFCO	N/A	See Condition	N/A	N/A	6.B.24(eee)
K-250 K-350	321 421 431 441-CC-01	Permitted Kiln Fuels	N/A	See Condition	N/A	N/A	6.B.24(fff)
K-250 K-350	321 421 431 441-CC-01	Analysis of Kiln Waste Fuels for SC Regulation 62.5 Standard 8 Compounds	N/A	See Condition	N/A	N/A	6.B.24(ggg)
K-250 K-350	N/A	Records of Existing Kiln Slurry Feed Rates and Existing Kiln Clinker Production Rates	N/A	Recordkeeping	N/A	N/A	6.B.24(hhh)
N/A	321 421 431 441-CC-01	Use of COMS to Demonstrate Compliance with the New Kiln System and New Clinker Cooler Visible Emission Limit	N/A	COMS	Continuous	N/A	6.B.24(iii)
N/A	321 421 431 441-CC-01	Emissions Averaging Using a Time-Weighted Average Basis for the New Kiln System	N/A	See Condition	See Condition	N/A	6.B.24(jjj)

TABLE 6.49 MONITORING AND REPORTING (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)							
Current Giant ID	**Future Giant ID**	**Pollutant/Parameter**	**Limit**	**Required Action**	**Monitoring Frequency**	**Reporting Frequency**	**Condition Number**
N/A	321 421 431 441-CC-01	Records of New Kiln System Feed Rates and New Kiln System Clinker Production Rates	N/A	Recordkeeping	See Condition	N/A	6.B.24(kkk)
K-250 K-350	321 421 431 441-CC-01	Compliance With Emissions Averaging Using a Time-Weighted Average Basis	N/A	See Condition	See Condition	N/A	6.B.24(lll)
K-250 K-350	321 421 431 441-CC-01	Department Notification of Compliance With Emission Averaging Using a Time-Weighted Average Basis	N/A	Submit Notification	See Condition	N/A	6.B.24(mmm)
K-250 K-350	321 421 431 441-CC-01	Monitoring of Raw Materials and Adjustments to the New Kiln System's PSD CO and VOC Emission Limits	N/A	See Condition	See Condition	See Condition	6.B.24(nnn)
K-250 K-350	321 421 431 441-CC-01	Total NO_x Emissions Recordkeeping and Reporting	N/A	Recordkeeping	See Condition	See Condition	6.B.24(ooo)
K-250 K-350	321 421 431 441-CC-01	Alternative NO_x Emission Monitoring	N/A	See Condition	See Condition	N/A	6.B.24(ppp)

B. MONITORING AND REPORTING CONDITIONS

MONITORING AND REPORTING CONDITIONS (FACILITY OPERATING RECORD REQUIREMENTS)	
Condition Number	**Condition**
6.B.1(a)	40CFR63 Subpart EEE Facility Operating Record Requirements (SC Regulation 61-62.70.6(a)(9), 40CFR63.1201 and 40CFR63.1211) The Facility Operating Record is defined as a documentation to be retained on-site at Giant Cement for ready inspection by authorized officials of all information required by the relevant standards to document and maintain compliance with the applicable regulations, including data and information, reports, notifications and communications with regulatory officials. By September 30, 2003, for the existing Kilns and no later than 180 calendar days after startup of the New Kiln System, the Facility Operating Record shall contain the information required to document and maintain compliance with the applicable provisions of 40CFR63 Subpart EEE, including data recorded by CMS, copies of all notifications, reports, plans and other documents submitted to the Department. The Facility Operating Record shall include the Documentation of Compliance, documentation of the results of AWFCO operability testing and documentation of the corrective measures for any AWFCO that results in an exceedance of an emission standard or operating parameter limit. It shall also include a copy of the Feedstream Analysis Plan, 40CFR63 Subpart EEE Operation and Maintenance Plan, Operator Training and Certification Program and the 40CFR63 Subpart EEE SSM Plan. The method used for control of combustion system leaks shall also be recorded in the Facility Operating Record. The Facility Operating Record shall be kept on-site and on-file and made available to Department personnel upon request. Giant Cement shall also record in the Facility Operating Record the date on which it begins compliance with each future-effective MACT requirement included in this permit.

MONITORING AND REPORTING CONDITIONS (STARTUPS, SHUTDOWNS AND MALFUNCTIONS)	
Condition Number	**Condition**
6.B.2(a)	40CFR63 Subpart EEE SSM Plan Requirements (40CFR63.6(e)(3)(i), 40CFR63.6(e)(3)(vi), 40CFR63.1206(c)(2)(i), 40CFR63.1206(c)(2)(ii) and 40CFR63.1206(c)(2)(iii)) Once approved by the Department, Giant Cement shall implement and record in the Facility Operating Record, the written 40CFR63 Subpart EEE Startup, Shutdown and Malfunction Plan. This plan shall describe, in detail, procedures for operating and maintaining each Kiln during periods of startup, shutdown and malfunction. This plan shall also include a program of corrective action for existing Kiln and New Kiln System malfunctions, their associated air pollution control equipment malfunctions and their associated air pollution monitoring equipment malfunctions. This plan shall also identify a projected oxygen correction factor based on normal operations to use during periods of startup and shutdown. If Giant Cement elects to comply with 40CFR270.235(a)(1)(iii), 40CFR270.235(a)(2)(iii) or 40CFR270.235(b)(1)(ii) to address RCRA concerns that it minimize emissions of toxic compounds from startup, shutdown and malfunction events, the Startup, Shutdown, and Malfunction Plan shall include a description of potential causes of malfunctions that may result in significant releases of hazardous air pollutants and the actions that Giant Cement will take to minimize the frequency and severity of those malfunctions.

MONITORING AND REPORTING CONDITIONS (STARTUPS, SHUTDOWNS AND MALFUNCTIONS)	
Condition Number	**Condition**
6.B.2(b)	40CFR63 Subpart DD and 40CFR63 Subpart LLL SSM Plan Requirements (40CFR63.6(e)(3)(i) and 40CFR63.6(e)(3)(vi)) When a source becomes subject to 40CFR63 Subpart DD or 40CFR63 Subpart LLL, Giant Cement shall develop and implement a written Startup, Shutdown and Malfunction Plan for operating and maintaining the source subject to those subparts during periods of startup, shutdown, and malfunction. The plan shall describe in detail, procedures for operating and maintaining the source during periods of startup, shutdown and malfunction and also include a program of corrective action for malfunctioning process, air pollution control and air pollution monitoring equipment used to comply with the relevant standard. Giant Cement may choose to maintain a separate Startup, Shutdown and Malfunction Plan for each source subject to 40CFR63 Subpart DD or 40CFR63 Subpart LLL or choose to maintain one plan for all sources subject to 40CFR63 Subpart DD or 40CFR63 Subpart LLL. If Giant Cement chooses to maintain one plan, when new sources subject to 40CFR63 Subpart DD or 40CFR63 Subpart LLL are added, it shall revise the plan to include the required information for that source no later than 180 calendar days after placing it in operation. To satisfy the requirements to develop a startup, shutdown, and malfunction plan, Giant Cement may use the affected source's SOP manual, OSHA or other plan, provided the alternative plans meet all the requirements of this condition and are made available for inspection by Department personnel.
6.B.2(c)	Development and Department Approval of the 40CFR63 SSM Plan (40CFR63.1206(c)(2)(ii)(B)) Giant Cement shall develop a 40CFR63 Subpart EEE Startup, Shutdown and Malfunction Plan. This plan shall be submitted to the Department for review and approval no later than 180 calendar days after September 30, 2003, for the existing Kilns. Giant Cement shall develop a new plan or modify the existing plan for the New Kiln System no later than 180 calendar days after startup of the New Kiln System and submit the modified or new plan to the Department for approval. The Department will notify Giant Cement of approval or intention to deny approval a plan within 90 calendar days after receipt of the original request and within 60 calendar days after receipt of any supplemental information that Giant Cement submits. Before disapproving a plan, the Department will notify Giant Cement of its intention to disapprove the plan together with a notice of the information and findings on which intended disapproval is based and a notice of opportunity for Giant Cement to present additional information to the Department before final action on disapproval of a plan. At the time the Department notifies Giant Cement of intention to disapprove a plan, it will specify how much time Giant Cement will have after being notified on the intended disapproval to submit additional information. Giant Cement is responsible for ensuring that it submits any supplementary and additional information supporting its plan in a timely manner to enable the Department to consider whether to approve the plan. Neither Giant Cement's submittal of a plan, nor the Department's failure to approve or disapprove the plan, relieves Giant Cement of the responsibility to comply with the provisions of 40CFR63 Subpart EEE.
6.B.2(d)	Operation and Maintenance of Sources Subject to 40CFR63 Subpart DD , 40CFR63 Subpart EEE and 40CFR63 Subpart LLL During SSM (40CFR63.6(e)(3)(ii)) During periods of startup, shutdown, and malfunction, Giant Cement shall for a source subject to 40CFR63 Subpart DD, 40CFR63 Subpart EEE and/or 40CFR63 Subpart LLL, operate and maintain it (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in its Startup, Shutdown and Malfunction Plan.

MONITORING AND REPORTING CONDITIONS (STARTUPS, SHUTDOWNS AND MALFUNCTIONS)	
Condition Number	**Condition**
6.B.2(e)	Records of Corrective Actions Taken During Periods of SSM When Such Actions Are Consistent with the Procedures Specified in an Affected Source's SSM Plan (40CFR63.6(e)(3)(iii), 40CFR63.10(b)(1) and 40CFR63.10(b)(2)(v))) For process and air pollution control equipment subject to 40CFR63 Subpart DD, 40CFR63 Subpart EEE or 40CFR63 Subpart LLL, Giant Cement shall record all information necessary to demonstrate conformance with an affected source's Startup, Shutdown and Malfunction Plan when all actions taken during periods of startup, shutdown and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in the plan. The information needed to demonstrate conformance with the Startup, Shutdown and Malfunction Plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events. These records shall be retained for a calendar period of five(5) years following the date of each occurrence. At a minimum, the most recent two(2) years of records shall be retained on-site and on-file. Records for the remaining three(3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.
6.B.2(f)	Records of Corrective Actions Taken During Periods of SSM when Such Actions are Not Consistent with the Procedures Specified in an Affected Source's SSM Plan (40CFR63.6(e)(3)(iv), 40CFR63.10(b)(1) and 40CFR63.10(b)(2)(iv)) For process and air pollution control equipment subject to 40CFR63 Subpart DD, 40CFR63 Subpart EEE or 40CFR63 Subpart LLL, Giant Cement shall record the actions taken during periods of startup, shutdown and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when such actions are not consistent with the procedures specified in an affected source's Startup, Shutdown and Malfunction Plan. These records shall be retained for a calendar period of five(5) years following the date of each occurrence. At a minimum, the most recent two(2) years of records shall be retained on-site and on-file. Records for the remaining three(3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.
6.B.2(g)	Records of the SSM Plan(s) Required by 40CFR63 Subpart DD and 40CFR63 Subpart LLL (40CFR63.6(e)(3)(v)) Giant Cement shall maintain the current written Startup, Shutdown and Malfunction Plan(s) on-site and on-file that it developed for sources subject to40CFR63 Subpart DD or 40CFR63 Subpart LLL and make it (them) available for inspection by Department personnel. In addition, if a Startup, Shutdown, and Malfunction Plan is subsequently revised as provided in condition 6.B.1(h), Giant Cement shall maintain on-site and on-file each previous (i.e., superseded) version of that Startup, Shutdown and Malfunction Plan and make each previous version available for inspection by Department personnel for a period of five(5) calendar years after revision of a plan. If at any time after adoption of a Startup, Shutdown and Malfunction Plan an affected source ceases operation or is otherwise no longer subject to the provisions of 40CFR63 Subpart DD or 40CFR63 Subpart LLL, Giant Cement shall retain a copy of the most recent plan on-site and on-file for a period of five(5) calendar years from the date the source ceases operation or is no longer subject to that subpart and make the plan available to Department personnel upon request.

MONITORING AND REPORTING CONDITIONS (STARTUPS, SHUTDOWNS AND MALFUNCTIONS)	
Condition Number	**Condition**
6.B.2(h)	Revisions to a SSM Plan (40CFR63.6(e)(3)(vii) and 40CFR63.6(e)(3)(viii)) The Department may require Giant Cement to make changes to an affected source's Startup, Shutdown and Malfunction Plan. The Department may require reasonable revisions to a Startup, Shutdown and Malfunction Plan for any of the reasons specified by paragraphs (h)(1) through (h)(4) of this condition. Giant Cement may periodically revise a Startup, Shutdown, and Malfunction Plan for an affected source as necessary to satisfy the requirements of 40CFR63 Subpart DD, 40CFR63 Subpart EEE and 40CFR63 Subpart LLL or to reflect changes in equipment or procedures at the affected source. Unless the Department specifies otherwise, Giant Cement may make such revisions to a Startup, Shutdown and Malfunction Plan without prior approval by the Department. However, each such revision to a Startup, Shutdown and Malfunction Plan shall be reported in the semiannual report If a Startup, Shutdown and Malfunction Plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction (as defined in condition 6.B.2(i)) but was not included in the plan at the time that Giant Cement developed the plan, then it shall revise the plan within 45 calendar days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that Giant Cement makes any revision to a Startup, Shutdown and Malfunction Plan which alters the scope of the activities at a source which are deemed to be a startup, shutdown, malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in an applicable standard, the revised plan shall not take effect until after Giant Cement has provided a written notice describing the revision to the Department. (h)(1) A plan does not address a startup, shutdown, or malfunction event that has occurred. (h)(2) A plan fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with safety and good air pollution control practices for minimizing emissions to the levels required by the relevant standards. (h)(3) A plan does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable. (h)(4) A plan includes an event that does not meet the definition of a startup, shutdown or malfunction as defined in condition 6.B.2(i).
6.B.2(i)	SSM Records for Process Equipment (40CFR60.7(b), 40CFR63.2, 40CFR63.10(b)(1) and 40CFR63.10(b)(2)(i)) (40CFR60.7(b), 40CFR63.2, 40CFR63.10(b)(1) and 40CFR63.10(b)(2)(i)) For sources subject to 40CFR 60, a startup is defined as the setting in operation of an affected facility for any purpose and a shutdown is defined as the cessation of operation of an affected facility for any purpose. For sources subject to 40FR 63, a startup is defined as the setting in operation of an affected source or portion of an affected source for any purpose and a shutdown is defined as the cessation of operation of an affected source or portion of an affected source for any purpose. For sources subject to 40FR 60, a malfunction is defined as any sudden, infrequent and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. For sources subject to 40CFR63, a malfunction is defined as any sudden, infrequent and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. Giant Cement shall record the occurrence and duration of each startup, shutdown or malfunction subject to 40CFR60 Subpart Kb, 40CFR60 Subpart Y, 40CFR60 Subpart OOO, 40CFR63 Subpart DD, 40CFR63 Subpart EEE or 40CFR63 Subpart LLL. These records shall be retained for a calendar period of five (5) years following the date of each startup, shutdown or malfunction. At a minimum, the most recent two (2) years of records shall be retained on-site and on-file. Records for the remaining three (3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

MONITORING AND REPORTING CONDITIONS (STARTUPS, SHUTDOWNS AND MALFUNCTIONS)	
Condition Number	**Condition**
6.B.2(j)	Immediate SSM Reports (40CFR63.6(e)(3)(iv), 40CFR63.10(b)(1) and 40CFR63.10(d)(5)(ii)) Notwithstanding the allowance to reduce the frequency of reporting for Periodic Startup, Shutdown and Malfunction reports specified by condition 6.B.2(k), any time an action taken by Giant Cement during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in an affected source's Startup, Shutdown and Malfunction Plan, it shall report the actions taken for that event within two(2) working days to the Trident District Office after commencing actions inconsistent with the plan followed by a written letter within seven(7) working days after the end of the event. The immediate report required under this paragraph shall consist of a telephone call (or facsimile (FAX) transmission) to the Trident District Office within two(2) working days after commencing actions inconsistent with the plan. It shall be followed by a written letter addressed to the Trident District Office, delivered or postmarked within seven(7) working days after the end of the event, that contains the name, title and signature of the responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the Startup, Shutdown and Malfunction Plan and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. Notwithstanding the requirements of the previous sentence, Giant Cement may make alternative reporting arrangements, in advance, with the Department. These reports shall also be retained for a calendar period of five(5) years following the date of each occurrence. At a minimum, the most recent two(2) years of reports shall be retained on-site and on-file. Records for the remaining three(3) years of reports may be retained off-site. Such records of reports may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.
6.B.2(k)	Periodic SSM Reports (40CFR63.6(e)(3)(iii), 40CFR63.10(b)(1) and 40CFR63.10(d)(5)(i)) For all sources subject to 40CFR63 Subpart DD, 40CFR63 Subpart EEE or 40CFR63 Subpart LLL, if actions taken by Giant Cement during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in a source's Startup, Shutdown and Malfunction Plan, then Giant Cement shall state such information in a Startup, Shutdown and Malfunction Report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period and they shall include the number, duration and a brief description of each startup, shutdown, or malfunction. If changes to the reporting requirements are promulgated then the reports shall include the revised information specified in 40CFR63 Subpart A. The Startup, Shutdown and Malfunction Report shall consist of a letter, containing the name, title and signature of the responsible official who is certifying its accuracy and be submitted to the Department semiannually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise). The Startup, Shutdown and Malfunction Report shall be addressed to the Manager of the Technical Management Section, Bureau of Air Quality and delivered or postmarked by the 30th calendar day following the end of each calendar half (or other calendar reporting period, as appropriate). If Giant Cement is required to submit Excess Emissions and CMS Performance Reports (or other periodic reports), the Startup, Shutdown and Malfunction Reports may be submitted simultaneously with the Excess Emissions and CMS Performance Reports (or other reports). If Startup, Shutdown and Malfunction Reports are submitted with Excess Emissions and CMS Performance Reports (or other periodic reports) and Giant Cement receives approval to reduce the frequency of reporting for the latter, the frequency of reporting for the Startup, Shutdown and Malfunction Reports also may be reduced if the Department does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified for Excess Emissions and CMS Performance Reports. These reports shall also be retained for a calendar period of five(5) years following the date of each occurrence. At a minimum, the most recent two(2) years of reports shall be retained on-site and on-file. Records for the remaining three(3) years of reports may be retained off-site. Such records of reports may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

MONITORING AND REPORTING CONDITIONS (STARTUPS, SHUTDOWNS AND MALFUNCTIONS)	
Condition Number	**Condition**
6.B.2(l)	Existing Kiln and New Kiln System Operations Under the 40CFR63 Startup, Shutdown and Malfunction Plan (40CFR63.1206(c)(2)(v)(A)(1) and 40CFR63.1206(c)(2)(v)(A)(2)) During malfunctions, the AWFCO requirements continue to apply, except for conditions 6.B.24(bbb) and 6.B.24(ccc). If Giant Cement exceeds an applicable 40CFR63 Subpart EEE emission standard monitored by a CEMS or COMS or an operating limit, the AWFCO must immediately and automatically cutoff the hazardous waste feed, except as provided by condition 6.B.24(eee). If the malfunction itself prevents immediate and automatic cutoff of the hazardous waste feed, however, Giant Cement must cease feeding hazardous waste as quickly as possible. Although the AWFCO requirements continue to apply during a malfunction, an exceedance of an emission standard monitored by a CEMS or COMS or operating limit is not a violation of 40CFR63 Subpart EEE if Giant Cement takes the corrective measures prescribed in the startup, shutdown, and malfunction plan.
6.B.2(m)	Compliance With AWFCO Requirements When Burning Hazardous Waste During Startups and Shutdowns (40CFR63.1206(c)(2)(v)(B)) If Giant Cement feeds hazardous waste during startup or shutdown to an existing Kiln or to the New Kiln System (when placed into operation), it shall include waste feed restrictions (e.g., type and quantity), and other appropriate operating conditions and limits in the startup, shutdown and malfunction plan. Giant Cement must interlock the established operating limits with the AWFCO except for conditions 6.B.26(bbb) and 6.B.26(ccc). When feeding hazardous waste during startup or shutdown, the AWFCO must immediately and automatically cutoff the hazardous waste feed if Giant Cement exceeds the established operating limits except as provided by condition 6.B.26(eee). Although the AWFCO requirements apply during startup and shutdown, an exceedance of an emission standard or operating limit is not a violation of 40CFR63 Subpart EEE if Giant complies with the operating procedures prescribed in the startup, shutdown, and malfunction plan.
6.B.2(n)	Excessive Exceedances During Existing Kiln and New Kiln System Malfunctions (40CFR63.1206(c)(2)(v)(A)(3)) For each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in an existing Kiln's or the New Kiln System's (when placed in operation) combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, Giant Cement shall within 45 days of the 10th exceedance, complete an investigation of the cause of each exceedance and evaluation of approaches to minimize the frequency, duration, and severity of each exceedance, and revise the startup, shutdown, and malfunction plan as warranted by the evaluation to minimize the frequency, duration, and severity of each exceedance. The results of the investigation and evaluation shall be recorded in the operating record, and include a summary of the investigation and evaluation, and any changes to the startup, shutdown, and malfunction plan, in the excess emissions report.

MONITORING AND REPORTING CONDITIONS (CONTINUOUS MONITORING SYSTEMS)	
Condition Number	**Condition**
6.B.3(a)	CMS Requirements for the Combining of Effluents (40CFR60.13(g), 40CFR63.8(b)(2)(i) and 40CFR63.8(b)(2)(ii)) When the emissions from two(2) or more affected sources subject to 40CFR60 Subpart Y, 40CFR63 Subpart EEE and/or 40CFR63 Subpart LLL are combined before being released to the atmosphere, Giant Cement may install an applicable CMS for each emission stream or for the combined emissions streams, provided the monitoring is sufficient to demonstrate compliance with a relevant standard. If a relevant standard is a mass emission standard and the emissions from one affected source are released to the atmosphere through more than one emission point, then Giant Cement shall install an applicable CMS at each emission point unless the installation of fewer systems is approved by the Department or provided for in a relevant standard (e.g., instead of requiring that a CMS be installed at each emission point before the effluents from those points are channeled to a common control device, the standard specifies that only one CMS is required to be installed at the vent of the control device).
6.B.3(b)	Reporting Requirements for Multiple CMS (40CFR63.8(b)(3)) When more than one CMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), Giant Cement shall report the results as required for each CMS. However, when one CMS is used as a backup to another CMS, it shall report the results from the CMS used to meet the monitoring requirements of 40CFR63 Subpart DD, 40CFR63 Subpart EEE or 40CFR63 Subpart LLL. If both such CMS are used during a particular reporting period to meet the monitoring requirements of 40CFR63 Subpart DD, 40CFR63 Subpart EEE and 40CFR63 Subpart LLL, then Giant Cement shall report the results from each CMS for the relevant compliance period.
6.B.3(c)	CMS Operation and Maintenance (40CFR60.13(e), 40CFR63.8(c)(1) and 40CFR63.8(c)(4)) For an affected source required by 40CFR60 Subpart Y, 40CFR63 Subpart DD, 40CFR63 Subpart EEE or 40CFR63 Subpart LLL to be monitored using a CMS, Giant Cement shall maintain and operate each CMS in a manner consistent with good air pollution control practices. For all CMS, Giant Cement shall keep the necessary parts for routine repairs of the affected CMS equipment readily available and comply with the written Startup, Shutdown and Malfunction Plan that it implemented as specified in conditions 6.B.2(a) and 6.B.2(b). Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation.
6.B.3(d)	CMS Installation (40CFR60.13(a), 40CFR63.8(c)(2) and 40CFR63.8(c)(3)) All CMS shall be installed such that representative measures of emissions or process parameters from an affected source are obtained. In addition, CEMS shall be located according to procedures contained in the applicable performance specification(s). Unless stated otherwise, Giant Cement shall ensure that the read out (the portion of the CMS that provides a visual display or record), or other indication of operation, from any CMS required for compliance with an emission standard is readily accessible on-site for operational control or inspection by the operator of the equipment. All CMS required by 40CFR60 Subpart Y, 40CFR63 Subpart DD and 40CFR63 Subpart LLL shall be installed, operational and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests. Verification of operational status shall, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system. All CMS required by 40CFR63 Subpart EEE shall be installed, calibrated and continuously operated upon startup of the associated equipment.

MONITORING AND REPORTING CONDITIONS (CONTINUOUS MONITORING SYSTEMS)	
Condition Number	**Condition**
6.B.3(e)	Minimum Procedures for COMS (40CFR63.8(c)(5)) Unless otherwise approved by the Department, the minimum procedures for COMS shall include a method for producing a simulated zero opacity condition and an upscale (high-level) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of all the analyzer's internal optical surfaces and all electronic circuitry, including the lamp and photodetector assembly normally used in the measurement of opacity.
6.B.3(f)	Records of CMS Zero (Low-Level) and High-Level Calibration Drifts for CMS except CPMS (40CFR60.13(d)(1), 40CFR63.8(c)(6) and 40CFR63.10(b)(1)) Except for CMS identified in conditions 6.B.26(m) and 6.B.26(n), Giant Cement for CMS that are not a CPMS, which is installed in accordance with the provisions of 40CFR60 Subpart Y, 40CFR63 Subpart EEE or 40CFR63 Subpart LLL and the applicable CMS performance specification(s), shall monitor and record the zero(low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the CMS Performance Evaluation Plan. The zero (low-level) and high-level calibration drifts shall be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s) specified in the relevant standard. The system shall allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified whenever specified. For COMS, all optical and instrumental surfaces exposed to the effluent gases shall be cleaned prior to performing the zero (low-level) and high-level drift adjustments; the optical surfaces and instrumental surfaces shall be cleaned when the cumulative automatic zero compensation, if applicable, exceeds 4% opacity. These records shall be retained for a calendar period of five(5) years following the date of each calibration check. At a minimum, the most recent two(2) years of records shall be retained on-site and on-file. Records for the remaining three(3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.
6.B.3(g)	CPMS System Response Checks (40CFR63.8(c)(6) and 40CFR63.10(b)(1)) Once a CPMS is required to be installed and operating by the EPA, the CPMS shall be calibrated prior to use for the purposes of complying with this condition. Giant Cement shall check the CPMS daily for indication that the system is responding. If the CPMS system includes an internal system check, results shall be recorded and checked daily for proper operation. These records shall be retained for a calendar period of five(5) years following the date of each system response check. At a minimum, the most recent two(2) years of records shall be retained on-site and on-file. Records for the remaining three(3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.
6.B.3(h)	Records of All CMS Calibration Checks (40CFR63.10(b)(1) and 40CFR63.10(b)(2)(x)) Giant Cement shall record all calibration checks of CMS subject to 40CFR63 Subpart DD, 40CFR63 Subpart EEE or 40CFR63 Subpart LLL. These records shall be retained for a calendar period of five(5) years following the date of each calibration check. At a minimum, the most recent two(2) years of records shall be retained on-site and on-file. Records for the remaining three(3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

MONITORING AND REPORTING CONDITIONS (CONTINUOUS MONITORING SYSTEMS)	
Condition Number	**Condition**
6.B.3(i)	Records of All Adjustments and Maintenance Performed on CMS (40CFR63.10(b)(1) and 40CFR63.10(b)(2)(xi)) Giant Cement shall record all adjustments and maintenance performed on CMS required by 40CFR63 Subpart DD, 40CFR63 Subpart EEE or 40CFR63 Subpart LLL. These records shall be retained for a calendar period of five(5) years following the date of each adjustment or maintenance action. At a minimum, the most recent two(2) years of records shall be retained on-site and on-file. Records for the remaining three(3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.
6.B.3(j)	CMS Quality Control Program (40CFR63.8(d)) Giant Cement shall develop and implement a CMS Quality Control Program(s) for the CMS required by 40CFR63 Subpart EEE or 40CFR63 Subpart LLL. As part of the CMS Quality Control Program, it shall develop and submit to the Department for approval a site-specific CMS Performance Evaluation Test Plan for the required CMS performance evaluation. In addition, the CMS Quality Control Program shall include, at a minimum, a written protocol that describes procedures for each of the operations listed in paragraphs (j)(1) through (j)(6) of this condition. The results of this CMS Quality Control Program will be considered by the Department when it determines the validity of monitoring data. Giant Cement shall keep these written procedures on-site and on-file for the life of an affected source or until the affected source is no longer subject to the provisions of 40CFR63 Subpart EEE or 40CFR63 Subpart LLL and make then available to Department personnel upon request. If a CMS Quality Control Plan is revised, then Giant Cement shall keep previous (i.e., superseded) versions of the plan on-site and on-file for a calendar period of five(5) years after the date of each revision to the plan and made available to Department personnel upon request. Revisions to a plan do not require a formal operating permit modification. Where relevant (e.g., program of corrective action for a malfunctioning continuous monitoring system) these written procedures may be incorporated as part of an affected source's Startup, Shutdown and Malfunction Plan to avoid duplication of planning and recordkeeping efforts. (j)(1) Initial and any subsequent calibration of the CMS. (j)(2) Determination and adjustment of the calibration drift of the continuous monitoring system. (j)(3) Preventive maintenance of the continuous monitoring system, including spare parts inventory. (j)(4) Data recording, calculations, and reporting. (j)(5) Accuracy audit procedures, including sampling and analysis methods. (j)(6) Program of corrective action for a malfunctioning CMS.
6.B.3(k)	Records of CMS Malfunction or Inoperative Periods (40CFR63.10(b)(1) and 40CFR63.10(b)(2)(vi)) Giant Cement shall record each period during which a CMS required by 40CFR63 Subpart DD, 40CFR63 Subpart EEE or 40CFR63 Subpart LLL is malfunctioning or inoperative (including out-of-control periods). These records shall be retained for a calendar period of five(5) years following the date of each CMS malfunction or inoperative period. At a minimum, the most recent two(2) years of records shall be retained on-site and on-file. Records for the remaining three(3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

MONITORING AND REPORTING CONDITIONS (CONTINUOUS MONITORING SYSTEMS)	
Condition Number	**Condition**
6.B.3(l)	Out of Control CMS (40CFR63.8(c)(7)) A CMS is out of control if the zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard, the CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, linearity test audit or the COMS calibration drift exceeds two times the limit in the applicable performance specification in the relevant standard. When a CMS is out of control, Giant Cement shall take the necessary corrective action and repeat all necessary tests which indicate that the system is out of control. Giant Cement shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour that Giant Cement conducts a performance check (e.g., calibration drift) that indicates an exceedance of performance requirements. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any established data availability requirement.
6.B.3(m)	Records of All Required CMS Measurements (40CFR63.10(b)(1) and 40CFR63.10(c)(1)) Giant Cement shall record all required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods) for CMS required by 40CFR63 Subpart EEE or 40CFR63 Subpart LLL. These records shall be retained for a calendar period of five(5) years following the date of each CMS measurement. At a minimum, the most recent two(2) years of records shall be retained on-site and on-file. Records for the remaining three(3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.
6.B.3(n)	Records of the Date and Time that Identify Inoperative CMS Periods (40CFR63.10(b)(1) and 40CFR63.10(c)(5)) Giant Cement shall record the date and time identifying each calendar period during which a CMS required by 40CFR63 Subpart LLL is inoperative except for zero (low-level) and high-level checks. These records shall be retained for a calendar period of five(5) years following the date of each inoperative CMS period. At a minimum, the most recent two(2) years of records shall be retained on-site and on-file. Records for the remaining three(3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.
6.B.3(o)	Records of the Date and Time that Identify Out of Control CMS Periods (40CFR63.8(c)(7), 40CFR63.10(b)(1) and 40CFR63.10(c)(6)) Giant Cement shall record the date and time identifying each calendar period during which a CMS required by 40CFR63 Subpart EEE or 40CFR63 Subpart LLL is out of control. A CMS is out of control if the zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two(2) times the applicable calibration drift specification in the applicable performance specification or in the relevant standard, the CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; or the COMS calibration drift exceeds two times the limit in the applicable performance specification in the relevant standard. These records shall be retained for a calendar period of five(5) years following the date of each out of control CMS period. At a minimum, the most recent two(2) years of records shall be retained on-site and on-file. Records for the remaining three(3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

MONITORING AND REPORTING CONDITIONS (CONTINUOUS MONITORING SYSTEMS)	
Condition Number	**Condition**
6.B.3(p)	Records of Total Process Operating Time During the Reporting Period (40CFR63.10(b)(1) and 40CFR63.10(c)(13)) Giant Cement shall record the total process operating time during the reporting period for sources subject to 40CFR63 Subpart EEE or 40CFR63 Subpart LLL. These records shall be retained for a calendar period of five(5) years following the date of each record. At a minimum, the most recent two(2) years of records shall be retained on-site and on-file. Records for the remaining three(3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche
6.B.3(q)	Records of the Specific Identification of Each Period of Excess Emissions and Parameter Monitoring Exceedances (40CFR63.10(b)(1) and 40CFR63.10(c)(8)) Giant Cement shall record the specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined by 40CFR63 Subpart EEE or 40CFR63 Subpart LLL that occurs during startups, shutdowns, and malfunctions of the affected source and occurs during periods other than startups, shutdowns, and malfunctions of the affected source. These records shall be retained for a calendar period of five(5) years following the date of each exceedance. At a minimum, the most recent two(2) years of records shall be retained on-site and on-file. Records for the remaining three(3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.
6.B.3(r)	Records of CMS Malfunctions, Corrective Actions and Repairs (40CFR63.10(b)(1), 40CFR63.10(c)(10), 40CFR63.10(c)(11), 40CFR63.10(c)(12) and 40CFR63.10(c)(15)) Giant Cement shall record the nature and cause of any CMS malfunction (if known), the corrective action taken or preventive measures adopted and the nature of the repairs or adjustments to the CMS that was inoperative or out of control for any CMS required by 40CFR63 Subpart EEE or 40CFR63 Subpart LLL. In order to satisfy these recordkeeping requirements and to avoid duplicative recordkeeping efforts, Giant Cement may use the affected source's Startup, Shutdown and Malfunction Plan or records kept to satisfy the recordkeeping requirements of the Startup, Shutdown, and Malfunction Plan provided that such plan and records adequately address the recordkeeping requirements this condition. These records shall be retained for a calendar period of five(5) years following the date of each malfunction, corrective action and/or repair. At a minimum, the most recent two(2) years of records shall be retained on-site and on-file. Records for the remaining three(3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.
6.B.3(s)	Emission Data Units of Measurement (40CFR63.8(g)(4)) All emission data shall be converted into the units of measurement of the relevant standard for reporting purposes using the conversion procedures specified in that standard. After conversion, the data may be rounded to the same number of significant digits as used in that standard to specify the emission limit (e.g., rounded to the nearest 1% opacity).
6.B.3(t)	Use of Monitoring Data Recorded During Periods of Unavoidable CMS Breakdowns, Out-Of-Control Periods, Repairs, Maintenance Periods, Calibration Checks and Zero (Low-Level) and High-Level Adjustments (40CFR63.8(g)(5)) Monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments shall not be included in any computed data average. If Giant Cement complies with the requirements of condition 6.B.3(u), data averages shall include any data recorded during periods of monitor breakdown or malfunction.

MONITORING AND REPORTING CONDITIONS (CONTINUOUS MONITORING SYSTEMS)	
Condition Number	**Condition**
6.B.3(u)	Records of All CMS Measurements Needed to Demonstrate Compliance With a Relevant Standard (40CFR63.10(b)(1) and 40CFR63.10(b)(2)(vii)) Giant Cement shall record all required measurements needed to demonstrate compliance with 40CFR63 Subpart EEE and 40CFR63 Subpart LLL. To demonstrate compliance with those subparts, the records shall include, but are not limited to, 15-minute averages of CMS data, raw performance testing measurements and raw performance evaluation measurements that support the data that Giant Cement is required to report. Where a CEMS is automated and the calculated data averages do not exclude periods of CEMS breakdown or malfunction, in lieu of maintaining a file of all CEMS subhourly, Giant Cement shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard. An automated CEMS is defined as a CEMS that records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. Where the measured data from a CEMS is manually reduced to obtain the reportable form of the standard, and the calculated data averages do not exclude periods of CEMS breakdown or malfunction, in lieu of maintaining a file of all CEMS subhourly measurements, Giant Cement shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 calendar days from the date of the most recent Summary or Excess Emission Report submitted to the Department. The Department, upon notification, may require Giant Cement to maintain all measurements if it determines these records are required to more accurately assess the compliance status of the affected source. These records shall be retained for a calendar period of five(5) years following the date of each measurement. At a minimum, the most recent two(2) years of records shall be retained on-site and on-file. Records for the remaining three(3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.
6.B.3(v)	Reduction of COMS and CEMS Data (40CFR63.2 and 40CFR63.8(g)(2)) Giant Cement shall for a COMS reduce all data to 6-minute averages calculated from 36 or more data points equally spaced over each 6-minute period. Data from CEMS for measurement other than opacity, unless otherwise specified in a relevant standard, shall be reduced to one(1)-hour averages computed from four or more data points equally spaced over each one(1)-hour period, except during periods when calibration, quality assurance, or maintenance activities are being performed. During periods when calibration, quality assurance, or maintenance activities are being performed, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. A six(6)-minute period is defined as, with respect to opacity determinations, any one of the 10 equal parts of a one(1)-hour period. A one(1)-hour period, unless otherwise defined in an applicable subpart, is defined as any 60-minute period commencing on the hour.
6.B.3(w)	Recording of CMS Data (40CFR63.8(g)(3)) The monitoring data obtained from CMS may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O_2 or ng/J of pollutant).

MONITORING AND REPORTING CONDITIONS (CONTINUOUS MONITORING SYSTEMS)	
Condition Number	**Condition**
6.B.3(x)	Content and Submittal Dates for Excess Emissions and CMS Performance Reports (40CFR60.7(c), 40CFR63.8(c)(7), 40CFR63.8(c)(8), 40CFR63.10(c)(5), 40CFR63.10(c)(6), 40CFR63.10(c)(7), 40CFR63.10(c)(8), 40CFR63.10(c)(10), 40CFR63.10(c)(11), 40CFR63.10(c)(12), 40CFR63.10(c)(13), and 40CFR63.10(e)(3)(v)) All Excess Emissions and CMS Performance Reports and all Summary Reports, if required, shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate to the Manager of the Technical Management Section, Bureau of Air Quality. Written reports of excess emissions or exceedances of process or control system parameters shall include all the information as specified in paragraphs (x)(1) through (x)(10). When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report. (x)(1) The reports shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. (x)(2) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks. (x)(3) The date and time identifying each period during which the CMS was out of control. A CMS is out of control if the zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard, the CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; or the COMS calibration drift exceeds two times the limit in the applicable performance specification in the relevant standard. (x)(4) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source. (x)(5) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source. (x)(6) The nature and cause of any malfunction (if known). (x)(7) The corrective action taken or preventive measures adopted. (x)(8) The nature of the repairs or adjustments to the CMS that was inoperative or out of control. (x)(9) The total process operating time during the reporting period. (x)(10) All information concerning CMS out-of-control periods, including start dates, end dates, hours and descriptions of the corrective actions taken.
6.B.3(y)	Records of Procedures that are Part of a CMS Quality Control Program (40CFR63.10(b)(1) and 40CFR63.10(c)(14)) Giant Cement shall record all procedures that are part of a quality control program developed and implemented for CMS subject to 40CFR63 Subpart EEE or 40CFR63 Subpart LLL. The record of procedures shall be retained for a calendar period of five(5) years following the origin date of each procedure. At a minimum, the most recent two(2) years of records shall be retained on-site and on-file. Records for the remaining three(3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

MONITORING AND REPORTING CONDITIONS (CONTINUOUS MONITORING SYSTEMS)	
Condition Number	**Condition**
6.B.3(z)	Summary Report Content Requirements (40CFR60.7(d) and 40CFR63.10(e)(3)(vi)) If required to submit a Summary Report, Giant Cement shall submit one Summary Report for the hazardous air pollutants monitored at each affected source (unless the relevant standard specifies that more than one summary report is required, e.g., one summary report for each hazardous air pollutant monitored). The summary report shall be entitled "Summary Report (Gaseous and Opacity Excess Emission and CMS Performance)" and contain the information specified by paragraphs (z)(1) through (z)(12). (z)(1) The company name and address of the affected source. (z)(2) An identification of each hazardous air pollutant monitored at the affected source. (z)(3) The beginning and ending dates of the reporting period. (z)(4) A brief description of the process units. (z)(5) The emission and operating parameter limitations specified in the relevant standard(s). (z)(6) The monitoring equipment manufacturer(s) and model number(s). (z)(7) The date of the latest CMS certification or audit. (z)(8) The total operating time of the affected source during the reporting period. (z)(9) An emission data summary (or similar summary if it monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes. (z)(10) A CMS performance summary (or similar summary if it monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes. (z)(11) A description of any changes in CMS, processes, or controls since the last reporting period. (z)(12) The name, title, and signature of the responsible official who is certifying the accuracy of the report and the date of the report.
6.B.3(aa)	Submission of Only the Summary Report (40CFR60.7(d)(1) and 40CFR63.10(e)(3)(vii)) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is less than 1% of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5% of the total operating time for the reporting period, Giant Cement only needs to submit the Summary Report and the full Excess Emissions and CMS Performance Report need not be submitted unless required by the Department.

MONITORING AND REPORTING CONDITIONS (CONTINUOUS MONITORING SYSTEMS)	
Condition Number	**Condition**
6.B.3(bb)	Reduction in the Frequency of Submitting Excess Emissions and CMS Performance and/or Summary Reports (40CFR60.7(e) and 40CFR63.10(e)(3)(iii)) The frequency of submitting Excess Emissions and CMS Performance and/or Summary Reports required to comply with a relevant standard may be reduced only after Giant Cement notifies the Department in writing of its intention to make such a change and the Department does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Department may review information concerning a source's entire previous performance history during the five(5) year recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of Giant Cement's conformance with operation and maintenance requirements. Such information may be used by the Department to make a judgment about a source's potential for noncompliance in the future. If the Department disapproves Giant Cement's request to reduce the frequency of reporting, the Department will notify it in writing within 45 calendar days after receiving notice of Giant Cement's intention. The notification from the Department to Giant Cement will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 calendar days, approval is automatically granted.
6.B.3(cc)	Submission of Both the Summary Report and the Excess Emissions and CMS Performance Report (40CFR60.7(d)(2) and 40CFR63.10(e)(3)(viii)) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 1% or greater of the total operating time for the reporting period, or the total CMS downtime for the reporting period is 5% or greater of the total operating time for the reporting period, then Giant Cement shall submit both the Summary Report and the Excess Emissions and CMS Performance Report.
6.B.3(dd)	Excess Emissions and CMS Performance Reports and/or Summary Reports (40CFR60.7(c) and 40CFR63.10(e)(3)(i)) For sources subject to 40CFR60 Subpart Y, 40CFR63 Subpart EEE or 40CFR63 Subpart LLL required by those subparts to be monitored by a CMS, Giant Cement shall submit an Excess Emissions and CMS Performance Report and/or a Summary Report to the Department for those CMS. Reports shall be submitted semiannually, except when more frequent reporting is specifically required by a relevant standard and the Department determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of a source.
6.B.3(ee)	Resumption of the Normal Frequency of Submitting Excess Emissions and CMS Performance and/or Summary Reports (40CFR60.7(e)(3) and 40CFR63.10(e)(3)(iv)) As soon as CMS data indicate that a source is not in compliance with any applicable emission limitation or operating parameter, the frequency of reporting for Excess Emissions and CMS Performance and/or Summary Reports shall revert to the original submission frequency and Giant Cement shall submit an Excess Emissions and CMS Performance and/or Summary Report for the noncomplying emission points at the next appropriate reporting period following the noncomplying event. After demonstrating ongoing compliance with the applicable emission limitation or operating parameter for another full year, Giant Cement may again request approval from the Department to reduce the submission frequency of reporting for that standard.

MONITORING AND REPORTING CONDITIONS (CONTINUOUS MONITORING SYSTEMS)	
Condition Number	**Condition**
6.B.3(ff)	Request to Reduce Frequency of Excess Emissions and CMS Performance Reports (40CFR63.10(e)(3)(ii)) Notwithstanding the frequency of reporting requirements specified in condition 6.B.3(dd), if Giant Cement is required by a relevant standard to submit Excess Emissions and CMS Performance Reports and/or Summary Reports on a quarterly (or more frequent) basis, it may reduce the frequency of reporting for that standard to semiannual if the requirements of paragraphs (ff)(1) through (ff)(3) are met. (ff)(1) If for one full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected source's excess emissions and CMS Performance Reports continually demonstrate that the source is in compliance with the relevant standard. (ff)(2) Giant Cement continues to comply with all applicable recordkeeping and monitoring requirements. (ff)(3) The Department does not object to a reduced frequency of reporting for the affected source.

MONITORING AND REPORTING CONDITIONS (AIR POLLUTION CONTROL EQUIPMENT)	
Condition Number	**Condition**
6.B.4(a)	Air Pollution Control and Monitoring Equipment Maintenance Records (40CFR63.10(b)(1) and 40CFR63.10(b)(2)(iii)) Giant Cement shall record all required maintenance performed on the air pollution control and monitoring equipment required by 40CFR63 Subpart EEE or 40CFR63 Subpart LLL. At a minimum, the most recent two(2) years of records shall be retained on-site and on-file. Records for the remaining three(3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.
6.B.4(b)	Operation and Maintenance of Air Pollution Control Equipment (SC Regulation 61-62.70.6(a)(3)(i)(B)) Giant Cement shall operate, inspect and maintain each existing dust collector and each new dust collector (when placed in service) as specified by the Dust Collector O&M Plan or other O&M plan developed to combine regulatory O&M Plan requirements. The differential pressure across each dust collector shall be maintained between the required differential pressure ranges as specified in the plan. The differential pressure across each dust collector shall be monitored according to the plan. If the differential pressure across a dust collector deviates from its specified differential pressure range, then Giant Cement shall perform and record a visual emission observation and a reason for the deviation from the specified range. If the visual emission observation exceeds the opacity limit for the source(s) then the procedures outlined in Section VII of the plan shall be followed. If a problem is found during an inspection of a dust collector, then the inspection shall be documented. The inspection documentation shall include the date and time of inspection, list the problem(s) found and the corrective action(s) taken. All documented inspection records shall be kept on-file and on-site for a calendar period of five(5) years from the date of record and made available to Department personnel upon request. All visible emissions monitoring, inspections, reporting, recordkeeping and preventative maintenance shall be performed as specified by the plan.

MONITORING AND REPORTING CONDITIONS (AIR POLLUTION CONTROL EQUIPMENT)	
Condition Number	**Condition**
6.B.4(c)	Records of the Occurrence and Duration of Air Pollution Control and Monitoring Equipment Malfunctions (40CFR63.10(b)(1) and 40CFR63.10(b)(2)(ii)) Giant Cement shall record the occurrence and duration of each malfunction of the air pollution control and monitoring equipment required by 40CFR63 Subpart DD, 40CFR63 Subpart EEE or 40CFR63 Subpart LLL. At a minimum, the most recent two(2) years of records shall be retained on-site and on-file. Records for the remaining three(3) years may be retained off-site. Such records may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

MONITORING AND REPORTING CONDITIONS (REGULATION APPLICABILITY DETERMINATIONS)	
Condition Number	**Condition**
6.B.5(a)	Recordkeeping Requirement for Regulation Applicability Determinations (40CFR63.10(b)(3)) If Giant Cement determines that a stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to Clean Air Act Section 112(d) or Clean Air Act Section 112(f) and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40CFR63) because of limitations on the source's potential to emit or an exclusion, then Giant Cement shall keep a record of the applicability determination on-site and on-file for a calendar period of five(5) years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of applicability determination shall also be signed by the person making the determination and include an analysis (or other information) that demonstrates why Giant Cement believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) shall be sufficiently detailed to allow the Department to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis shall be performed in accordance with requirements established in 40CFR63 Subpart DD and 40CFR63 Subpart LLL. Also, if relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under Clean Air Act Section 112, if any.

MONITORING AND REPORTING CONDITIONS (CMS PERFORMANCE EVALUATIONS)	
Condition Number	**Condition**
6.B.6(a)	CMS Performance Evaluations (40CFR63.8(e)(1)) During the Comprehensive and Confirmatory Performance Tests and at any other time the Department may require, Giant Cement for an affected source being monitored by a CMS, shall conduct a performance evaluation of that CMS. Such performance evaluation shall be conducted according to the applicable specifications and procedures.

MONITORING AND REPORTING CONDITIONS (CMS PERFORMANCE EVALUATIONS)	
Condition Number	**Condition**
6.B.6(b)	Notification of CMS Performance Evaluations (SC Regulation 61-62.1 Section IV(D), 40CFR63.8(e)(2) and 40CFR63.1207(e)) Giant Cement shall submit written notifications of CMS Performance Evaluations to the Manager of the Source Evaluation Section, Bureau of Air Quality as specified by paragraphs (b)(1) through (b)(3) of this condition. In the event that Giant Cement is unable to conduct the CMS performance evaluation on the date specified in the notification, it shall notify the Department as soon as practical by telephone and follow up in writing within 30 calendar days. Telephone notification shall include a description of the circumstance(s) causing the cancellation of the CMS performance evaluation and a projected date that the evaluation will take place. The written follow-up report shall include a description of the condition(s) which prevented the evaluation from being conducted, and when applicable, what corrective action was performed, or what equipment repairs were required. (b)(1) For CMS not subject to a Federal Standard, Giant Cement shall submit a notification 14 calendar days before the performance evaluation is scheduled to begin. (b)(2) For CMS subject to 40CFR63 Subpart EEE and where a performance specification has been specified, Giant Cement shall submit a notification one(1) calendar year before the performance test and performance evaluation are scheduled to begin. (b)(3) For CMS subject to Federal Standards other than 40CFR63 Subpart EEE, Giant Cement shall submit notification 60 calendar days before the performance evaluation is scheduled to begin if no performance test is required.
6.B.6(c)	Content of CMS Performance Evaluation Test Plan (SC Regulation 61-62.1 Section IV(C), 40CFR63.8(e)(3)(i) and 40CFR63.8(e)(3)(ii)) Before conducting a required CMS performance evaluation, Giant Cement shall develop a site-specific CMS Performance Evaluation Test Plan. The CMS Performance Evaluation Test Plan shall include the applicable information specified by condition 6.B.7(i), evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data. The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Department of instrument calibration, data validation, sample logging and documentation of quality control data and field maintenance activities.

MONITORING AND REPORTING CONDITIONS (CMS PERFORMANCE EVALUATIONS)	
Condition Number	**Condition**
6.B.6(d)	Submission of CMS Performance Evaluation Test Plan (SC Regulation 61-62.1 Section IV(B), 40CFR63.8(e)(3)(iii), 40CFR63.8(e)(3)(iv) and 40CFR63.1207(e)) Giant Cement shall submit a CMS Performance Evaluation Test Plan to the Manager of the Source Evaluation Section, Bureau of Air Quality for approval as specified by paragraphs (d)(1) through (d)(3) of this condition. The review and approval of the CMS Performance Evaluation Test Plan by the Department will occur with the review and approval of the Pollutant Performance Test Plan. The Department may request additional relevant information after the submittal of a plan. (d)(1) For CMS not subject to a Federal Standard, Giant Cement shall submit a test plan 45 calendar days before the performance evaluation is scheduled to begin. (d)(2) For CMS subject to 40CFR63 Subpart EEE and where a performance specification has been specified, Giant Cement shall submit a test plan one(1) calendar year before the performance test and performance evaluation are scheduled to begin. (d)(3) For CMS subject to Federal Standards other than 40CFR63 Subpart EEE, Giant Cement shall submit a test plan 60 calendar days before the performance evaluation is scheduled to begin if no performance test is required.
6.B.6(e)	Department Approval of the CMS Performance Evaluation Test Plan (SC Regulation 61-62.1 Section IV(B) , 40CFR63.7(c)(3) and 40CFR63.1207(e)(1)(i)(A)) For CMS that are not subject to 40CFR63 Subpart EEE, the Department will notify Giant Cement of approval or intention to deny approval of the site-specific CMS Performance Evaluation Test Plan within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information. For CMS subject to 40CFR63 Subpart EEE, the Department will notify Giant Cement of approval or intention to deny approval of the site-specific CMS Performance Evaluation Test Plan within nine(9) months after receipt of the original plan. Before disapproving the plan, the Department will notify Giant Cement of its intention to disapprove the plan together with a notice of the information and findings on which the intended disapproval is based and a notice of opportunity for Giant Cement to present, within 30 calendar days after it is notified of the intended disapproval, additional information to the Department before final action on the plan.
6.B.6(f)	Department Failure to Approve or Disapprove a CMS Performance Evaluation Plan (SC Regulation 61-62.1 Section IV(B), 40CFR63.8(e)(3)(v) and 40CFR63.8(e)(3)(vi)) In the event that the Department fails to approve or disapprove a CMS Performance Evaluation Test Plan within the time period specified in condition 6.B.6(e) and Giant Cement intends to demonstrate compliance using the monitoring method(s) specified in the relevant standard, it shall conduct the CMS performance evaluation within the specified time using the specified method(s) in the relevant standard. If Giant Cement intends to demonstrate compliance by using an alternative to a monitoring method specified in the relevant standard, it shall refrain from conducting the CMS performance evaluation until the Department approves the use of the alternative method. If the Department does not approve the use of the alternative method within 30 calendar days before the CMS performance evaluation is scheduled to begin, the CMS performance evaluation deadlines specified by condition 6.B.8(g) may be extended such that Giant Cement shall conduct the CMS performance evaluation within 60 calendar days after the Department approves the use of the alternative method. Neither the submission of a CMS Performance Evaluation Test Pan for approval, nor the Department's approval or disapproval of a plan, nor the Department's failure to approve or disapprove a plan in a timely manner shall relieve Giant Cement of legal responsibility for compliance with any applicable provisions or with any other applicable Federal, State, or local requirement; or prevent the Department from implementing, enforcing or taking any other action under the Clean Air Act.

MONITORING AND REPORTING CONDITIONS (CMS PERFORMANCE EVALUATIONS)	
Condition Number	**Condition**
6.B.6(g)	Conduct of CMS Performance Evaluations and CMS Performance Evaluation Dates (SC Regulation 61-62.1 Section IV(D) and 40CFR63.8(e)(4)) Giant Cement shall conduct a performance evaluation of a required CMS during any required Pollutant Performance Test in accordance with the applicable performance specification as specified in the relevant standard and if applicable, SC Regulation 61-62.5 Section IV(D). Notwithstanding the requirement in the previous sentence, if Giant Cement for an affected source elects to submit COMS data for compliance with a relevant opacity emission standard, it shall conduct a performance evaluation of the COMS as specified in the relevant standard, before the required pollutant performance test is conducted in time to submit the results of the CMS performance evaluation as specified in condition 6.B.6(h). If a Pollutant Performance Test is not required or the requirement for a Pollutant Performance Test has been waived, Giant Cement for an affected source shall conduct the CMS performance evaluation no later than 180 calendar days after the appropriate compliance date for the affected source as specified in the relevant standard.
6.B.6(h)	Reporting of CMS Performance Evaluation Results (SC Regulation 61-62.1 Section (F) and 40CFR63.8(e)(5)) Giant Cement shall furnish the Department with a written report of the results of the CMS performance evaluation simultaneously with the results of the Pollutant Performance Test or within 60 calendar days of completion of the CMS performance evaluation if no pollutant performance test is required, unless otherwise specified in a relevant standard. The report of performance results shall contain the applicable information specified in condition 6.B.7(cc) and include the raw data from the CMS performance evaluation. If Giant Cement uses a COMS to determine opacity compliance during any required pollutant performance test, it shall furnish the Department with two(2) or, upon request, three(3) copies of a written report of the results of the required COMS performance evaluation. The copies shall be provided to the Manager of the Source Evaluation Section, Bureau of Air Quality at least 15 calendar days before the required pollutant performance test is conducted.
6.B.6(i)	Alternative to the CEMS Relative Accuracy Test (40CFR63.8(f)(6)(i)) An alternative to the test method for determining CEMS relative accuracy is available for affected sources with emission rates demonstrated to be less than 50% of the relevant standard. Giant Cement may petition the Department to substitute the CEMS relative accuracy test in Section 7 of Performance Specification 2 with the procedures in Section 10 if the results of a Pollutant Performance Test or other tests performed demonstrate that the emission rate of the pollutant of interest in the units of the relevant standard is less than 50% of the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, Giant Cement may petition the Department to substitute the CEMS relative accuracy test with the procedures in Section 10 of Performance Specification 2 if the control device exhaust emission rate is less than 50% of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the CEMS is used continuously to determine compliance with a relevant standard.

MONITORING AND REPORTING CONDITIONS (CMS PERFORMANCE EVALUATIONS)	
Condition Number	**Condition**
6.B.6(j)	Department Rescission of Approval to use the Alternative to the CEMS Relative Accuracy Test (40CFR63.8(f)(6)(iii)) The Department will review its permission to use an alternative to the CEMS relative accuracy test and may rescind such permission if the CEMS data from a successful completion of the alternative relative accuracy procedure indicate that the affected source's emissions are approaching the level of the relevant standard. The criterion for reviewing the permission is that the collection of CEMS data shows that emissions have exceeded 70% of the relevant standard for any averaging period, as specified in the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the criterion for reviewing the permission is that the collection of CEMS data shows that exhaust emissions have exceeded 70% of the level needed to meet the control efficiency requirement for any averaging period, as specified in the relevant standard. Giant Cement for an affected source shall maintain records and determine the level of emissions relative to the criterion for permission to use an alternative for relative accuracy testing. If this criterion is exceeded, then Giant Cement shall notify the Department within 10 calendar days of such occurrence and include a description of the nature and cause of the increased emissions. The Department will review the notification and may rescind permission to use an alternative and require Giant Cement to conduct a relative accuracy test of the CEMS as specified in Section 7 of Performance Specification 2.
6.B.6(k)	Content of Petition to use the Alternative to the CEMS Relative Accuracy Test (40CFR63.8(f)(6)(ii)) The petition to use an alternative to the relative accuracy test shall include a detailed description of the procedures to be applied, the location and the procedure for conducting the alternative, the concentration or response levels of the alternative relative accuracy materials, and the other equipment checks included in the alternative procedure(s). The Department will review the petition for completeness and applicability. The Department's determination to approve an alternative will depend on the intended use of the CEMS data and may require specifications more stringent than in Performance Specification 2.
6.B.6(l)	Stack Sampling Team and PM CEMS Correlation Tests (40CFR63.1206(b)(8)(vi) and 40CFR63.1357(d)) The stack sampling team shall be on-site and prepared to perform PM CEMS correlation testing no later than 24 hours after operations are modified to attain the desired particulate matter emissions concentrations, unless the correlation test plan documents that a longer period is appropriate.

MONITORING AND REPORTING CONDITIONS (CMS PERFORMANCE EVALUATIONS)	
Condition Number	**Condition**
6.B.6(m)	PM CEMS Correlation Tests (40CFR63.1206(b)(8), 40CFR63.1357(a), 40CFR63.1357(b), 40CFR63.1357(d) and 40CFR63.1357(e)) Any particulate matter and opacity standards of 40CFR60, 40CFR61, 40CFR63, 40CFR264, 40CFR265 or 40CFR266 applicable to the existing Kilns, existing clinker coolers, New Kiln System and New Clinker Cooler do not apply while Giant Cement conducts PM CEMS correlation tests (i.e., correlation with manual stack methods). Any permit or other emissions, operating parameter limits or conditions, including any limitation on workplace practices, that are applicable to the New Kiln to ensure compliance with any particulate matter and opacity standards also do not apply while conducting particulate matter CEMS correlation tests. For the provisions of this condition to apply, Giant Cement must develop a PM CEMS correlation test plan that includes the information specified by paragraphs (m)(1) through (m)(4) of this condition. This test plan may be included as part of the Comprehensive Performance Test Plan. The test plan shall be submitted to the Department for approval at least 90 calendar days before the correlation test is scheduled to be conducted. The particulate matter and opacity standards and associated operating limits and conditions will not be waived for more than 96 hours, in the aggregate, for a correlation test, including all runs of all test conditions, unless more time is approved by the Department. The stack sampling team must be on-site and prepared to perform correlation testing no later than 24 hours after Giant Cement modifies operations to attain the desired particulate matter emissions concentrations, unless it documents in the correlation test plan that a longer period of conditioning is appropriate. Giant Cement must return to operating conditions indicative of compliance with the applicable particulate matter and opacity standards as soon as possible after correlation testing is completed. (m)(1) Number of test conditions and number of runs for each test condition. (m)(2) Target particulate matter emission level for each test condition. (m)(3) How you plan to modify operations to attain the desired particulate matter emission levels. (m)(4) Anticipated normal particulate matter emission levels.
6.B.6(n)	Department Approval or Disapproval of the PM CEMS Test Plan (40CFR63.7(c)(3)(i), 40CFR63.7(c)(3)(iii) and 40CFR63.1357(c)) The Department will review and approve or disapprove the PM CEMS Correlation Test Plan. The Department will notify Giant Cement of approval or intention to deny approval of the plan within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information. Before disapproving any PM CEMS Correlation Test Plan, the Department will notify Giant Cement of its intention to disapprove the plan together with a notice of the information and findings on which the intended disapproval is based and a notice of opportunity for Giant Cement to present, within 30 calendar days after it is notified of the intended disapproval, additional information to the Department before final action on the plan. If the Department fails to approve or disapprove the PM CEMS Correlation Test Plan within the specified time period the plan shall be considered approved, unless the Department has requested additional information.
6.B.6(o)	Public Notice of Comprehensive and Confirmatory CMS Performance Evaluation Test Plans (40CFR63.1207(e)(2)) After the Department has approved a Comprehensive or Confirmatory CMS Performance Evaluation Test Plan, Giant Cement shall make the test plans available to the public for review. It must issue a public notice announcing the approval of the test plans and the location where the test plans are available for review.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(a)	Initial Comprehensive Performance Test (40CFR63.693(f)(2)(i), 40CFR63.1207(b)(1), 40CFR63.1207(c)(1) and 40CFR63.1207(c)(2)) Giant Cement shall conduct Comprehensive Performance Tests for each existing Kiln to demonstrate compliance with all applicable existing Kiln emission standards (except the Nickel emission standard), establish applicable operating parameter limits, demonstrate compliance with the required CMS performance specifications and demonstrate compliance with the Vapor Incinerator performance specifications. Giant Cement shall commence the initial Comprehensive Performance Test for each existing Kiln no later than six(6) months after September 30, 2003, except as specified by condition 6.B.7(rr). Giant Cement shall conduct Comprehensive Performance Tests for the New Kiln System to demonstrate compliance with all applicable New Kiln System emission standards (including the Nickel and PSD CO emission standards), establish applicable operating parameter limits, demonstrate compliance with the required CMS performance specifications and demonstrate compliance with the Vapor Incinerator performance specifications. Giant Cement shall commence the initial New Kiln System's Comprehensive Performance Test no later than six(6) months after the startup of the New Kiln System.
6.B.7(b)	Comprehensive Performance Test Frequency (SC Regulation 61-62.5 Standard 3 Section VIII, 40CFR63.1207(d)(1), 40CFR63.1207(d)(4)(i) and 40CFR63.1349(c)) Giant Cement shall commence subsequent Comprehensive Performance testing of the existing Kilns (if still in operation) and the New Kiln System no later than 61 months from the date of commencing the previous Comprehensive Performance Test. Giant Cement is only required to conduct one(1) initial Comprehensive Performance Test under the interim standards (i.e., the standards published in the Federal Register on February 13, 2002) All subsequent Comprehensive Performance Testing requirements are waived under the interim standards. The provisions in the introductory text to 40CFR63.1207(d) and 40CFR63.1207(d)(1) do not apply until the EPA promulgates permanent replacement standards pursuant to the Settlement Agreement noticed in the Federal Register on November 16, 2001. For the existing Kilns (if still in operation) and the New Kiln System Giant Cement shall conduct a performance test for Nickel emissions every 36 months from the date of the previous test.
6.B.7(c)	Completion of Comprehensive and Confirmatory Testing after Commencing Actual Testing (40CFR63.1207(d)(3)) Giant Cement shall complete Comprehensive and Confirmatory Performance testing within 60 calendar days after the actual date of the test commencement, unless the Department determines that a time extension is warranted based on Giant Cement's documentation in writing of factors beyond its control that prevent it from meeting the 60 calendar day deadline.
6.B.7(d)	Confirmatory Performance Tests (40CFR63.1207(b)(2), 40CFR63.1207(d)(2) and 40CFR63.1207(d)(4)(ii)) Giant Cement shall conduct Confirmatory Performance Tests to demonstrate compliance with the applicable Dioxin/Furan emission limitation when each existing Kiln (if still in operation) and the New Kiln System (when placed in operation) operates under normal operating conditions. As part of this test Giant Cement shall also evaluate the performance of CMS required for compliance assurance with the applicable Dioxin/Furan emission limitation. Giant Cement must commence Confirmatory Performance Testing no later than 31 months after the date of commencing the previous Comprehensive Performance Test. To ensure that the Confirmatory Performance Test is conducted approximately midway between Comprehensive Performance Tests, the Department will not approve a test plan that schedules testing within 9 months of commencing the previous Comprehensive Performance Test. Giant Cement is not required to conduct a Confirmatory Performance Test under the interim standards (i.e., the standards published in the Federal Register on February 13, 2002). The confirmatory testing requirements in the introductory text to 40CFR63.1207(d) and 40CFR63.1207(d)(1) are waived until EPA promulgates permanent replacement standards pursuant to the Settlement Agreement noticed in the Federal Register on November 16, 2001.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(e)	Notification of Pollutant Performance Tests (SC Regulation 61-62.1 Section IV(D), 40CFR63.7(b)(1), 40CFR63.7(b)(2), 40CFR63.1207(e)(1)(i) and 40CFR63.1207(e)(1)(ii)) Giant Cement shall submit written notification of Pollutant Performance Tests to the Manager of the Source Evaluation Section, Bureau of Air Quality for approval as specified by paragraphs (e)(1) through (e)(3) of this condition. In the event Giant Cement is unable to conduct a Pollutant Performance test on the date specified in the notification, it shall notify the Department as soon as practical by telephone and follow up in writing within 30 calendar days. Telephone notification shall include a description of the circumstance(s) causing the cancellation of the pollution performance test and a projected retest date. The written follow-up report shall include a description of the condition(s) which prevented the evaluation from being conducted, and when applicable, what corrective action was performed, or what equipment repairs were required. This notification of delay in conducting the Pollutant Performance Test shall not relieve Giant Cement of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Department from implementing, enforcing or taking any other action under the Clean Air Act. (e)(1) For the Comprehensive Performance Test, Giant Cement shall submit a notification one(1) calendar year before the performance test is scheduled to begin. (e)(2) For the Confirmatory Performance Test and all other Pollutant Performance Tests required by a Federal Standard, Giant Cement shall submit a notification 60 calendar days before the performance test is scheduled to begin. (e)(3) For all other Pollutant Performance Tests (i.e. State Only), Giant Cement shall submit a notification 14 calendar days before the performance test is scheduled to begin.
6.B.7(f)	Submission of Pollutant Performance Test Plans (SC Regulation 61-62.1 Section IV(B), 40CFR63.7(c)(2)(iv), 40CFR63.7(c)(2)(v)), 63.1207(e)(1)(i) and 40CFR63.1207(e)(1)(ii)) Giant Cement shall submit Pollutant Performance Test Plans to the Manager of the Source Evaluation Section, Bureau of Air Quality for approval as specified by paragraphs (f)(1) through (f)(3) of this condition. The Department may request additional relevant information after the submittal of a plan. (f)(1) Giant Cement shall submit Comprehensive Performance Test Plans one(1) calendar year before a test is scheduled to begin. (f)(2) Giant Cement shall submit Confirmatory Performance Test Plans and other Pollutant Performance Test Plans required by a Federal Standard 60 calendar days before a test is scheduled to begin. (f)(3) Giant Cement shall submit all other Pollutant Performance Test Plans (i.e. State Only) 45 calendar days before a test is scheduled to begin.
6.B.7(g)	Comprehensive and Confirmatory Test Plan Public Notice (40CFR63.1207(e)(2)) After the Department has approved a Comprehensive or Confirmatory Test Plan, Giant Cement shall make the test plans available to the public for review. It must issue a public notice announcing the approval of the test plans and the location where the test plans are available for review.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(h)	Petitions for Time Extension if the Department Fails to Approve or Deny Comprehensive or Confirmatory Test Plans (40CFR63.1207(e)(3)(i)) Giant Cement may petition the Department to obtain a time extension to conduct any initial, periodic, comprehensive or confirmatory performance tests. Giant Cement may not petition the Department for a time extension if the Department has issued a notification of intention to deny the test plan(s). Giant Cement must make a good faith effort to accommodate the Department's comments on the test plans.
6.B.7(i)	Required Content of the Comprehensive Performance Test Plan and other Pollutant Performance Test Plans (SC Regulation 61-62.1 Section IV(C), SC Regulation 61-62.5 Section IV(E), 40CFR63.7(a), 40CFR63.7(c)(2)(i), 40CFR63.7(c)(2)(ii), 40CFR63.7(c)(2)(iii) and 40CFR63.1207(f)(1)(ii) through 40CFR63.1207(f)(1)(xxvii)) The Comprehensive Performance Test Plan shall include the applicable information specified by paragraphs (i)(1) through (i)(66), a test program summary, the test schedule, data quality objectives and both an internal and external QA program. Data quality objectives are the pretest expectations of precision, accuracy and completeness of data. The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision (i.e. the sampling and analysis of replicate samples). The external QA program shall include, at a minimum, application of plans for a test method performance audit during the performance test. The performance audits consist of blind audit samples provided by the Department and analyzed during the performance test in order to provide a measure of test data bias. The external QA program may also include systems audits that include the opportunity for on-site evaluation by the Department of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities. For any other required Pollutant Performance Tests, their test plans shall include the applicable information specified by this condition. (i)(1) An identification for organic hazardous air pollutants established by 42 U.S.C. 7412(b)(1), excluding caprolactam (CAS number 105602) that are present in each hazardous waste feedstream. Giant Cement does not need to analyze for organic hazardous air pollutants that would reasonably not be expected to be found in the feedstream. Giant Cement shall identify any constituents that it excludes from analysis and explain the basis for excluding them. The feedstream analysis must be conducted according to the applicable requirements of this permit. The Department may approve on a case-by-case basis a hazardous waste feedstream analysis for organic hazardous air pollutants in lieu of the feedstream analysis if the reduced analysis is sufficient to ensure that the POHCs used to demonstrate compliance with the applicable DRE standard continue to be representative of the organic hazardous air pollutants in hazardous waste feedstreams. (i)(2) An approximate quantification of organic hazardous air pollutants established by 42 U.S.C. 7412(b)(1), excluding caprolactam (CAS number 105602) in the hazardous waste feedstreams, within the precision produced by analytical procedures specified by condition 6.B.26(u). (i)(3) A description of blending procedures, if applicable, prior to firing the hazardous waste feedstream, including a detailed analysis of the materials prior to blending and blending ratios. (i)(4) The manufacturer's name and model number of the hazardous waste combustor (existing Kiln or New Kiln System). (i)(5) The type of hazardous waste combustor (existing Kiln or New Kiln System). (i)(6) The maximum design capacity in appropriate units. (i)(7) A description of the feed system for each feedstream.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(i) (Continued)	Required Content of the Comprehensive Performance Test Plan and other Pollutant Performance Test Plans (continued) (i)(8) The capacity of each feed system. (i)(9) A description of AWFCO. (i)(10) A description of the design, operation and maintenance practices for any air pollution control system. (i)(11) A description of the design, operation, and maintenance practices of any stack gas monitoring and pollution control monitoring systems. (i)(12) A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis. (i)(13) A detailed test schedule for each hazardous waste for which the performance test is planned, including date(s), duration, quantity of hazardous waste to be burned, and other relevant factors. (i)(14) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feedrate for each feed system, and, as appropriate, the feedrates of other fuels and feedstocks, and any other relevant parameters that may affect the ability of the hazardous waste combustor (New Kiln) to meet the emission standards. (i)(15) A description of, and planned operating conditions for, any emission control equipment that will be used. (i)(16) A determination of the hazardous waste residence time. (i)(17) If Giant Cement requests to extrapolate metal feedrate limits from Comprehensive Performance Test levels, it shall contain a description of the extrapolation methodology and rationale for how the approach ensures compliance with the emission standards, documentation of the historical range of normal (i.e., other than during compliance testing) metals feedrates for each feedstream and documentation that the level of spiking recommended during the performance test will mask sampling and analysis imprecision and inaccuracy to the extent that the extrapolated feedrate limits adequately assure compliance with the emission standards. (i)(18) If Giant Cement does not continuously monitor regulated constituents in natural gas, process air feedstreams, and feedstreams from vapor recovery systems, it shall include documentation of the expected levels of regulated constituents in those feedstreams. (i)(19) Documentation justifying the duration of system conditioning required to ensure the combustor (existing Kiln or New Kiln System) has achieved steady-state operations under performance test operating conditions. (i)(20) If Giant Cement is not required to conduct performance testing to document compliance with the mercury, semivolatile metal, low volatile metal, or hydrochloric acid/chlorine gas emission standards it shall include documentation of compliance with the provisions for a waiver of a performance test. (i)(21) If Giant Cement proposes to use a surrogate for measuring or monitoring gas flowrate, it must document that the surrogate adequately correlates with gas flowrate.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(i) (Continued)	<u>Required Content of the Comprehensive Performance Test Plan and other Pollutant Performance Test Plans (continued)</u> (i)(22) Documentation of the temperature location measurement. (i)(23) For purposes of calculating semivolatile metal, low volatile metal, mercury, and total chlorine (organic and inorganic), and ash feedrate limits, Giant Cement shall include a description of how itwill handle performance test feedstream analytical results that determines these constituents are not present at detectable levels. (i)(24) Other information as the Department reasonably finds necessary to determine whether to approve the performance test plan. (i)(25) Facility name, address, and telephone number, and name of facility contact. (i)(26) Facility permit number and source identification number. (i)(27) Name, address and telephone number of the company contracted to perform the source test. (i)(28) Name, address and telephone number of the laboratory contracted to perform the analytical analysis of test samples. (i)(29) Description and overall purpose of the tests (i.e. demonstrate compliance, establish emission factors). (i)(30) Citation of any applicable State or Federal regulation or permit condition requiring the tests. (i)(31) Description of the process including a description of each phase of batch or cyclic processes and the time required to complete each phase. (i)(32) Process design rates and normal operating rates. (i)(33) Proposed operating rate and conditions for the test. (i)(34) Methods including proposed calculations, equations, and other related information that will be used to demonstrate and verify the operating rate during the test. (i)(35) Description of any air pollution control equipment. (i)(36) Description of any stack gas or opacity monitoring systems. (i)(37) Description of all air pollution control monitors (i.e. pressure gauges, flow indicators, cleaning cycle timers, electrostatic precipitator voltage meters) when applicable. (i)(38) A list of process and air pollution control operating parameters that will be recorded during the tests, the responsible party who will record these readings, and the frequency at which readings will be recorded. (i)(39) Identification of any risks associated with sampling location and accessibility, toxic releases, electrical hazards, or any other unsafe conditions, and a plan of action to correct or abate these hazards.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(i) (Continued)	<u>Required Content of the Comprehensive Performance Test Plan and other Pollutant Performance Test Plans (continued)</u> (i)(40) List of all necessary or required safety equipment including respirators, safety glasses, hard hats, safety shoes, hearing protection, and other protective equipment. (i)(41) Description of sampling and analytical methods to be used. (i)(42) Number of tests to be conducted and the number of runs comprising a test. (i)(43) Duration of each test run. (i)(44) Description of minimum sampling volumes for each test run. (i)(45) Location where samples will be recovered. (i)(46) Explanation of how blank and recovery check results and analytical non-detects will be used in final emission calculations. (i)(47) Maximum amount of time a sample will be held after collection prior to analysis. i)(48) Method of storing and transporting samples. (i)(49) Schematics of sampling sites (include stack dimensions and distances upstream and downstream from disturbances). (i)(50) A description of all emission points, including fugitive emissions, associated with the process to be tested, and when applicable, the method that will be used to measure or include these emissions during the Pollutant Performance Test. (i)(51) Procedure for verifying absence of cyclonic or non-parallel stack gas flow. (i)(52) Citation of the QA/QC procedures specified in the EPA Reference Methods and the EPA Quality Assurance Handbook for Air Pollution Measurement Systems, Volume III. (i)(53) Chain-of-custody procedures and copies of chain-of-custody forms. (i)(54) Procedure for conditioning particulate matter filters (before and after testing). (i)(55) Procedure for conducting leak checks on vacuum lines, pitot tubes, flexible bags, orsats, etc. (i)(56) Equipment calibration frequencies, ranges, and acceptable limits. (i)(57) Minimum detection limits of analytical instrumentation. (i)(58) Names, addresses and responsible persons of all sub-contracting laboratories and a description of analytical methods to be used, chain-of-custody procedures and QA/QC measures.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(i) (Continued)	<u>Required Content of the Comprehensive Performance Test Plan and other Pollutant Performance Test Plans (continued)</u> (i)(59) QA/QC measures associated with the collection and analysis of process or raw material samples and the frequency at which these samples will be collected. (i)(60) Methods for interference and matrix effects checks, and number of replicate analyses. (i)(61) Methods and concentrations for internal standards (standards additions prior to extraction). (i)(62) Methods and concentrations for surrogate standards (standards additions to collection media prior to sampling). (i)(63) Methods for recovery checks, field blanks, lab blanks, reagent blanks, proof rinse blanks and analytical blanks. (i)(64) Proposed range of recoveries for data acceptability and method of data interpretation if sample recovery is not within the proposed range. (i)(65) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction. (i)(66) If the emissions averaging provision of 40CFR 63.1204(d) will be used, Giant Cement shall provide notification in the initial and subsequent comprehensive performance test plan. It shall also include the information required by 40CFR 63.1204(d)(ii)(B).

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(j)	Required Content of the Confirmatory Performance Test Plan (SC Regulation 61-62.1 Section IV(C), SC Regulation 61-62.5 Section IV(E), 40CFR63.7(a), 40CFR63.7(c)(2)(i), 40CFR63.7(c)(2)(ii), 40CFR63.7(c)(2)(iii) and 40CFR63.1207(f)(2)(i) through 63.1207(f)(2)(x)) The Confirmatory Performance Test Plan shall include the applicable information in paragraphs (j)(1) through (j)(8), the applicable information as specified by condition 6.B.7(d), a test program summary, the test schedule, data quality objectives and both an internal and external QA program. Data quality objectives are the pretest expectations of precision, accuracy and completeness of data. The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision (i.e. the sampling and analysis of replicate samples). The external QA program shall include, at a minimum, application of plans for a test method performance audit during the performance test. The performance audits consist of blind audit samples provided by the Department and analyzed during the performance test in order to provide a measure of test data bias. The external QA program may also include systems audits that include the opportunity for on-site evaluation by the Department of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities. (j)(1) A description of Giant Cement's normal applicable operating parameter levels established to maintain compliance with the Dioxin/Furan emission limitation and an explanation of how these normal levels were determined. (j)(2) A description of Giant Cement's normal chlorine operating levels and an explanation of how these normal levels were determined. (j)(3) A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis. (j)(4) A detailed test schedule for each hazardous waste for which the performance test is planned, including date(s), duration, quantity of hazardous waste to be burned, and other relevant factors. (j)(5) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feedrate for each feed system, and, as appropriate, the feedrates of other fuels and feedstocks, and any other relevant parameters that may affect the ability of the hazardous waste combustor to meet the dioxin/furan emission standard. (j)(6) A description of, and planned operating conditions for, any emission control equipment that will be used. (j)(7) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction. (j)(8) Other information as the Department reasonably finds necessary to determine whether to approve the performance test plan.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(k)	Conduct of Comprehensive, Confirmatory and other Pollutant Performance Tests (SC Regulation 61-62.1 Section IV(D)(5), 40CFR63.7(e)(1), 40CFR63.1207(g)(1) and 40CFR63.1207(g)(2)) Unless approved otherwise by the Department, Giant Cement shall ensure that all Comprehensive, Confirmatory and other Pollutant Performance Tests are conducted while a source is operating at the maximum expected production rate, other production rate or operating parameter which would result in the highest emissions for the pollutants being tested. Examples of the operating parameters that may effect emission rates are the type and composition of raw materials and fuels, isolation of control equipment modules, product types and dimensions, thermal oxidizer combustion temperature and atypical control equipment settings. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made. Upon request, Giant Cement shall make available to the Department such records as may be necessary to determine the conditions of performance tests.
6.B.7(l)	Existing Kiln and New Kiln System Chlorine Feedrate During Comprehensive Performance Tests (40CFR63.1207(g)(1)(A)) Giant Cement shall feed normal (or higher) levels of chlorine to each existing Kiln and the New Kiln System (when placed in operation) while testing for Dioxin/Furan emissions during the Comprehensive Performance Test.
6.B.7(m)	PMCD Cleaning Cycle During Comprehensive Performance Testing (40CFR63.1207(g)(1)(C)) Giant Cement shall conduct the particulate matter, semivolatile metal, and low volatile metal performance tests when the PMCD undergoes its normal (or more frequent) cleaning cycle.
6.B.7(n)	Modes of Existing Kiln and New Kiln System Operation During Comprehensive Performance Tests (40CFR63.1207(g)(1)(ii)) Given that Giant Cement must establish limits for the applicable operating parameters based on operations during the Comprehensive Performance Test, it may conduct testing under two or more operating modes to provide operating flexibility.
6.B.7(o)	Existing Kiln and New Kiln System Steady-State Conditions During Comprehensive Performance Tests (40CFR63.1207(g)(1)(iii)) Prior to obtaining Comprehensive Performance Test data, Giant Cement shall operate under performance test conditions until it reaches steady-state operations with respect to emissions of pollutants that must be measured during the performance test and for the operating parameters for which limits must be established. During system conditioning, Giant Cement shall ensure that each operating parameter for which a limit must be established is held at the level planned for the performance test. Giant Cement shall include documentation in the Comprehensive Performance Test Plan justifying the duration of system conditioning. If Giant Cement recycles collected particulate matter (i.e., cement Kiln dust) into the New Kiln, it must sample and analyze the recycled particulate matter prior to obtaining performance test data for levels of selected metals that must be measured during performance testing to document that the system has reached steady-state conditions (i.e., that metals levels have stabilized). Giant Cement shall document the rationale for selecting metals that are indicative of system equilibrium and include the information in the Comprehensive Performance Test plan. To determine system equilibrium, Giant Cement must sample and analyze the recycled particulate matter hourly for each selected metal, unless it submits in the Comprehensive Performance Test Plan a justification for reduced sampling and analysis and the Department approves in writing a reduced sampling and analysis frequency.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(p)	Existing Kiln and New Kiln System CO (or Hydrocarbon) CEMS Emissions Levels During Confirmatory Tests (40CFR63.1207(g)(2)(i)) Carbon Monoxide (or Hydrocarbon) CEMS emissions levels during Confirmatory Performance Tests must be within the range of the average value to the maximum value allowed. The average value is defined as the sum of the hourly rolling average values recorded (each minute) over the previous 12 months, divided by the number of rolling averages recorded during that time. The average value must not include calibration data, startup data, shutdown data, malfunction data, and data obtained when not burning hazardous waste.
6.B.7(q)	Operating Limits Established to Maintain Compliance With the Existing Kiln and New Kiln System Dioxin/Furan Emission Limit During Confirmatory Tests (40CFR63.1207(g)(2)(ii)) Each operating limit established by Giant Cement to maintain compliance with the Dioxin/Furan emission standard shall be held within the range of the average value over the previous 12 months and the maximum or minimum, as appropriate, that is allowed. The average value is defined as the sum of the rolling average values recorded over the previous 12 months, divided by the number of rolling averages recorded during that time. The average value must not include calibration data, startup data, shutdown data, malfunction data, and data obtained when not burning hazardous waste.
6.B.7(r)	Existing Kiln and New Kiln System Chlorine Feedrates During Confirmatory Performance Tests (40CFR63.1207(g)(2)(iii)) Giant Cement shall feed chlorine to each existing Kiln (if still in operation) and the New Kiln System (when placed in operation) at normal feedrates or greater during Confirmatory Performance Tests.
6.B.7(s)	Alternative Existing Kiln and New Kiln System Operation During Confirmatory Tests (40CFR63.1207(g)(2)(v)) The Department may approve an alternative range to that required by conditions 6.B.9(p) and 6.B.9(q) if Giant Cement documents in the Confirmatory Performance Test Plan that it may be problematic to maintain the required range during the test. In addition, when making the finding of compliance, the Department may consider test conditions outside of the range specified in the test plan based on a finding that Giant could not reasonably maintain the range specified in the test plan and considering factors including whether the time duration and level of the parameter when operations were out of the specified range were such that operations during the confirmatory test are determined to be reasonably representative of normal operations. In addition, the Department will consider the proximity of the emission test results to the standard.
6.B.7(t)	Existing Kiln and New Kiln System Operating Conditions During Subsequent Comprehensive Performance Testing (40CFR63.1207(h)) Current established operating parameter limits are waived during subsequent Comprehensive Performance Testing. Current operating parameter limits are also waived during pretesting prior to comprehensive performance testing for an aggregate time not to exceed 720 hours of operation (renewable at the discretion of the Department) under an approved test plan or if the source records the results of the pretesting. Pretesting means operations when stack emissions testing for dioxin/furan, mercury, semivolatile metals, low volatile metals, particulate matter, or hydrochloric acid/chlorine gas is being performed and operations to reach steady-state operating conditions prior to stack emissions testing.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(u)	Time Extension for Subsequent Comprehensive and Confirmatory Performance Tests (40CFR63.1207(i)) After the initial Comprehensive Performance Test, Giant Cement may request up to a one(1) year time extension for conducting a Comprehensive or Confirmatory Performance Test to consolidate performance testing with other state or federally required emission testing, or for other reasons deemed acceptable by the Department. If the Department grants a time extension for a Comprehensive Performance Test, the deadlines for commencing the next comprehensive and confirmatory tests are based on the date that the subject Comprehensive Performance Test commences. Giant must submit in writing to the Department any request under this paragraph for a time extension for conducting a performance test. Giant must include in the request for an extension a description of the reasons for requesting the time extension and the date by which It will commence performance testing. The Department will notify Giant in writing of approval or intention to deny approval of its request for an extension within 30 calendar days after receipt of sufficient information to evaluate the request. The 30-day approval or denial period will begin after Giant has been notified in writing that its application is complete. The Department will notify Giant in writing whether the application contains sufficient information to make a determination within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that it submits. When notifying Giant that its application is not complete, the Department will specify the information needed to complete the application. The Department will also provide notice of opportunity for Giant to present, in writing, within 30 calendar days after notification of the incomplete application, additional information or arguments to the Department to enable further action on the application. Before denying any request for an extension for performance testing, the Department will notify Giant in writing of the its intention to issue the denial, together with a notice of the information and findings on which the intended denial is based and a notice of opportunity for Giant to present in writing, within 15 calendar days after notification of the intended denial, additional information or arguments to the Department before further action on the request. The Department's final determination to deny any request for an extension will be in writing and will set forth specific grounds upon which the denial is based. The final determination will be made within 30 calendar days after the presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.
6.B.7(v)	Failure of a Comprehensive Performance Test (40CFR63.1207(l)(1) and 40CFR63.1207(l)(3)) The provisions of this condition do not apply to the initial comprehensive performance test if Giant Cement conducts the test prior to September 30, 2003 (or a later compliance date approved under an Extension of Compliance). If Giant Cement has failed to demonstrate compliance with the applicable emission limitations for a particular mode of operation then prior to submitting a revised Notification of Compliance, it may burn hazardous waste only for the purpose of pretesting or comprehensive performance testing under revised operating conditions and only for a maximum of 720 hours (renewable at the discretion of the Department) for that particular mode of operation. Giant Cement shall conduct a Comprehensive Performance Test under revised operating conditions following the requirements for performance testing of this section and submit to the Department a Notification of Compliance subsequent to the new Comprehensive Performance Test. Giant Cement may petition the Department to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. It must specify operating requirements, including limits on operating parameters, that Giant Cement determines will ensure compliance with the applicable Kiln emission standards based on available information including data from the failed performance test. The Department will review, modify as necessary, and approve if warranted the interim operating requirements. An approval of interim operating requirements will include a schedule for submitting a Notification of Compliance.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(w)	Failure of a Confirmatory Performance Test (40CFR63.1207(l)(2) and 40CFR63.1207(l)(3)) If Giant Cement determines (based on CEM recordings, results of analyses of stack samples, or results of CMS performance evaluations) that it has exceeded the applicable Kiln Dioxin/Furan emission limitation for a mode of operation during a Confirmatory Performance Test, it shall cease burning hazardous waste immediately for that mode of operation. Giant Cement must make this determination within 90 calendar days following completion of the test and submit to the Department for review and approval a test plan to conduct a Comprehensive Performance Test to identify revised limits on the applicable Dioxin/Furan operating parameters for that mode of operation. Giant Cement shall also submit to the Department a Notification of Compliance with the Dioxin/Furan emission limitation. Giant Cement must include in the Notification of Compliance the revised limits on the applicable Dioxin/Furan operating parameters. Until the Notification of Compliance is submitted, Giant Cement shall not burn hazardous waste except for purposes of pretesting or confirmatory performance testing, and for a maximum of 720 hours (renewable at the discretion of the Department) for that mode of operation. Giant Cement may petition the Department to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. It must specify operating requirements, including limits on operating parameters, that Giant Cement determines will ensure compliance with the applicable Kiln emission standards based on available information including data from the failed performance test. The Department will review, modify as necessary, and approve if warranted the interim operating requirements. An approval of interim operating requirements will include a schedule for submitting a Notification of Compliance.
6.B.7(x)	Waiver of a Pollutant Performance Test (40CFR63.7(h)(1), 40CFR63.7(h)(2), 40CFR63.1207(m)(1), 40CFR63.1207(m)(2), 40CFR63.1207(m)(3) and 40CFR63.1207(m)(4)) Until a waiver of a Pollutant Performance Testing requirement has been granted by the Department, Giant Cement for an affected source remains subject to the applicable performance testing requirements in the relevant standard. Individual performance tests may be waived upon written application to the Department if, in its judgment, the source is meeting the relevant standard(s) on a continuous basis, a source is being operated under an Extension of Compliance or Giant Cement has requested an Extension of Compliance and the Department is still considering that request. During the Comprehensive Performance Test, the tests to document compliance with the mercury, semivolatile metal, low volatile metal or hydrochloric acid/chlorine gas emission standards are waived if Giant Cement determines the feedrate of mercury, semivolatile metals, low volatile metals, or total chlorine and chloride from all feedstreams, determines the stack gas flowrate and then calculates a MTEC for each standard assuming all mercury, semivolatile metals, low volatile metals, or total chlorine (organic and inorganic) from all feedstreams is emitted. Giant Cement is deemed to be in compliance with an emission standard if the twelve-hour rolling average MTEC does not exceed the emission standard and shall comply with the requirements specified by paragraphs (x)(1) through (x)(3) of this condition. In lieu of the requirements specified by paragraphs (x)(1) through (x)(3) Giant Cement may identify in the Notification of Compliance a minimum gas flowrate limit and a maximum feedrate limit of mercury, semivolatile metals, low volatile metals, and/or total chlorine and chloride from all feedstreams that ensures the calculated MTEC is below the applicable emission standard and interlock the minimum gas flowrate limit and maximum feedrate limit to the AWFCO to stop hazardous waste burning when the gas flowrate or mercury, semivolatile metals, low volatile metals, and/or total chlorine and chloride feedrate exceeds the limits. (x)(1) Monitor and record the feedrate of mercury, semivolatile metals, low volatile metals, and total chlorine and chloride from all feedstreams. (x)(2) Monitor with a CMS and record in the Facility Operating Record the gas flowrate (either directly or by monitoring a surrogate parameter that Giant Cement has correlated to gas flowrate). (x)(3) Interlock the calculated MTEC to the AWFCO to stop hazardous waste burning when the MTEC exceeds the emission standard.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(y)	Failure of Other Pollutant Performance Tests (SC Regulation 61-62.1 Section IV(G)) For any required Pollutant Performance Tests other than Comprehensive or Confirmatory Performance Tests, within 15 calendar days of the submission of a Final Pollutant Performance Test Report that indicates non-compliance with a relevant standard, Giant Cement shall submit to the Department a written plan. This plan shall include at a minimum the interim actions being taken to minimize emissions pending demonstration of compliance, the corrective actions that have been taken or that are proposed to return the source to compliance, the method that will be used to demonstrate the source has returned to compliance (i.e. retest and proposed date) and any changes necessary to update the site-specific Pollutant Performance Test Plan prior to a retest.
6.B.7(z)	Determination of the Mercury, Semivolatile Metals, Low Volatile Metals or Total Chlorine or Chloride Feedrates For a Waiver of Performance Test (40CFR63.1207(m)(5) and 40CFR63.1207(m)(6)) When Giant Cement determines the feedrate of mercury, semivolatile metals, low volatile metals, or total chlorine and chloride for purposes of condition 6.B.7(x), it must assume that the analyte is present at the full detection limit when the feedstream analysis determines that the analyte is not detected in the feedstream. Since the New Kiln is a hazardous waste burning cement Kiln Giant Cement may assume that mercury is present in raw material at half the detection limit when the raw material feedstream analysis determines that mercury is not detected.
6.B.7(aa)	Request to Waive Pollutant Performance Tests (40CFR63.7(h)(3)) If a request is made for an Extension of Compliance, the application for a waiver of an initial Pollutant Performance Test shall accompany the information required for the request for an Extension of Compliance. If no Extension of Compliance is requested or if Giant Cement has requested an Extension of Compliance and the Department is s till considering that request, the application for a waiver of an initial Pollutant Performance Test shall be submitted at least 60 calendar days before scheduled date of the performance test if the site-specific test Pollutant Performance Test Plan is not submitted. If an application for a waiver of a subsequent performance test is made, the application may accompany any required Compliance Progress Report, Compliance Status Report or Excess Emissions and CMS Performance but it shall be submitted at least 60 calendar days before the scheduled date of the performance test if the site-specific Pollutant Performance Test Plan is not submitted. Any application for a waiver of a performance test shall include information justifying Giant Cement's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test.
6.B.7(bb)	Department Approval of the Request to Waive a Pollutant Performance Test (40CFR63.7(h)(4) and 40CFR63.7(h)(5)) The Department will approve or deny a request for a waiver of a Pollutant Performance Test when it approves or denies an Extension of Compliance, approves or disapproves a site-specific Pollutant Performance Test Plan, makes a determination of compliance following the submission of a required Compliance Status Report or Excess Emissions and CMS Performance Report or makes a determination of suitable progress towards compliance following the submission of a Compliance Progress Report, whichever is applicable. Approval of any request to waive a Pollutant Performance Test shall not abrogate the Department's authority under the Clean Air Act or in any way prohibit the Department from later canceling the waiver. The cancellation will be made only after notice is given to Giant Cement.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(cc)	Final Written Reporting of Pollutant Performance Test Results (SC Regulation 61-62.1 Section IV(F) and 40CFR63.7(g)(1)) Giant Cement shall submit a Final Written Report of the final Pollutant Performance Test results to the Department by the close of business on the 30th calendar day following the completion of the test, unless an alternative date has been requested in and approved with the site-specific Pollutant Performance Test Plan prior to testing or is otherwise specified in a relevant Federal or State standard. The Final Pollutant Performance Test Report for each site-specific Pollutant Performance Test Plan shall contain, at a minimum, the applicable information specified in paragraphs (cc)(1) through (cc)(18). (cc)(1) Summary of the results. (cc)(2) Emission calculations and emission rates in units of the applicable standard, permit limit, etc. (cc)(3) Allowable emission rates in units of the applicable standard, permit limit, etc. (cc)(4) Source compliance status. (cc)(5) Process operating rates. (cc)(6) Methods including actual calculations, equations and other related information that were used to demonstrate and verify the operating rate during the performance test. (cc)(7) Chain of custody records. (cc)(8) Certification of all reference standards used. (cc)(9) Signature of a responsible facility representative who can verify process operating rates and parameters. (cc)(10) Legible copies of all raw laboratory data (for example, filter tare and final weights, titrations, chromatograms, spectrograms, analyzer measurements, etc.). (cc)(11) Legible copies of all raw field data (for example, strip charts, field data forms, field calibration forms, etc. (cc)(12) Legible copies of applicable stack gas or opacity monitoring system readings identified in the approved site-specific Pollutant Performance Test Plan. (cc)(13) Legible copies of all applicable process and air pollution control operating parameter readings identified in the approved site-specific Pollutant Performance Test Plan. (cc)(14) Results of all calibrations and QA/QC measures and checks identified in the approved site-specific Pollutant Performance Test Plan. (cc)(15) Results of performance audits. (cc)(16) Description of any deviations from the proposed process operations as approved in the site-specific Pollutant Performance Test Plan during testing. (cc)(17) Description of any deviations from approved sampling methods/procedures and analytical procedures. (cc)(18) Description of any problems encountered during sampling and analysis and an explanation of how each was resolved.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(dd)	Pollutant Performance Test Method Audit Program (SC Regulation 61-62.1 Section IV(E) and 40CFR63.7(c)(4)) Giant Cement shall analyze performance audit samples during each Comprehensive and Confirmatory Performance Test. Giant Cement shall request performance audit materials 30 days prior to the test date. Audit materials including cylinder audit gases may be obtained by contacting the appropriate EPA Regional Office or the Department. The Department will have sole discretion to require any subsequent remedial actions of Giant Cement based on the performance audit results. If the Department fails to provide the required performance audit materials to Giant Cement in time to analyze the performance audit samples during a performance test, the requirement to conduct a performance audit is waived for that performance test. Waiver under this condition of the requirement to conduct a performance audit for a particular performance test does not constitute a waiver of the requirement to conduct a performance audit for future required performance tests.
6.B.7(ee)	Pollutant Performance Testing Facilities (SC Regulation 61-62.1 Section IV(D)(6) and 40CFR63.7(d)) Since Giant Cement will be required to conduct Pollutant Performance Tests, it shall at the Department's request provide the applicable performance testing facilities as specified by paragraphs (ee)(1) through (ee)(6) of this condition. (ee)(1) Sampling ports adequate for test methods applicable to such source. This includes constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures (ee)(2) Safe sampling platform(s) and/or sites(s). (ee)(3) Safe access to sampling platform(s) and/or site(s). (ee)(4) Utilities for sampling and testing equipment. (ee)(5) Department access to the facility to observe the performance tests. (ee)(6) Equipment and supplies necessary for the safe testing of a source.
6.B.7(ff)	Reduction of COMS Data During a Pollutant Performance Test (40CFR63.6(h)(7)(iii)) For the purposes of determining compliance with an opacity emission standard during a required Pollutant Performance Test using COMS data, the COMS data shall be reduced to six(6)-minute averages over the duration of the mass emission performance test.
6.B.7(gg)	Proper Operation of a COMS During a Pollutant Performance Test (40CFR63.6(h)(7)(iv)) If Giant Cement uses a COMS for compliance purposes it is responsible for demonstrating that it has complied with the CMS performance evaluation requirements, that the COMS has been properly maintained, operated, and data quality-assured and that the resulting data have not been altered in any way.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(hh)	Conduct of Pollutant Performance Tests and Reduction of Data (40CFR63.7(e)(2) and 40CFR63.90) Pollutant Performance tests shall be conducted and the data obtained from a Pollutant Performance Test reduced in accordance with the applicable test methods and procedures unless the Department determines otherwise as specified by paragraphs (hh)(1) through (hh)(4) of this condition. (hh)(1) The Department specifies or approves, in specific cases, the use of a test method with minor changes in methodology Such changes may be approved in conjunction with approval of the site-specific Pollutant Performance Test Plan. A minor change to a test method is defined as a modification to a federally enforceable test method that does not decrease the stringency of the emission limitation or standard, has no national significance (e.g., does not affect implementation of the applicable regulation for other affected sources, does not set a national precedent, and individually does not result in a revision to the test method) and is site-specific, made to reflect or accommodate the operational characteristics, physical constraints, or safety concerns of an affected source. (hh)(2) The Department approves the use of an intermediate or major change or alternative to a test method the results of which the Department has determined to be adequate for indicating whether a specific affected source is in compliance. A intermediate change to test method is defined as a within-method modification to a federally enforceable test method involving "proven technology" (generally accepted by the scientific community as equivalent or better) that is applied on a site-specific basis and that may have the potential to decrease the stringency of the associated emission limitation or standard. Though site-specific, an intermediate change may set a national precedent for a source category and may ultimately result in a revision to the federally enforceable test method. In order to be approved, an intermediate change must be validated according to 40CFR63 Appendix A Method 301 to demonstrate that it provides equal or improved accuracy and precision. A major change to a test method is defined as a modification to a federally enforceable test method that uses "unproven technology or procedures" (not generally accepted by the scientific community) or is an entirely new method (sometimes necessary when the required test method is unsuitable). A major change to a test method may be site-specific, or may apply to one or more sources or source categories, and will almost always set a national precedent. In order to be approved, a major change must be validated according to 40CFR63 Appendix A Method 301. (hh)(3) The Department approves shorter sampling times or smaller sample volumes when necessitated by process variables or other factors. (hh)(4) The Department waives the requirement for Pollutant Performance Tests because, Giant Cement for an affected source, has demonstrated by other means to the Department's satisfaction that it is in compliance with the relevant standard.
6.B.7(ii)	Statement in Comprehensive Test Plan of Intentions to Comply with the Provisions for a Waiver of a Performance Test (40CFR63.1207(m)(7)) Giant Cement shall state in the Comprehensive and Confirmatory Test Plans that it submits for Department review and approval that it intends to comply with the provisions for the waiver of a performance test. Giant Cement shall also include in the test plan documentation that any proposed surrogate for gas flowrate adequately correlates with the gas flowrate.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(jj)	Use of COMS Data in Lieu of 40CFR60 Appendix A Method 9 Observations During a Pollutant Performance Test (40CFR63.6(h)(7)(ii) and 40CFR63.6(h)(7)(v)) Whenever an opacity emission test method has not been specified in an applicable subpart or Giant Cement is required to conduct 40CFR60 Appendix A Method 9 observations for an affected source, it may submit, for compliance purposes, COMS data results produced during any required Pollutant Performance Test in lieu of Method 9 data. If Giant Cement elects to submit COMS data for compliance with an opacity emission standard, it shall notify the Department in writing of that decision simultaneously with the notification of the date that a Pollutant Performance Test is scheduled to begin. Once Giant Cement has notified the Department to that effect, the COMS data results will be used to determine opacity compliance during subsequent Pollutant Performance Tests unless Giant Cement notifies the Department in writing to the contrary no later than with the notification of the date that a subsequent Pollutant Performance Test is scheduled to begin. Except as provided in this condition, the results of continuous monitoring by a COMS that indicate that the opacity at the time visual observations were made was not in excess of the emission standard are probative but not conclusive evidence of the actual opacity of an emission, provided that Giant Cement for an affected source proves that, at the time of the alleged violation, the instrument used was properly maintained, met 40CFR60 Appendix B Performance Specification 1 and that the resulting data have not been altered in any way.
6.B.7(kk)	Calculation of Hazardous Waste Residence Time (40CFR63.1206(b)(11)) Giant Cement shall calculate the hazardous waste residence time and include the calculation in the Comprehensive Performance Test Plan and record it in the Facility Operating Record. It must also provide the hazardous waste residence time in the Documentation of Compliance and the Notification of Compliance.
6.B.7(ll)	Additional Pollutant Performance Testing (40CFR63.7(a)(3)) The Department reserves the right to require Pollutant Performance Testing of any affected source within Giant Cement that it deems to be necessary. This includes all sources for which a particulate matter emission limit has been specified and there exists an accurate and approved EPA method for determining particulate matter emissions.
6.B.7(mm)	Required Number of Comprehensive , Confirmatory and Other Performance Test Runs (40CFR63.7(e)(3), 40CFR63.1206(b)(12) and 40CFR63.1349) Giant Cement shall conduct a minimum of three runs of a Comprehensive Performance Test, Confirmatory Performance Test and other required Performance Tests to document compliance with the emission standards of 40CFR63 Subpart EEE and 40CFR63 Subpart LLL (i.e. New Clinker Cooler). It must also document compliance with the emission standards based on the arithmetic average of the emission results of each run, except that it must document compliance with the DRE standard for each run of the Comprehensive Performance Test individually. Upon receiving approval from the Department, results of a test run may be replaced with results of an additional test run as specified in paragraphs (mm)(1) through (mm)(4) of this condition. (mm)(1) A sample is accidentally lost after the testing team leaves the site. (mm)(2) Conditions occur in which one of the three runs must be discontinued because of forced shutdown. (mm)(3) Extreme meteorological conditions occur. (mm)(4) Other circumstances occur that are beyond Giant Cement's control.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(nn)	Demonstration of Benzene-Containing Waste Treatment Process Performance (40CFR61.13(b), 40CFR61.348(c), 40CFR61.348(d), 40CFR61.348(f), 40CFR61.355(d), 40CFR61.355(e) and 40CFR61.355(f)) If Giant Cement determines that the total annual benzene quantity is equal to or greater than 10 Mg/yr (11 tpy) and if a Kiln is used as a Benzene-Containing Treatment Process, then it shall conduct an initial performance test within 180 calendar days of the determination date to demonstrate that the Benzene-Waste Treatment Process (existing Kiln if still in operation or New Kiln System when placed in operation) achieves the selected performance specification specified by condition 5.E.4(g). The performance test shall use the appropriate test methods and procedures specified in 40CFR61.355(d), 40CFR61.355(e) or 40CFR61.355(f). The treatment process (existing Kiln if still in operation or New Kiln System when placed in operation) is exempt from the performance test requirements provided that Giant Cement documents that the treatment process (existing Kiln if still in operation or New Kiln System when placed in operation) is in compliance with other regulatory requirements as specified by paragraphs (nn)(1) through (nn)(4) of this condition. After the initial performance test is complete and as long as the total annual benzene quantity is equal to or greater than 10 Mg/yr then Giant Cement shall include this test in the Comprehensive Performance Test. Records of the test results shall be maintained as specified by condition 6.B.7(pp). (nn)(1) The treatment process is an industrial furnace burning hazardous waste for energy recovery for which Giant Cement has been issued a final permit under 40CFR270 and complies with the requirements of 40CFR266 Subpart D. (nn)(2) The waste stream is treated by a means or to a level that meets benzene-specific treatment standards in accordance with the Land Disposal Restrictions under 40CFR 268 and the treatment process is designed and operated with a Closed-Vent System and control device meeting the requirements of 40CFR61.349. (nn)(3) The benzene containing waste stream is treated by a means or to a level that meets benzene-specific effluent limitations or performance standards in accordance with the Effluent Guidelines and Standards under 40CFR401 through 40CFR464 and the treatment process is designed and operated with a Closed-Vent System and control device meeting the requirements of 40CFR61.349. (nn)(4) The benzene containing waste stream is discharged to an underground injection well for which Giant Cement has been issued a final permit under 40CFR270 and complies with the requirements of 40CFR122.
6.B.7(oo)	Benzene-Containing Waste Treatment Process Performance Certifications (40CFR61.356(e) and 40CFR61.356(e)(1)) When Giant Cement determines that the total annual benzene quantity is equal to or greater than 10 Mg/yr then it shall maintain on-site and on-file for the life of the Benzene-Containing Waste Treatment unit (existing Kiln if still in operation or New Kiln System when placed in operation), a statement certifying that the unit is designed to operate at the documented performance level when a benzene-containing waste and/or waste stream entering the unit is at the highest waste stream flow rate and benzene content expected to occur. This statement shall contain the name, title, date and signature of the responsible official who is certifying its accuracy.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(pp)	Records of Benzene-Containing Waste Treatment Process Performance Demonstrations (40CFR61.356(e) and 40CFR61.356(e)(3)) If Giant Cement is required to conduct a performance test in accordance with condition 6.B.7(nn) to determine Benzene-Containing Waste Treatment process performance, then it shall maintain records of all test information necessary to demonstrate unit performance. The test information shall include the information specified by paragraphs (pp)(1) through (pp)(5) , kept on-site and on-file for the life of the unit and made available to Department personnel upon request. (pp)(1) A description of the Benzene-Containing Waste Treatment unit including the type of treatment process, unit manufacturer name and model number. (pp)(2) For each benzene-containing waste and/or waste stream entering and exiting a unit, a description of its type (e.g., sludge, slurry, etc.), the design flow rate and benzene content. (pp)(3) Documentation describing the test protocol and the means by which sampling variability and analytical variability were accounted for in the determination of the unit performance. The description of the test protocol shall include sampling locations, sampling method, sampling frequency and analytical procedures used for sample analysis. (pp)(4) Records of unit operating conditions during each test run including all key process parameters. (pp)(5) All test results.
6.B.7(qq)	Pollutant Performance Test for Existing Clinker Cooler PM Emissions (SC Regulation 62.5 Standard 4 Section XII(A)(2), 40CFR63.7(g)(3), 40CFR63.1349(b)(1)(i) 40CFR63.1349(b)(1)(ii) and 40CFR63.1349(b)(1)(iii)) Until the existing clinker coolers are removed from service, Giant Cement shall demonstrate compliance with the Clinker Cooler PM emission limit specified by condition 5.E.4(h) . It shall conduct a performance test for each existing clinker cooler using 40CFR60 Appendix A Method 5. Each performance test shall consist of three(3) separate runs under the conditions that exist when each existing clinker cooler is operating at the representative performance conditions in accordance with condition 6.B.7(k). Each run shall be conducted for at least one(1) hour and the minimum sample volume shall be 0.85 dscm (30 dscf). The average of the three runs shall be used to determine compliance. A determination of the PM collected in the impingers ("back half") of the Method 5 particulate sampling train is not required to demonstrate initial compliance with the PM standards of this subpart. However, this shall not preclude the Department from requiring a determination of the "back half" for other purposes. Suitable methods shall be used to determine the Kiln or inline Kiln/raw mill feed rate, except for fuels, for each run and the emission rate (E) of PM shall be computed for each run using the equation specified by equation (qq)(1) of this condition. Pollutant Performance Tests for PM emissions from each Clinker Cooler shall be repeated every 24 months from the date of the previous performance test. Giant Cement shall conduct each performance test according to applicable Pollutant Performance Test conditions and requirements specified by this permit. A copy of the test results shall also be kept on-site and on-file for a calendar period of five(5) years from the date testing was completed and made available to Department personnel upon request. (qq)(1) $E = ((C_s)(Q_{sd}))/P$ where E = Emission rate of particulate matter, kg/Mg of Kiln feed, C_s = Concentration of PM in kg/dscm, Q_{sd} = volumetric flow rate of effluent gas, dscm/hr and P = total Kiln feed (dry basis), Mg/hr.

MONITORING AND REPORTING CONDITIONS (POLLUTANT PERFORMANCE TESTING)	
Condition Number	**Condition**
6.B.7(rr)	Data in Lieu of Conducting the Initial Comprehensive Performance Test (40CFR63.1207(c)(2)) Giant Cement may submit a request to the Department that previous emissions test data serve as documentation of initial compliance with the emission standards of this permit in lieu of conducting an initial Comprehensive Performance Test provided that the previous testing meets the requirements specified by paragraphs (rr)(1) through (rr)(4) of this condition. Giant Cement must submit data in lieu of conducting the initial Comprehensive Performance Test in lieu of (i.e., if the data are in lieu of all performance testing) or with the notification of performance test. (rr)(1) The previous testing was initiated after 54 months prior to the compliance date. This date in lieu of test age restriction does not apply for the duration of the interim standards (i.e., the standards published in the Federal Register on February 13, 2002. It also does not apply until the EPA promulgates permanent replacement standards pursuant to the Settlement Agreement noticed in the Federal Register on November 16, 2001 and does not apply to DRE data provided that Giant Cement does not feed hazardous waste at a location in the combustion system other than the normal flame zone. (rr)(2) The previous testing results in data that meet quality assurance objectives (determined on a site-specific basis) such that the results demonstrate compliance with the applicable standards. (rr)(3) The previous testing was in conducted in conformance with the requirements of condition 6.B.7(k). (rr)(4) The previous testing is sufficient to establish the applicable operating parameter limits.
6.B.7(ss)	Initial Pollutant Performance Test for Visible Emissions from Sources Subject to 40CFR63.1348 (40CFR63.7(g)(3), 40CFR63.1349(b)(2) and 40CFR63.1349(c)) Within 180 calendar days after a new source becomes subject to 40CFR63.1348 and within 180 calendar days after June 14, 2002 for the existing sources subject to 40CFR63.1348 (unless a source is removed from service) Giant Cement shall conduct an initial Pollutant Performance Test for visible emissions from that equipment. The initial performance test shall be conducted in accordance with 40CFR60 Appendix A Method 9 and under the conditions that exist when the affected sources are operating at the highest load or capacity level reasonably expected to occur. The maximum six(6)-minute average opacity exhibited during the test period shall be used to determine whether an affected source is in initial compliance with the relevant standard. The duration of the Method 9 test shall be three(3) hours (30 six(6)-minute averages), except that the test duration may be reduced to one(1)- hour if there are no individual readings greater than 10% opacity and no more than three readings of 10% for the first one(1)-hour period. Giant Cement shall conduct each performance test according to the applicable Pollutant Performance Test conditions of this permit. A copy of the test results shall also be kept on-site and on-file for a calendar period of five(5) years from the date testing was completed and made available to Department personnel upon request. This Method 9 test shall be repeated every 60 months from the date that the previous Method 9 test was completed.
6.B.7(tt)	Pollutant Performance Test for Rotary Kiln and Precalciner Coal Mill NO_x Emissions (SC Regulation 62.5 Standard 4 Section XII(A)(2), SC Regulation 61-62.99 Subpart B Section 99.44(b)(1) and SC Regulation 61-62.99 Subpart B Section 99.44(c)(3)) Unless Giant Cement complies with one of the Alternative NO_x Emission Monitoring requirements identified in condition 6.B.24(ppp), Giant Cement shall conduct a Pollutant Performance Test for NO_x emissions from each existing Kiln (if still in operation). Giant Cement may also select to conduct a Pollutant Performance Test for NO_x emissions from the New Kiln System (when placed in operation) unless Giant Cement complies with one of the Alternative NOx Emission Monitoring requirements identified in condition 6.B.24(ppp). The Pollutant Performance Test for NO_x emissions from each existing Kiln (if still in operation) and the New Kiln System (when placed in operation and if the performance testing option is selected) shall be repeated every 12 months from the date of the previous test. Giant Cement shall conduct each performance test according to applicable Pollutant Performance Test conditions and requirements specified by this permit. A copy of the test results shall also be kept on-site and on-file for a calendar period of five(5) years from the date testing was completed and made available to Department personnel upon request.

MONITORING AND REPORTING CONDITIONS (PERIODIC VISIBLE EMISSIONS MONITORING OF SOURCES SUBJECT TO 40CFR63.1348)	
Condition Number	**Condition**
6.B.8(a)	Visible Emissions Monitoring of the Sources Subject to 40CFR63.1348 After Initial Visible Emissions Test has been Completed (40CFR63.1350(a)(4)) After the initial visible emissions test required by condition 6.B.7(ss) is complete, Giant Cement shall monitor the new sources and the existing sources (unless a source is removed from service) listed in Tables 6.46 through 6.58 for visible emissions, except for those sourced identified in Condition 6.B.8(b), by conducting while the affected sources are in operation, a monthly one(1)-minute visible emissions test in accordance with 40CFR60 Appendix A Method 22 and follow the procedure specified in paragraphs (a)(1) through (a)(4) of this condition. The Method 9 test shall begin within one hour of any observation of visible emissions. The requirement to conduct Method 22 visible emissions monitoring does not apply to any totally enclosed conveying system transfer point, regardless of the location of the transfer point. A totally enclosed conveying system transfer point is defined as a conveying system transfer point that is enclosed on all sides, top, and bottom. All Method 22 and Method 9 visible observations shall be documented and recorded in a log. This log shall include the date and time of each Method 22 test, if applicable the date and time of the Method 9 test, whether any Method 22 emissions were observed and if applicable the Method 9 opacity of the visible emissions. If Method 22 visible emissions are observed then the time the corrective actions specified in the operations and maintenance plan were initiated shall also be recorded in the log. This log shall be kept on-site and all entries kept for a calendar period of five(5) years from the date of log entry. (a)(1) If no visible emissions are observed in six consecutive monthly tests for any affected source, Giant Cement may decrease the frequency of testing from monthly to semiannually for that affected source. If visible emissions are observed during any semiannual test, then testing of that affected source shall resume on a monthly basis and that schedule maintained until no visible emissions are observed in six consecutive monthly tests. (a)(2) If no visible emissions are observed during the semiannual test for any affected source, Giant Cement may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, then testing of that affected source shall resume on a monthly basis and that schedule maintained until no visible emissions are observed in six consecutive monthly tests. (a)(3) If any partially enclosed or unenclosed conveying system transfer point is located in a building, Giant Cement has the option to conduct a Method 22 test according to the requirements of paragraphs (a)(1) and (a)(2) of this condition for each such conveying system transfer point located within the building, or for the building itself. (a)(4) If visible emissions from a building are monitored, the requirements of paragraphs (a)(1) and (a)(2) of this condition apply to the monitoring of the building. In addition to the requirements of paragraphs (a)(1) and (a)(2), Giant Cement shall also test visible emissions from each side, roof and vent of the building for at least 1 minute. The test must be conducted under normal operating conditions.

MONITORING AND REPORTING CONDITIONS (PERIODIC VISIBLE EMISSIONS MONITORING OF SOURCES SUBJECT TO 40CFR63.1348)	
Condition Number	**Condition**
6.B.8(b)	Visible Emissions Monitoring of a Finish Mill's Sweep and Air Separator PMCD After the Initial Visible Emissions Test has been Completed (40CFR63.1350(e)) After the initial visible emissions test required by condition 6.B.7(ss) is complete, Giant Cement for each Finish Mill shall monitor opacity by conducting daily visual emissions observations of the mill sweep and air separator PMCD in accordance with the procedures of 40CFR60 Appendix A Method 22. The Method 22 monitoring shall be conducted while the affected source is operating at normal operating conditions. The duration of the Method 22 test shall be six(6) minutes. If visible emissions are observed during any Method 22 test, Giant Cement shall initiate, within one(1)-hour, the corrective actions specified in the site specific Operations and Maintenance Plan. Within 24 hours of the end of the Method 22 test in which visible emissions were observed, Giant Cement shall conduct a followup Method 22 test of each stack from which visible emissions were observed during the previous Method 22 test. If visible emissions are observed during the followup Method 22 test from any stack from which visible emissions were observed during the previous Method 22 test, Giant Cement shall conduct a visual opacity test of each stack from which emissions were observed during the follow up Method 22 test in accordance with 40CFR60 Appendix A Method 9. The duration of the Method 9 test shall be 30 minutes. All Method 22 and Method 9 visible observations shall be documented and recorded in a log. This log shall include the date and time of each Method 22 test, if applicable the date and time of the Method 9 test, whether any Method 22 emissions were observed and if applicable the Method 9 opacity of the visible emissions. If Method 22 visible emissions are observed then the time the corrective actions specified in the operations and maintenance plan were initiated shall also be recorded in the log. This log shall be kept on-site and all entries kept for a calendar period of five(5) years from the date of log entry.

MONITORING AND REPORTING CONDITIONS NOTIFICATION AND DOCUMENTATION OF COMPLIANCE	
Condition Number	**Condition**
6.B.9(a)	Submittal of Notification of Compliance After Completion of Comprehensive Performance Test (40CFR63.1207(j)(1) and 40CFR63.1207(j)(4)) Within 90 calendar days of completion of a Comprehensive Performance Test, Giant Cement shall postmark a Notification of Compliance documenting compliance or noncompliance with the emission standards and CMS requirements, and identify operating parameter limits. Upon postmark of the Notification of Compliance, Giant Cement shall comply with all operating requirements specified in the Notification of Compliance in lieu of the limits specified in the Documentation of Compliance. Giant Cement may submit a written request to the Department for a time extension documenting that, for reasons beyond its control, that it may not be able to meet the 90 calendar day deadline for submitting the Notification of Compliance after completion of testing. The Department will determine whether a time extension is warranted.
6.B.9(b)	Submittal of Notification of Compliance After Completion of Confirmatory Test (40CFR63.1207(j)(2) and 40CFR63.1207(j)(4)) Within 90 calendar days of completion of a Confirmatory Performance Test, Giant Cement shall postmark a Notification of Compliance documenting compliance or noncompliance with the applicable Dioxin/ Furan emission standard. Giant Cement may submit a written request to the Department for a time extension documenting that, for reasons beyond its control, that it may not be able to meet the 90 calendar day deadline for submitting the Notification of Compliance after completion of testing. The Department will determine whether a time extension is warranted.

MONITORING AND REPORTING CONDITIONS NOTIFICATION AND DOCUMENTATION OF COMPLIANCE	
Condition Number	**Condition**
6.B.9(c)	Notification of Compliance Status Content Requirements (40CFR63.9(h), 40CFR63.1206(c)(1)(ii) and 63.1207(j)(3)) When a source becomes subject to 40CFR63 Subpart DD, 40CFR63 Subpart EEE or 40CFR63 Subpart LLL and each time a Notification of Compliance Status is required to be submitted, Giant Cement shall submit to the Department a Notification of Compliance Status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The Notification of Compliance Status shall contain the applicable information listed in paragraphs (c)(1) through (c)(8) of this condition. The operating requirements specified in the Notification of Compliance will be incorporated in the Title V permit through the use of a Section 502(b)(10) change or a minor permit modification. (c)(1) The methods that were used to determine compliance. (c)(2) The results of any performance tests, opacity or visible emission observations, CMS performance evaluations, and/or other monitoring procedures or methods that were conducted. (c)(3)The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods. (c)(4) The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard. (c)(5) An analysis demonstrating whether the affected source is a major source or an area source (using the emissions data generated for this notification). (c)(6) A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method). (c)(7) A statement by Giant Cement for the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements. (c)(8) Operating requirements including, but not limited to, the operating requirements in 40CFR63.1206(c) and 40CFR63.1209.
6.B.9(d)	Failure to Submit a Timely Notification of Compliance (40CFR63.1207(k)) If Giant Cement fails to postmark a Notification of Compliance by the specified date, it shall cease hazardous waste burning immediately. Prior to submitting a revised Notification of Compliance, Giant Cement may burn hazardous waste only for the purpose of pretesting or Comprehensive Performance Testing and only for a maximum of 720 hours (renewable at the discretion of the Department). Giant Cement shall submit to the Department a Notification of Compliance subsequent to a new Comprehensive Performance Test before resuming hazardous waste burning.

MONITORING AND REPORTING CONDITIONS NOTIFICATION AND DOCUMENTATION OF COMPLIANCE	
Condition Number	**Condition**
6.B.9(e)	Interim Burning of Hazardous Waste Prior to Submitting a Notification of Compliance (40CFR63.1207(l)(3)) Giant Cement may petition the Department to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. It must specify operating requirements, including limits on operating parameters, that Giant determines will ensure compliance with the emission standards of 40CFR63 Subpart EEE based on available information including data from the failed performance test. The Department will review, modify as necessary, and approve if warranted the interim operating requirements. An approval of interim operating requirements will include a schedule for submitting a Notification of Compliance.
6.B.9(f)	40CFR63 Subpart EEE Documentation of Compliance (40CFR63.1211(c)) By September 30, 2003, for the existing Kilns (if still in operation) and no later than 180 calendar days after the startup of the New Kiln System, Giant Cement shall have developed a Documentation of Compliance for each which identifies the applicable emission standards of 40CFR63 Subpart EEE and operating parameters limits that will ensure compliance with the applicable emission limitations. It shall be recorded in the Facility Operating Record and include a signed and dated certification that all required CEMS and CMS are installed, calibrated and continuously operating in compliance with the applicable requirements. The certification shall also be based on an engineering evaluation prepared under Giant Cement's direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation and considered at a minimum the design, operation, and maintenance characteristics of the combustor (Kiln), emissions control equipment, the types, quantities and characteristics of feedstreams and available emissions data that Giant Cement is in compliance with the applicable emission standards and limits on the operating parameters under 40CFR63.1209 ensure compliance with the applicable emission standards of 40CFR63 Subpart EEE. Giant Cement shall comply with the emission standards and operating parameter limits specified in the documentation of compliance. This condition does not apply if Giant Cement submits a Notification of Compliance before September 30, 2003, for the existing Kilns and before the startup of the New Kiln System.

MONITORING AND REPORTING CONDITIONS OPERATION, MAINTENANCE AND COMPLIANCE	
Condition Number	**Condition**
6.B.10(a)	40CFR63 Subpart LLL Written Operations and Maintenance Plan (40CFR63.6(e)(1)(i), 40CFR63.1350(a) and 40CFR63.1350(b)) When a source becomes subject to the applicable provisions of 40CFR63 Subpart LLL, Giant Cement shall prepare for that source a written operations and maintenance plan. Each source's plan shall be submitted to the Department for review and approval no later than 180 days after the source becomes subject to 40CFR63 Subpart LLL unless the source already has a Department approved plan. Each plan shall include the applicable information listed in paragraphs (a)(1) through (a)(3) of this condition. Failure to comply with any provision of the operations and maintenance plan shall be a violation of the standard. (a)(1) The corrective actions to be taken when required by conditions 6.B.8(a) and 6.B.8(b). (a)(2) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emission limits and operating limits 40CFR63.1348. (a)(3) Procedures to be used to periodically monitor affected sources subject to opacity standards under 40CFR63.1346 and 40CFR63.1348. Such procedures shall include the provisions of condition 6.B.8(b).

MONITORING AND REPORTING CONDITIONS OPERATION, MAINTENANCE AND COMPLIANCE	
Condition Number	**Condition**
6.B.10(b)	40CFR63 Subpart EEE Operation and Maintenance Plan (40CFR63.6(e)(1)(i) and 40CFR63.1206(c)(7)(i)) By September 30, 2003, for the existing Kilns (if still in operation) and by the startup of the New Kiln System, Giant Cement shall have prepared and at all times be operating according to an operation and maintenance plan that describes in detail procedures for operation, inspection, maintenance, and corrective measures for all components of the combustor (Kiln), including associated pollution control equipment, that could affect emissions of regulated hazardous air pollutants. The plan(s) shall prescribe how Giant Cement will operate and maintain the combustor (Kiln) in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels achieved during the comprehensive performance test. This plan ensures compliance with the operation and maintenance requirements of 40CFR63.6(e) and minimizes emissions of pollutants, AWFCO and malfunctions. Giant Cement shall also record the plan in the Facility Operating Record.
6.B.10(c)	Changes in the Design, Operation, or Maintenance of an Existing Kiln and the New Kiln System that May Adversely Affect Compliance With Any 40CFR63 Subpart EEE Emission Standard that is not Monitored With a CEMS (40CFR63.1206(b)(5)(i) and 40CFR63.1206(b)(5)(iii)) For the purposes of this condition change is defined as any change in the design, operation, or maintenance practices that were documented in the Comprehensive Performance Test Plan, Notification of Compliance, or the 40CFR63 Startup, Shutdown and Malfunction Plan. If Giant Cement plans to change the design, operation, or maintenance practices of an existing Kiln (if still in operation) and the New Kiln System (when placed in operation) in a manner that may adversely affect compliance with any applicable 40CFR63 Subpart EEE emission standard that is not monitored with a CEMS, it shall notify the Department at least 60 calendar days prior to the change, unless it documents the circumstances that dictate that such prior notice is not reasonably feasible. The notification shall include a description of the changes and which emission standards may be affected and a Comprehensive Performance Test schedule and test plan under) that will document compliance with the affected emission standard(s). Giant Cement must conduct a new Comprehensive Performance Test to document compliance with the affected emission standard(s) and establish operating parameter limits and submit to the Department a Notification of Compliance. After the change and prior to submitting the Notification of Compliance, Giant Cement must not burn hazardous waste for more than a total of 720 hours (renewable at the discretion of the Department) and only for the purposes of pretesting or comprehensive performance testing. Giant Cement may petition the Department to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. It must specify operating requirements, including limits on operating parameters, that you determine will ensure compliance with the emission standards of this subpart based on available information. The Department will review, modify as necessary, and approve if warranted the interim operating requirements.
6.B.10(d)	Changes in the Design, Operation, or Maintenance of an Existing Kiln and the New Kiln System that Will Not Affect Compliance With Any 40CFR63 Subpart EEE Emission Standard that is not Monitored With a CEMS (40CFR63.1206(b)(5)(ii) and 40CFR63.1206(b)(5)(iii)) For the purposes of this condition change is defined as any change in the design, operation, or maintenance practices that were documented in the Comprehensive Performance Test Plan, Notification of Compliance, or the 40CFR63 Subpart EEE Startup, Shutdown and Malfunction Plan. If Giant Cement determines that a change to the design, operation, or maintenance practices of an existing Kiln (if still in operation) and the New Kiln System will not adversely affect compliance with the applicable 40CFR63 Subpart EEE emission standards or operating requirements, it shall document the change in the Facility Operating Record upon making such change. Giant Cement must revise as necessary the performance test plan, Documentation of Compliance, Notification of Compliance, and Startup, Shutdown and Malfunction Plan to reflect these changes.

MONITORING AND REPORTING CONDITIONS OPERATION, MAINTENANCE AND COMPLIANCE	
Condition Number	**Condition**
6.B.10(e)	40CFR63 Subpart EEE Kiln Operating Requirements (40CFR63.1206(c)(1)) Giant Cement shall operate each existing Kiln (if still in operation) and the New Kiln System (when placed in operation) only under the operating requirements specified in the Documentation of Compliance or the Notification of Compliance except during performance tests under approved test plans and startups, shutdowns and malfunctions. The Documentation of Compliance and the Notification of Compliance must contain operating requirements. Failure to comply with the operating requirements is failure to ensure compliance with the emission standards of 40CFR63 Subpart EEE. The operating requirements in the Notification of Compliance are applicable requirements for purposes of 40CFR70 and 40CFR71 and will be incorporated in the Title V permit.
6.B.10(f)	Alternative Operation of the Kilns According to 40CFR63 Subpart LLL or Other Requirements (40CFR63.1206(b)(1)(ii)) Giant Cement may submit a request to the EPA for temporary authorization to operate its existing Kilns (if still in operation) and the New Kiln System (when placed in operation) according to 40CFR63 Subpart LLL or other requirements. Once approved by the EPA, Giant Cement may operate its Kilns according to the applicable requirements of 40CFR63 Subpart LLL or other requirements provided that hazardous waste is not in an existing Kiln's or the New Kiln System's combustion chamber (i.e., the hazardous waste feed to the combustor has been cut off for a period of time not less than the hazardous waste residence time). Giant Cement shall also document in the Facility Operating Record that it is complying with all applicable operating requirements and emission standards of 40CFR63 Subpart LLL or other approved emission standards in lieu of the applicable operating requirements and emission standards of 40CFR63 Subpart EEE except the modes of operation requirements of 40CFR63.1209(q).

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-01 AND FUTURE UNIT F-01 QUARRY/MARL HANDLING EQUIPMENT)	
Condition Number	**Condition**
6.B.11(a)	Conveying Saturated and Unsaturated Materials on the Quarry Conveyor Belts (40CFR60.672(b), 40CFR60.672(h) and 40CFR60.676(g)) If Giant Cement subsequently conveys unsaturated materials on one or all of the Quarry Conveyor Belts which normally convey saturated materials it shall submit a report of this change within 30 days following such change to the Department. The effected conveyor is then subject to the 10% opacity limit specified in 40CFR60.672(b) and the emission test requirements of 40CFR60.11. Likewise, if Giant Cement conveys saturated materials on one or all of the Quarry Conveyor Belts that normally conveys unsaturated material it shall submit a report of this change within 30 days following such change to the Department. The affected conveyor is then subject to the no visible emission limit specified in 40CFR60.672(h). If Giant Cement conveys unsaturated materials on one or all of the Quarry Conveyor Belts and is subject to the 10% opacity limit as specified in 40CFR60.672(b), it shall use the procedures outlined in 40CFR60.675(c) to determine compliance with this opacity limit for the affected conveyor belt.
6.B.11(b)	Physical or Operational Change in Quarry Operations (40CFR60.7(a)(4)) Giant Cement shall submit a notification of any physical or operational change to the Department which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40CFR60.14(e). This notice shall be postmarked within 60 days or as soon as practicable before the change is commenced and include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Department may request additional relevant information subsequent to this notice.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-01 AND FUTURE UNIT F-01 QUARRY/MARL HANDLING EQUIPMENT)	
Condition Number	**Condition**
6.B.11(c)	Quarry Equipment Replacement (40CFR60.670(d) ,40CFR60.671, 40CFR60.676(a)) If Giant Cement replaces a piece of quarry equipment that is subject to the provisions of 40CFR60 Subpart OOO with a piece of equipment of equal or lesser size than the original piece, the replacement piece is exempt from the initial source test requirements as outlined in 40CFR60.672. Giant Cement shall also submit to the Department, the information contained in paragraphs (c)(1) through (c)(4) of this condition. The replacement piece of equipment is still subject to the opacity or no visible emission standards as applicable. If the entire production line is replaced then source testing must be conducted as specified in 40CFR60.672. Size is defined as the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a convey or belt; and the rated capacity in tons of a storage bin. (c)(1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station the rated capacity in tons per hour of the existing facility being replaced and the rated capacity in tons per hour of the replacement equipment. (c)(2) For a screening operation the total surface area of the top screen of the existing screening operation being replaced and the total surface area of the top screen of the replacement screening operation. (c)(3) For a conveyor belt the width of the existing belt being replaced and the width of the replacement conveyor belt. (c)(4) For a storage bin the rated capacity in tons of the existing storage bin being replaced and the rated capacity in tons of replacement storage bins.
6.B.11(d)	Visible Emission Monitoring of Quarry Equipment Processing Unsaturated Materials (SC Regulation 61-62.70.6(a)(3)(i)(B)) If a quarry conveyor belt or quarry crusher processes unsaturated materials then Giant Cement shall monitor for visible emissions by conducting while the affected source(s) are in operation a weekly visible emissions test in accordance with 40CFR60 Appendix A Method 9, 40CFR60.675(c) and 40CFR60.11(b). All visible observations shall be documented and dated in a log. This log shall include the observation date, equipment identification, whether any visible emissions were observed and their opacity. This log shall be kept on-site and all log entries kept for a calendar period of five(5) years from the date of log entry. If visible emissions exceed the opacity limits specified in condition 5.E.1 then Giant Cement shall locate and correct the problem(s) causing the exceedance immediately. The source of any excess visible emissions and the actions taken to eliminate them shall also be recorded in the log.
6.B.11(e)	Quarry Equipment Inspections of Quarry Equipment Processing Unsaturated Materials (40CFR70.6(a)) If a quarry conveyor belt or quarry crusher processes unsaturated materials then Giant Cement shall conduct weekly equipment inspections and perform maintenance as necessary. All inspections shall be documented if any problems are found. This documentation shall include the date and time of inspection, the equipment type and its identification, clearly identify any problems(s) and list the corrective action(s) taken. All documented inspections shall be kept on-site and on-file for a calendar period of five(5) years from the date of inspection and made available to Department personnel upon request.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-13 AND FUTURE UNIT ID F-11 STEAM BOILER)	
Condition Number	**Condition**
6.B.12(a)	Permitted Steam Boiler Fuels (SC Regulation 61-62.5 Standard 2) Giant Cement is permitted to burn only natural gas and No.2 Fuel Oil with a sulfur content less than 0.15% as Steam Boiler Fuels. The use of any other substances as Steam Boiler fuel is prohibited without prior written approval from the Department. Giant Cement shall keep monthly records of the types of fuel used, sulfur content certifications for the Steam Boiler and the quantities used in each. These records shall be kept on-site and on-file for a calendar period of five(5) years from the initial recording date and made available to Department personnel upon request.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-03 AND FUTURE UNIT ID F-02 (COAL/COKE CRUSHING AND PROCESSING EQUIPMENT)	
Condition Number	**Condition**
6.B.13(a)	Visible Emission Monitoring of Uncontrolled Coal/Coke Crushing and Processing Equipment (SC Regulation 61-62.70.6(a)(3)(i)(B)) Giant Cement shall monitor for visible emissions from the 2 Coal Feeders (CH-3), 2 Coal Hoppers (CH-4), Coal Radial Stacker CH-7, Coal Storage Silo CH-16, Coal Conveyor Belt CH-13 and Coal Conveyor Belt CH-27 by observing while the affected source(s) are in operation a weekly visible emissions test. If visible emissions are observed, then a visible emission test shall be performed in accordance with 40CFR60 Appendix A Method 9. All visible observations shall be documented and dated in a log. This log shall include the observation date, equipment identification, whether any visible emissions were observed and their opacity. This log shall be kept on-site and all log entries kept for a calendar period of five(5) years from the date of log entry. If visible emissions exceed the applicable visible emission limits then Giant Cement shall locate and correct the problem(s) causing the exceedance immediately. The source of any excess visible emissions and the actions taken to eliminate them shall also be recorded in the log.
6.B.13(b)	Continuous Monitoring of Coal Mill Exhaust Gas Temperature (40CFR60.253(a)) Giant Cement shall install, calibrate, maintain and continuously operate a monitoring device for the measurement of the temperature of the gas stream at the exit of the Coal Mill Heater on a continuous basis. The monitoring device is to be certified by the manufacturer to be accurate within ±1.7°C (±3°F).

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (CONTAINERS)	
Condition Number	**Condition**
6.B.14(a)	Transfer of Benzene-Containing Wastes into Containers by Pumping (40CFR61.345(a)(3)) If Giant Cement determines that the total annual benzene quantity is equal to or greater than 10 Mg/yr (11 tpy) then when a benzene-containing waste is transferred into a container by pumping, Giant Cement shall perform the transfer using a submerged fill pipe. The submerged fill pipe outlet shall extend to within two fill pipe diameters of the bottom of the container while the container is being loaded. During loading of the benzene-containing waste, the cover shall remain in place and all openings shall be maintained in a closed, sealed position except for those openings required for the submerged fill pipe, those openings required for venting of the container to prevent physical damage or permanent deformation of the container or cover and any openings vented through a Closed-Vent System to a control device.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (CONTAINERS)	
Condition Number	**Condition**
6.B.14(b)	Inspection of Benzene-Containing Waste Containers (40CFR61.345(b)) If Giant Cement determines that the total annual benzene quantity is equal to or greater than 10 Mg/yr (11 tpy) then it shall visually inspect each cover and all openings of benzene-containing waste containers initially and quarterly thereafter to insure that they are closed and gasketed properly. All inspections shall be documented if any problems are found. This documentation shall include the date and time of inspection, container identification, clearly identify and problems found and list the corrective action(s) taken. All documented benzene-containing waste container inspections shall be kept on-site and on-file for a calendar period of five(5) years from the date of inspection and made available to Department personnel upon request.
6.B.14(c)	Air Pollution Controls for Containers Storing Benzene-Containing Wastes (40CFR61.341, 40CFR61.345(a), 40CFR61.345(a)(1), 40CFR61.345(a)(4), 40CFR61.345(b), 40CFR61.345(c), 40CFR61.350 and 40CFR61.356(h)) A container for the purposes of this condition is defined as a portable unit used to hold material. Examples of containers include but are not limited to drums, dumpsters, roll-off boxes, bulk cargo containers commonly known as "portable tanks" or "totes", cargo tank trucks, and tank rail cars. If Giant Cement determines that the total annual benzene quantity is equal to or greater than 10 Mg/yr (11 tpy) then for containers in which benzene-containing wastes have been placed, Giant Cement shall install, operate and maintain a cover on each container used to handle, transfer, or store benzene-containing wastes. The cover and all openings (e.g., bungs, hatches, and sampling ports) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, performed initially and thereafter (if applicable) at least once per year by the methods specified in 40CFR61.355(h). Except for containers vented through a Closed-Vent System to a control device, each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that the waste is in the container except when it is necessary to use the opening for waste loading, removal, inspection, or sampling. If the cover and Closed-Vent System operate such that the container is maintained at a pressure less than atmospheric pressure, Giant Cement may operate the system with an opening that is not sealed and kept closed at all times if the purpose of the opening is to provide dilution air to reduce the explosion hazard, the opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background and the pressure is monitored continuously to ensure that the pressure in the container remains below atmospheric pressure. Each cover and all openings shall be visually inspected initially and quarterly thereafter to ensure that they are closed and gasketed properly. When a broken seal, gasket or other problem is identified, first efforts at repair shall be made as soon as practicable, but no later than 15 calendar days after identification. Delay of repair for a broken seal, gasket or other problem is allowed if the repair is technically impossible without a complete or partial facility or unit shutdown and the repair shall occur before the end of the next facility or unit shutdown. Giant Cement shall maintain a record for each test of no detectable emissions. Each record shall include the date and time of the test, background level measured during the test and maximum concentration indicated by the instrument reading measured for each potential leak interface. If detectable emissions are measured at a leak interface, then the record shall also include the waste management unit, control equipment, and leak interface location where detectable emissions were measured, a description of the problem, a description of the corrective action(s) taken, and the date the corrective action was completed.
6.B.14(d)	Inspection Requirements for Containers Using Level 3 Container Air Pollution Controls (40CFR63.926(b)) If Giant Cement uses Level 3 Container Air Pollution Controls, then it shall inspect and monitor the Closed-Vent Systems and control devices in accordance with the requirements of this permit.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (CONTAINERS)	
Condition Number	**Condition**
6.B.14(e)	Required Air Pollution Controls For Containers Having a Design Capacity greater than 0.46 m^3 (121.51 gallons) and in Light-Material Service (40CFR63.681 and 40CFR63.688(b)(3)) A container in light-material service is defined as a container that is used to manage an off-site material for which the vapor pressure of one or more of the organic constituents in the off-site material is greater than 0.3 kilopascals (kPa) at 20°C and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20% by weight. Giant Cement shall control air emissions from containers with a design capacity greater than 0.46 m^3 (121.51 gallons) in light-liquid service in accordance with the Standards for Level 2 Container Air Pollution Controls. As an alternative to meeting the Standards for Level 2 Container Air Pollution Controls, Giant Cement may choose to control air emissions from the container in accordance with the standards for Level 3 Container Air Pollution Controls.
6.B.14(f)	Standards for Level 1 Container Air Pollution Controls (40CFR63.921, 40CFR63.922(b), 63.922(c) and 63.922(f)) A container for the purposes of this condition is defined as a portable unit in which a material can be stored, transported, treated, disposed of, or otherwise handled. Examples of containers include but are not limited to drums, dumpsters, roll-off boxes, bulk cargo containers commonly known as "portable tanks" or "totes", cargo tank trucks, and tank rail cars. For containers required to use Level 1 Container Air Pollution Controls, Giant Cement shall select one(1) of the container air pollution control options as specified by paragraphs (f)(1) through (f)(3) of this condition. A container used to meet the requirements of either paragraph (f)(2) or (f)(3) shall be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the regulated-material to the atmosphere and to maintain the equipment integrity for as long as it is in service. Factors to be considered when selecting the materials for and designing the cover and closure devices shall include: organic vapor permeability, the effects of contact with the material or its vapor managed in the container; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for container on which the cover is installed. (f)(1) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation. Giant Cement for an affected container may select to meet the applicable requirements specified in 49CFR178 (Specifications for Packagings) or 49CFR179 (Specifications for Tank Cars). No exceptions to the 49CFR178 or 49CFR179 regulations are allowed except for a lab pack that is managed in accordance with the requirements of 49CFR178 Giant Cement may comply with the exceptions for those packagings specified in 49CFR 173.12(b). Giant Cement may also select to manage the regulated material in the container in accordance with the applicable requirements specified in 49CFR107 Subpart B (Exemptions), 49CFR172 (Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements), 49CFR173 (Shippers, General Requirements for Shipments and Packaging) and 49CFR 180 (Continuing Qualification and Maintenance of Packagings). (f)(2) A container equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum, a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a bulk cargo container equipped with a screw-type cap). (f)(3) An open-top container in which an organic vapor-suppressing barrier is placed on or over the regulated-material in the container such that no regulated-material is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (CONTAINERS)	
Condition Number	**Condition**
6.B.14(g)	Transfer of Regulated Material into or out of a Container Using Level 2 Container Air Pollution Controls (40CFR63.923(c)) Transfer of regulated-material into or out of a container using Level 2 Container Air Pollution Controls shall be conducted in such a manner as to minimize exposure of the regulated-material to the atmosphere, to the extent practical, considering the physical properties of the regulated-material and good engineering and safety practices for handling flammable, ignitable, explosive, or other hazardous materials. Examples of container loading procedures that meet the requirements of this paragraph include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the regulated-material is filled, with subsequent purging of the transfer line before removing it from the container opening.
6.B.14(h)	Standards for Level 2 Container Air Pollution Controls (40CFR63.921, 40CFR63.923(b) and 40CFR63.923(f)) A container for the purposes of this condition is defined as a portable unit in which a material can be stored, transported, treated, disposed of, or otherwise handled. Examples of containers include but are not limited to drums, dumpsters, roll-off boxes, bulk cargo containers commonly known as "portable tanks" or "totes", cargo tank trucks, and tank rail cars. For containers required to use Level 2 Container Air Pollution Controls, Giant Cement shall select one(1) of the container air pollution control options as specified by paragraphs (h)(1) through (h)(3) of this condition. (h)(1) A container that meets the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation. Giant Cement for an affected container may select to meet the applicable requirements specified in 49CFR178 (Specifications for Packagings) or 49CFR179 (Specifications for Tank Cars). No exceptions to the 49CFR178 or 49CFR179 regulations are allowed except for a lab pack that is managed in accordance with the requirements of 49CFR178 Giant Cement may comply with the exceptions for those packagings specified in 49CFR 173.12(b). Giant Cement may also select to manage the regulated material in the container in accordance with the applicable requirements specified in 49CFR107 Subpart B (Exemptions), 49CFR172 (Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements), 49CFR173 (Shippers, General Requirements for Shipments and Packaging) and 49CFR 180 (Continuing Qualification and Maintenance of Packagings). (h)(2) A container that has been demonstrated to operate with no detectable organic emissions. No detectable organic emissions is defined as no escape of organics to the atmosphere as determined using the procedure specified in 40CFR63.925(a). (h)(3) A container that has been demonstrated within the preceding 12 months to be vapor-tight by using 40CFR60 Appendix A Method 27 in accordance with the procedure specified in 40CFR63.925(b).
6.B.14(i)	Required Air Pollution Controls for Containers Having a Design Capacity greater than 0.1 m^3 (26.41 gallons) and less than or equal to 0.46 m^3 (121.51 gallons) (40CFR63.688(b)(1)) Giant Cement shall control air emissions from containers with a design capacity greater than 0.1 m^3 (26.41 gallons) and less than or equal to 0.46 m^3 (121.51 gallons) in accordance with the Standards for Level 1 Container Air Pollution Controls. As an alternative to meeting the Standards for Level 1 Container Air Pollution Controls, Giant Cement may choose to control air emissions from the container in accordance with the standards for either Level 2 or Level 3 Container Air Pollution Controls.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (CONTAINERS)	
Condition Number	**Condition**
6.B.14(j)	Opening of a Closure Device or Cover for the Purpose of Adding Material to a Container Using Level 1 or Level 2 Container Air Pollution Controls (40CFR63.922(d), 40CFR63.922(d)(1), 40CFR63.923(d) and 40CFR63.923(d)(2)) Whenever a regulated-material is in a container using Level 1 or Level 2 Container Air Pollution Controls, Giant Cement shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position. Opening of a closure device or cover is allowed for the purpose of adding material to a container in one continuous operation or for when discrete quantities or batches of material intermittently are added to the container over a period of time. In the case when the container is filled to the intended final level in one continuous operation, Giant Cement shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation. In the case when discrete quantities or batches of material intermittently are added to a container over a period of time, Giant Cement shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either: the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaves the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.
6.B.14(k)	Standards for Level 3 Container Air Pollution Controls (40CFR63.921 and 40CFR63.924) A container for the purposes of this condition is defined as a portable unit in which a material can be stored, transported, treated, disposed of, or otherwise handled. Examples of containers include but are not limited to drums, dumpsters, roll-off boxes, bulk cargo containers commonly known as "portable tanks" or "totes", cargo tank trucks, and tank rail cars. For containers required to use Level 3 Container Air Pollution Controls, Giant Cement shall select one(1) of the container air pollution control options as specified by paragraphs (k)(1) and (k)(2) of this condition. Safety devices may be installed and operated as necessary on any container, enclosure, Closed-Vent System, or control device used to comply with this section. A safety device is defined as a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions to prevent physical damage or permanent deformation to equipment by venting gases or vapors during unsafe conditions resulting from an unplanned, accidental, or emergency event. A safety device shall not be used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of a unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the equipment as determined by Giant Cement based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials. (k)(1) A container that is vented directly through a Closed-Vent System to a control device designed and operated in accordance with the requirements of 40CFR63.693. (k)(2) A container that is vented inside an enclosure which is exhausted through a Closed-Vent System to a control device. The enclosure shall be designed and operated in accordance with the criteria for a permanent total enclosure as specified in 40CFR52.741 Appendix B Procedure T (Criteria for and Verification of a Permanent or Temporary Total Enclosure). The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or to direct airflow into the enclosure. Giant Cement shall perform the verification procedure for the enclosure as specified in Procedure T Section 5.0 (Criteria for and Verification of a Permanent or Temporary Total Enclosure) initially when the enclosure is first installed and, thereafter, annually. The Closed-Vent System and control device shall be designed and operated in accordance with the requirements of 40CFR63.693.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (CONTAINERS)	
Condition Number	**Condition**
6.B.14(l)	Opening of a Closure Device or Cover for the Purpose of Removing Material From a Container Using Level 1 or Level 2 Container Air Pollution Controls (40CFR63.921, 40CFR63.922(d), 40CFR63.922(d)(2), 40CFR63.923(d) and 40CFR63.923(d)(2)) Whenever a regulated-material is in a container using Level 1 or Level 2 Container Air Pollution Controls, Giant Cement shall install all covers and closure devices for the container, and secure and maintain each closure device in the closed position. Opening of a closure device or cover is allowed for the purpose of removing material from a container in order to empty a container to meet the definition of an empty container. Opening of a closure device or cover is also allowed for when discrete quantities or batches of material intermittently are removed from container over a period of time and the container does not meet the definition of an empty container. An empty container may be open to the atmosphere at any time (e.g., covers and closure devices are not required to be secured in the closed position on an empty container). In the case when discrete quantities or batches of material are removed from the container but the container does not meet the definition of an empty container, Giant Cement shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes, or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first. An empty container is defined as a container for which the container meets the conditions for an empty container specified in 40CFR261.7(b) or all regulated-material has been removed from the container except for any regulated-material that remains on the interior surfaces of the container as clingage or in pools on the container bottom due to irregularities in the container.
6.B.14(m)	Inspection Requirements for Containers using Level 1 or Level 2 Container Air Pollution Controls when a Regulated-Material is already in the Container at the time that Giant Cement first Accepts Possession of the Container and the Container is not Empty (40CFR62.921, 40CFR63.922(e), 40CFR63.923(e) , 40CFR63.926(a)(1) and 40CFR63.926(a)(3)) In the case when a regulated-material already is in a container using Level 1 or Level 2 Container Air Pollution Controls, at the time that Giant first accepts possession of the container at its facility site and the container is not empty, within 24 hours after the container has been accepted, Giant Cement shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. This inspection of the container shall be conducted on or before the date that the container is accepted at the facility (i.e., the date that the container becomes subject to the standards under 40CFR63 Subpart PP). For the purpose of this requirement, the date of acceptance is the date of signature of the facility owner or operator on the manifest or shipping papers accompanying the container. When a defect is detected, Giant Cement must either empty the regulated-material from the defective container or repair the defective container. If Giant Cement elects to empty the regulated-material from the defective container, it shall remove the regulated-material from the defective container to meet the definition of an empty container and transfer the removed regulated-material to either a container that meets the applicable standards of 40CFR63 Subpart PP or to a tank, process, or treatment unit that meets the applicable standards of 40CFR63 Subpart DD. Transfer of the regulated- material shall be completed no later than five(5) calendar days after detection of the defect. The emptied defective container must be either repaired, destroyed, or used for purposes other than management of regulated-material. If Giant elects not to empty the regulated- material from the defective container, it shall repair the defective container. First efforts at repair of the defect must be made no later than 24 hours after detection and repair must be completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within five(5) calendar days, then the regulated-material must be emptied from the container and the container shall not be used to manage regulated-material until the defect is repaired. An empty container is defined as a container for which the container meets the conditions for an empty container specified in 40CFR261.7(b); or all regulated-material has been removed from the container except for any regulated-material that remains on the interior surfaces of the container as clingage or in pools on the container bottom due to irregularities in the container.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (CONTAINERS)	
Condition Number	**Condition**
6.B.14(n)	Other Allowable Openings of a Closure Device, Cover or Spring-Loaded Pressure-Vacuum Relief Valve, Conservation Vent, or Similar Type of Pressure Relief Device Which Vents to the Atmosphere (40CFR63.901, 40CFR63.922(d)(3), 40CFR63.922(d)(4), 40CFR63.922(d)(5), 40CFR63.923(d)(3), 40CFR63.923(d)(4) and 40CFR63.923(d)(5)) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of regulated-material. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container. Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the container internal pressure in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the container internal pressure is within the internal pressure operating range determined by Giant Cement based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the container internal pressure exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations. Opening of a safety device is allowed at any time conditions require it to do so to avoid an unsafe condition. For the purposes of this condition, a safety device is defined as a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions to prevent physical damage or permanent deformation to equipment by venting gases or vapors during unsafe conditions resulting from an unplanned, accidental, or emergency event. A safety device shall not be used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of a unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the equipment as determined by Giant Cement based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials.
6.B.14(o)	Required Air Pollution Controls For Containers Having a Design Capacity greater than 0.46 m^3 (121.51 gallons) and not in Light-Material Service (40CFR63.681 and 40CFR63.688(b)(2)) A container in light-material service is defined as a container that is used to manage an off-site material for which the vapor pressure of one or more of the organic constituents in the off-site material is greater than 0.3 kilopascals (kPa) at 20°C and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20% by weight. Giant Cement shall control air emissions from containers with a design capacity greater than 0.46 m^3 (121.51 gallons) not in light-material service in accordance with the Standards for Level 1 Container Air Pollution Controls. As an alternative to meeting the Standards for Level 1 Container Air Pollution Controls, Giant Cement may choose to control air emissions from the container in accordance with the standards for either Level 2 or Level 3 Container Air Pollution Controls.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (CONTAINERS)	
Condition Number	**Condition**
6.B.14(p)	Inspection Requirements for Containers Using Container Level 1 or Level 2 Air Pollution Controls Fully or Partially Filled With Regulated-Materials And Remain Unopened On-Site For a Calendar Period of One Year or More (40CFR63.926(a)(2) and 40CFR63.926(a)(3)) In the case when a container filled or partially filled with regulated-material remains unopened at Giant Cement's facility site for a period of one(1) calendar year or more, Giant Cement shall visually inspect the container and its cover and closure devices initially and thereafter, at least once every calendar year, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. When a defect is detected, Giant Cement must either empty the regulated-material from the defective container or repair the defective container. If Giant Cement elects to empty the regulated-material from the defective container, it shall remove the regulated-material from the defective container to meet the definition of an empty container and transfer the removed regulated-material to either a container that meets the applicable standards of 40CFR63 Subpart PP or to a tank, process, or treatment unit that meets the applicable standards of 40CFR63 Subpart DD. Transfer of the regulated- material shall be completed no later than five(5) calendar days after detection of the defect. The emptied defective container must be either repaired, destroyed, or used for purposes other than management of regulated-material. If Giant elects not to empty the regulated- material from the defective container, it shall t repair the defective container. First efforts at repair of the defect shall be made no later than 24 hours after detection and repair must be completed as soon as possible but no later than 5 calendar days after detection. If repair of a defect cannot be completed within 5 calendar days, then the regulated-material must be emptied from the container and the container shall not be used to manage regulated-material until the defect is repaired. An empty container is defined as a container for which the container meets the conditions for an empty container specified in 40CFR 261.7(b); or all regulated-material has been removed from the container except for any regulated-material that remains on the interior surfaces of the container as clingage or in pools on the container bottom due to irregularities in the container.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (LIQUID WASTE FUEL STORAGE TANKS)	
Condition Number	**Condition**
6.B.15(a)	Records of Liquid Waste Fuel Storage Tank Dimensions and Capacity (40CFR60.116b(b)) Giant Cement shall keep on-site and on-file for the 52,000 gallon Liquid Waste Fuel Storage Tank (K-666) and each of the three(3) 80,000 gallon Liquid Waste Fuel Storage Tanks (K-801, K-802, K-803) a record showing the dimension of each tank and an analysis showing the capacity of each tank. These records shall be kept on-site and on-file for the life of each tank and shall be made available to Department personnel upon request.
6.B.15(b)	Liquid Waste Fuel Storage Tank Inspections (40CFR61.343(c), 40CFR63.695(b)(3)(i) and 40CFR63.695(b)(3)(ii)) Giant Cement shall visually inspect the fixed roof and the closure devices of each Liquid Waste Fuel Storage Tank yearly except as specified by condition 6.B.20(a) to check for defects that could result in air emissions. If Giant Cement determines that the total annual benzene quantity is equal to or greater than 10 Mg/yr (11 tpy) then it shall inspect the fixed roof and closure devices of each Liquid Waste Fuel Storage Tank quarterly except as specified by condition 6.B.22(a). Defects include, but are not limited to, visible cracks, holes or gaps in the roof sections or between the roof and the separator wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (LIQUID WASTE FUEL STORAGE TANKS)	
Condition Number	**Condition**
6.B.15(c)	Repair of Liquid Waste Fuel Storage Tank Defects (40CFR61.343(d), 40CFR61.350(a), 40CFR61.350(b), 40CFR63.695(b)(3)(iii), 40CFR63.695(b)(3)(iv) and 40CFR63.695(b)(4)) Within 45 calendar days of detecting a Liquid Waste Fuel Storage Tank defect found during an inspection, Giant Cement shall either repair the defect or empty the tank and remove it from service. If within this 45 calendar day period the defect cannot be repaired or the tank cannot be removed from service without disrupting operations at the plant site, Giant Cement is allowed two(2) 30 calendar day extensions. If Giant Cement elects to use a 30 calendar day extension, it shall prepare and maintain documentation describing the defect, explaining why alternative storage capacity is not available and specify a schedule of actions that will ensure that the control equipment will be repaired or the tank emptied as soon as possible. When a defect is detected during an inspection of a tank that has been emptied and degassed, the defect shall be repaired before the tank is refilled. Delay of repair is allowed if the repair is technically impossible without a complete or partial facility or unit shutdown. The repair shall occur before the end of the next facility or unit shutdown. If Giant Cement is in compliance with the requirements of this condition, it also considered to be in compliance with the repair requirements of 40CFR61 Subpart FF if the total annual benzene quantity is equal to or greater than 10 Mg/yr (11 tpy).
6.B.15(d)	Records of Liquid Waste Fuel Storage Tank Inspections (40CFR61.356(g), 40CFR63.695(b)(3)(iv) and 40CFR63.696(e)) Giant Cement shall keep on-site and on-file a record for each tank inspection that includes the information specified by paragraphs (d)(1) through (d)(7) of this condition. These records shall be kept on-site and on-file for a calendar period of five(5) calendar years from the date of inspection and made available to Department personnel upon request. In the event that repair of a defect is delayed, Giant Cement shall also record the reason for the delay and the date that completion of repair of the defect is expected. If Giant Cement is in compliance with the requirements of this condition, it also considered to be in compliance with the tank inspection recordkeeping requirements of 40CFR61 Subpart FF if the total annual benzene quantity is equal to or greater than 10 Mg/yr (11 tpy). (d)(1) The date of tank inspection. (d)(2) A tank identification number (or other unique identification description). (d)(3) Each defect detected during the tank inspection. (d)(4) The location of each defect detected. (d)(5) A description of each defect detected. (d)(6) The date of detection of each defect (d)(7) A description of the corrective action(s) taken to repair each defect.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (LIQUID WASTE FUEL STORAGE TANKS)	
Condition Number	**Condition**
6.B.15(e)	Liquid Waste Fuel Storage Tank Design Requirements (40CFR60.112b(a)(3), 40CFR63.685(b)(1), 40CFR63.685(d)(3) and 40CFR63.685(g)(1)) Each Liquid Waste Fuel Storage Tank shall be covered by a fixed roof and vented directly through a Closed-Vent System to a control device. The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in each tank. Each opening in the fixed roof not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions. The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the off-site material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability, the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed. The Closed-Vent System and control device shall be designed and operated in accordance with the requirements of 40CFR63.693.
6.B.15(f)	Liquid Waste Fuel Storage Tank Operational Requirements (40CFR63.681 and 40CFR63.685(g)(2)) Whenever an off-site material is being stored in a Liquid Waste Fuel Storage Tank, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device. Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed as specified by paragraphs (f)(1) and (f)(2) of this condition. Opening of a safety device is allowed at any time conditions require it to do so to avoid an unsafe condition. For the purpose of this condition, a safety device is defined a closure device such as a pressure relief valve, frangible disc, fusible plug, or any other type of device which functions to prevent physical damage or permanent deformation to equipment by venting gases or vapors during unsafe conditions resulting from an unplanned, accidental, or emergency event. A safety device is not used for routine venting of gases or vapors from the vapor headspace underneath a cover such as during filling of a unit or to adjust the pressure in this vapor headspace in response to normal daily diurnal ambient temperature fluctuations. A safety device is designed to remain in a closed position during normal operations and open only when the internal pressure, or another relevant parameter, exceeds the device threshold setting applicable to the equipment as determined by Giant Cement based on manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive or hazardous materials. (f)(1) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, Giant Cement shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank. (f)(2) To remove accumulated sludge or other residues from the bottom of a tank.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (WASTE TRANSFER SYSTEMS)	
Condition Number	**Condition**
6.B.16(a)	Control of Air Emissions from Waste Transfer Systems (40CFR63.689(c)) Giant Cement shall control air emissions from its current and new Waste Transfer Systems by using one of requirements as appropriate for the transfer system as specified in paragraphs (a)(1) through (a)(3) of this condition. (a)(1) A waste transfer system that uses covers. (a)(2) A waste transfer system that consists of continuous hard-piping. All joints or seams between the pipe sections shall be permanently or semi- permanently sealed (e.g., a welded joint between two sections of metal pipe or a bolted and gasketed flange). (a)(3) A waste transfer system that is enclosed and vented through a closed- vent system to a control device. The transfer system shall be designed and operated such that an internal pressure in the vapor headspace in the enclosure is maintained at a level less than atmospheric pressure when the control device is operating and the Closed-Vent System and control device are designed and operated in accordance with applicable requirements of this permit.
6.B.16(b)	Required Inspections for Waste Transfer Systems Equipped with Covers (40CFR63.689(d)(6) and 40CFR63.695(d)) Giant Cement shall visually inspect each cover and its closure devices to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover sections or between the cover and its mounting; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices. In the case when a transfer system is buried partially or entirely underground, inspection is required only for those portions of the cover that extend to or above the ground surface, and those connections that are on such portions of the cover (e.g., access hatches, etc.) and can be opened to the atmosphere. Giant Cement shall perform an initial inspection following installation of each cover. Thereafter, Giant Cement shall perform the inspections annually except as provided for in condition 6.B.20(a). In the event that a defect is detected, Giant Cement shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection. Repair of a defect may be delayed beyond 45 calendar days if Giant Cement determines that repair of the defect requires emptying or temporary removal from service of the transfer system and no alternative transfer system is available at the site to accept the material normally handled by the system. In this case, Giant Cement shall repair the defect the next time the process or unit that is generating the material handled by the transfer system stops operation. Repair of the defect shall be completed before the process or unit resumes operation. All inspections shall be documented if any problems are found. This documentation shall include the date and time of inspection, clearly identify any problems and list the corrective action(s) taken. All documented inspections shall be kept on-site and on-file for a calendar period of five(5) years from the date of inspection and made available to Department personnel upon request.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (WASTE TRANSFER SYSTEMS)	
Condition Number	**Condition**
6.B.16(c)	Requirements for Waste Transfer Systems Equipped with Covers (40CFR63.689(d)) A Waste Transfer System using covers shall meet the requirements specified in paragraphs (c)(1) through (c)(5) of this condition. (c)(1) The cover and its closure devices shall be designed to form a continuous barrier over the entire surface area of the off-site material as it is conveyed by the transfer system except for the openings at the inlet and outlet to the transfer system through which the off-site material passes. The inlet and outlet openings used for passage of the off-site material through the transfer system shall be the minimum size required for practical operation of the transfer system. (c)(2) The cover shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between cover section joints or between the interface of the cover edge and its mounting. (c)(3) Except for the inlet and outlet openings to the transfer system through which the off-site material passes, each opening in the cover shall be equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device. (c)(4) The cover and its closure devices shall be made of suitable materials that will minimize exposure of the off-site material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the cover and closure devices shall include: organic vapor permeability; the effects of any contact with the material or its vapors conveyed in the transfer system; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the transfer system on which the cover is installed. (c)(5) Whenever an off-site material is in the transfer system, the cover shall be installed with each closure device secured in the closed position. Opening of closure devices or removal of the cover is allowed to provide access to the transfer system for performing routine inspection, maintenance, repair, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a hatch or remove the cover to repair conveyance equipment mounted under the cover or to clear a blockage of material inside the system. Following completion of the activity, Giant Cement shall promptly secure the closure device in the closed position or reinstall the cover, as applicable. Opening of a safety device is allowed at any time conditions require it to do so to avoid an unsafe condition.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (CLOSED-VENT SYSTEMS)	
Condition Number	**Condition**
6.B.17(a)	Inspection and Monitoring Requirements for Closed-Vent Systems Designed to Operate at a Pressure below Atmospheric Pressure (40CFR63.695(c)(2)(i) and 40CFR63.695(c)(2)(ii)) For closed-vent systems designed to operate at a pressure below atmospheric pressure, Giant Cement shall visually inspect the Closed-Vent System to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping; loose connections; or broken or missing caps or other closure devices. This inspection shall be performed at initial startup following installation of the Closed-Vent System. Thereafter, the inspections shall be performed annually except as provided for in condition 6.B.20(a).
6.B.17(b)	Closed-Vent System Design Requirements (40CFR60.112b(a)(3)(i), 40CFR61.349(a) and 40CFR63.693(c)(1)) The vent stream required to be controlled from each Liquid Waste Fuel Storage Tank shall be conveyed to the control device using one(1) of the Closed-Vent System design specifications as listed in paragraphs (b)(1) and (b)(2) of this condition. If Giant Cement is in compliance with the requirements of this condition, it also considered to be in compliance with the Closed-Vent System design requirements of 40CFR61 Subpart FF if the total annual benzene quantity is equal to or greater than 10 Mg/yr (11 tpy). (b)(1) A Closed-Vent System that is designed to operate with no detectable organic emissions using the procedure specified in 40CFR63.694(k). (b)(2) A Closed-Vent System that is designed to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one(1) pressure gage or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the Closed-Vent System when the control device is operating.
6.B.17(c)	Inspection and Monitoring Requirements for Closed Vent Systems Designed to Operate with No Detectible Organic Emissions (40CFR63.695(c)(1)(i) and 40CFR63.695(c)(1)(ii)) For Closed-Vent Systems designed to operate with no detectible organic emissions, Giant Cement shall visually inspect Closed-Vent System joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) at initial startup and then annually to check for defects that could result in air emissions. Giant Cement shall monitor a component or connection using the procedures specified in 40CFR63.694(k) to demonstrate that it operates with no detectable organic emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted). Closed-Vent System components or connections other than those specified in this condition shall also be monitored annually using the procedures specified in 40CFR63.694(k) to demonstrate that components or connections operate with no detectable organic emissions.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (CLOSED-VENT SYSTEMS)	
Condition Number	**Condition**
6.B.17(d)	Records of Closed-Vent System Inspections (40CFR63.695(c)(1)(iv), 40CFR63.695(c)(2)(iv) and 40CFR63.696(e)) Giant Cement shall keep on-site and on-file a record for each Closed-Vent System inspection that includes the information specified by paragraphs (d)(1) through (d)(6) of this condition. These records shall be kept on-site and on-file for a calendar period of five(5) calendar years from the date of inspection and made available to Department personnel upon request. In the event that repair of a defect is delayed, Giant Cement shall also record the reason for the delay and the date that completion of repair of the defect is expected. (d)(1) The date of the Closed-Vent System inspection. (d)(2) Each defect detected during the Closed-Vent System inspection. (d)(3) The location of each defect detected. (d)(4) A description of each defect detected. (d)(5) The date of detection of each defect. (d)(6) A description of the corrective action(s) taken to repair each defect.
6.B.17(e)	Repair of Closed-Vent System Defects (40CFR63.695(c)(1)(iii), 40CFR63.695(c)(2)(iii) and 40CFR63.695(c)(3)) Giant Cement shall make first efforts at repair of a Closed-Vent System defect found during an inspection no later than five(5) calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection. Repair of a defect may be delayed beyond 45 calendar days if either completion of the repair is technically infeasible without the shutdown of the process or unit that vents to a Closed-Vent System or Giant Cement determines that the air emissions resulting from the repair of the defect within the specified period would be greater than the fugitive emissions likely to result by delaying the repair until the next time the process or unit that vents to the Closed-Vent System is shutdown. In this case, Giant Cement shall repair the defect the next time the process or unit that vents to the closed- vent system is shutdown. Repair of the defect shall be completed before the process or unit resumes operation.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (CLOSED-VENT SYSTEMS)	
Condition Number	**Condition**
6.B.17(f)	Closed-Vent System Bypass Devices (40CFR63.693(c)(2)) In situations when a Closed-Vent System includes bypass devices that could be used to divert a vent stream from the Closed-Vent System to the atmosphere at a point upstream of the control device inlet, each bypass device shall be equipped with either a flow indicator or a seal or locking device. Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, or pressure relief valves needed for safety reasons are not subject to the requirements of this condition. If a flow indicator is used, the indicator shall be installed at the entrance to the bypass line used to divert the vent stream from the Closed-Vent System to the atmosphere. The flow indicator must indicate a reading at least once every 15 minutes. Giant Cement shall maintain records of the information specified by paragraphs (f)(1) through (f)(3) of this condition for the flow indicator. If a seal or locking device is used, the bypass line valve shall be secured in the non-diverting position with a car-seal or a lock-and-key type configuration. The seal or locking device must be placed on the mechanism by which the bypass device position is controlled (e.g., valve handle, damper lever) when the bypass device is in the non-diverting position such that the bypass device cannot be moved to the diverting position without breaking the seal or removing the lock. Giant Cement shall visually inspect the seal or closure mechanism monthly to determine that the bypass line valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line. All records required by this condition shall be kept on-site and on-file for a calendar period of five(5) years from the date of record and made available to Department personnel upon request. (f)(1) Hourly records of whether the flow indicator was operating and whether flow was detected at any time during the hour. (f)(2) Records of all periods when flow is detected. (f)(3) Records for all periods when the flow indicator is not operating.
6.B.17(g)	Closed-Vent System Performance Certifications (40CFR61.356(f) and 40CFR61.356(f)(1)) Once the total annual benzene quantity is equal to or greater than 10 Mg/yr, Giant Cement shall maintain on-site and on-file for the life of the Closed-Vent System, a statement certifying that it is designed to operate at the documented performance level when a benzene-containing waste management unit vented to the control device is or would be operating at the highest load or capacity expected to occur. This statement shall contain the name, title, date and signature of the responsible official who is certifying its accuracy.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (EQUIPMENT LEAKS)	
Condition Number	**Condition**
6.B.18(a)	Equipment Leaks (40CFR63.691(b)) For sources subject to condition 6.B.18(b), Giant Cement shall select to control the HAP emitted from equipment leaks in accordance with the applicable provisions specified in 40CFR61 Subpart V (National Emission Standards for Equipment Leaks) or 40CFR63 Subpart H (National Emission Standards for Organic Hazardous Air Pollutants from Equipment Leaks). Giant Cement shall document in the Facility Operating Record the subpart selected. It shall also document the change if it changes the subpart used.
6.B.18(b)	Affected Source for Equipment Leaks (40CFR63.680(c)(3) and 40CFR63.681)) For Giant Cement's off-site waste management operation, the affected source for equipment leaks is the entire group of equipment components for which each component meets all of the requirements specified in (b)(1) through (b)(3) of this condition. If any one of those requirements do not apply to an equipment component, then that component is not part of the affected source for equipment leaks. (b)(1) The equipment component is a pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, or instrumentation system. (b)(2) The equipment component contains or contacts off-site material having a total HAP concentration equal to or greater than 10% by weight. (b)(3) The equipment component is intended to operate for 300 hours or more during a calendar year in off-site material service. Off-site material service is defined as any time when a pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, or instrumentation system contains or contacts off-site material.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (VAPOR INCINERATOR AND CARBON ADSORPTION SYSTEM)	
Condition Number	**Condition**
6.B.19(a)	Establishment of Vapor Incinerator (Kiln) Minimum and/or Maximum Operating Temperature (40CFR63.695(e)(3) and 40CFR63.695(e)(3)(i)) During the Comprehensive Performance Test, Giant Cement shall establish a minimum operating temperature value, maximum operating temperature value or both, as appropriate, to define the range of conditions at which each existing Vapor Incinerator (existing Kiln) (if still in operation) and the New Vapor Incinerator (New Kiln System) (when placed in operation) must be operated to continuously achieve the selected Vapor Incinerator performance requirement. The minimum or maximum operating temperature value must be established based on values measured during the performance test to demonstrate Vapor Incinerator (Kiln) performance and supplemented, as necessary, by the Vapor Incinerator (Kiln) design specifications, manufacturer recommendations or other applicable information.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (VAPOR INCINERATOR AND CARBON ADSORPTION SYSTEM)	
Condition Number	**Condition**
6.B.19(b)	Vapor Incinerator (Kiln) Continuous Temperature Monitoring (40CFR61.354(a)(2), 40CFR61.354(c)(1), 40CFR63.695(e)(1) and 40CFR63.695(e)(2)) When an existing Kiln (if still in operation) and the New Kiln System (when placed in operation) is used as a Vapor Incinerator, Giant Cement shall ensure that it complies with the selected Vapor Incinerator performance specification by calibrating, maintaining and operating a temperature monitoring system to continuously monitoring its operating temperature. Using the data recorded by the temperature monitoring system, Giant Cement shall calculate the daily average value for the operating temperature of each Vapor Incinerator (Kiln) for each operating day. If operation of each Vapor Incinerator (Kiln) is continuous, the operating day is a 24-hour period. If Vapor Incinerator (Kiln) operation is not continuous, the operating day is the total number of hours of operation per 24-hour period. Valid data points must be available for 75% of the operating hours in an operating day to compute the daily average. Giant Cement shall inspect the recorded temperature data at least once during the operating day to ensure that the Vapor Incinerator is operating properly.
6.B.19(c)	Records of Carbon Adsorption System and Vapor Incinerator (Kiln) Planned Routine Maintenance (40CFR63.696(g)) Giant Cement shall record, on a semiannual basis, a description of the planned routine maintenance that is anticipated to be performed for the Carbon Adsorption System and each existing Vapor Incinerator (existing Kiln) (if still in operation) and the New Vapor Incinerator (New Kiln System) (when placed in operation) during the next six(6) months. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods. A description of the planned routine maintenance that was performed for the Carbon Adsorption System and each Vapor Incinerator (Kiln) during the previous six(6) months shall also be recorded. This description shall include the type of maintenance performed and the total number of hours during these six(6) months that the Carbon Adsorption System or each Vapor Incinerator did not meet the selected Vapor Incinerator performance requirement due to planned routine maintenance. Records of this information shall be kept on-site and on-file for a calendar period of five(5) years from the initial recording date and made available to Department personnel upon request.
6.B.19(d)	Bypassing of all Vapor Incinerators (Kilns) and the Carbon Adsorption System for Performing Routine Maintenance on the Closed-Vent System (40CFR63.693(b)(3)) In the event that all the existing Vapor Incinerators (existing Kilns) (if still in operation), the New Vapor Incinerator (New Kiln System) (when placed in operation) and the Carbon Adsorption System need to be bypassed for the purpose of performing planned routine maintenance of the Closed-Vent System in situations when routine maintenance cannot be performed during periods that the emission point vented to a Vapor Incinerator (Kiln) and the Carbon Adsorption System is shutdown, the total time on an annual basis that all control devices are bypassed to perform routine maintenance and emissions vented to the atmosphere shall not exceed 240 hours per each calendar year. All control devices may also be bypassed for the purpose of correcting a malfunction of the closed- vent system, Carbon Adsorption System or a Vapor Incinerator (Kiln). Giant Cement shall perform the adjustments or repairs necessary to correct the malfunction as soon as practicable after the malfunction is detected. A log shall be maintained that details the bypassing of all control devices. This log shall include the starting date and time of each bypass, the reason for each bypass, the ending date and time of each bypass, the total number of hours for each bypass and a running total of the number of hours of all bypasses. The log shall also indicate the starting and ending date of each calendar year. At the end of each calendar year the total number of hours of all bypasses shall be reset to zero. In situations when the Closed-Vent System includes bypass devices that could be used to divert a vent stream from the Closed-Vent System to the atmosphere at a point upstream of the control device inlet, each bypass device shall be equipped with either a flow indicator, seal or locking device.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (VAPOR INCINERATOR AND CARBON ADSORPTION SYSTEM)	
Condition Number	**Condition**
6.B.19(e)	Vapor Incinerator (Kiln) Operating Temperature Excursions (40CFR63.695(e)(4), 40CFR63.695(e)(5), 40CFR63.695(e)(6) and 40CFR63.695(e)(7)) A Vapor Incinerator (Kiln) operating temperature excursion is determined to have occurred when the temperature monitoring data or lack of monitoring data result in any one of the criteria specified in paragraphs (e)(1) through (e)(3) of this condition. When multiple operating parameters are monitored for a Vapor Incinerator (Kiln) and during the same operating day more than one of these operating parameters meets an excursion criterion specified in paragraphs (e)(1) through (e)(3) of this condition, then a single excursion is determined to have occurred for the Vapor Incinerator (Kiln) for that operating day. For each excursion, except as specified in this condition, Giant Cement shall be deemed to have failed to have applied control in a manner that achieves the required operating parameter limits. Failure to achieve the required operating parameter limits is a violation of 40CFR63 Subpart DD. An excursion is not a violation nor does it count toward the number of allowed excused excursions when the excursion occurs during a period of startup, shutdown or malfunction when the affected source is operated during such period in accordance with its Startup, Shutdown and Malfunction Plan or during periods of non-operation of the unit or the process that is vented to the Vapor Incinerator (Kiln) (resulting in cessation of HAP emissions to which the monitoring applies). For each Vapor Incinerator (Kiln) one(1) excused excursion is allowed per semiannual period for any reason. Nothing in this condition shall be construed to allow or excuse an operating temperature excursion caused by any activity that violates other applicable provisions. (e)(1) A Vapor Incinerator (Kiln) operating temperature excursion occurs when the daily average value of the monitored operating temperature is less than the minimum operating temperature limit (or, if applicable, greater than the maximum operating temperature limit) established for the Vapor Incinerator operating temperature in accordance with the requirements of condition 6.B.19(a). (e)(2) A Vapor Incinerator (Kiln) operating excursion occurs when the period of Vapor Incinerator (Kiln) operation is four(4) hours or greater in an operating day and the monitored operating temperature data is insufficient to constitute a valid hour of data for at least 75% of the operating hours. Monitoring operating temperature data is insufficient to constitute a valid hour of data if measured values are unavailable for any of the 15-minute periods within the hour. (e)(3) A Vapor Incinerator (Kiln) operating temperature excursion occurs when the period of Vapor Incinerator operation is less than four(4) hours in an operating day and more than one(1) of the hours during the period does not constitute a valid hour of data due to insufficient monitoring data. Monitoring data are insufficient to constitute a valid hour of data if measured values are unavailable for any of the 15-minute periods within the hour.
6.B.19(f)	Summary Report of All Vapor Incinerator (Kiln) Operating Temperature Excursions (40CFR61.357(d)(7), 40CFR61.357(d)(7)(ii) and 40CFR63.697(b)(4)) Giant Cement shall submit a semiannual Summary Report of all Vapor Incinerator (Kiln) operating temperature excursions. If the total annual benzene quantity is greater than or equal to 10 Mg/yr (11 tpy) then the Summary Report shall be submitted quarterly. The summary report shall include a description of Vapor Incinerator (Kiln) operating temperature excursions that have occurred during the reporting period. For each excursion caused when the daily average value of the monitored Vapor Incinerator (Kiln) operating temperature is less than the minimum operating temperature (or, if applicable, greater than the maximum operating temperature), the report shall include the daily average values of the monitored operating temperature, the applicable operating temperature limits and the date and duration of the period that the exceedance occurred. For each excursion caused by lack of monitoring data, the report shall include the date and duration of period when the monitoring data were not collected and the reason why the data were not collected.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (VAPOR INCINERATOR AND CARBON ADSORPTION SYSTEM)	
Condition Number	**Condition**
6.B.19(g)	Management of Used Carbon from the Carbon Adsorption System (40CFR63.693(d)(4)(ii)) Giant Cement shall regenerate, reactivate or burn the spent carbon removed from the Carbon Adsorption System by using one(1) of the options listed in paragraphs (g)(1) through (g)(7) of this condition. (g)(1) Regenerated or reactivated in a thermal treatment unit equipped with and operating air emission controls in accordance with 40CFR63.693. (g)(2) Regenerated or reactivated in a thermal treatment unit for which the owner or operator has been issued a final permit under 40CFR270 that implements the requirements of 40CFR 264, Subpart X. (g)(3) Regenerated or reactivated in a thermal treatment unit equipped with and operating organic air emission controls in accordance with a national emission standard for hazardous air pollutants under another subpart in 40CFR63 or 40CFR61. (g)(4) Burned in a hazardous waste incinerator for which the owner or operator has been issued a final permit under 40CFR270 that implements the requirements of 40CFR264, Subpart O. (g)(5) Burned in a boiler or industrial furnace for which the owner or operator has been issued a final permit under 40CFR270 that implements the requirements of 40CFR266 Subpart H. (g)(6) Burned in a boiler or industrial furnace for which the owner or operator has designed and operates the unit in accordance with the interim status requirements of 40CFR266 Subpart H. (g)(7) Burned in a hazardous waste incinerator for which the owner or operator has designed and operates the incinerator in accordance with the interim status requirements of 40CFR265 Subpart O.
6.B.19(h)	Records of Unexpected Carbon Adsorption System and Vapor Incinerator (Kiln) Malfunctions (40CFR63.696(h)) Giant Cement shall record the information specified in paragraphs (h)(1) through (h)(3) of this condition for those unexpected Carbon Adsorption System, existing Vapor Incinerator (existing Kiln) (if still in operation) and New Vapor Incinerator (New Kiln System) (when placed in operation) malfunctions that would require the Carbon Adsorption System or a Vapor Incinerator (Kiln) not to meet the selected Vapor Incinerator performance requirement. Records of this information shall be kept on-site and on-file for a calendar period of five(5) years from the initial recording date and made available to Department personnel upon request. (h)(1) The occurrence and duration of each malfunction of the Carbon Adsorption System or a Vapor Incinerator. (h)(2) The duration of each period during a malfunction when gases, vapors, or fumes are vented from the waste management unit through the Closed-Vent System to the Carbon Adsorption System or a Vapor Incinerator while it is not properly functioning. (h)(3) Actions taken during periods of malfunction to restore the malfunctioning Carbon Adsorption System or a Vapor Incinerator (Kiln) to its normal or usual manner of operation.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (VAPOR INCINERATOR AND CARBON ADSORPTION SYSTEM)	
Condition Number	**Condition**
6.B.19(i)	Carbon Adsorption System Operating Parameters (40CFR61.354(e) and 40CFR63.693(d)(3)(iii)) Giant Cement shall keep a log on-site that details the usage of the carbon in the Carbon Adsorption System units. This log shall include the date, start-up time, shut down time and the number of hours that the units were operated during solvent and tank farm operations.(i.e. solvent tank truck and railcar processing) A running total of use hours for the current carbon contained in each unit shall also be maintained in the log. A running total of all yearly Carbon Adsorption System usage hours shall also be recorded. Each log entry shall be kept for a period of five(5) years from the date of entry and the log shall be made available to Department personnel upon request. Giant Cement shall monitor the carbon adsorption system units for breakthrough once an hour after the carbon exceeds 29 total hours of use for one unit or 58 total hours of use for two units connected in series. After this period, Giant Cement shall monitor until breakthrough occurs and this monitoring shall be recorded in the log. The sampling time, inlet concentration, outlet concentration and percentage of removal shall be recorded in the log. The percentage of removal shall be calculated as specified in paragraph (i)(1) of this condition. The monitoring method to be used shall be 40CFR60 Appendix A Method 21 and Giant Cement shall follow all method requirements. The hour of breakthrough shall also be recorded in the log. The carbon shall be replaced immediately after breakthrough occurs and the date of carbon replacement recorded in the log. Once the carbon has been replaced the running total of use hours shall be reset to zero(0). Giant Cement also has the option of not monitoring for breakthrough and replacing the carbon once the limit of total use hours have been reached. If the total of use hours for the Carbon Adsorption System exceeds 876 hours in a calendar year (January 1 through December 31 of each year) then Giant Cement shall notify the Department in writing. The Department will then determine if the installation of a continuous monitoring system will be required. (i)(1) $\text{Removal \%} = \dfrac{(\text{Inlet Concentration} - \text{Outlet Concentration})}{\text{Inlet Concentration}}$

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (ALTERNATIVE INSPECTION AND MONITORING INTERVAL)	
Condition Number	**Condition**
6.B.20(a)	Alternative Inspection and Monitoring Intervals for the Liquid Waste Fuel Storage Tanks, Waste Transfer Systems and the Closed-Vent System (40CFR63.695(f)) Following the initial inspection and monitoring of the Liquid Waste Fuel Storage Tanks, Waste Transfer Systems and Closed-Vent System in accordance with the applicable inspection and monitoring requirements, subsequent inspection and monitoring of the affected equipment may be performed at intervals longer than specified in this permit when Giant Cement determines that performing the required inspection or monitoring procedures would expose a worker to dangerous, hazardous or otherwise unsafe conditions. Giant Cement shall prepare and maintain at the plant site written documentation that identifies the specific equipment designated as unsafe to inspect and monitor. The documentation shall include for each piece of equipment designated as such a written explanation of the reasons why it is unsafe to inspect or monitor using the applicable inspection and monitoring requirements. Giant Cement shall develop and implement a written plan and schedule to inspect and monitor the affected equipment using the applicable inspection and monitoring requirements during times when a worker can safely access it. The required inspections and monitoring shall be performed as frequently as practicable but do not need to be performed more frequently than as specified in this permit. A copy of the written plan and schedule shall be maintained at the plant site and made available to Department personnel upon request.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (BENZENE-CONTAINING WASTES)	
Condition Number	**Condition**
6.B.21(a)	Calculation of Total Annual Benzene Quantity (40CFR61.342(a) and 40CFR61.355(c)(1)(i)(C)) The total annual benzene quantity is defined as the sum of the annual benzene quantity for each waste and/or waste stream at the facility that has a flow-weighted annual average water content greater than 10% or that is mixed with water, or other wastes, at any time and the mixture has an annual average water content greater than 10%. The benzene quantity in a waste stream is to be counted only once without multiple counting if other waste streams are mixed with or generated from the original waste stream. Other specific requirements for calculating the total annual benzene waste quantity are specified in paragraphs (a)(1) through (a)(4) of this condition. (a)(1) Wastes that are exempted from treatment shall be included in the calculation of the total annual benzene quantity if they have an annual average water content greater than 10% or if they are mixed with water or other wastes at any time and the mixture has an annual average water content greater than 10%. (a)(2) The benzene in a material subject to 40CFR61 Subpart FF that is sold shall be included in the calculation of the total annual benzene quantity if the material has an annual average water content greater than 10%. (a)(3) Benzene in wastes generated by remediation activities conducted at Giant Cement, such as the excavation of contaminated soil, pumping and treatment of groundwater and the recovery of product from soil or groundwater shall not be included in the calculation of total annual benzene quantity. If the total annual benzene quantity is 10 Mg/yr (11 ton/yr) or more, wastes generated by remediation activities are subject to the treatment requirement of condition 6.B.21(m). If Giant Cement is managing remediation waste generated off-site, the benzene in this waste shall be included in the calculation of total annual benzene quantity if the waste streams have an annual average water content greater than 10% or if they are mixed with water or other wastes at any time and the mixture has an annual average water content greater than 10%. (a)(4) The total annual benzene quantity shall be determined based upon the quantity of benzene in the waste before any waste treatment occurs to remove the benzene except the determination for wastes that are received from off-site shall be made at the point where the waste enters the hazardous waste treatment, storage, or disposal facility.
6.B.21(b)	Transfer of Benzene-Containing Wastes and/or Waste Streams for Off-Site Treatment (40CFR61.342(f) and 61.356(c)) If the total annual benzene quantity is greater than or equal to 10 Mg/yr (11 tpy) and rather than treating a benzene-containing waste or waste stream on-site, Giant Cement may elect to comply with condition 6.B.21(m) by transferring the waste and/or waste stream off-site to another facility where the waste is treated in accordance with the requirements of condition 6.B.20(m) with the applicable conditions of this permit for each waste management unit that receives or manages the waste and/or waste stream prior to off-site shipment. Giant Cement shall also include with each off-site waste and/or waste stream shipment a notice stating that it contains benzene which is required to be managed and treated in accordance with the provisions of 40CFR61 Subpart FF. Giant Cement shall maintain documentation for each off-site waste and/or waste stream shipment that includes the date shipped off-site, quantity of waste shipped offsite, name and address of the receiving facility and a copy of the notice sent with the shipment.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (BENZENE-CONTAINING WASTES)	
Condition Number	**Condition**
6.B.21(c)	Content of Report for Total Annual Benzene Quantity (40CFR61.357(a)) Giant Cement shall submit a report to the Department that summarizes the regulatory status of each waste and/or waste stream subject to 40CFR61.342 that is determined by the procedures specified in 40CFR61.355(c) to contain benzene. The report shall contain the total annual benzene quantity determined in accordance with condition 6.B.21(a) and a table identifying each waste and/or waste stream and whether or not it is controlled for benzene emissions in accordance with the requirements of 40CFR61 Subpart FF. For each waste and/or waste stream identified as not being controlled for benzene emissions in accordance with the requirements of 40CFR61 Subpart FF, the information listed in paragraphs (c)(1) through (c)(6) shall be added to the table. (c)(1) Whether or not the water content of the waste stream is greater than 10%. (c)(2) Whether or not the waste stream is a process wastewater stream, product tank drawdown, or landfill leachate. (c)(3) Annual waste quantity for the waste stream. (c)(4) Range of benzene concentrations for the waste stream. (c)(5) Annual average flow-weighted benzene concentration for the waste stream. (c)(6) Annual benzene quantity for the waste stream.
6.B.21(d)	Frequency of Reporting for the Total Annual Benzene Quantity less than 1 Mg/yr (40CFR61.357(b)) If the total annual benzene quantity is less than 1 Mg/yr (1.1 ton/yr), then Giant Cement shall submit to the Department a report containing the information listed in condition 6.B.21(c) whenever there is a change that could cause the total annual benzene quantity to increase to 1 Mg/yr (1.1 ton/yr) or more. This report shall be submitted to the Manager of the Technical Management Section, Bureau of Air Quality postmarked no later than 30 calendar days after change.
6.B.21(e)	Frequency of Reporting for the Total Annual Benzene Quantity Between 1 Mg/yr and 10 Mg/yr (40CFR61.357(c)) If the total annual benzene quantity is less than 10 Mg/yr (11 ton/yr) but is equal to or greater than 1 Mg/yr (1.1 ton/yr), then Giant Cement shall submit to the Department an annual report containing the information listed condition 6.B.21(c). The report shall also be submitted whenever there is a change that could cause the total annual benzene quantity to increase to 10 Mg/yr (11 ton/yr) or more. If the information in the annual report is not changed in the following year, then Giant Cement may submit a statement to that effect. This report shall be submitted to the Manager of the Technical Management Section, Bureau of Air Quality postmarked no later than 30 calendar days after the end of the reporting period or change.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (BENZENE-CONTAINING WASTES)	
Condition Number	**Condition**
6.B.21(f)	Frequency of Reporting for the Total Annual Benzene Quantity Equal to or Greater than 10 Mg/yr (40CFR61.357(d), 40CFR61.357(d)(2) and 40CFR61.357(d)(3)) If the total annual benzene quantity is equal to or greater than 10 Mg/yr (11 ton/yr), then Giant Cement shall submit to the Department an annual report containing the information listed condition 6.B.21(c). If the information in the annual report is not changed in the following year, then Giant Cement may submit a statement to that effect. If Giant Cement elects to comply with the requirements of condition 6.B.21(n) for the exemption of wastes, then the report shall also include a table identifying each waste stream chosen for exemption and the total annual benzene quantity in those exempted streams.
6.B.21(g)	Mixing of Benzene-Containing Waste and/or Waste Streams for Treatment (40CFR61.348(a)(3) and 40CFR61.348(a)(4)) If Giant Cement determines that the total annual benzene quantity is equal to or greater than 10 Mg/yr (11 tpy) and if Giant Cement elects to comply with the performance specification of 5.E.4(e)(1), then the intentional or unintentional reduction in the benzene concentration of a waste and/or waste stream by dilution of the waste and/or waste stream with other wastes or materials is prohibited. Giant Cement may aggregate or mix together individual waste and/or waste streams to create a combined waste and/or waste stream for the purpose of facilitating treatment to comply with the requirements of condition 5.E.4(e)(2) and 5.E.4(e)(3).
6.B.21(h)	Records that Identify Benzene-Containing Wastes and/or Waste Streams (40CFR61.356(a) and 40CFR61.356(b) and 40CFR61.356(b)(1)) Giant Cement shall maintain records that identify each waste and/or waste stream subject to 40CFR61 Subpart FF and indicate whether or not it is controlled for benzene in accordance with its requirements. In addition, Giant Cement shall also maintain records for each waste and/or waste stream not controlled for benzene emissions in accordance with 40CFR61 Subpart FF including all test results, measurements, calculations and other documentation used to determine waste and/or waste stream identification, water content, whether or not the waste and/or waste stream is a process wastewater stream, annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration and annual benzene quantity.
6.B.21(i)	Records of Benzene-Containing Wastes and/or Waste Streams Exempt from Treatment (40CFR61.356(b)(2) and 40CFR61.356(b)(2)(ii)) For each benzene-containing waste and/or waste stream exempt from treatment, Giant Cement shall maintain records that shall include all measurements, calculations and other documentation used to determine that the sum of the total annual benzene quantity in all exempt waste streams does not exceed 2.0 Mg/yr (2.2 tpy).
6.B.21(j)	Measurements of Benzene-Containing Waste and/or Waste Stream Concentration After Treatment (40CFR61.354(a)(1) and 40CFR61.356(i)(2)) If Giant Cement elects to comply with the performance specification of 5.E.4(e)(1), then it shall measure the benzene concentration of the waste and/or waste stream exiting the treatment process monthly by collecting and analyzing one or more samples using the procedures specified in 40CFR61.355(c)(3). Giant Cement shall maintain records that include the test date all test results. Records of test results shall be maintained on-site and on-file for a calendar period of five(5) years from the test date and made available to Department personnel upon request.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (BENZENE-CONTAINING WASTES)	
Condition Number	**Condition**
6.B.21(k)	Quarterly Report of Benzene-Containing Waste Treatment Process Exit Concentration Exceedances (40CFR61.357(d) and 40CFR61.357(d)(7)(i)) If Giant Cement elects to comply with the performance specification of 5.E.4(e)(1) , then it shall submit a quarterly report of each period of operation during which the concentration of benzene in the monitored waste stream exiting the treatment process is equal to or greater than 10 ppmw. This report shall be submitted to the Manager of the Technical Management Section, Bureau of Air Quality postmarked no later than 30 calendar days after the end of the reporting period.
6.B.21(l)	Quarterly Certifications of Waste Management Unit and Associated Air Pollution Control Equipment Inspections (40CFR61.357(d)(6)) If the total annual benzene quantity is greater than or equal to 10 Mg/yr (11 tpy), Giant Cement shall submit quarterly certifications to the Department that certify all of the inspections required by this permit for the waste management units and associated air pollution control equipment have been carried out in accordance with the applicable requirements. All certifications shall be submitted to the Manager of the Technical Management Section, Bureau of Air Quality postmarked no later than 30 calendar days after the end of the reporting period.
6.B.21(m)	Treatment Requirements for Benzene-Containing Wastes and/or Waste Streams (40CFR61.342(b) and 40CFR61.342(c)) If Giant Cement determines that the total annual benzene quantity is equal to or greater than 10 Mg/yr (11 ton/yr) and decides not to ship the waste off-site for treatment, then for each waste and/or waste stream that contains benzene, including (but not limited to) organic waste streams that contain less than 10% water and aqueous waste streams, Giant Cement shall remove or destroy the benzene contained in the waste and/or waste stream according to the performance specifications specified in condition 5.E.4(e) and 5.E.19(l). It shall also comply with the applicable conditions of this permit for each waste management unit that receives or manages a benzene-containing waste and/or waste stream prior to and during its treatment.
6.B.21(n)	Exemption of Benzene-Containing Wastes and/or Waste Streams from Treatment Requirements (40CFR61.342(a), 40CFR61.342(c)(2) and 40CFR61.342(c)(3)) If the total annual benzene quantity is less than 10 Mg/yr (11 ton/yr) then Giant Cement is exempt from the treatment requirements of condition 6.B.23(m). An individual benzene-containing waste and/or waste stream is exempt from the treatment requirements specified in condition 6.B.21(m) provided that Giant Cement demonstrates initially and, thereafter, annually that the flow-weighted annual average benzene concentration for the waste and/or waste stream is less than 10 ppmw as determined by the procedures specified in 40CFR61.355(c)(2) or 40CFR61.355(c)(3). An individual waste and/or waste stream is also exempt from treatment provided that Giant Cement demonstrates initially and, thereafter, annually that the total annual benzene quantity in all waste streams chosen for exemption does not exceed 2.0 Mg/yr (2.2 ton/yr) as determined using the procedures of 40CFR61.355(j) and the total annual benzene quantity in a waste and /or waste stream chosen for exemption is determined for the year in which the waste is generated.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (WASTE MATERIALS RECEIVED FROM OFF-SITE)	
Condition Number	**Condition**
6.B.22(a)	Waste Materials Received from Off-Site Not Subject To 40CFR63 Subpart DD (40CFR63.680(b)(2) and 40CFR258.2) A waste material received from off-site is not subject to the requirements of 40CFR63 Subpart DD if it meets any of the criteria specified by paragraphs (a)(1) through (a)(6) of this condition. (a)(1) The material is household waste. For the purpose of this condition, household waste is defined as any solid waste (including garbage, trash, and sanitary waste in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas). (a)(2) The material is a waste that is generated as a result of implementing remedial activities required under the RCRA corrective action authorities (RCRA sections 3004(u), 3004(v), or 3008(h)), Comprehensive Environmental Response, CERCLA authorities, or similar Federal or State authorities. (a)(3) The material is a waste containing HAP that is generated by residential households (e.g., old paint, home garden pesticides) and subsequently is collected as a community service by government agencies, businesses, or other organizations for the purpose of promoting the proper disposal of this waste. (a)(4) The material is a waste that is transferred from a chemical manufacturing plant or other facility for which the management of the waste at the facility is required either under 40CFR63 Subpart F or under another 40CFR63 subpart to meet the air emission control standards for process wastewater specified in 40CFR 63.132 through 40CFR63.147 and the owner or operator of the facility from which the waste is transferred has complied with the provisions of 40CFR 63.132(g)(1)(ii) and 40CFR62.132(g)(2). (a)(5) The material is a waste that is transferred from a chemical manufacturing plant, petroleum refinery or coke by-product recovery plant which is subject to 40CFR 61 Subpart FF and for which the waste is generated at a facility that is not exempt under the provisions of 40CFR 61.342(a) from meeting the air emission control standards of 40CFR61 Subpart FF and the owner or operator of the facility from which the waste is transferred has complied with the provisions of 40CFR61.342(f)(2). (a)(6) The material is a hazardous waste that is stored for 10 days or less at a transfer facility in compliance with the provisions of 40CFR 263.12.
6.B.22(b)	Exemption of Certain Off-Site Materials From 40CFR63 Subpart DD (40CFR63.680(d)) Giant Cement is exempt from the requirements of 40CFR63, Subpart DD in situations when the total annual quantity of the HAP contained in the off-site material received at the plant site is less than 1 Mg/yr. To qualify for and maintain the exemption, Giant Cement shall prepare an initial determination of the total annual HAP quantity in the off-site material received at the plant site. This determination shall be based on the total quantity of the HAP listed in 40CFR63, Subpart DD, Table 1 as determined at the point-of- delivery for each off-site material waste and/or waste stream. Giant Cement shall prepare a new determination whenever the extent of changes to the quantity or composition of the off-site material received at the plant site could cause the total annual HAP quantity in the off-site material received at the plant site to exceed the limit of 1 Mg/yr. Documentation shall be maintained to support the determination of the total annual HAP quantity in the off-site material received at Giant Cement. The documentation must include the basis and data used for determining the HAP content of the off-site material. This documentation shall be maintained on-site and on-file for a calendar period of five (5) years from the creation date and made available to Department personnel upon request.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (WASTE MATERIALS RECEIVED FROM OFF-SITE)	
Condition Number	**Condition**
6.B.22(c)	Waste Materials Received from Off-Site Subject to 40CFR63 Subpart DD (40CFR63.680(b)(1) and 63.681)) Waste materials received from off-site are subject to the requirements 40CFR63 Subpart DD if the material meets all of the criteria specified paragraphs in (c)(1) through (c)(3) of this condition. If any one of these criteria do not apply to a material, then it is not subject to 40CFR63 Subpart DD. (c)(1) The material is a waste, used oil, or used solvent. Used oil is defined as any oil refined from crude oil or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities. Used solvent is defined as a mixture of aliphatic hydrocarbons or a mixture of one and two ring aromatic hydrocarbons that has been used as a solvent and as a result of such use is contaminated by physical or chemical impurities. A waste is defined as a material generated from industrial, commercial, mining, or agricultural operations or from community activities that is discarded, discharged, or is being accumulated, stored, or physically, chemically, thermally, or biologically treated prior to being discarded or discharged. (c)(2) The waste, used oil, or used solvent is not produced or generated within the plant site, but the material is delivered, transferred, or otherwise moved to the plant site from a location outside the boundaries of the plant site. (c)(3) The waste, used oil, or used solvent contains one or more of the hazardous air pollutants (HAP) listed in 40CFR63 Subpart DD Table 1 based on the composition of the material at the point-of-delivery. Point-of-delivery is defined as the point at the boundary or within the plant site where Giant Cement first accepts custody, takes possession, or assumes responsibility for the management of an off-site material stream managed in its waste management operation where the characteristics of an off-site material stream are determined prior to combining the off-site material stream with other off-site material streams or with any other materials.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (EXEMPTION OF OFF-SITE WASTE MATERIAL MANAGEMENT UNITS FROM 40CFR63 SUBPART DD)	
Condition Number	**Condition**
6.B.23(a)	Exemption of Off-Site Waste Material Management Units from 40CFR63 Subpart DD (40CFR63.681 and 40CFR63.683(b)(2)(ii)) At the discretion of Giant Cement, one or a combination of off-site waste material management units may be exempted from the requirements of 40CFR63 Subpart DD when the total annual quantity of HAP contained in the off-site waste materials placed in the units is less than 1 Mg/yr. For the off-site waste material management units selected to be exempted, Giant Cement shall meet the requirements specified by condition 6.B.23(b) and 6.B.23(c). Giant Cement may change the off-site waste material management units selected as exempt by preparing a new designation for the exempt units as required by condition 6.B.23(b) and performing a new determination as required by condition 6.B.23(c). An off-site waste material management unit is defined as a tank, container, surface impoundment, oil-water separator, organic-water separator, or transfer system used to manage waste materials received from off-site.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-04 AND FUTURE UNIT ID F-03) (WASTE FUEL PROCESSING AND STORAGE EQUIPMENT) (EXEMPTION OF OFF-SITE WASTE MATERIAL MANAGEMENT UNITS FROM 40CFR63 SUBPART DD)	
Condition Number	**Condition**
6.B.23(b)	Identification of Designated Exempt Off-Site Waste Material Management Units (40CFR63.683(b)(2)(ii)(A)) Giant Cement shall designate each of the off-site waste material management units that it selects to be exempt by either submitting to the Department a written notification identifying the exempt units or permanently marking the exempt units at its plant site. If Giant Cement selects to prepare and submit a written notification, this notification shall include a site plan, process diagram or other appropriate documentation identifying each of the exempt units. If Giant Cement selects to permanently mark the exempt units, each unit must be marked in such a manner that it can be readily identified as an exempt unit from the other off-site waste material management units located at its plant site.
6.B.23(c)	Determination of Total Annual HAP in the Off-Site Waste Material Placed in the Designated Exempt Off-Site Waste Material Management Units (40CFR63.683(b)(2)(ii)(B)) Giant Cement shall prepare an initial determination of the total annual HAP quantity in the off-site waste material placed in the exempt units. This determination shall be based on the total quantity of the HAP listed in 40CFR63 Subpart DD Table 1 as determined at the point where the off-site material is placed in each exempted unit. Giant Cement shall perform a new determination whenever the extent of changes to the quantity or composition of the off-site waste material placed in the exempted units could cause the total annual HAP content in the off-site waste material to exceed one(1) Mg/yr. Giant Cement shall maintain documentation to support the most recent determination of the total annual HAP quantity and it must include the basis and data used for determining the HAP content of the off-site waste material. This documentation shall be maintained on-site and on-file for a calendar period of five(5) years from the date of creation and made available to Department personnel upon request.
6.B.23(d)	Other Exemptions of Off-Site Waste Material Management Units from 40CFR63 Subpart DD (40CFR63.683(b)(2)(iv)) An off-site waste material management unit is exempt from the requirements of 40CFR63 Subpart DD if the off-site material placed in the unit is a hazardous waste that meets the conditions specified in either paragraphs (d)(1) or (d)(2) of this condition. (d)(1) The hazardous waste meets the numerical organic concentration limits, applicable to the hazardous waste, as listed in 40CFR268.40 Table entitled "Treatment Standards for Hazardous Waste". (d)(2) The organic hazardous constituents in the hazardous waste have been treated by the treatment technology established by the EPA for the hazardous waste in 40CFR268.42(a) or have been removed or destroyed by an equivalent method of treatment approved by the EPA under 40CFR 268.42(b).

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)	
Condition Number	**Condition**
6.B.24(a)	Continuous Monitoring of Kiln Particulate Matter Emissions (40CFR63.1209(a)(1)(iii)) Giant Cement shall install, calibrate, maintain and operate a CPMS to measure the particulate matter discharged to the atmosphere from each existing Kiln (if still in operation) and the New Kiln System (when placed in operation). However, compliance with the requirements to install, calibrate, maintain and operate the monitor is not required until such time that the EPA promulgates all applicable performance specifications and operational requirements.
6.B.24(b)	Use of a CEMS to Demonstrate Compliance with the Kiln Carbon Monoxide and Hydrocarbon Emission Limits (40CFR63.1209(a)(1)(i)) By September 30, 2003, for the existing Kilns and by the startup of the New Kiln System, Giant Cement shall have chosen to use either a Carbon Monoxide or Hydrocarbon CEMS to demonstrate and monitor compliance with the applicable Carbon Monoxide and Hydrocarbon emission standards. Giant Cement shall also use an oxygen CEMS to continuously correct the Carbon Monoxide or Hydrocarbon level to 7% O2.
6.B.24(c)	Continuous Monitoring of Existing Kiln Visible Emissions (40CFR63.8(c)(4)(i) and 40CFR63.1209(a)(1)(ii)) By September 30, 2003, Giant Cement shall have calibrated, be maintaining and continuously operating in accordance with 40CFR63 Subpart A and 40CFR60 Appendix B Performance Specification 1, a COMS to measure the opacity of the visible emissions discharged into the atmosphere from each existing Kiln. This COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. For this COMS, Giant Cement shall also maintain a log of the span and zero from each calibration of the monitor. This log shall be kept on-site and each log entry kept for a calendar period of five(5) years from the date of entry and made available to Department personnel upon request.
6.B.24(d)	Continuous Monitoring of Existing Clinker Cooler Visible Emissions (40CFR63.8(c)(4)(i), 40CFR63.1350(d)(1) and 40CFR63.1350(d)(3)) Giant Cement shall monitor opacity at each point where emissions are vented from each existing Clinker Cooler. It shall install, calibrate, maintain, and continuously operate a COMS located at the outlet of each existing Clinker Cooler PMCD to continuously monitor the opacity. The COMS shall be installed, maintained, calibrated, and operated as required by 40CFR63 Subpart A and 40CFR60 Appendix B Performance Specification 1. To remain in compliance, the opacity shall be maintained such that the six(6)-minute average opacity for any six(6)-minute block period does not exceed 10%. If the average opacity for any six(6)-minute block period exceeds 10% it constitutes a violation of the standard. This COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.
6.B.24(e)	Carbon Monoxide and Hydrocarbon CEMS Performance Specifications (40CFR63.1209(a)(2)) By September 30, 2003, for the existing Kilns and by the startup of the New Kiln System, Giant Cement shall have installed, calibrated, be maintaining and continuously operating a Carbon Monoxide and/or Hydrocarbon CEMS in compliance with the quality assurance procedures provided in the appendix to 40CFR63 Subpart EEE and 40CFR60 Appendix B, Performance Specifications 4B (Carbon monoxide and Oxygen) and 8A (Hydrocarbons).

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)	
Condition Number	**Condition**
6.B.24(f)	Carbon Monoxide Readings Exceeding The Span (40CFR63.1209(a)(3)) If a Carbon Monoxide CEMS detects a response that results in a on(1)-minute average at or above the 3,000 ppmv span level required by 40CFR60 Appendix B Performance Specification 4B, the one(1)-minute average must be recorded as 10,000 ppmv. The one(1)-minute 10,000 ppmv value must be used for calculating the hourly rolling average carbon monoxide level. Carbon Monoxide CEMS that use a span value of 10,000 ppmv when one(1)-minute Carbon Monoxide levels are equal to or exceed 3,000 ppmv are not subject to the above. Carbon Monoxide CEMS that use a span value of 10,000 are subject to the same CEMS performance and equipment specifications when operating in the range of 3,000 ppmv to 10,000 ppmv that are provided by Performance Specification 4B for other Carbon Monoxide CEMS except the calibration drift must be less than 300 ppmv; and calibration error must be less than 500 ppmv.
6.B.24(g)	Petitions To Use CEMS for Other 40CFR 63 Subpart EEE Emission Standards (40CFR63.1209(a)(5)) Giant Cement may petition the Department to use CEMS for compliance monitoring for Particulate Matter, Mercury, Semivolatile Metals, Low Volatile Metals and Hydrochloric Acid/Chlorine Gas in lieu of compliance with the corresponding operating parameter limits.
6.B.24(h)	Calculation of Initial Rolling Averages for Carbon Monoxide or Hydrocarbon CEMS (40CFR63.1209(a)(6)(i)) For both the existing Kilns (if still in operation) and the New Kiln System (when placed in operation), the Carbon Monoxide or Hydrocarbon CEMS must begin recording one(1)- minute and hourly rolling average values within 60 seconds and 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), respectively, from the time at which compliance with 40CFR63 Subpart EEE begins.
6.B.24(i)	Hydrocarbon Readings Exceeding The Span (40CFR63.1209(a)(4)) If a Hydrocarbon CEMS detects a response that results in a one(1)-minute average at or above the 100 ppmv span level required by 40CFR60 Appendix B Performance Specification 8A, the one(1)-minute average must be recorded as 500 ppmv. The one(1)-minute 500 ppmv value must be used for calculating the hourly rolling average Hydrocarbon level. Hydrocarbon CEMS that use a span value of 500 ppmv when one(1)-minute Hydrocarbon levels are equal to or exceed 100 ppmv are not subject to the above. Hydrocarbon CEMS that use a span value of 500 ppmv are subject to the same CEMS performance and equipment specifications when operating in the range of 100 ppmv to 500 ppmv that are provided by Performance Specification 8A for other hydrocarbon CEMS, except as specified in (i)(1) through (i)(5) of this condition. (i)(1) The zero and high-level calibration gas must have a Hydrocarbon level of between 0 and 100 ppmv, and between 250 and 450 ppmv, respectively. (i)(2) The strip chart recorder, computer, or digital recorder must be capable of recording all readings within the CEM measurement range and must have a resolution of 2.5 ppmv. (i)(3) The CEMS calibration must not differ by more than ±15 ppmv after each 24-hour period of the seven day test at both zero and high levels. (i)(4) The calibration error must be no greater than 25 ppmv. (i)(5) The zero level, mid-level, and high level calibration gas used to determine calibration error must have a hydrocarbon level of 0-200 ppmv, 150-200 ppmv, and 350-400 ppmv, respectively.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)	
Condition Number	**Condition**
6.B.24(j)	Calculation of Rolling Averages for Carbon Monoxide or Hydrocarbon CEMS Upon Intermittent Operations (40CFR63.1209(a)(6)(ii)) Giant Cement must ignore periods of time when one(1)-minute values are not available for calculating the hourly rolling average for Carbon Monoxide and Hydrocarbon CEMS. When one(1)-minute values become available again, the first one(1)-minute value must be added to the previous 59 values to calculate the hourly rolling average.
6.B.24(k)	Calculation of Rolling Averages for Carbon Monoxide or Hydrocarbon CEMS When the Hazardous Waste Feed is Cutoff (40CFR63.1209(a)(6)(iii)) Giant Cement must continue monitoring Carbon Monoxide and Hydrocarbon emissions when the hazardous waste feed is cutoff if an existing Kiln (if still in operation) and the New Kiln System (when placed in operation) is operating according to the requirements of 40CFR63 Subpart EEE. Giant Cement must not resume feeding hazardous waste if the emission levels exceed the standard.
6.B.24(l)	Operating Parameter Limits for Hydrocarbons (40CFR63.1209(a)(7)) If Giant Cement elects to comply with the applicable Carbon Monoxide and Hydrocarbon emission standard by continuously monitoring Carbon Monoxide with a CEMS, it must demonstrate during the Comprehensive Performance Test that Hydrocarbon emissions do not exceed the Hydrocarbon emissions standard. In addition, the limits that it establishes on DRE operating parameters also ensure that Giant Cement maintains compliance with the Hydrocarbon emission standard. If Giant Cement does not conduct the Hydrocarbon demonstration and DRE tests concurrently, it must establish separate operating parameter limits based on each test and the more restrictive of the operating parameter limits applies.
6.B.24(m)	Other CMS Required by 40CFR63 Subpart EEE (40CFR63.8(c)(3), 40CFR63.1209(b)(1) and 40CFR63.1209(b)(2)) Giant Cement shall use other CMS (e.g., thermocouples, pressure transducers, flow meters) to document compliance with the applicable operating parameter limits. Giant Cement must install and operate the other CMS in conformance at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation and calibration of the system.
6.B.24(n)	Calibration of Thermocouples and Pyrometers Required by 40CFR63 Subpart EEE (40CFR63.1209(b)(2)(i)) Giant Cement shall verify the calibration of thermocouples required by 40CFR63 Subpart EEE at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year. Giant Cement shall operate and maintain optical pyrometers required by 40CFR63 Subpart EEE in accordance with manufacturer specifications unless otherwise approved by the Department. Giant Cement shall also calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but no less frequent than once per year, unless otherwise approved by the Department.
6.B.24(o)	Detector Span for Other CMS Required by 40CFR63 Subpart EEE (40CFR63.1209(b)(4)) The span of the non-CEMS CMS detector shall not be exceeded. Giant Cement shall interlock the span limits into the AWFCO.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)	
Condition Number	**Condition**
6.B.24(p)	Calculation of Rolling Averages for Other CMS Required by 40CFR63 Subpart EEE Upon Intermittent Operations (40CFR63.1209(b)(5)(ii)) Giant Cement shall ignore periods of time when one(1)-minute values are not available for calculating rolling averages for other CMS required by 40CFR63 Subpart EEE. When one(1)-minute values become available again, the first one(1)-minute value must be added to the previous one(1)-minute values to calculate rolling averages.
6.B.24(q)	Calculation of Initial Rolling Averages for Other CMS Required by 40CFR63 Subpart EEE (40CFR63.1209(b)(5)(i)) Other CMS required by 40CFR63 Subpart EEE must begin recording one(1)-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m.(e.g., when 60 one(1)-minute values will be available for calculating the initial hourly rolling average) and twelve-hour rolling averages by 12:01 p.m.(e.g., when 720 one(1)-minute averages are available to calculate a 12-hour rolling average), upon compliance with 40CFR63 Subpart EEE.
6.B.24(r)	Calculation of Rolling Averages for Other CMS Required by 40CFR63 Subpart EEE When the Hazardous Waste Feed is Cutoff (40CFR63.1209(b)(5)(iii)) Giant Cement shall continue monitoring operating parameter limits with a CMS when the hazardous waste feed is cutoff if an existing Kiln (if still in operation) and the New Kiln System (when placed in operation) is operating according to the requirements of 40CFR63 Subpart EEE. Giant Cement must not resume feeding hazardous waste if an operating parameter exceeds its limit.
6.B.24(s)	Feedstream Analysis Plan (40CFR63.1209(c)(2) and 40CFR63.1209(c)(3)) Within 180 calendar days after September 30, 2003, Giant Cement shall have developed a Feedstream Analysis Plan and submitted it to the Department for approval. When the New Kiln System is placed in operation, Giant Cement shall make any changes to this plan as necessary and again submit it to the Department for approval. Once approved, Giant Cement shall implement the plan and record it in the Facility Operating Record. The plan shall specify at a minimum the information specified in paragraphs (s)(1) through (s)(6). (s)(1) The parameters for which Giant Cement will analyze each feedstream to ensure compliance with the operating parameter limits. (s)(2) Whether Giant Cement will obtain the analysis by performing sampling and analysis or by other methods, such as using analytical information obtained from others or using other published or documented data or information. (s)(3) How Giant Cement will use the analysis to document compliance with applicable feederate limits (e.g., if it blends hazardous wastes and obtains analyses of the wastes prior to blending but not of the blended, as-fired, waste, the plan must describe how it will be determined the pertinent parameters of the blended waste). (s)(4) The test methods which Giant Cement will use to obtain the analyses. (s)(5) The sampling method which Giant Cement will use to obtain a representative sample of each feedstream to be analyzed using sampling methods described in 40CFR266 Appendix IX, or an equivalent method. (s)(6) The frequency with which Giant Cement will review or repeat the initial analysis of the feedstream to ensure that the analysis is accurate and up to date.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)	
Condition Number	**Condition**
6.B.24(t)	Monitoring of Existing Kiln and New Kiln System Hazardous Waste Fuel Feedrate Limits (40CFR63.1209(c)(4)) Giant Cement shall monitor and record feedrates as specified by paragraphs (t)(1) through (t)(3) of this condition. (t)(1) Determine and record the value of the parameter for each feedstream by sampling and analysis or other method. (t)(2) Determine and record the mass or volume flowrate of each feedstream by a CMS. If Giant Cement determines flowrate of a feedstream by volume, it must determine and record the density of the feedstream by sampling and analysis (unless it reports the constituent concentration in units of weight per unit volume (e.g., mg/l)). (t)(3) Calculate and record the mass feedrate of the parameter per unit time.
6.B.24(u)	Analysis of Feedstreams (40CFR63.1209(c)(1) and SC Regulation 61-62.5 Standard 7 Avoidance) Prior to feeding any hazardous waste to an existing Kiln (if still in operation) and the New Kiln System (when placed in operation) as fuel, Giant Cement shall obtain an analysis of each feedstream that is sufficient to document compliance with the applicable feedrate limits. Also, no waste shall be fed to an existing Kiln (if still in operation) that does not meet the requirements of Table 6.50. The requirements of Table 6.50 do not apply to the New Kiln System.

TABLE 6.50 WASTE FUEL COMPOSITION AS FIRED FOR THE EXISITNG KILNS	
Parameter	**Composition**
Heat Content	Greater than 8000 Btu/lb
Total Halogens Content	Less than or equal to 4%
Total Low Volatile Metal Feed Input	120.25 lb/hr
Total Semi-Volatile Metal Feed Input	88.18 lb/hr
Total Nickel (Ni) Feed Input	63.8 lb/hr

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)	
Condition Number	**Condition**
6.B.24(v)	Waiver of Monitoring of Constituents in Certain Feedstreams (40CFR63.1209(c)(5)) Giant Cement is not required to monitor levels of metals or Chlorine in natural gas feedstreams, process air feedstreams, and feedstreams from vapor recovery systems to document compliance with the applicable feedrate limits provided that it documents in the Comprehensive Performance Test Plan the expected levels of the constituent in the feedstream and it accounts for those assumed feedrate levels in documenting compliance.
6.B.24(w)	Operating Parameters Applicable to Multiple Standards (40CFR63.1209(i)) Giant Cement is required to establish limits on operating parameters based on Comprehensive Performance Testing to ensure it maintains compliance with the emission standards 40CFR63 Subpart EEE. For several parameters, Giant Cement must establish a limit for the parameter to ensure compliance with more than one emission standard. An example is a limit on minimum combustion chamber temperature to ensure compliance with both the DRE and Dioxin/Furan standards. If the performance tests for such standards are not performed simultaneously, the most stringent limit for a parameter derived from independent performance tests shall apply.
6.B.24(x)	Establishing a Limit for the Minimum Combustion Chamber Temperature to Remain in Compliance with the DRE Standard (40CFR63.1209(j)(1)) To remain in compliance with the DRE standard, Giant Cement shall establish operating limits during the Comprehensive Performance Test (or during a previous DRE test) for the minimum combustion chamber temperature, unless the limits are based on manufacturer specifications and Giant Cement complies with those limits at all times that hazardous waste remains in the combustion chamber (i.e., the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated). Giant Cement must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. Giant Cement shall document the temperature measurement location in the Comprehensive Test Plan and establish a minimum hourly rolling average limit as the average of the test run averages.
6.B.24(y)	Establishing Operating Limits for the Maximum Flue Gas Flowrate or Production Rate to Remain in Compliance with the DRE Standard (40CFR63.1209(j)(2)) To remain in compliance with the DRE standard, Giant Cement shall establish operating limits during the Comprehensive Performance Test (or during a previous DRE test) for the maximum flue gas flowrate or production rate, unless the limits are based on manufacturer specifications, and Giant Cement complies with those limits at all times that hazardous waste remains in the combustion chamber (i.e., the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated). As an indicator of gas residence time in the control device, Giant Cement must establish and comply with an operating limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that it documents in the Comprehensive Performance Test Plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run and comply with this limit on a hourly rolling average basis.
6.B.24(z)	Establishing an Operating Limit for the Maximum Hazardous Waste Feedrate to Remain in Compliance with the DRE Standard (40CFR63.1209(j)(3)) To remain in compliance with DRE standard, Giant Cement shall establish operating limits during the Comprehensive Performance Test (or during a previous DRE test) for the maximum hazardous waste feedrate, unless the limits are based on manufacturer specifications, and Giant Cement complies with those limits at all times that hazardous waste remains in the combustion chamber (i.e., the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated). Giant Cement must establish limits on the maximum pumpable and total (i.e., pumpable and nonpumpable) hazardous waste feedrate for each location where hazardous waste is fed. Giant Cement must establish the limits as the average of the maximum hourly rolling averages for each run and comply with the feedrate limit(s) on a hourly rolling average basis.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)	
Condition Number	**Condition**
6.B.24(aa)	Establishing Operating Limits for the Operation of Waste Firing System to Remain in Compliance with the DRE Standard (40CFR63.1209(j)(4)) To remain in compliance with the DRE standard, Giant Cement shall establish operating limits during the Comprehensive Performance Test (or during a previous DRE test) for the operation of the waste firing system, unless the limits are based on manufacturer specifications and Giant complies with those limits at all times that hazardous waste remains in the combustion chamber (i.e., the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated). Giant Cement must specify operating parameters and limits to ensure that good operation of each hazardous waste firing system is maintained.
6.B.24(bb)	Establishing a Limit for the Gas Temperature at the Inlet to a Dry PMCD to Comply with the Dioxin/Furan Emission Limit (40CFR63.1209(k)(1)(i)) To comply with the Dioxin/Furan emission limit, if the combustor (Kiln) is equipped with an electrostatic precipitator, baghouse (fabric filter), or other dry emissions control device where particulate matter is suspended in contact with combustion gas, Giant Cement shall establish an operating limit on the maximum temperature of the gas at the inlet to the device on an hourly rolling average. Giant Cement must establish the hourly rolling average limit as the average of the test run averages and base the limits on operations during the Comprehensive Performance Test, unless the limits are based on manufacturer specifications.
6.B.24(cc)	Establishing a Limit for the Minimum Combustion Chamber Temperature to Comply with the Dioxin/Furan Emission Limit (40CFR63.1209(k)(2)) To comply with the Dioxin/Furan emission limit, Giant Cement shall measure the temperature of each existing Kiln's (if still in operation) and the New Kiln System's (when placed in operation) combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. Giant Cement must document the temperature measurement location in the Comprehensive and Confirmatory test plans. Giant Cement must establish the hourly rolling average limit as the average of the test run averages and base the limits on operations during the Comprehensive Performance Test, unless the limits are based on manufacturer specifications.
6.B.24(dd)	Establishing an Operating Limit on the Maximum Flue Gas Flowrate or Production Rate to Comply with the Dioxin/Furan Emission Limit (40CFR63.1209(k)(3)) As an indicator of gas residence time in the control device, Giant Cement, to comply with the Dioxin/Furan emission limit, shall establish and comply with an operating limit on the maximum flue gas flowrate, the maximum production rate, or another parameter it documents in the Comprehensive Performance Test Plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. Giant Cement must comply with this limit on a hourly rolling average basis. Giant Cement must establish the hourly rolling average limit as the average of the maximum hourly rolling averages for each test run and base the limits on operations during the Comprehensive Performance Test, unless the limits are based on manufacturer specifications.
6.B.24(ee)	Establishing Limits for the Maximum Waste Feedrate to Comply with the Dioxin/Furan Emission Limit (40CFR63.1209(k)(4)) To comply with the Dioxin/Furan emission limit, Giant Cement shall establish limits on the maximum pumpable and total (pumpable and nonpumpable) waste feedrate for each location where waste is fed. Giant Cement must establish the limits as the average of the maximum hourly rolling averages for each run and comply with the feedrate limit(s) on a hourly rolling average basis. Giant Cement must base the limits on operations during the Comprehensive Performance Test, unless the limits are based on manufacturer specifications.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)	
Condition Number	**Condition**
6.B.24(ff)	Establishing Limits for the Total Mercury Feedrate to Comply with the Mercury Emission Limit (40CFR63.1209(l)(1)(i), 40CFR63.1209(l)(1)(ii) and 40CFR63.1209(l)(1)(iii)) To comply with the Mercury emission limit, Giant Cement shall establish a 12-hour rolling average limit for the total feedrate of Mercury in all feedstreams as the average of the test run averages, unless Mercury feedrate limits are extrapolated from performance test feedrate levels. Giant Cement may request as part of the Comprehensive Test Plan to use the Mercury feedrates and associated emission rates during the Comprehensive Performance Test to extrapolate to higher allowable feedrate limits and emission rates. The extrapolation methodology will be reviewed and approved, as warranted, by the Department. The review will consider in particular whether the performance test metal feedrates are appropriate (i.e., whether feedrates are at least at normal levels; depending on the heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate); and whether the extrapolated feedrates requested are warranted considering historical metal feedrate data. The Department will review the performance test results in making a finding of compliance to ensure that Giant Cement has interpreted emission test results properly and that the extrapolation procedure is appropriate for the source.
6.B.24(gg)	Establishing Operating Limits for the Maximum Flue Gas Flowrate or Production Rate to Comply with the Particulate Matter Emission Limit (40CFR63.1209(m)(2)) As an indicator of gas residence time in the control device, Giant Cement, to comply with the particulate matter emission limit shall establish an operating limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that it documents in the site-specific test plan as an appropriate surrogate for gasresidence time, as the average of the maximum hourly rolling averages for each run. Giant Cement must comply with this limit on a hourly rolling average basis. Giant Cement must establish the hourly rolling average limit as the average of the test run averages and base the limits on operations during the Comprehensive Performance Test, unless the limits are based on manufacturer specifications.
6.B.24(hh)	Establishing Operating Limits for the Maximum Inlet Temperature to the Dry PMCD to Comply with the Combined Cadmium and Lead and Combined Arsenic, Beryllium and Chromium Emission Standards (40CFR63.1209(n)(1)) To comply with the combined Cadmium and Lead and combined Arsenic, Beryllium and Chromium emission standards, Giant Cement shall establish an operating limit on the maximum inlet temperature to the primary dry metals emissions control device (e.g., electrostatic precipitator, baghouse) on an hourly rolling average basis as the average of the test run averages. Giant Cement must base the limits on operations during the Comprehensive Performance Test, unless the limits are based on manufacturer specifications.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)	
Condition Number	**Condition**
6.B.24(ii)	Establishing Limits for the Maximum Feedrate of Semivolatile and Low Volatile Metals to Comply with the Combined Cadmium and Lead and Combined Arsenic, Beryllium and Chromium Emission Standards (40CFR63.1209(n)(2)(i)) Giant Cement shall establish feedrate limits for the combined Cadmium and Lead and combined Arsenic, Beryllium and Chromium as specified in paragraphs (ii)(1) through (ii)(3) of this condition except as provided by condition 6.B.26(jj). Giant Cement must base the limits on operations during the Comprehensive Performance Test, unless the limits are based on manufacturer specifications. (ii)(1) Giant Cement must establish a 12-hour rolling average limit for the feedrate of Cadmium and Lead, combined, in all feedstreams as the average of the test run averages. (ii)(2) Giant Cement must establish a 12-hour rolling average limit for the feedrate of Arsenic, Beryllium, and Chromium, combined, in all feedstreams as the average of the test run averages. (ii)(3) Giant Cement must establish a 12-hour rolling average limit for the feedrate of Arsenic, Beryllium, and Chromium, combined, in all pumpable feedstreams as the average of the test run averages. Dual feedrate limits for both pumpable and total feedstreams are not required, however, if Giant Cement bases the total feedrate limit solely on the feedrate of pumpable feedstreams.
6.B.24(jj)	Feedrate Extrapolation in Lieu of Establishing Limits for the Maximum Feedrate of Semivolatile and Low Volatile Metals to Comply With the Combined Cadmium and Lead and Combined Arsenic, Beryllium and Chromium Emission Standards (40CFR63.1209(n)(2)(ii)) Giant Cement may request as part of the Comprehensive Performance Test Plan to use the combined Cadmium and Lead and combined Arsenic, Beryllium and Chromium feedrates and associated emission rates during the Comprehensive Performance Test to extrapolate to higher allowable feedrate limits and emission rates. The extrapolation methodology will be reviewed and approved, as warranted, by the Department. The review will consider whether the performance test metal feedrates are appropriate (i.e., whether feedrates are at least at normal levels; depending on the heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate) and whether the extrapolated feedrates that Giant Cement requests are warranted considering historical metal feedrate data. The Department will review the performance test results in making a finding of compliance required to ensure that Giant Cement has interpreted emission test results properly and that the extrapolation procedure is appropriate for its source.
6.B.24(kk)	Establishing Limits for the Maximum Total Chlorine and Chloride Feedrate to Comply with the Combined Cadmium and Lead and Combined Arsenic, Beryllium and Chromium Emission Standards (40CFR63.1209(n)(4)) Giant Cement shall establish a 12-hour rolling average limit for the feedrate of total Chlorine and Chloride in all feedstreams as the average of the test run averages.
6.B.24(ll)	Establishing Operating Limits for the Maximum Flue Gas Flowrate or Production Rate to Comply with the Combined Cadmium and Lead and Combined Arsenic, Beryllium and Chromium Emission Standards 40CFR63.1209(n)(5)) As an indicator of gas residence time in the control device and to comply with the combined Cadmium and Lead and combined Arsenic, Beryllium and Chromium emission limits, Giant Cement shall establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that it documents in the Comprehensive Performance Test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. Giant Cement must comply with this limit on a hourly rolling average basis. Giant Cement must base the limits on operations during the Comprehensive Performance Test, unless the limits are based on manufacturer specifications.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)	
Condition Number	**Condition**
6.B.24(mm)	Establishing Limits for the Feedrate of Total Chlorine and Chloride to Comply with the Hydrochloric Acid and Chlorine Gas Emission Limit (40CFR63.1209(o)(1)) Giant Cement shall establish a 12-hour rolling average limit for the total feedrate of Chlorine (organic and inorganic) in all feedstreams as the average of the test run averages. Giant Cement must base the limits on operations during the Comprehensive Performance Test, unless the limits are based on manufacturer specifications.
6.B.24(nn)	Establishing Operating Limits for the Maximum Flue Gas Flowrate or Production Rate to Comply with the Hydrochloric Acid and Chlorine Gas Emission Limit (40CFR63.1209(o)(2)) As an indicator of gas residence time in the control device and to comply with the Hydrochloric Acid and Chlorine Gas emission standard, Giant Cement shall establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that it documents in the Comprehensive Performance Test Plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. Giant Cement must comply with this limit on a hourly rolling average basis. Giant Cement must base the limits on operations during the Comprehensive Performance Test, unless the limits are based on manufacturer specifications.
6.B.24(oo)	Monitoring of the Maximum Combustion Chamber Pressure (40CFR63.1209(p)) If Giant Cement complies with the requirements for combustion system leaks by maintaining the maximum combustion chamber zone pressure lower than ambient pressure, it shall monitor the pressure instantaneously and the AWFCO must be engaged when negative pressure is not adequately maintained.
6.B.24(pp)	Operating Under Different Modes of Operation (40CFR63.1204(d)(1)(ii) and 40CFR63.1209(q)) If Giant Cement operates under different modes of operation, it must establish operating parameter limits for each mode. Giant Cement must document in the Facility Operating Record when it changes a mode of operation and it begins complying with the operating limits for an alternative mode of operation.
6.B.24(qq)	Retrieval Approach for Calculating Rolling Averages Under Different Modes of Operation (40CFR63.1204(d)(1)(iii) and 40CFR63.1209(q)(2)(i)) When Giant Cement transitions to a different mode of operation, it may select to calculate rolling averages anew using the CMS values previously recorded for that mode of operation (i.e., ignore CMS values subsequently recorded under other modes of operation when Giant Cement transitions back to a mode of operation).
6.B.24(rr)	Start Anew Approach for Calculating Rolling Averages Under Different Modes of Operation (40CFR63.1204(d)(1)(iii) and 40CFR63.1209(q)(2)(ii)) When Giant Cement transitions to a different mode of operation, it may select to calculate rolling averages anew without considering previous recordings. Rolling averages must be calculated as the average of the available one-minute values for the parameter until enough one-minute values are available to calculate hourly or 12-hour rolling averages, whichever is applicable to the parameter. Giant Cement may not transition to a new mode of operation using this approach if the most recent operation in that mode resulted in an exceedance of an applicable emission standard measured with a CEMS or operating parameter limit prior to the hazardous waste residence time expiring.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)	
Condition Number	**Condition**
6.B.24(ss)	Seamless Transition Approach for Calculating Rolling Averages Under Different Modes of Operation (40CFR63.1204(d)(1)(iii) and 40CFR63.1209(q)(2)(iii)) When Giant Cement transitions to a different mode of operation, it may select to continue calculating rolling averages using data from the previous operating mode provided that both the operating limit and the averaging period for the parameter are the same for both modes of operation.
6.B.24(tt)	Kiln Combustion System Leaks (40CFR63.1206(c)(5)) Giant Cement shall control Kiln combustion system leaks of hazardous air pollutants by keeping the combustion zone sealed to prevent combustion system leaks or maintaining the maximum combustion zone pressure lower than ambient pressure using an instantaneous monitor. An alternative means of control to provide control of combustion system leaks equivalent to maintenance of combustion zone pressure lower than ambient pressure or other technique(s) which can be demonstrated to prevent fugitive emissions without use of instantaneous pressure limits may be approved by the Department. Giant Cement must specify in the Facility Operating Record the method used for control of combustion system leaks.
6.B.24(uu)	Kiln Operator Training and Certification (40CFR63.1206(c)(6)(i) and 40CFR63.1206(c)(6)(ii)) Giant Cement shall establish training programs for all categories of personnel whose activities may reasonably be expected to directly affect emissions of hazardous air pollutants from the existing Kilns (if still in operation) and the New Kiln System (when placed in operation). Such persons include, but are not limited to, chief facility operators, control room operators, CMS operators, persons that sample and analyze feedstreams, persons that manage and charge feedstreams to the combustor (Kiln), persons that operate emission control devices, and ash and waste handlers. Each training program shall be of a technical level commensurate with the person's job duties specified in the training manual. Each commensurate training program shall require an examination to be administered by the instructor at the end of the training course. Passing of this test shall be deemed the "certification" for personnel, except that, for control room operators, the training and certification program shall be as specified in condition 6.B.24(ww). Giant Cement must ensure that the combustor (Kiln) is operated and maintained at all times by persons who are trained and certified to perform these and any other duties that may affect emissions of hazardous air pollutants. A certified control room operator must be on duty at the site at all times the source is in operation.
6.B.24(vv)	Maintenance of Kiln Control Room Operator Qualifications (40CFR63.1206(c)(6)(vi) and 40CFR63.1206(c)(6)(vii)) To maintain Kiln control room operator qualification under a site-specific, source developed and implemented training program as specified by condition 6.B.24(uu), control room operators shall complete an annual review or refresher course covering, at a minimum, the topics specified by paragraphs (vv)(1) through (vv)(5) of this condition. This operator training shall also be recorded in the Facility Operating Record. (vv)(1) Update of regulations. (vv)(2) Combustor operation, including startup and shutdown procedures, waste firing and residue handling. (vv)(3) Inspection and maintenance. (vv)(4) Responses to malfunctions or conditions that may lead to malfunction. (vv)(5) Operating problems encountered by the operator.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)	
Condition Number	**Condition**
6.B.26(ww)	Kiln Control Room Operator Training (SC Regulation 61-62.5 Standard 3 Section IX, 40CFR63.1206(c)(6)(iv), 40CFR63.1206(c)(6)(v) and 40CFR63.1206(c)(6)(vii)) Giant Cement shall train and certify existing Kiln (if still in operation) and New Kiln System (when placed in operation) control room operators under a site-specific, source-developed and implemented program that contains the requirements as specified by paragraph (ww)(1) through (ww)(11) or a State program. This operator training and certification program shall also be recorded in the Facility Operating Record. (ww)(1) The operator training program shall address environmental concerns, including types of emissions. (ww)(2) The operator training program shall address basic combustion principles, including products of combustion. (ww)(3) The operator training program shall address the operation of the specific type of combustor used by the operator, including proper startup, waste firing, and shutdown procedures. (ww)(4) The operator training program shall address combustion controls and CMS. (ww)(5) The operator training program shall address the operation of air pollution control equipment and factors affecting its performance. (ww)(6) The operator training program shall address inspection and maintenance of the combustor, continuous monitoring systems, and air pollution control devices. (ww)(7) The operator training program shall address actions to correct malfunctions or conditions that may lead to a malfunction. (ww)(8) The operator training program shall address residue characteristics and handling procedures. (ww)(9) The operator training program shall address applicable Federal, state, and local regulations, including OSHA workplace standards. (ww)(10) The operator training program shall include an examination designed and administered by the instructor. (ww)(11) The operator training program shall include written material covering the training course topics that may serve as reference material following completion of the course.
6.B.26(xx)	Ducting of Kiln Combustion Gases During AWFCO (40CFR63.1206(c)(3)(ii)) During an AWFCO, Giant Cement shall continue to duct combustion gasses to the air pollution control system while hazardous waste remains in an existing Kiln's (if still in operation) and the New Kiln System's (when placed in operation) combustion chamber (i.e., if the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated).
6.B.24(yy)	Restarting Waste Feed to a Kiln After AWFCO (40CFR63.1206(c)(3)(iii)) Giant Cement shall continue to monitor during the AWFCO the established operating parameter limits and the emissions required to be monitored by a CEMS. Giant Cement must not restart the hazardous waste feed to an existing Kiln (if still in operation) and the New Kiln System (when placed in operation) until the operating parameters and emission levels are within the specified limits.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)	
Condition Number	**Condition**
6.B.24(zz)	Automatic Waste Feed Cutoff (AWFCO) (40CFR63.1206(c)(3)(i)) By September 30, 2003, for the existing Kilns (if still in operation) and by startup for the New Kiln System (when placed in operation), Giant Cement shall operate the hazardous waste combustor (Kiln) with a functioning system that immediately and automatically cuts off the hazardous waste feed for the events listed in paragraphs (zz)(1) through (zz)(6) of this condition except as provided by condition 6.B.24(eee). (zz)(1) When operating parameter limits are exceeded. (zz)(2) When an emission standard monitored by a CEMS is exceeded. (zz)(3) When the allowable combustion chamber pressure is exceeded. (zz)(4) When the span value of any CMS detector, except a CEMS, is met or exceeded. (zz)(5) Upon malfunction of a CMS monitoring an operating parameter limit or an emission level. (zz)(6) When any component of the AWFCO fails.
6.B.24(aaa)	Failure of the AWFCO (40CFR63.1206(c)(3)(iv)) If the AWFCO system fails to automatically and immediately cutoff the flow of hazardous waste upon exceedance of an operating parameter required to be interlocked with the AWFCO system, Giant Cement will be considered to have failed to comply with the AWFCO requirements.
6.B.24(bbb)	Corrective Measures After AWFCO (40CFR63.1206(c)(3)(v)) If, after any AWFCO, there is an exceedance of an emission standard or operating requirement, irrespective of whether the exceedance occurred while hazardous waste remained in a Kiln's combustion chamber (i.e., whether the hazardous waste residence time has transpired since the hazardous waste feed cutoff system was activated), Giant Cement shall investigate the cause of the AWFCO, take appropriate corrective measures to minimize future AWFCOs, and record the findings and corrective measures in the Facility Operating Record.
6.B.24(ccc)	Excessive Exceedance Reporting for AWFCO (40CFR63.1206(c)(3)(vi)) For each set of 10 exceedances of an emission standard or operating requirement while hazardous waste remains in an existing Kiln's (if still in operation) and the New Kiln System's (when placed in operation) combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, Giant Cement shall submit to the Department a written report within five(5) calendar days of the 10th exceedance documenting the exceedances and results of the investigation and corrective measures taken. On a case-by-case basis, the Department may require excessive exceedance reporting when fewer than 10 exceedances occur during a 60-day block period.
6.B.24(ddd)	AWFCO Testing (40CFR63.1206(c)(3)(vii)) The AWFCO system and associated alarms shall be tested weekly to verify operability, unless Giant Cement documents in the Facility Operating Record that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, operability testing must be conducted at monthly. Giant Cement must document and record in the Facility Operating Record AWFCO operability test procedures and results.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID C-05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)	
Condition Number	**Condition**
6.B.24(eee)	Ramping Down the Waste Feed During AWFCO (40CFR63.1206(c)(3)(viii)) Giant Cement may ramp down the waste feedrate of pumpable hazardous waste over a period not to exceed one(1) minute, except if the AWFCO is triggered by an exceedance of the minimum combustion chamber temperature, maximum hazardous waste feedrate, or any hazardous waste firing system operating limits that may be established for the combustor (Kiln). If Giant Cement elects to ramp down the waste feed, it must document ramp down procedures in the 40CFR63 Subpart EEE Operations and Maintenance plan. The procedures must specify that the ramp down begins immediately upon initiation of AWFCO and the procedures must prescribe a genuine ramping down. If an emission standard or operating limit is exceeded during the ramp down, Giant Cement is considered to have failed to comply with the emission standards or operating requirements of 40CFR63 Subpart EEE.
6.B.24(fff)	Permitted Kiln Fuels (SC Regulation 61-62.5 Standard 2, SC Regulation 61-62.5 Standard 3 Section V(J) and SC Regulation 61-62.5 Standard 8) Giant Cement is permitted to burn only coal, coke, natural gas, on-site generated specification used oil, virgin fuel oil, on-specification used oil, off-specification oil, hazardous solid wastes, hazardous liquid wastes, hazardous sludge wastes, non-regulated solid wastes, non-regulated liquid wastes and non-regulated sludge wastes as existing Kiln (if still in operation) and New Kiln System (when placed in operation) fuels. Other on-site generated materials such as absorbent pads and wipes are also permitted for burning in the Kilns. A generator waste characterization profile of each hazardous and non-regulated waste and/or waste stream used as a Kiln fuel shall be kept on-site and on-file. Each profile shall include the waste's and/or waste stream's composition, a section listing the SC Regulation 62.5 Standard 8 compounds that Giant Cement cannot accept and generator certification that the waste and/or waste stream does not contain any of those compounds. The generator waste characterization form shall be filled out completely and signed by the generator certifying that the information presented is complete, accurate and correct. These profiles shall be maintained for each current waste and/or waste stream used as a Kiln fuel and do not have to be sent to the Department for approval prior to accepting the waste and/or waste stream. If in the event Giant Cement no longer uses a waste and/or waste stream as a Kiln fuel, then its generator profile shall be maintained on-site and on-file for a calendar period of five(5) years from the last date that it was used as a Kiln fuel. Only coal, coke, natural gas, No.2 Fuel Oil, No.6 Fuel Oil and on-specification used oil may be used during the startup and shutdown of the a Kiln.
6.B.24(ggg)	Analysis of Kiln Waste Fuels for SC Regulation 62.5 Standard 8 Compounds (SC Regulation 61-62.70.6(a)(3)(i)(B)) During each quarter of the calendar year, Giant Cement shall analyze composite samples of all wastes received during a 10 calendar day period within each quarter. Giant Cement is only required to analyze composite samples of all wastes received during this 10 calendar day period and not all wastes received during the subject quarter. Samples from the solid and liquid waste fuels shall be composited and analyzed separately. The sampling shall take place during routine operation at the facility such that a representative sample will be obtained (i.e., three to four existing Kilns operating (if still in operation), New Kiln System operating (when placed in operation), normal receipt of fuel shipments).The composite samples shall be composited over the 10 calendar day period. Giant Cement shall notify the Department by letter of the dates that it intends to composite at least five(5) calendar days before the start date of compositing. The subsequent analysis of the composite samples shall be conducted according to EPA Method SW-846 and quantify any constituent identified in SC Regulation 62.5 Standard 8. Results of this analysis shall be kept on-site and on-file for a calendar period of five(5) years from the date of the analysis and made available to Department personnel upon request. Results of this analysis shall also be submitted to the Manager of the Technical Management Section, Bureau of Air Quality postmarked no later than 45 calendar days after the testing has been completed.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID 05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)	
Condition Number	**Condition**
6.B.24(hhh)	Records of Existing Kiln Slurry Feed Rates and Existing Kiln Clinker Production Rates (SC Regulation 61-62.70.6(a)(3)(i)(B)) Giant Cement shall record for each existing Kiln (if still in operation) the daily slurry feed rate and clinker production rate. All daily existing Kiln slurry feed rates and production rates shall be documented and recorded in a log. This log shall include the date, existing Kiln identification and its daily slurry feed rate and clinker production rate. This log shall be kept on-site, made available to Department personnel upon request and all entries kept for a calendar period of five(5) years from the date of initial log entry.
6.B.24(iii)	Use of COMS to Demonstrate Compliance with the New Kiln System and New Clinker Cooler Visible Emission Limit (40CFR63.8(c)(4)(i), 40CFR63.1209(a)(1)(ii), 40CFR63.1350(d)(1) and 40CFR63.1350(d)(3)) When the New Kiln System and New Clinker Cooler are placed into operation and since they both will exhaust at a common emission point, Giant Cement shall continuously monitor visible emissions from that point (Main Stack). It shall install, calibrate, maintain, and continuously operate a COMS located on the Main Stack to monitor opacity. The COMS shall be installed, maintained, calibrated, and operated as required by 40CFR63 Subpart A and 40CFR60 Appendix B Performance Specification 1. To remain in compliance, the opacity shall be maintained such that the six(6)-minute average opacity for any six(6)-minute block period does not exceed the appropriate New Kiln System/New Clinker Cooler visible emission limit. If the average opacity for any six(6)-minute block period exceeds the appropriate New Kiln System/New Clinker Cooler visible emission limit , it constitutes a violation of the standard. This COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. Also for this COMS, Giant Cement shall also maintain a log of the span and zero from each calibration of the monitor. This log shall be kept on-site and each log entry kept for a calendar period of five(5) years from the date of entry and made available to Department personnel upon request.
6.B.24(jjj)	Emissions Averaging Using a Time-Weighted Average Basis for the New Kiln System (40CFR63.1204(d)(2)(i)) Giant Cement may comply with the applicable New Kiln System (when placed into operation) mercury, semivolatile metal, low volatile metal, and hydrochloric acid/chlorine gas emission standards on a time-weighted average basis. It shall calculate the time-weighted average emission concentration as specified by equation (jjj)(1) of this condition. (jjj)(1) Ctotal = {Cmill-off x (Tmill-off /(Tmill-off + Tmill-on))} + {Cmill-on x (Tmill-on /(Tmill-off + Tmill-on))} Ctotal = time-weighted average concentration of a regulated constituent considering both raw mill on time and off time. Cmill-off = average performance test concentration of regulated constituent with the raw mill off-line. Cmill-on = average performance test concentration of regulated constituent with the raw mill on-line. Tmill-off = time when kiln gases are not routed through the raw mill. Tmill-on = time when kiln gases are routed through the raw mill.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID 05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)	
Condition Number	**Condition**
6.B.24(kkk)	Records of New Kiln System Feed Rates and New Kiln System Clinker Production Rates (SC Regulation 61-62.70.6(a)(3)(i)(B)) Giant Cement shall record for the New Kiln System (when placed in service) the daily feed rate and clinker production rate. All daily New Kiln System feed and production rates shall be documented and recorded in a log. This log shall include the date, daily feed rate and clinker production rate. This log shall be kept on-site, made available to Department personnel upon request and all entries kept for a calendar period of five(5) years from the date of initial log entry.
6.B.24(lll)	Compliance With Emissions Averaging Using a Time-Weighted Average Basis (40CFR63.1204(d)(2)(ii)) If Giant Cement elects to use the time-weighted average basis as specified in condition 6.B.26(jjj), it shall document in the Facility Operating Record compliance with the emission standards on an annual basis by using the equation provided by that condition. Compliance must be based on one-year block averages beginning on the day that Giant Cement submits the initial Notification of Compliance.
6.B.24(mmm)	Department Notification of Compliance With Emission Averaging Using a Time-Weighted Average Basis (40CFR63.1204(d)(2)(iii)) If Giant Cement elects to document compliance with one or more New Kiln System (when placed in service) emission standards using a time-weighted average basis as specified by condition 6.B.26(jjj), then it shall notify the Department in the initial Comprehensive Performance Test Plan. It must include historical raw mill operation data in the performance test plan to estimate future raw mill down-time and document in the performance test plan that estimated emissions and estimated raw mill down-time will not result in an exceedance of an emission standard on an annual basis. Giant Cement must also document in the Notification of Compliance that an emission standard will not be exceeded based on the documented emissions from the performance test and predicted raw mill down-time.
6.B.24(nnn)	Monitoring of Raw Materials and Adjustments to the New Kiln System's PSD CO and VOC Emission Limits (SC Regulation 61-62.5 Standard 7) The New Kiln System's PSD CO and VOC emission limits are based on the content of the raw materials to be used by Giant Cement. Giant Cement shall monitor raw material content on a semiannual basis for the first two(2) years of New Kiln System operation and annually thereafter. The Department reserves the right to request raw material testing at any time that conditions warrant or to increase the frequency of testing. The method of testing shall also be approved by the Department. Records of the material testing shall be maintained on-site and on-file for a calendar period of five(5) years from the test date and made available to Department personnel upon request. Annual reports including all recorded parameters and calculated values shall be submitted to the Manager of the Technical Management Section, Bureau of Air Quality postmarked no later than 30 calendar days after the end of the reporting period. If in the future the raw material changes, the PSD VOC and CO emission limitations in this permit may be reviewed and revised as appropriate. In no event shall revised PSD CO and VOC emission limitations allow greater emissions than the limitations specified by this permit. The intent of this condition is not to remove operational and process flexibility from Giant Cement, but to show a realistic permit limit relative to actual operation.

MONITORING AND REPORTING CONDITIONS (CURRENT UNIT ID 05 AND FUTURE UNIT ID F-04 CEMENT CLINKER PRODUCTION EQUIPMENT) (KILNS AND CLINKER COOLERS)	
Condition Number	**Condition**
6.B.24(ooo)	Total NO_X Emissions Recordkeeping and Reporting (SC Regulation 61-62.99 Subpart B Section 99.44(a)(2) and SC Regulation 61-62.99 Subpart B Section 99.44(c)(1)) Giant Cement shall produce and maintain the records as specified in paragraphs (ooo)(1) through (ooo)(4) of this condition. It shall also submit a report to the Department by October 31 of each year documenting the total NO_X emissions for the control periods defined in this condition. For the control period that starts on May 31, 2004, the report shall document the total emissions from May 31 through September 30. For all subsequent control periods, the report shall document the total NO_X emissions from May 1 through September 30. These records shall be aintained on-site and on-file for a calendar period of five(5) calendar years and made available to Department personnel upon request. (ooo)(1) The emissions, in pounds of NO_X/ton of clinker produced, from each affected kiln. (ooo)(2) The date, time, and duration of any startup, shutdown or malfunction in the operation of any of the cement kilns or the emissions monitoring equipment. (ooo)(3) The results of any performance testing (ooo)(4) Daily cement kiln production records.
6.B.24(ppp)	Alternative NO_X Emission Monitoring (SC Regulation 61-62.99 Subpart B Section 99.42(a)(2), SC Regulation 61-62.99 Subpart B Section 99.44(b)(2) and SC Regulation 61-62.99 Subpart B Section 99.44(b)(3)) As an alternative to the Pollutant Performance Test specified by condition 6.B.7(tt), Giant Cement can also comply with SC Regulation 61-62.99 Subpart B Section 99.44(b) by the continuous monitoring of a process parameter that it has demonstrated to the Department and EPA is related to NO_X emissions. If Giant Cement chooses to comply through the use of an operational control technique, then it shall submit a compliance monitoring plan. Unless otherwise authorized by the Department and EPA, this monitoring plan must demonstrate that the operational control technique achieves at least a 30% reduction in NO_X emissions from uncontrolled levels. Giant Cement may request that the Department and EPA approve a rate of NO_X emission reductions less than 30%. If the Department and EPA concur that the proposed reduction rate is appropriate, the Department and EPA may authorize a reduction rate lower than 30%.

PART 7.0 ADDITIONAL CONDITIONS

A. SPECIFIC CONDITIONS

SPECIFIC CONDITIONS	
Condition Number	**Condition**
7.A.1	Applicability of Regulations Giant Cement is subject to all applicable provisions of 40CFR60 Subpart A, 40CFR60 Subpart Kb, 40CFR60 Subpart Y, 40CFR60 Subpart OOO, 40CFR61 Subpart A, 40CFR61 Subpart FF, 40CFR63 Subpart A, 40CFR63 Subpart DD, 40CFR63 Subpart EEE and 40CFR63 Subpart LLL except as specified by condition 7.A.2. It is also subject to all applicable provisions of the SC State Air Pollution Control Standards. In the event of any wording discrepancy between the terms of this permit and Federal requirements found at 40CFR60, 40CFR61 or 40CFR63, the language found at 40CFR60, 40CFR61 and 40CFR63 shall control.
7.A.2	Applicability of the Existing Kilns and the New Kiln System to 40CFR63 Subpart LLL or Other Requirements (Federal Register Volume 64 Page 31900 and Federal Register Volume 66 Pages 35145 and 35146) Since each existing Kiln (if still in service) and the New Kiln System (when placed in service) is subject to 40CFR63 Subpart EEE, they are not subject to the applicable requirements of 40CFR63 Subpart LLL except as specified by condition 6.B.10(f). Giant Cement shall comply with the applicable 40CFR63 Subpart EEE emission standards and requirements for all existing Kilns (if still in service) and the New Kiln System (when placed in service) operations including when burning virgin fuels and/or any waste that is not designated as a hazardous waste exclusively from hazardous waste fuels.
7.A.3	Conduct of Non-Enclosed Operations (SC Regulation 61-62.5 Standard 4 Section X) All non-enclosed operations shall be conducted in such a manner that a minimum of particulate matter becomes airborne. In no case shall established ambient air quality standards be exceeded at or beyond the property line. Giant Cement shall maintain dust control of the premises and any roadway it owns or controls by paving, or other suitable measures. Oil treatment is prohibited. All crushing, drying, classification and like operations shall employ a suitable control device acceptable to the Department and shall discharge no more particulate matter than that specified in this permit.
7.A.4	Prohibited Activities (40CFR63.4(a)(1)) Giant Cement shall not operate any affected source subject to 40CFR63 Subpart EEE and 40CFR63 Subpart LLL in violation of the applicable requirements of those subparts. Affected sources subject to and in compliance with either an Extension of Compliance or an Exemption from Compliance are not in violation of the applicable requirements. An Extension of Compliance can be granted by the EPA, Department or by the President of the United States under Clean Air Act Section 112(i)(4).
7.A.5	Circumvention (40CFR60.12 and 40CFR63.4(b)) Giant Cement shall not build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to the use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere and the use of gaseous diluents to achieve compliance with a relevant standard for visible emissions.

B. OPERATIONAL FLEXIBILITY [SC Regulation 61-62.70.7(e)(5)]

No proposed reasonably anticipated operating scenarios identified in the permittee's Part 70 Application.

C. COMPLIANCE SCHEDULE [SC Regulation 61-62.70.5(c)(8)]

Not applicable at this time.

D. PERMIT SHIELD [SC Regulation 61-62.70.6(f)]

A copy of the "applicability determination" Giant Cement submitted with it's Part 70 permit application is included as Attachment C. Compliance with the terms and conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance. The permittee shall also be shielded from any non-applicable requirements as agreed upon by the Department as specified in Attachment C.

Nothing in the permit shield or in any Part 70 permit shall alter or affect the provisions of Section 303 of the Act, Emergency Orders, of the Clean Air Act; the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance; the applicable requirements of the Acid Rain Program, consistent with Section 408(a) of the Clean Air Act; or the ability of EPA to obtain information from a source pursuant to Section 114 of the Clean Air Act. In addition, the permit shield shall not apply to emission units in noncompliance at the time of permit issuance, minor permit modifications (SC Regulation 61-62.70.7(e)(2)), group processing of minor permit modifications (SC Regulation 61-62.70.7(e)(3)), or operational flexibility (SC Regulation 61-62.70.7(e)(5)), except as specified in SC Regulation 61-62.70.7(e)(5)(iii).

ATTACTMENT A

Modeled Emission Rates
Giant Cement Company
TV-0900-0002

(permit updated 6/8/06)

EMISSION RATES	NAAQS						PSD	
SOURCE IDENTIFICATION	TSP (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_2 (lb/hr)	CO (lb/hr)	LEAD (lb/hr)	PSD - PM_{10} (lb/hr)	PSD - SO_2 (lb/hr)
E21_01 – Main Baghouse/Bypass Vent	25.556	25.556	539.58	431.50	1048.3	0.172	25.556	539.58
BOILER – Steam Boiler	0.0794	0.0397	1.063	0.294	0.079		0	0
COALWEST – West Coal Mill	5.397	2.699	0.0015	0.126	0.213		0	0
COALEAST – East Coal Mill	5.397	2.699	0.0015	0.126	0.213		0	0
PKGPORT – Packing Machine #3	1.190	0.595					0	
PKGBUFF – Packing Machine #2	1.190	0.595					0	
FINMILL5 – Finish Mill #5	5.397	2.698					0	
FINMILL6 – Finish Mill #6	6.508	3.254					0	
FINMILL7 – Finish Mill #7	6.508	3.254					0	
FINFDR6 – Finish Mill #6 Feeder	0.397	0.198					0	
FINFDR7 – Finish Mill #7 Feeder	0.397	0.198					0	
SILOS2 – Silo Bank #2	1.508	0.754					0	
SILOS3 – Silo Bank #3	1.508	0.754					0	
DUST67 – Finish Mill #6 & 7 Dust Tank	0.0238	0.0119					0.012	
CONV45 – Kiln #4 & 5 Clinker Handling	3.095	1.548					0	
BLKLDGW – Silo #3 West Bulk Loading	0.317	0.159					0	
BLKLDGE – Silo #3 East Bulk Loading	0.317	0.159					0	

ATTACTMENT A

Modeled Emission Rates
Giant Cement Company
TV-0900-0002

(permit updated 6/8/06)

EMISSION RATES	NAAQS						PSD	
SOURCE IDENTIFICATION	TSP (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_2 (lb/hr)	CO (lb/hr)	LEAD (lb/hr)	PSD - PM_{10} (lb/hr)	PSD - SO_2 (lb/hr)
SILO1P – Silo Bank #1 Portland	0.476	0.238					0	
SILO1M – Silo Bank #1 Masonry	0.476	0.238					0	
SILO1B – Silo Bank #1 Bluff	0.0159	0.0079					0	
F03_01 – Raw Meal Transfer Conveyor Dust Collector	0.201	0.201					0.201	
G07_01 – Homo Silo Dust Collector	0.937	0.937					0.937	
H02_01 – Homo Silo Discharge Bucket Elevator Vent	0.301	0.301					0.301	
H22_01 – Kiln Feed Bin Dust Collector	0.402	0.402					0.402	
H34_01 – Fly Ash Silo Dust Collector	0.464	0.464					0.464	
H41_01 – Fly Ash Dosing Dust Collector	0.155	0.155					0.155	
K12_78 – Kiln Dust Bin Dust Collector	0.181	0.181					0.181	
L19_01 – Clinker Silo Dust Collector	0.552	0.552					0.552	
L21_01 – Clinker Handling Transfer Point Dust Collector	0.523	0.523					0.523	
M10_01 – Clinker Additives to Conveyor Dust Collector	0.371	0.371					0.371	
M11_01 – Clinker Additives Dust Collector	0.250	0.250					0.250	
N23_01 – Finish Mill & Cement Transfer Dust Collector	0.402	0.402					0.402	
S3_20_01 – Coke/Coal Dust Collector 1	0.217	0.217					0.217	
S3_21_01 – Coke/Coal Dust Collector 2	0.217	0.217					0.217	

ATTACTMENT A

Modeled Emission Rates
Giant Cement Company
TV-0900-0002

(permit updated 6/8/06)

EMISSION RATES	NAAQS						PSD	
SOURCE IDENTIFICATION	TSP (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_2 (lb/hr)	CO (lb/hr)	LEAD (lb/hr)	PSD - PM_{10} (lb/hr)	PSD - SO_2 (lb/hr)
N40_01 – Finish Mill Discharge/Separator Dust Collector	8.095	8.095					8.095	
X09 – Marl Bin for Finish Mill 6/7	0.952	0.952					0.952	
CONVC – Conveyor Belt C	1.825	0.913						
LIMNSTN – Limestone Silo	1.587	0.794						
METERBIN – Metering Bin/Carbon Dust Tan	0.00685	0.00342						
CRUSHER – Quarry Marl Crusher	0.0603	0.0302					0.0302	
P59 – Crusher	0.00952	0.00476					0	0
MARLTRP2 – Marl Belt Transfer Point #2	0.00952	0.00476					0.0048	
MARLTRP1 – Marl Belt Transfer Point #1	0.00952	0.00476					0.0048	
MARLTRP3 – Marl Belt Transfer Point #3	0.00952	0.00476					0.0048	
HAMMIL – Hammer Mill	0.0603	0.0302					0	
GYPHOPR – Gypsum Hopper	0.290	0.145					0.1452	
PUG45 – Pug Mill #4 & 5	1.135	0.754					0	
COLSILO – Coal Silo	0.413	0.206					0	
COLHOPR – Coal Hopper	0.0397	0.0198					0	
COLBLT13 – Coal Belt Ch #13	0.420	0.210					0	
CLBTCH27 – Coal Belt Ch #27	0.560	0.280					0	

ATTACTMENT A

Modeled Emission Rates
Giant Cement Company
TV-0900-0002

(permit updated 6/8/06)

EMISSION RATES	NAAQS						PSD	
SOURCE IDENTIFICATION	TSP (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_2 (lb/hr)	CO (lb/hr)	LEAD (lb/hr)	PSD - PM_{10} (lb/hr)	PSD - SO_2 (lb/hr)
COLRADST – Coal Radial Stacker	1.111	0.556					0	
COLUNBIN – Coal Unloading Bin	0.0794	0.0397					0	
CLFDRCH5 – Coal Feeder & Ch #5	0.841	0.421					0	
D25_D27	0.0352	0.0167					0.0167	
D29_D13	0.0332	0.0156					0.0156	
L07_L09	0.294	0.139					0.1389	
L10_L05	0.138	0.0652					0.0652	
D27&D28	0.129	0.0611					0.0611	
D13	0.0225	0.0105					0.0105	
D13_D14	0.0402	0.0189					0.0189	
GYPBIN1	0.00040	0.00019					0	
GYPBIN2	0.00053	0.00025						
SRC2	0.0155	0.00211						
SRC3	0.0155	0.00211						
SRC4	0.0155	0.00211						
SRC5	0.0155	0.00211						
SRC7	0.0327	0.0155						

ATTACTMENT A

Modeled Emission Rates
Giant Cement Company
TV-0900-0002

(permit updated 6/8/06)

EMISSION RATES	NAAQS						PSD	
SOURCE IDENTIFICATION	TSP (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_2 (lb/hr)	CO (lb/hr)	LEAD (lb/hr)	PSD - PM_{10} (lb/hr)	PSD - SO_2 (lb/hr)
SRC9	0.00444	0.00211						
SRC10	0.00444	0.00211						
SRC11	0.00356	0.00169						
SRC12	0.04595	0.0217						
SRC13	0.04595	0.0217						
SRC14	0.01635	0.00772						
SRC15	0.01635	0.00772						
SRC16	0.01635	0.00772						
SRC17	0.0918	0.0435						
SRC18	0.0918	0.0435						
SRC19	0.873	0.435						
SRC20	0.00444	0.00211						
SRC21	0.01127	0.005325					0	
COOLER2 – Clinker Cooler #2							-3.80	
COOLER3 – Clinker Cooler #3							-3.80	
COOLER4 – Clinker Cooler #4							-5.00	
COOLER5 – Clinker Cooler #5							-2.97	

ATTACTMENT A

Modeled Emission Rates
Giant Cement Company
TV-0900-0002

(permit updated 6/8/06)

EMISSION RATES	NAAQS						PSD	
SOURCE IDENTIFICATION	TSP (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_2 (lb/hr)	CO (lb/hr)	LEAD (lb/hr)	PSD - PM_{10} (lb/hr)	PSD - SO_2 (lb/hr)
FIN12 – Finish Mill #1 & 2							-0.595	
FIN34 – Finish Mill #3 & 4							-1.19	
KILNS45 – Kilns #4 & 5							-29.05	-889.7
KILNS23 – Kilns #2 & 3							-26.43	-682.4
PKGMAS1 – Packing Machine #1							-0.595	
PKGMAS2 – Packing Machine #4							-1.19	
CLNKEAST – East Clinker Tower							-1.55	
CONVBC – Conveyor Belt B & C							-0.317	
DRYER – Marl Dryer Scrubber							-2.50	-32.5
DRYERBH – Marl Dryer Baghouse							-0.298	
DUST23 – Kiln # 2 & 3 Dust Bin Loading							-0.0*	
CLBTCH14 – Coal Belt Ch #14							-0.210	
KLNAFEDS – Kiln Ancillary Feed System							-0.0*	
PRTCRSHR – Portable Rock Crusher							-0.0*	
PUGSILOS – Pug Mill Silos							-0.733	
PUG23 – Pug Mill #2 & 3							-0.709	
FACILITY TOTAL	**90.453**	**65.250**	**540.646**	**432.046**	**1048.81**	**0.172**	**-40.632**	**-1065.02**

ATTACTMENT A

Modeled Emission Rates
Giant Cement Company
TV-0900-0002

(permit updated 6/8/06)

MODELING EXEMPTIONS	
SOURCE IDENTIFICATION	**EXEMPTION BASIS**
Apron Feeder w/dump hopper (221-AF-01, 221-DH-01)	Emissions less than 1.0 lb/hr
Crusher (221-RC-01)	Emissions less than 1.0 lb/hr
Belt Conveyor (221-BC-01)	Emissions less than 1.0 lb/hr

ATTACHMENT B

Insignificant Activities
Giant Cement
TV-0900-0002

(permit updated 6/8/06)

The following tables contain a list of activities which are considered insignificant pursuant to South Carolina Regulation 61-62.70.5(c). Sources listed below are not exempt from any otherwise applicable state or federal requirements including, but not limited to, opacity standards, ambient air quality standards, and air toxic standards.

TABLE 1. INSIGNIFICANT CURRENT AND FUTURE QUARRY/MARL HANDLING EQUIPMENT (CURRENT UNIT ID C-01 AND FUTURE UNIT ID F-01)				
Equipment Description	**Equip ID**	**Design Capacity (tph)**	**Equipment Manufacture Date**	**Basis**
Hammer Mill Quarry Crusher	Q-201	825	1958	Insignificant Emissions and not subject to 40CFR60 Subpart OOO
Wobbler Feeder	Q-200	825	1958	Insignificant Emissions and not subject to 40CFR60 Subpart OOO
Crusher Breaker Plate	Q-202	825	1958	Insignificant Emissions and not subject to 40CFR60 Subpart OOO
Marl Crane	R-5	1,500	1962	Insignificant Emissions and not subject to 40CFR60 Subpart OOO

TABLE 2. INSIGNIFICANT CURRENT AND FUTURE WASTEWATER STORAGE EQUIPMENT				
Equipment Description	**Equip ID**	**Install Date**	**Design Capacity (gallon)**	**Basis**
West Wastewater Clay Storage Tank System	R-1	1952	90,000 Total	Insignificant emissions and this tank tanks does not store cement raw materials or products and therefore is not subject to 40CFR63 Subpart LLL
East Wastewater Clay Storage Tank System	R-2	1952	90,000 Total	Insignificant emissions and this tank tanks does not store cement raw materials or products and therefore is not subject to 40CFR63 Subpart LLL
Wash Basin Storage Tank	R-901	1956	543,110	Insignificant emissions and this tank tanks does not store cement raw materials or products and therefore is not subject to 40CFR63 Subpart LLL

TABLE 3. INSIGNIFICANT CURRENT AND FUTURE MISCELLANEOUS STORAGE TANKS				
Equipment Description	**Equip ID**	**Install Date**	**Design Capacity**	**Basis**
Grinding Aid Storage Tank	F-624A	1963	735 gallon (2.782 m^3)	Tank size
Grinding Aid Mix Tank	F-133	1994	2,250 gallon (8.517 m^3)	Tank size
Waste Lube Tank	G-153	1980	250 gallon (0.946 m^3)	Tank size
Waste Lube Tank	G-152	1980	500 gallon (1.892 m^3)	Tank size

ATTACHMENT B

Insignificant Activities
Giant Cement
TV-0900-0002

(permit updated 6/8/06)

TABLE 4. INSIGNIFICANT CURRENT AND FUTURE MISCELLANEOUS STORAGE TANKS				
Equipment Description	**Equip ID**	**Install Date**	**Design Capacity**	**Basis**
Motor Oil Storage Tank	G-159	1993	800 gallon (3.028 m^3)	Tank Size
Hydraulic Oil Storage Tank	G-158	1993	800 gallon (3.028 m^3)	Tank Size
Transmission Fluid Storage Tank	G-157	1993	500 gallon (1.892 m^3)	Tank Size
Gasoline Storage Tank	G-155	1989	1,000 gallon (3.786 m^3)	Tank Size
Quarry Diesel Fuel Storage Tank	Q-160	1974	7,490 gallon (28.36 m^3)	Tank Size
Cement Additive Storage Tank (Stores plasticizer)	F-132	1952	12,000 gallon (45.426 m^3)	Tank Size
Cement Additive Storage Tank (Stores retarder)	F-132	1989	19,400 gallon (73.438 m^3)	This tank is not subject to 40CFR60 Subpart Kb because components of the grinding aid are not VOL's.
Cement Additive Storage Tank (Stores grinding aid)	F-131	1989	18,000 gallon (68.14 m^3)	This tank is not subject to 40CFR60 Subpart Kb because components of the grinding aid are not VOL's.
Cement Additive Storage Tank (Stores grinding aid)	533-GT-30	2005	20,000 gallon (75.71 m^3)	This tank is not subject to 40CFR60 Subpart Kb because components of the grinding aid are not VOL's.
No.2 Fuel Oil Storage Tank	K-170	1987	10,000 gallon (37.855 m^3)	Tank Size

ATTACHMENT C

Applicable and Non-Applicable Federal and State Regulations
Giant Cement
TV-0900-0002

(permit updated 6/8/06)

The following tables contain the Federal and South Carolina air pollution regulations, which were specified in the Part 70, permit application and determined as applicable and non-applicable by the Department as of the date of this permit issuance. This attachment may be revised by the Department in the event of a change in the nature or emission of pollutants at the source or promulgation of new or revised regulations.

ATTACHMENT C

Applicable and Non-Applicable Federal and State Regulations
Giant Cement
TV-0900-0002

(permit updated 6/8/06)

TABLE 1. STATE REGULATIONS			
Regulation	**Applicable**	**Not Applicable**	**Reason**
62.1 Section I (Definitions)	X		Definitions
62.1 Section II (Permit Requirements)	X		Cement manufacturing equipment are sources of air contaminants.
62.1 Section III (Emissions Inventory)	X		Giant Cement must periodically conduct an emissions inventory.
62.1 Section IV (Source Tests)	X		Giant Cement's Kilns, clinker coolers and raw material dryer are required to be tested.
62.2 (Prohibition of Open Burning)	X		Open burning prohibited at the plant
62.3 (Air Pollution Episodes)	X		Giant Cement is required to comply
62.4 (Hazardous Air Pollutant Conditions)	X		Giant Cement's manufacturing equipment is a source of HAP's and fugitive dust.
61-62.5 Standard 1 Fuel Burning Operations	X		Giant Cement has a steam boiler to which these regulations apply.
61-62.5 Standard 2 Ambient Air Quality Standards	X		Giant Cement's manufacturing equipment emits criteria pollutants and it demonstrated compliance with this standard using air dispersion modeling.
61-62.5 Standard 3 Waste Combustion and Reduction	X		If anything other than virgin fuel is burned then this standard applies. Giant Cement uses hazardous and non-hazardous wastes as Kiln fuels which are other than virgin fuels.
61-62.5 Standard 4 Emissions from Process Industries	X		Giant Cement's Kilns, clinker coolers and raw material dryer are specified as subject to this regulation.
61-62.5 Standard 5 Volatile Organic Compounds		X	This standard specifies certain process industries. Cement plants are not specified therefore this is not applicable.
61-62.5 Standard 5 (LAER)	X		Giant Cement's New Kiln System VOC emissions will be 100 tpy over the baseline.
62.5 Standard 6 Alternative Emission Limitation Options		X	Giant Cement has not requested any alternative emission limitations and so this is not applicable.
62.5 Standard 7 Prevention of Significant Deterioration	X		Giant Cement's existing plant is subject but has taken waste fuel input limits to remove themselves from applicability. The plant modifications are subject to a PSD review for VOC and CO emissions.
62.5 Standard 8 (Toxic Air Pollutants)	X		Giant Cement's manufacturing existing and new equipment emits and will emit toxic air pollutants. It has demonstrated compliance with this regulation using air dispersion modeling.
62.6 Section I Control of Fugitive Particulate Matter In Non-Attainment Areas		X	Giant Cement is located in an attainment area
62.6 Section II Control of Fugitive Particulate Matter In Problem Areas		X	Giant Cement is not located in a problem area

ATTACHMENT C

Applicable and Non-Applicable Federal and State Regulations
Giant Cement
TV-0900-0002

(permit updated 6/8/06)

TABLE 2. STATE REGULATIONS			
Regulation	**Applicable**	**Not Applicable**	**Reason**
62.6 Section III Control of Fugitive Particulate Matter Statewide	X		Giant Cement's manufacturing equipment is a source of fugitive dust.
62.7 (Good Engineering Practice Stack Height)	X		Giant Cement's existing Kilns and the New Kiln System emit through stacks
62.63 National Emission Standards for Hazardous Air Pollutants	X		Giant Cement is a major HAP source
62.68 (Chemical Accident Prevention Provisions)	X		Giant Cement stores liquid hazardous waste fuels on-site.
62.70 (Title V Operating Permit Program)	X		Giant Cement's emissions are greater than the Title V thresholds.
62.72 (Acid Rain Program)		X	A cement plant is not a source type listed in the applicability section of this regulation.

TABLE 3. FEDERAL REGULATIONS (40CFR60 NEW SOURCE PEFORMANCE STANDARDS)			
Subpart	**Applicable**	**Not Applicable**	**Reason**
40CFR60 Subpart A (General Provisions)	X		Giant Cement is subject to 40CFR60 Subpart Kb, 40CFR60 Subpart Y and 40CFR60 Subpart OOO.
40CFR60 Subpart F Standards of Performance for Cement Plants		X	This subpart does not apply for sources complying with 40CFR63 Subpart LLL and 40CFR63 Subpart EEE. Giant Cement is complying with 40CFR63 Subpart LLL and will comply with 40CFR63 Subpart EEE.
40CFR60 Subpart Kb Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	X		Giant Cement has Liquid Waste Fuels Storage Tanks that will store volatile organic liquids.
40CFR60 Subpart Y Standards of Performance for Coal Preparation Plants	X		Giant Cement has coal preparation equipment subject to the provisions of this subpart.
40CFR60 Subpart OOO Standards of Performance For Nonmetallic Mineral Processing Plants	X		Giant Cement has quarry and marl handing equipment subject to this subpart.
Other New Source Performance Standards		X	All other New Source Performance Standards of 40CFR60 except 40CFR Subpart Kb, 40CFR60 Subpart Y and 40CFR60 Subpart OOO do not apply because they apply to other types of sources. Giant is either not a type of source or does not operate equipment covered by those New Source Performance Standards.

ATTACHMENT C

Applicable and Non-Applicable Federal and State Regulations
Giant Cement
TV-0900-0002

(permit updated 6/8/06)

TABLE 4. FEDERAL REGULATIONS (40CFR61 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS)			
Subpart	**Applicable**	**Not Applicable**	**Reason**
Subpart A (General Provisions)	X		Giant Cement is subject to 40CFR61 Subpart FF.
40CFR61 Subpart V	X		40CFR63 Subpart DD gives Giant Cement the option of choosing this subpart to control equipment leaks. It also gives Giant the option of choosing 40CFR63 Subpart H.
40CFR61 Subpart FF National Emission Standard For Benzene Waste Operations	X		Giant Cement will process benzene-containing wastes.
Other NESHAPS		X	All other NESHAPS except 40CFR61 Subpart FF and 40CFR61 Subpart V do not apply because they apply to other source types. Giant is either not a source type or does not operate a source type covered by those NESHAPS.

TABLE 5. FEDERAL REGULATIONS (40CFR63 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES)			
Subpart	**Applicable**	**Not Applicable**	**Reason**
Subpart A (General Provisions)	X		Giant Cement is subject to 40CFR63 Subpart DD and 40CFR63 Subpart LLL. Effective September 30, 2003 it is also subject to 40CFR63 Subpart EEE.
40CFR63 Subpart H National Emission Standards for Organic Hazardous Air Pollutants For Equipment Leaks	X		40CFR63 Subpart DD gives Giant the option of choosing this subpart to control equipment leaks. It also gives Giant the option of choosing 40CFR61 Subpart V.
40CFR63 Subpart DD National Emission Standards for Hazardous Air Pollutants from Off-Site Waste And Recovery Operations	X		Giant Cement accepts waste from off-site sources.
40CFR63 Subpart PP National Emission Standards For Containers	X		Giant Cement will use containers to store and transport off-site wastes.
40CFR63 Subpart EEE National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors	X		Giant Cement's existing Kilns and the New Kiln System are hazardous waste combustors. Effective September 30, 2003, it must be in compliance with the applicable provisions of this subpart for the existing Kilns and by the startup date of the New Kiln System.

ATTACHMENT C

Applicable and Non-Applicable Federal and State Regulations
Giant Cement
TV-0900-0002

(permit updated 6/8/06)

TABLE 5. FEDERAL REGULATIONS (40CFR63 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES)			
Subpart	**Applicable**	**Not Applicable**	**Reason**
40CFR63 Subpart LLL National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry	X		Giant Cement has equipment subject to this subpart.
Other National Emission Standards for Hazardous Air Pollutants		X	All other subparts except 40CFR63 Subpart A, 40CFR63 Subpart H, 40CFR63 Subpart DD, 40CFR63 Subpart EEE and 40CFR63 Subpart LLL do not apply because they apply to other source types. Giant is either not a source type or does not operate a source type covered by those subparts.

TABLE 6. FEDERAL REGULATIONS (OTHER REGULATIONS)			
Subpart	**Applicable**	**Not Applicable**	**Reason**
40CFR 64 (Compliance Assurance Monitoring)		X	CAM has been incorporated into the requirements of 40CFR63 Subpart EEE and 40CFR63 Subpart LLL.

PERMIT ABBREVIATIONS AND ACRONYMS

As	Arsenic
AMM	Alternative Monitoring Method
AWFCO	Automatic Waste Feed Cutoff
Be	Beryllium
Btu	British Thermal Unit
CEM	Continuous Emission Monitor
CEMS	Continuous Emission Monitoring System
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CMS	Continuous Monitoring System
CO	Carbon Dioxide
COM	Continuous Opacity Monitor
COMS	Continuous Opacity Monitoring System
CPMS	Continuous Particulate Monitoring System
cond.	Condition
Cr	Chromium
DRE	Destruction and Removal Efficiency
dscm	Dry Standard Cubic Meter
Equip.	Equipment
EPA	Environmental Protection Agency
ESV	Emergency Safety Vent
°F	Fahrenheit
ft	Feet
g	Gram
HAP	Hazardous Air Pollutant
HCl	Hydrochloric Acid
hr	Hour
ID	Identification
kg	Kilogram
lb	Pound
Mg	Megagram
m^3	Cubic Meter
MTEC	Maximum Theoretical Equivalent Concentration
N/A	Not Applicable
ng	Nanogram
NO_2	Nitrogen Dioxide
NSPS	New Source Performance Standard
O&M	Operation and Maintenance
O_2	Oxygen
P	Process Rate
PEMS	Predictive Emission Monitoring System
PM	Particulate Matter
PM_{10}	Particulate Matter Size 10 microns or less
PMCD	Particulate Matter Control Device
POHC	Principal Organic Hazardous Constituent
ppm	Part Per Million
ppmv	Part Per Million Volume
PPT	Pollutant Performance Test
PSD	Prevention of Significant Deterioration
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
SFSS	Solid Fuel Storage System
SO_2	Sulfur Dioxide
SSM	Startup, Shutdown and Malfunction
TEQ	Toxicity Equivalence
THI	Total Heat Input
tph	Tons Per Hour
tpd	Tons Per Day
TSP	Total Suspended Particulate Matter
VOC	Volatile Organic Compound

PERMIT ABBREVIATIONS AND ACRONYMS

VOL	Volatile Organic Liquid
µg	Microgram
%	Percent
#	Number

June 8, 2006

Giant Cement
P.O. Box 326
Harleyville, SC 29448

ATTENTION: Clint Roberts

Dear Mr. Roberts:

Re: Revised Title V Operating Permit TV-0900-0002

Enclosed please find your updated Title V Permit TV-0900-0002 that incorporates the minor changes made during construction of the New Kiln System. This permit replaces the corresponding operating permit issued on February 11, 2003.

Please review this permit carefully. Should you notice any errors or omissions, notify your permit engineer, Kirk Schneider, of this office, at (803) 898-4023.

Sincerely,

Carl W. Richardson, P.E., Director
Engineering Services Division
Bureau of Air Quality

CWR:KGS:pe

Enclosure

cc: Mark Hiott, Region 7 Charleston EQC Office
Scott Miller, EPA Region IV (via e-mail)
TV-0900-0002

Message

From: Knittel, Janette [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a955f914e8d34cb19b6f63ac60707d32-Knittel, Janette]
Sent: 2/22/2018 7:58:22 PM
To: Valdez, Heather [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eb323347294d44009a369c3576798bdf-Valdez, Heather]; Davies, Lynne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=169eb6cbdebb4caf85f76390b8ab2674-LDavie12]
CC: McArthur, Lisa [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=524660efbdb140e7868646d8073f0c72-McArthur, Lisa]
Subject: FW: M118 for review (CWMNW)
Attachments: GilliamChemWste20180221M118ToEPATrnsmtlLtr.pdf; Appendix A permit change pages.pdf; Appendix B Standalone 3 Inspection Plan Rev. 11.pdf; Appendix C Standalone 5 Rev. 26 C-PC Plan-Clean.pdf; Appendix D SA #22 Organic Recovery Unit #2 .pdf; Appendix E SA #23 M118 clean Supp..docx.pdf; ORU2 Tanks Review Report A.PDF

Hi Heather and Lynne,
Here it is, the ORU mod. I think it would be most helpful to read the last file first (ORU2 Tanks Review Report A) which is Rich's review and explains the attached appendices. I hope this is as straightforward as I think it is. ODEQ is asking for our response by March 14. Based on your responses to me I think this is possible but please let me know asap if it's not.

Janette

From: STEPHENS Sharon [mailto:Sharon.STEPHENS@state.or.us]
Sent: Wednesday, February 21, 2018 12:44 PM
To: Knittel, Janette <Knittel.Janette@epa.gov>; McArthur, Lisa <McArthur.Lisa@epa.gov>; jdenson@wm.com; Shannon, Leah <lshanno3@wm.com>
Cc: DUSO Dan <Dan.DUSO@state.or.us>; RAMOZ Gina <Gina.RAMOZ@state.or.us>; ACOMB Jeannette <Jeannette.ACOMB@state.or.us>
Subject: M118 for review

Please find the attached. A hard copy has also been sent to you.

If you have any questions, please contact Dan Duso at 541-278-4618 or by email: duso.dan@deq.state.or.us.

Sharon Stephens
Permit Coordinator & Program Support
for SW, HW, Tanks & CU
DEQ, Eastern Region
541-298-7255 ext. 221
stephens.sharon@deq.state.or.us

Standalone
Document 14 Landfill Design and Operations Plan, administrative record no. 06087.

Standalone
Document 15 Landfill Response Action Plans, administrative record no. 06088.

Standalone
Document 16 Construction Quality Assurance Plan, administrative record no. 06089.

Standalone
Document 17 Landfill Final Cover Design Plan, administrative record no. 06090.

Standalone
Document 18 Landfill Design Drawings, administrative record no. 06091.

Standalone
Document 19 Bioremediation Facility and Organic Recovery Unit Design and Operations Plan, administrative record no. 06092. ‡ **Rev. 12**

Standalone
Document 20 PCB Operations Plan, administrative record no. 06093.

Standalone
Document 21 Waste Piles Plan, administrative record no.06094. ‡ **Rev. 23**

Standalone
Document 22 Organic Recovery Unit #2 Design and Operations Plan, administrative record no. 06095.

Standalone
Document 23 WWTP-2 Liquid Storage/Treatment Plan, administrative record no. 06096.

ED_002469_00000116-00001

permitted storage unit that require Container Level 1 or 2 standards, the Permittee shall comply with 40 CFR 264.1086(c) and (d), respectively.

II.U.3.

The Permittee may manage volatile organic hazardous wastes with an average concentration of 500 parts per million by weight, or more, as determined by 40 CFR 264.1083, that are undergoing biotreatment in accordance with Bioremediation Facility and Organic Recovery Unit Design and Operations Plan [A.R. 06092], Standalone Document No. 19.

II.V. Organic Recovery Unit-2 Compliance with Subpart BB Standards

II.V.1.

In accordance with 40 CFR 264.1064(m), compliance with Subpart BB standards at the Organic Recovery Unit-2 and the tank systems in Wastewater Treatment System 2 shall be demonstrated by the regulations under 40 CFR 61 Subpart ff. Documentation of compliance with 40 CFR 61 Subpart ff standards shall be maintained in the operating record.

State of Oregon
Department of
Environmental
Quality

Inspection Plan

For

Chemical Waste Management of the Northwest, Inc.

Arlington Facility • ORD 089 452 353
17629 Cedar Springs Lane
Arlington, Oregon

Standalone Document No. 3

This document is issued by the
Oregon Department of Environmental Quality

~~December 2015~~
Month & Year pending approval

1 INTRODUCTION 1-1
2 INSPECTION PLAN ADMINISTRATION 2-1
2.1 Personnel Qualifications 2-1
2.2 Hazard Assessment and Evaluation Procedures 2-1
2.3 Documentation and Record Keeping 2-2
Figure 2-1 2-4
Figure 2-2 2-5
3 GENERAL FACILITY INSPECTION 3-1
3.1 Types of Potential Problems....3-1
3.2 General Inspection Schedules....3-1
TABLE 3-1 3-2
TABLE 3-2 3-3
TABLE 3-3 3-4
4 PROCESS-SPECIFIC INSPECTION ACTIVITIES/SCHEDULES 4-1
4.1 Laboratory Inspection 4-1
4.2 Truck Wash Station Inspection....4-1
4.3 Container Storage Inspection....4-2
4.3.1 Container Storage Area Subpart CC Compliance....4-2
4.4 Bulk Liquid Storage Tank Inspection 4-2
4.4.1 General Inspection 4-2
4.4.2 Wastewater Treatment Plant Tank System Inspection 4-3
4.5 Stabilization Unit Inspection 4-3
4.6 Landfills Inspection 4-3
4.7 Waste Impoundments Inspection....4-3
4.8 Closed Landfills Inspection....4-4
4.9 PCB Storage/Transfer Unit Inspection....4-4
4.10 Containment Buildings Inspection....4-4
4.11 Organic Recovery Unit Inspection....4-5
TABLE 4-1 4-6
TABLE 4-2 4-7
TABLE 4-3 ‡Rev 6 4-8
TABLE 4-4 4-9
TABLE 4-5 ‡ Rev. 6 4-11

ED_002469_00000117-00002

Formatted: Font: 11 pt

Formatted: Normal, Indent: Left: 0", Space Before: 0 pt, Line spacing: single

ED_002469_00000117-00003

	TABLE 4-6	4-12
	TABLE 4-7 ‡ Rev. 3	4-13
	TABLE 4-8	4-14
	TABLE 4-9‡ Rev. 6	4-15
	TABLE 4-10	4-16
	TABLE 4-12	4-18
	TABLE 4-13	4-19
	TABLE 4-14	4-20
A	APPENDIX A – INSPECTION REPORT FORMS	1

Formatted: Font: 12 pt

ED_002469_00000117-00004

INSPECTION PLAN

Chemical Waste Management of the Northwest, Inc. (CWMNW) has developed this *Inspection Plan* for its Arlington Facility located in Gilliam County, Oregon. A copy of this *Inspection Plan* will be available at the facility at all times.

1 INTRODUCTION

This *Inspection Plan* describes actions taken at the Arlington Facility to prevent and detect system malfunctions, equipment deterioration and operator errors which, if allowed to continue without correction, could ultimately lead to a release of hazardous waste constituents to the environment or create a threat to human health. The facility inspection program, which this plan describes, is designed to provide an early warning of the potential for such events in order that corrective and preventative actions may be taken in a timely manner.

The inspection program is divided into two segments: (1) general facility inspection, and (2) process-specific inspection. The former focuses on inspection activities that apply to facility-wide operations. Site security, safety, emergency equipment, environmental monitoring systems and potential spill areas are included within this category. Inspection of specific facility support operations (i.e., the laboratory, truck wash station) and the facility's various waste management units (i.e., container storage, bulk storage, stabilization, waste impoundment and landfill) are included in the second category.

The inspection program for the waste management units encompasses the process-specific monitoring and control systems and structures associated with each unit.

This *Inspection Plan* is designed to focus on inspection procedures for routine facility operations rather than for new construction or facility closure/post-closure operations.

The *Inspection Plan* is implemented by qualified individuals assigned the responsibility to detect any unsafe conditions at the facility and prevent adverse consequences. The designated individuals have the training and authority to: (1) implement the required inspections, (2) perform necessary evaluations and hazard assessments, and (3) recommend appropriate corrective or remedial actions.

Inspections are performed routinely according to a pre-determined schedule that is based on engineering knowledge and operational experience with the systems and processes involved. Each inspection item has the content and frequency necessary to alert facility personnel prior to development of a serious problem. A trained inspector carefully evaluates each item, as directed by a pre-formulated inspection checklist, for an indication of potential malfunction, equipment deterioration, or operator error. If an anomalous situation is noted, the level of response and its timing are determined by the nature and seriousness of the problem -- with protection of personnel and the prevention of adverse environmental impact being of paramount concern.

ED_002469_00000117-00005

2 INSPECTION PLAN ADMINISTRATION

The facility General Manager is fully responsible for implementation of the *Inspection Plan*. The inspection function operates independently of all other facility functions related to operations. The Facility Inspector, who reports to the General Manager or designee, is designated with the staff responsibility for performing the actual inspections. Reports of the results of the inspections, with appropriate documentation, are made by the Facility Inspector directly to the General Manager or designee. The General Manager or designee is then responsible for directing the appropriate facility functional units to implement required remedial and corrective measures.

2.1 Personnel Qualifications

Each inspector is trained in hazardous waste management, inspection and follow-up procedures, documentation and record-keeping requirements, and various safety and contingency plan procedures. The qualifications and duties of the Facility Inspector and other inspectors are included in the personnel record maintained at the facility.

2.2 Hazard Assessment and Evaluation Procedures

The inspector must be familiar with the location of the equipment and systems to be inspected and their normal configuration. For any discrepancy observed, the inspector determines the potential for personnel injury or for release of hazardous waste constituents, and assesses the nature and timing of remedial action required. His/her determination considers: (1) the location and nature of the problem, (2) the presence of secondary containment or control, (3) the amount and type of waste material involved, (4) the potential for human exposure, and (5) the likelihood of waste migration.

The inspector maintains open lines of communication with the facility's Emergency Coordinator and with the General Manager or designee, and as appropriate, solicits judgment and advice regarding physical constraints and scope of corrective actions, response timing, interim controls and counter-measures. When an inspection indicates equipment malfunction or deterioration, or any other improper condition, the following actions are to be taken:

- Assess the situation.
- Determine the corrective/remedial measures needed to respond to the situation, including appropriate interim measures.
- Establish the time frame within which the remedial action must occur. For emergency or near-emergency situations, prompt verbal reports shall be made to the Emergency Coordinator and/or General Manager (or designee), to be followed later with written reports. For minor discrepancies, routine written reporting procedures, as discussed later, will be followed.
- Provide adequate follow-up to verify that the specified response has occurred and that the situation has been resolved satisfactorily.

In general, all remedial actions and re-inspections are expected to be completed within the week following the inspection which detected a problem. In specific cases where urgent action is

ED_002469_00000117-00006

required, appropriate coordination with cognizant facility personnel and frequent monitoring of the situation by the inspector will be continued until remedial actions are completed. In cases where physical and/or operation constraints (e.g., replacement equipment availability) cause delays in correcting the problem, the reinspection will follow completion of the work.

2.3 Documentation and Record Keeping

Inspections (and reinspections) are conducted and documented using forms specifically designed to contain all pertinent information. Completed inspection forms are turned in to the General Manager or designee, who reviews and initials the forms and initiates any required remedial actions. A specific Remedial Work Order/Inspection Form is generated by the General Manager or designee for each discrepancy noted by the inspector. The form, which contains pertinent corrective work orders, is forwarded to appropriate facility personnel for implementation. A copy is routed to the General Manager or designee and Facility Inspector for use as a reinspection reminder and for follow-up documentation. Once corrective actions have been completed, the General Manager or designee signs the original form to document that the remedial actions have been satisfactorily completed. All completed forms and attachments are accumulated in the facility operating records. These are retained at the facility for a minimum period of three years from the date of an inspection.

Separate inspection forms are provided for specified daily, weekly, monthly or other scheduled inspections. Each periodic inspection form (see Figure 2-1) includes significant administrative information, such as the identification of the facility unit, the name of the inspector, and the date and time of the inspection. The inspection checklist section of the form is used to indicate the status of designated equipment or structures. If the designated equipment or unit is not in use, it is inspected routinely, and a notation of its operational status is made in the "Additional Notes" column. The inspector's assessments, including notations of the urgency of the required response are marked on the form. The completed form is delivered to the General Manager's or designee's office for review and appropriate action.

The inspection report forms are prepared in advance to include pertinent items to be inspected according to the specific schedules shown later in this *Inspection Plan*. These forms may be modified periodically to accommodate changing needs of the facility. Where necessary, the forms may be printed on both sides to accommodate the inspection checklist and/or list of facilities and structures to be inspected. Lists of equipment to be periodically inspected may also be revised with the approval of the General Manager or designee. Should this occur, updated inspection forms will be included in the *Inspection Plan* when the next revision takes place.

A separate Remedial Work Order/Inspection Form (see Figure 2-2) is used to initiate corrective actions and to document whether each discrepancy noted during an earlier inspection has been corrected adequately. This form identifies the equipment or process unit involved, the nature of the discrepancy noted, and the date of the inspection. It also describes requisite response actions, the date by which these are to be implemented, and the name of the person responsible for such actions.

ED_002469_00000117-00007

A Remedial Work Order/Inspection Form will not be completed for discrepancies which are being remediated at the time of inspection (i.e., rainwater in collection sumps and activities underway to remove rainwater). The inspector will note in the far right hand column of the inspection form that the inspection element is in process.

The lower portion of this Remedial Work Order/Inspection Form is used by the inspector during his/her next scheduled inspection following the date by which the corrective work was to be completed to confirm that the corrective action has been taken. When completed, the form is submitted to the General Manager's or designee's office for filing with the appropriate inspection report.

In summary, the inspector observes facility operations and equipment on a periodic basis in accordance with a specified schedule and inspection elements. When any discrepancy is noted, the inspection results are reviewed by the General Manager or designee who initiates required corrective actions. A remedial work order form is created for each significant discrepancy and corrective action is initiated

ED_002469_00000117-00008

Figure 2-1

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Daily Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: GENERAL SITE / RAINFALL AND SPILL AREAS

INSPECTION ELEMENT:
A. RAIN GAUGE - Record the rainfall for the previous day

B. POTENTIAL SPILL AREAS - Check the following for spills and the removal of spill clean-up materials and any additional items noted below:

Truck Scale
Sampling Area – Check that trucks are sampled in the proper area
Roads – Check for drive ability
Truck Wash
Container Storage (Indoors and Outdoors for both RCRA and TSCA storage units)
Surface Impoundments
Laboratory (Container Storage Areas)
Containment Buildings

The General Site / Rainfall and Potential Spill Area items listed have been inspected for each of the items noted above. The results are summarized below.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Previous Day Rainfall	_____ inch			
	B. Potential Spill Areas				
	Truck Scale				
	Sampling Area				
	Roads				
	Truck Wash				
	Container Storage (Outdoors)				
	Container Storage (Indoors)				
	Surface Impoundments				
	Laboratory				
	Containment Buildings				

Note: In the event of one inch of rainfall in 24 hours, forms A-4, A-8, A-12, A-13, A-14, and A-24 must be completed.

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name/Title:_____

Figure 2-2

Figure 2-2

REMEDIAL WORK ORDER & INSPECTION FORM
FOR GOOD MANAGEMENT PRACTICE

No._____ Date:_____

REMEDIAL WORK ORDER

Corrective Action Assigned to:_____ Title:_____

Unit Name:_____

Equipment Item:_____

Location:_____

Inspection Element / Type of Problem:_____

Date of Inspection:_____/_____/_____

Required Remedial Response:_____

_____

Work to be Completed by: _____/_____/_____

Authorized Signature:_____

Print Name / Title:_____

_____

WORK COMPLETION REPORT

Completed On:_____/_____/_____ Comments:_____

Completed By:_____ _____

REINSPECTION REPORT

Observations:_____

Comments:_____

_____ _____/_____/_____

Signature of Inspector Date

Environmental Manager's Initials (verifying review):_____

Revised: 2/14/03

ED_002469_00000117-00010

3 GENERAL FACILITY INSPECTION

The general facility inspection activity encompasses the facility perimeter and those items within the property that are common (i.e., not process-specific) to all operations. These include the following:

- Security Devices
- Areas of Possible Spills
- Environmental Monitoring Systems
- Safety and Emergency Equipment

The general inspection schedules; including inspection parameters and frequency, are determined by the types of problems that can potentially occur.

3.1 Types of Potential Problems

The following considerations are pertinent to identification of the types of problems that may occur related to general facility operations:

- Breach of security, either intentional or unintentional by persons, livestock or natural (e.g., climatological) events. Such breach may occur due to:
  - failure of the surveillance system,
  - damage to fences, natural barriers or entry control structures, or
  - obstruction, damage or loss of warning signs.
- Unplanned releases not detected by environmental monitoring equipment due to malfunction or failure.
- Health and safety equipment failure, absence or inaccessibility

3.2 General Inspection Schedules

The general inspection schedules are based on the facility's operational mode, potential failure modes, and an assessment of the hazard magnitude posed by a particular malfunction, failure or discrepancy.

Schedules designed for inspection of the general facility operations are shown in Table 3 1; of environmental monitoring systems in Table 3 2; and of safety and emergency equipment in Table 3 3.

Report forms used to inspect security devices, all areas subject to potential spills, environmental monitoring systems, and safety and emergency equipment are identified in Tables 3-1 through 3-3 with the corresponding figure numbers (e.g., Fig. A-2).

ED_002469_00000117-00011

TABLE 3-1

GENERAL FACILITY OPERATIONS INSPECTION SCHEDULE

EQUIPMENT	INSPECTION ELEMENT/ TYPE OF PROBLEM	INSPECTION FREQUENCY
Security Devices		
Fence	■ inspect entire perimeter for breaches, damage	Weekly *(Fig. A-8)*
Gates	■ check for controlled entry ■ check for damage ■ check that all gates are closed and locked after hours	Weekly *(Fig. A-8)* Weekly *(Fig. A-8)* Weekly *(Fig. A-8)*
Warning Signs	■ check for presence of warning signs and legibility of printing (Both TSCA and RCRA)	Annual *(Fig. A-24)*
Rain Gauge	■ Record the amount of rainfall	Daily *(Fig. A-1)*
Areas Subject to Spills		
Truck Scale	■ check for spills and removal of spill clean-up materials	Daily *(Fig. A-1)*
Sampling Area	■ check to make sure trucks are sampled in proper area ■ check for spills and removal of spill clean-up materials	Daily *(Fig. A-1)*
Roads	■ check for drive ability and spills	Daily *(Fig. A-1)*
Tanks/Truck Wash	■ check for evidence of spills ■ check for removal of spill cleanup materials	Daily *(Fig. A-1)*
Container Storage Areas (Out-of-Doors)	■ check for evidence of spilled material ■ check for removal of spill cleanup materials	Daily *(Fig. A-1)* Daily *(Fig. A-1)*
Container Storage Areas (In-Doors)	■ check for evidence of spilled material ■ check for removal of spill cleanup materials	Daily *(Fig. A-1)* Daily *(Fig. A-1)*
Surface Impoundments	■ check for evidence and cleanup of spills	Daily *(Fig. A-1)*
Laboratory	■ check for evidence and cleanup of spills	Daily *(Fig. A-1)*
Landfill Use of Leachate For Dust Suppression		
Landfill L-12	■ check for ponding and runoff	Daily *(Fig. A-2a)*
Landfill L-13	■ check for ponding and runoff	Daily *(Fig. A-2a)*
Landfill L-14	■ check for ponding and runoff	Daily *(Fig. A-2a)*Rev 2

*Defined as a one-inch rainfall during a 24-hour period as measure on-site.

ED_002469_00000117-00012

TABLE 3-2

GENERAL INSPECTION SCHEDULE, ENVIRONMENTAL MONITORING SYSTEMS

EQUIPMENT	INSPECTION ELEMENT/ TYPE OF PROBLEM	INSPECTION FREQUENCY
Groundwater Monitoring Network		
Monitoring Wells	■ check that wells are visible and accessible to personnel	Documented on inspection form during the sampling event (semi-annual)
	■ check that area around wells is clean	Documented on inspection form during the sampling event (semi-annual)
	■ check for damage to pipe/ protective cover and cap/lock	Documented on inspection form during the sampling event (semi-annual)

TABLE 3-3

GENERAL INSPECTION SCHEDULE, SAFETY & EMERGENCY EQUIPMENT

EQUIPMENT	INSPECTION ELEMENT/ TYPE OF PROBLEM	INSPECTION FREQUENCY
On-Site Emergency Equipment		
Internal (Radio and Communications System)	■ check accessibility ■ check for operation	Monthly *(Fig. A-15)* Monthly *(Fig. A-15)*
Fire Blankets	■ check for deterioration ■ check for adequate supply ■ check accessibility	Monthly *(Fig A-16)* Monthly *(Fig A-16)* Monthly *(Fig. A-16)*
Fire Extinguishers	■ check pressure gauge for full charge indication ■ check inspection tag to insure annual maintenance by outside fire service is up-to-date ■ check seal to ensure no one has used extinguisher ■ check to ensure access to units is not blocked ■ check adequate supply of fire fighting foam ■ check unit for damage	Monthly *(Fig. A-17)* Monthly *(Fig. A-17)* Monthly *(Fig. A-17)* Monthly *(Fig. A-17)* Monthly *(Fig. A-17)* Monthly *(Fig. A-17)*
Fire Water Line	■ check for adequate pressure	Monthly *(Fig. A-21)*
Absorbent Supply	■ check for adequate supply	Monthly *(Fig. A-21)*
Recovery Drums	■ check for adequate supply	Monthly *(Fig. A-21)*
Alarm Systems (Sirens and Flashing Light)	■ check accessibility ■ activate audible alarm ■ check flashing light operability	Monthly *(Fig. A-21)* Monthly *(Fig. A-21)* Monthly *(Fig. A-21)*
First Aid Kits	■ check accessibility ■ check for adequate supply	Monthly *(Fig. A-18)* Monthly *(Fig. A-18)*

ED_002469_00000117-00014

TABLE 3-3 (Continued)

GENERAL INSPECTION SCHEDULE, SAFETY & EMERGENCY EQUIPMENT

EQUIPMENT	INSPECTION ELEMENT/ TYPE OF PROBLEM	INSPECTION FREQUENCY
On-Site Emergency Equipment (Continued)		
Breathing Apparatus (e.g., Dust Masks, Full-Face Respirators, Supplied Air Respirators, 15-Minute Emergency Escape Units, 30 Minute Breathing Apparatus, Oxygen Bottles, Compressed Air Cylinders, Breathing Air Compressor)	■ check for accessibility of supplied air breathing apparatus and escape packs	Monthly *(Fig. A-19)*
	■ check pressure in air bottles (over 500 psi)	Monthly *(Fig. A-19)*
	■ check for full charge of air bottle - Escape pack only	Monthly *(Fig. A-19)*
	■ check for adequate supply	Monthly *(Fig. A-19)*
	■ check air packs for full charge	Monthly *(Fig. A-19)*
	■ check for deterioration, damage	Monthly *(Fig. A-19)*
	■ check for function of all units on equipment and trailers	Monthly *(Fig. A-19)*
Emergency Showers	■ check that units activate and shut off properly	Quarterly *(Fig. A-22)*
	■ check accessibility	Quarterly *(Fig. A-22)*
	■ check for damage to unit	Quarterly *(Fig. A-22)*
	■ check that eyewash activates and shuts off properly	Quarterly *(Fig. A-22)*
	■ check for cover caps on the eyewash	Quarterly *(Fig. A-22)*
Safety Storage Area	■ check for adequate supply and accessibility of necessary equipment (air packs, cylinders, respirators, chemical-resistant clothing/gloves, first aid kits, etc.)	Monthly *(Fig. A-20)*

ED_002469_00000117-00015

4 PROCESS-SPECIFIC INSPECTION ACTIVITIES/SCHEDULES

The following listed operational units and process systems at the facility are subject to process-specific inspection schedules and procedures presented in this section:

- Laboratory
- Truck Wash Station
- Container Storage Areas/Buildings
- Bulk Liquid Storage Tanks
- Wastewater Treatment Plant
- Stabilization Unit
- Landfills
- Waste Impoundments
- Closed Landfills
- TSCA PCB Storage Areas
- Containment Buildings
- Organic Recovery Unit

‡Rev 4

Equipment and structures at each process unit will be regularly inspected for malfunction, deterioration, failure, operator errors or other causes which could endanger human health or the environment. The types of potential problems and the hazards uniquely associated with each of the facility's process units are used to establish the elements (parameters) and frequency of inspection presented in the following sections.

4.1 Laboratory Inspection

The principal source of concern in the facility's chemical laboratory is the potential for an inadvertent spill or release of hazardous waste constituents due to the improper handling, storage or disposal of samples. Failure of the ventilation or hood systems, improper placement or storage of samples, and contamination of sampling and testing equipment also are inspection concerns. The latter items in this paragraph will be inspected using the facilities' Compliance Management System (CMS) with tasks assigned to laboratory personnel responsible for maintaining the Laboratory Chemical Hygiene Plan.

Pertinent inspection parameters and frequency of inspection for the waste samples in the on-site laboratory are shown in Table 4-1. Inspection of the laboratory waste tank (T-L-1) is included in the bulk liquids storage tank inspection check list in Table 4-4.

4.2 Truck Wash Station Inspection

Release of hazardous waste constituents into the environment or risk to personnel safety could result from the following washing facility potential problems at the Truck Wash Station:

- Malfunction of washing equipment (pumps, water supply, hoses)
- Deterioration or failure of containment (berms, sumps, pad)
- Deterioration/failure of discharge holding structure

The inspection procedures and schedules for the Truck Wash Station are shown in Table 4-2.

ED_002469_00000117-00016

4.3 Container Storage Inspection

The primary concern at indoor container storage buildings is containment of wastes and protection of drums from adverse weather conditions. Outdoor container storage areas contain wastes in drums, overpacks, or drip pans. The potential problems of concern related to the facility's drum (container) storage areas/buildings include:

- Spills in loading/unloading area (addressed under the General Facility Operations Inspection in Table 3-1)
- Deteriorated, damaged, leaking or open containers
- Failure or deterioration of secondary spill containment structures
- Improper placement or stacking of drums
- 40 CFR 264 subpart CC compliance

The elements and frequency of inspection for the container storage units are as shown in Table 4-3.

4.3.1 Container Storage Area Subpart CC Compliance

To comply with 40 CFR 270.27(a)(2) the following container storage areas are being identified as areas subject to the requirements of 40 CFR part 264, subpart CC:

- S-2; S-4; S-5; S-6; S-10; and S-11A‡ **Rev. 6**

In accordance with 40 CFR 264.1086(c)(4) and (d)(4), containers received at the facility will be inspected within 24 hours of receiving the containers subject to this regulation. The inspection will be performed and documented on the Load Inspection Sheet as identified by site personnel. Site personnel will visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position.

The inspector will check the outside container storage areas S-5, S-6, and S-10 ‡ **Rev. 6** weekly to determine if bioremediation operations are being conducted in containers. If biotreatment containers are present and operating, the inspector will verify that Subpart CC controls are in place. ‡**Rev. 1**

4.4 Bulk Liquid Storage Tank Inspection

4.4.1 General Inspection

The types of potential problems which can occur at/near bulk liquid storage tank areas are:

- Spills during loading and unloading of tanks
- Structural failure of tanks or secondary containment features
- Operating equipment (i.e., pumps, valves) failure or malfunction
- Level-monitoring equipment failure, resulting in overfilling

The elements and frequency of inspection for the facility's bulk liquid storage units are summarized in Table 4-4. Inspections are conducted only when the tanks are in service and before liquids are added to a previously out-of-service tank.

ED_002469_00000117-00017

4.4.2 Wastewater Treatment Plant Tank System Inspection

It is judged that potential problems at/with this tank system could result only from structural or operating equipment failure. Bulk storage, product storage and wastewater treatment all take place inside the Wastewater Treatment Plant. Elements of inspection for the unit are summarized in Table 4-4. ‡ **Rev 4**

If more than 1 (one) gallon of liquid discharges from the inspection port on the secondary containment for the Pond B discharge pipe, then the discharge must be tested to determine if leachate constituents are present. The procedures are outlined in §2.2.2 of the Bulk Liquid Storage/Treatment Plan (Standalone Document No. 8). ‡ **Rev 7**

4.5 Stabilization Unit Inspection

It is judged that potential problems at/with this process station could result only from structural or operating equipment failure. Inspection of structural and mechanical system integrity of the stabilization unit is performed daily only when the process is operated. Elements of inspection for the unit are summarized in Table 4-5.

Sump alarms have been installed in all primary sumps. The alarms provide continuous sump monitoring. The inspector records the sump condition daily. When the monitor sounds an alarm, indicating liquid is present in the primary sumps, the Inspector will measure the liquid depth. ‡ **Rev. 6**

Secondary sumps are inspected quarterly to guard against liquid buildup (surface water) that could affect stability of the foundation or tank structure. Excess buildup (i.e. liquids reaching the top of the ports) will be pumped down on discovery. ‡ **Rev. 6**

4.6 Landfills Inspection

The types of problems that increase the likelihood of an unplanned or unknowing release of hazardous wastes to the environment from active landfill cells include:

- Run-on diversion berm failure or obstruction of drainage channels
- Run-off containment system failure
- Leachate generation and migration to ground or surface waters--due to liner failure or failure of the leachate removal systems

Wind dispersal of wastes Landfill inspection parameters and frequency are indicated in Table 4-6

4.7 Waste Impoundments Inspection

Potential problems which may be associated with waste impoundments include:

- Overtopping due to wind action or heavy precipitation
- Liner failure (leakage)
- Malfunction, deterioration, or failure of truck washing equipment (pumps, water supply and hoses)

The relevant inspection elements and necessary frequencies are shown in Table 4-7.

4.8 Closed Landfills Inspection

Each capped landfill is inspected on a monthly basis to ensure the structural integrity of the cap. Potential problems include items identified in Table 4-8 which may result in damage to the cap. The elements and the frequency of inspections are summarized in Table 4-8.

For landfills that have an ET cover, annual erosion inspections will be used to determine the location and amount of erosion that has occurred at the surface of the cover by using the settlement monuments installed during construction. To determine erosion, a measurement of the cover surface at each control monument and at four elevations evenly spaced and approximately 10 feet from the control monument. The measurements can be taken in the four cardinal directions (north, south, east, and west) as determined by survey system. The average of the four measurements will be compared to the baseline established during the initial site survey to assess the extent of and/or potential for erosion. Surveying the elevations outward from the erosion control monument and comparing those elevations to the base line elevations determines the extent of the deficient area.

4.9 PCB Storage/Transfer Unit Inspection

Any mobile equipment involved in the PCB storage and transfer operations, including forklifts and spill response equipment, is kept within the PCB Storage/Transfer Unit. If any such equipment is moved out of the unit, it is first properly decontaminated or verified to be free of PCB contamination. Unauthorized vehicles are not permitted in this PCB area.

The elements and frequency of inspection for the PCB Storage/Transfer Unit are summarized in Table 4-9.

4.10 Containment Buildings Inspection

Each containment building is inspected weekly to ensure that visible portions of the building show no signs of deterioration or damage. The tracking of contaminates from the building is checked by visually inspection the exterior surfaces immediately adjacent to containment building exits for presence of waste. If waste is observed to be present, a Remedial Work Order is issued.

The exterior sides of all containment buildings including doorways, manways, vents, and louvers are visually inspected for damage and waste emissions. If damage or waste emissions are observed, a Remedial Work Order is issued. The weekly inspection includes the exterior of baghouses, stacks, and ancillary air handling equipment which are visually inspected for emissions as well. If emissions are observed from this equipment, a Remedial Work Order is issued.

The inspector will confirm weekly with the appropriate personnel that preventative maintenance on the air handling equipment is being performed at the proper frequency as recommended by the manufacturer. Rev 1

The elements and the frequency of inspections are summarized in Table 4-10.

4.11 Organic Recovery Unit Inspection

The ORU tanks, piping and containment will be inspected daily. The tanks and piping will be inspected for visible leaks and general condition. The overfill alarms will be tested to insure they are in working order. The containment area and sumps will be inspected for evidence of any liquid collection and evidence of any leakage from the associated pipes, pumps, tanks and equipment contained within the area. Containers within the area will be checked for compliance with applicable 90 day or satellite rules.

Major equipment at the ORU will be monitored on a scheduled basis (per manufacturer's guidance). ORU inspection elements are outlined in Table 4-13.

ED_002469_00000117-00020

TABLE 4-1

LABORATORY INSPECTION SCHEDULE

EQUIPMENT	INSPECTION ELEMENT/ TYPE OF PROBLEM	INSPECTION FREQUENCY
Laboratory Hazardous Wastes		
Laboratory Wastes	■ check waste containers for proper labels	Weekly *(Fig. A-9)*
	■ check that sampling wastes are stored in properly marked and dated containers	Weekly *(Fig. A-9)*
	■ check for drum deterioration, leaks, or swelling	Weekly *(Fig. A-9)*
	■ check that drums are not open	Weekly *(Fig. A-9)*
	■ check for incompatible storage	Weekly *(Fig. A-9)*
	■ check that storage time limitations have not been exceeded	Weekly *(Fig. A-9)*

ED_002469_00000117-00021

TABLE 4-2

TRUCK WASH STATION INSPECTION SCHEDULE

EQUIPMENT	INSPECTION ELEMENT/ TYPE OF PROBLEM	INSPECTION FREQUENCY
Truck Wash Station		
Tanks/Truck Wash (T-TW)	■ check housekeeping of area	Daily *(Fig. A-4)*
	■ check if alarm system activates	Daily *(Fig. A-4)*
	■ check for cracks and gaps in curbing and wall of tanks and flume**	Daily *(Fig. A-4)*
	■ check for improperly stored equipment	Daily *(Fig. A-4)*
	■ check for seepage outside containment of tanks and flume**	Daily *(Fig. A-4)*
	■ check building floor, curb and flume for cracks or deterioration	Daily *(Fig. A-4)*
	■ check hoses for deterioration	Daily *(Fig. A-4)*
	■ check to verify liquid level is below authorized freeboard	Daily and *(Fig. A-4)* after storms*
	■ check for removal of spill absorbent	Daily *(Fig. A-4)*
	■ check for evidence of spills	Daily *(Fig. A-4)*

* Defined as a one-inch rainfall during a 24-hour period as measured on-site.

** Above-ground portions.

ED_002469_00000117-00022

TABLE 4-3 ‡Rev 6

CONTAINER STORAGE INSPECTION SCHEDULE

EQUIPMENT	**INSPECTION ELEMENT/ TYPE OF PROBLEM**	**INSPECTION FREQUENCY**
Container Storage Areas		
Container Storage Buildings (Indoors)	■ check floor sumps and curbing for deterioration and cracks	Weekly *(Fig. A-10)*
	■ check roof and walls for leakage	Weekly *(Fig. A-10)*
	■ check for removal of spill clean-up materials	Weekly *(Fig A-10)*
	■ check sumps for liquids	Weekly *(Fig. A-10)*
	■ check for structural integrity	Weekly *(Fig. A-10)*
Container Storage Areas (Out-of-Doors)	■ verify storage is within proper areas	Weekly *(Fig. A-10)*
	■ check for deterioration of containment structures	Weekly *(Fig. A-10)*
	■ check sumps for liquids	Weekly *(Fig. A-10)*
	■ check for removal of spill clean-up materials	Weekly *(Fig. A-10)*
Stored Containers	■ check for drum deterioration, leaks or swelling	Weekly *(Fig. A-10)*
	■ check that drums are not open	Weekly *(Fig. A-10)*
	■ check for proper placement and marking of containers	Weekly *(Fig. A-10)*
	■ check adequacy of aisle space	Weekly *(Fig. A-10)*
	■ verify drums are not placed in standing water	Weekly *(Fig. A-10)*
	■ check for incompatible storage	Weekly *(Fig. A-10)*
Subpart CC Compliance	■ check that there are no visible cracks holes, gaps or other open spaces	Within 24 hours of receipt *(Load Inspection Sheet)*
	■ check for the presence of biotreatment in containers outside Container Storage Areas S-5, S-6,and S-10; verify Subpart CC controls are in place if biotreatment containers are present	Weekly *(Fig. A-10)*

‡ Rev 1

ED_002469_00000117-00023

TABLE 4-4

BULK LIQUID STORAGE TANKS & WASTEWATER TREATMENT PLANT INSPECTION SCHEDULE

EQUIPMENT	INSPECTION ELEMENT/ TYPE OF PROBLEM	INSPECTION FREQUENCY
Wastewater Tanks		
‡ Rev 4		
Tanks	■ check for evidence of spills around tanks and unloading areas	Daily *(Fig. A-6)*
	■ check for removal of spill absorbent	Daily *(Fig. A-6)*
	■ check for improperly stored equipment	Daily *(Fig. A-6)*
	■ check operability of tank liquid level indicators	Daily *(Fig. A-6)*
	■ check that daily log is up-to-date	Daily *(Fig. A-6)*
	■ check piping and hoses for leaks and deterioration	Daily *(Fig. A-6)*
	■ check tank exterior for cracks, leaks, discoloration or deformation	Daily *(Fig. A-6)*
	■ check housekeeping of area	Daily *(Fig. A-6)*
	■ check for proper labels	Daily *(Fig. A-6)*
Laboratory Tank		
Tank, Lab (T-L)	■ check if alarm systems activates	Daily *(Fig. A-4)*
	■ check for spills around tank hatch and under lid	Daily *(Fig. A-4)*
	■ check housekeeping	Daily *(Fig. A-4)*
	■ check that handles are not bent or damaged	Daily *(Fig. A-4)*
	■ check for proper labels	Daily *(Fig. A-4)*

ED_002469_00000117-00024

TABLE 4-4(Continued)

BULK LIQUID STORAGE TANKS & WASTEWATER TREATMENT PLANT INSPECTION SCHEDULE

EQUIPMENT	INSPECTION ELEMENT/ TYPE OF PROBLEM	INSPECTION FREQUENCY
Wastewater Treatment Plant		
Wastewater Treatment Tank System	■ check for damage to tanks and piping	Daily *(Fig. A-6)*
	■ check for evidence of spills	Daily *(Fig. A-6)*
	■ check for evidence of leaks	Daily *(Fig. A-6)*
	■ check for evidence of corrosion of tanks	Daily *(Fig. A-6)*
	■ check for evidence of accumulation of liquid	Daily (*Fig. A-6)*
	■ check physical integrity of sump and floor coating	Daily *(Fig. A-6)*
	■ check contingency/emergency equipment	Daily *(Fig. A-6)*
	■ check containers for damage, labeling, and compatibility.	Daily *(Fig. A-6)*
	■ check for operation of tank liquid level alarms.	Daily *(Fig. A-6)*
	■ check for liquid accumulation from inspection port on Pond B secondary containment pipe.*	Daily *(Fig. A-6)*

* If discharge > 1 gallon, then obtain a sample of the liquid per §2.2.2 of the Bulk Liquid Storage/Treatment Plan

TABLE 4-5 ‡ Rev. 6

STABILIZATION UNIT INSPECTION SCHEDULE

EQUIPMENT	INSPECTION ELEMENT/ TYPE OF PROBLEM	INSPECTION FREQUENCY
Stabilization Unit		
Treatment Tanks	■ check for damage to tanks	Daily *(Fig. A-3)*
	■ check for evidence of spills	Daily *(Fig. A-3)*
	■ check for evidence of leaks	Daily *(Fig. A-3)*
	■ check for sufficient freeboard in tanks	Daily *(Fig. A-3)*
	■ check for evidence of corrosion of tanks	Daily *(Fig. A-3)*
Containment Sumps	■ check for evidence of accumulation of liquid in primary sumps	Daily *(Fig. A-3)*
	■ check physical integrity of sump and standpipes	Daily *(Fig. A-3)*
	■ check for evidence of accumulation of liquid in secondary sumps	Quarterly *(Fig. A-21a)*

ED_002469_00000117-00026

TABLE 4-6

LANDFILLS INSPECTION SCHEDULE

EQUIPMENT	INSPECTION ELEMENT/ TYPE OF PROBLEM	INSPECTION FREQUENCY
Active Landfills		
Run-on Diversion	■ check berms for erosion	Weekly *(Fig. A-13)* and after storms*
	■ check ditches for erosion, siltation and debris	Weekly *(Fig. A-13)* and after storms*
Run-off Control System	■ check for erosion or deterioration of dikes/berms, including seepage	Weekly*(Fig.A-13)* and after storms*
	■ check for removal of rainfall accumulation at dikes/berms	Weekly *(Fig. A-13)* and after storms*
Wind Dispersal Control	■ check effectiveness of fugitive dust suppression on roads	Weekly *(Fig. A-13)*
	■ check for evidence of wind dispersal of wastes	Weekly *(Fig. A-13)*
Leachate Collection/ Monitoring System	■ check condition of riser cover and lock	Daily *(Fig. A-2)* and after storms*
	■ check for presence and level of liquid in sumps	Daily *(Fig. A-2)* and after storms*
	■ record volume of liquid	Daily *(Fig. A-2)* and after storms*

* Defined as one-inch rainfall in a 24-hour period as measured on-site.

ED_002469_00000117-00027

TABLE 4-7 ‡ Rev. 3

WASTE IMPOUNDMENTS INSPECTION SCHEDULE

EQUIPMENT	INSPECTION ELEMENT/ TYPE OF PROBLEM	INSPECTION FREQUENCY
Active Impoundments		
Ponds	■ check for liquid level at or below approved limit	Weekly *(Fig. A-12)*
	■ check level indicator for damage	Weekly *(Fig. A-12)*
	■ check for sudden drop in liquid level (from prior week)	Weekly *(Fig. A-12)*
Run-on Diversion	■ check berms for erosion	Weekly *(Fig. A-12)* and after storms*
	■ check drainage ditches for erosion, siltation, and debris	Weekly *(Fig. A-12)* and after storms*
Leak Detection System (where applicable)	■ check condition of riser and end closure cap	Weekly *(Fig. A-12)*
	■ check for presence of liquid in sump(s) and record quantity removed	Weekly *(Fig. A-12)*
Truck Wash Equipment	■ visually check water supply hoses	Weekly *(Fig. A-12)*
	■ check washout area	Weekly *(Fig. A-12)*
	■ check housekeeping	Weekly *(Fig. A-12)*
Transfer Piping	■ check for leaks or damage	Weekly *(Fig. A-12)*

* Defined as a one-inch rainfall in a 24-hour period as measured on-site.

ED_002469_00000117-00028

TABLE 4-8

CLOSED LANDFILLS INSPECTION SCHEDULE

EQUIPMENT	INSPECTION ELEMENT/ TYPE OF PROBLEM	INSPECTION FREQUENCY
Closed Landfills		
Cap Condition	■ Check for wind or water erosion (rills or small channels greater than 4 inches in depth), presence of standing water	Monthly *(Fig.A-14)*
	■ Check for blocking and/or erosion of surface waterrun-on and runoff control systems	Monthly *(Fig. A-14)*
	■ Check for settling, cracking or fracture of the cap, cracks at crests of slopes, bulging at toes of slopes, presence of standing water	Monthly *(Fig. A-14)*
	■ Check for signs of burrowing animals (holes, tracks, trails, droppings)	Monthly *(Fig. A-14)*
	■ Check for lack of vegetation or evidence of vegetative stress, "leaning" vegetation	Monthly (*Fig.A-14*)
	■ Check for damaged or displaced landfill markers	Monthly*(Fig.A-14)*
	■ Check for signs of human activity (trails), signs of vehicular traffic (ruts, car and bike tire marks)	Monthly *(Fig. A-14)*
	■ Damaged leachate collection/detection risers	Monthly *(Fig. A-14)*
	■ Leachate seeps	Monthly *(Fig. A-14)*
Leachate Collection	■ Check for presence of liquid in sumps	Monthly *(Fig. A-14)* ***(For cells with liquid)*** Semiannual *(Fig. A-23)* ***(For cells without liquid)***

* Monthly frequency is established in the TSCA Letter of Approval under Condition 22.a.

ED_002469_00000117-00029

TABLE 4-9‡ Rev. 6

PCB STORAGE/TRANSFER UNIT INSPECTION SCHEDULE

EQUIPMENT	INSPECTION ELEMENT/ TYPE OF PROBLEM	INSPECTION FREQUENCY
PCB Storage Area		
Storage	■ check housekeeping for trash and weeds	Weekly *(Fig. A-11)*
	■ check unused pans for proper storage	Weekly *(Fig. A-11)*
	■ check berms for structural integrity	Weekly *(Fig. A-11)*
Drip Pans	■ check for any spilled liquids in pans	Weekly *(Fig. A-11)*
Vehicles	■ check all mobile equipment leaving PCB area to ensure decontamination has occurred	Weekly *(Fig. A-11)*
	■ check to ensure that no unauthorized vehicles are in the area	Weekly *(Fig. A-11)*
Container Storage Units	■ See Table 4-3	Weekly *(Fig. A-10)*
Spill Areas	■ See Table 3-1	Daily *(Fig. A-1)*
Tanks	■ See Table 4-4	Daily *(Fig. A-5)*

ED_002469_00000117-00030

TABLE 4-10

CONTAINMENT BUILDINGS INSPECTION SCHEDULE

EQUIPMENT	INSPECTION ELEMENT/ TYPE OF PROBLEM	INSPECTION FREQUENCY
Visible Portions of Bldg.	■ check for damage to the visible portions	Weekly *(Fig. A-25)*
	■ check for gaps, cracks or other damage	Weekly *(Fig. A-25)*
Waste Level	■ check that the waste level does not exceed the height of the walls of the bldg.	Weekly *(Fig. A-25)*
Contamination Control	■ check exterior surface immediately adjacent to equipment decontamination areas for presence of waste.	Weekly *(Fig. A-25)*
	■ check personnel decontamination rooms at Containment Buildings B-1 and B-5 for presence of waste.	
Fugitive Emission Control	■ check that no visible emissions are occurring from the building openings, doorways, vents, and louvers.	Weekly *(Fig. A-25)*
	■ check baghouses, stacks, and other air handling equipment for signs of visible emissions	
Liner	■ check for the presence of liquid in sumps	Weekly *(Fig. A-25)*
Storage Tanks ‡ **Rev. 4**	■ check for damage to tanks	Daily *(Fig. A-6)*
	■ check for evidence of spills	Daily *(Fig. A-6)*
	■ check for evidence of leaks	Daily *(Fig. A-6)*
	■ check for sufficient freeboard in tanks	Daily *(Fig. A-6)*
	■ check for evidence of corrosion of tanks	Daily *(Fig. A-6)*
Preventative Maintenance	■ confirm that preventative maintenance is being performed on the air handling equipment at the frequency recommended by the manufacturer	Weekly*(FigA-25)*
‡Rev 1		
Containment Sumps	■ check for evidence of accumulation of liquid	Daily *(Fig. A-6)*
	■ check physical integrity of sump and standpipes	Daily *(Fig. A-6)*
‡Rev 4		

ED_002469_00000117-00031

Table 4-11 removed Rev 4

ED_002469_00000117-00032

TABLE 4-12

DOLLY DOWN AREA INSPECTION SCHEDULE

EQUIPMENT	INSPECTION ELEMENT/ TYPE OF PROBLEM	INSPECTION FREQUENCY
Containers (Regulated Waste)	■ check containers for leaks	Daily *(Fig. A-27)*
	■ check for proper labels	Daily *(Fig. A-27)*
	■ check manifests to verify that time from dollied down date does not exceed 72 hours	Daily *(Fig. A-27)*
Containers (Non-regulated Waste)	■ check containers for leaks	Daily *(Fig. A-27)*
	■ check for covers on containers	Daily *(Fig. A-27)*
	■ check for proper labels	Daily *(Fig. A-27)*
	■ check for waste profile number on top of drum	Daily *(Fig. A-27)*
	■ verify that daily drum log is complete	Daily *(Fig. A-27)*

ED_002469_00000117-00033

TABLE 4-13

ORGANIC RECOVERY UNIT INSPECTION SCHEDULE

EQUIPMENT	INSPECTION ELEMENT/ TYPE OF PROBLEM	INSPECTION FREQUENCY
Wastewater Tanks, Oil/Water Separator and Oil Storage Tanks		
Tanks and Piping	■ check for evidence of spills around tanks and unloading areas	Daily *(Fig. A-7a)*
	■ check for removal of spill absorbent and cleanup materials	Daily *(Fig. A-7a)*
	■ check operability of tank liquid level indicators and alarms	Daily *(Fig. A-7a)*
	■ check that tank log is up-to-date	Daily *(Fig. A-7a)*
	■ check piping and hoses for leaks and deterioration	Daily *(Fig. A-7a)*
	■ check tank exterior for cracks, leaks, discoloration or deformation	Daily *(Fig. A-7a)*
	■ check for proper labels	Daily *(Fig. A-7a)*
	■ check for damage to tanks and piping	Daily *(Fig. A-7a)*
Tank Containment		
	■ check for evidence of spills	Daily *(Fig. A-7a)*
	■ check for evidence of leaks	Daily *(Fig. A-7a)*
	■ check for removal of spill absorbent	Daily *(Fig. A-7a)*
	■ check that spill kit is adequately stocked	Daily *(Fig. A-7a)*
	■ check for evidence of corrosion of tanks	Daily *(Fig. A-7a)*
	■ check for evidence of accumulation of liquid	Daily (*Fig. A-7a)*
	■ check floor and curb for cracks or deterioration	Daily *(Fig. A-7a)*
	■ check physical integrity of sump and floor coating	Daily *(Fig. A-7a)*
	■ check contingency/emergency equipment	Daily *(Fig. A-7a)*
	■ check containers for damage, labeling, and compatibility.	Daily *(Fig. A-7a)*
	■ check housekeeping of area	Daily *(Fig. A-7a)*
	■ check for improperly stored equipment	Daily *(Fig. A-7a)*
	■ check that fill hoses are inside containment	Daily *(Fig. A-7a)*

ED_002469_00000117-00034

TABLE 4-14

NEW ORGANIC RECOVERY UNIT INSPECTION SCHEDULE

EQUIPMENT	INSPECTION ELEMENT/ TYPE OF PROBLEM	INSPECTION FREQUENCY
Wastewater Tanks, Oil/Water Separator and Oil Storage Tanks		
Tanks and Piping	■ check for evidence of spills around tanks and unloading areas	Daily *(Fig. D4)*
	■ check for removal of spill absorbent and cleanup materials	Daily *(Fig. D4)*
	■ check operability of tank liquid level indicators and alarms	Daily *(Fig. D4)*
	■ check that tank log is up-to-date	Daily *(Fig. D4)*
	■ check piping and hoses for leaks and deterioration	Daily *(Fig. D4)*
	■ check tank exterior for cracks, leaks, discoloration or deformation	Daily *(Fig. D4)*
	■ check for proper labels	Daily *(Fig. D4)*
	■ check for damage to tanks and piping	Daily *(Fig. D4)*
Tank Containment		
	■ check for evidence of spills	Daily *(Fig. D4)*
	■ check for evidence of leaks	Daily *(Fig. D4)*
	■ check for removal of spill absorbent	Daily *(Fig. D4)*
	■ check that spill kit is adequately stocked	Daily *(Fig. D4)*
	■ check for evidence of corrosion of tanks	Daily *(Fig. D4)*
	■ check for evidence of accumulation of liquid	Daily *(Fig. D4)*
	■ check floor and curb for cracks or deterioration	Daily *(Fig. D4)*
	■ check physical integrity of sump and floor coating	Daily *(Fig. D4)*
	■ check contingency/emergency equipment	Daily *(Fig. D4)*
	■ check containers for damage, labeling, and compatibility.	Daily *(Fig. D4)*
	■ check housekeeping of area	Daily *(Fig. D4)*
	■ check for improperly stored equipment	Daily *(Fig. D4)*
	■ check that fill hoses are inside containment	Daily *(Fig. D4)*

ED_002469_00000117-00035

Formatted: Left: 1"

Formatted: Font: Not Italic

Formatted: Font: Not Italic

APPENDIX A – INSPECTION REPORT FORMS

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Daily Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: GENERAL SITE / RAINFALL AND SPILL AREAS

INSPECTION ELEMENT

A. RAIN GAUGE - Record the rainfall for the previous day

B. POTENTIAL SPILL AREAS - Check the following for spills and the removal of spill clean-up materials and any additional items noted below

Transportation Area	Surface Impoundments/freeboard
Truck Scale	Laboratory (Container Storage Areas)
Truck Sampling Area Check that trucks are sampled in the proper area	Containment Buildings
Roads – Check for drive ability	Fuel Bay Area
Truck Wash	
Container Storage (Indoors and Outdoors for both RCRA and TSCA storage units)	Waste Pile WP-1 Check for presence of liquids in sumps

The General Site / Rainfall and Potential Spill Area items listed have been inspected for each of the items noted above. The results are summarized below.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Previous Day Rainfall	_____ inch			
	B. Potential Spill Areas				
	Truck Scale				
	Truck Sampling Area				
	Roads				
	Truck Wash				
	Container Storage Outdoors)				
	Container Storage (Indoors)				
	Surface Impoundments				
	Laboratory				
	Containment Buildings				
	Transportation Area				
	Fuel Bay Area				
	Waste Pile WP-1				

Note: In the event of one inch of rainfall in 24 hours, forms A-4, A-8, A-12, A-13, A-14, A-24 and A-26 must be completed.

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name:_____

Inspector's Title:_____

Figure A-1 ‡Rev. 9

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Daily Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: ACTIVE LANDFILLS / LEACHATE COLLECTION (LR) AND LEACHATE DETECTION(LD)

INSPECTION ELEMENT:

A. LANDFILL 14 - Check the leachate collection (LR and LT) systems and record liquid levels (not to exceed 1 foot on liner)
Check the leachate detection (LD) system and record liquid level (all pumpable quantities to be removed)
Check the riser cover and lock

B. LANDFILL 13 - Check the leachate collection (LR) system and record liquid level (not to exceed 1 foot on liner)
Check the leachate detection (LD) system and record liquid level (all pumpable quantities to be removed)
Check the riser cover and lock

C. LANDFILL 12 - Check the leachate collection (LR) system and record liquid level (not to exceed 1 foot on liner)
Check the leachate detection (LD) system and record liquid level (all pumpable quantities to be removed)
Check the riser cover and lock

The Active Landfill items listed below have been inspected for each of the checklist items noted above.

Time of Inspection			Equipment/Unit Item			Additional Inspection Notes			Status: Acceptable			Status: Unacceptable			If Unacceptable Specify Reasons		
14-1	14-2	14-3	**A. LANDFILL L- 14**			14-1	14-2	14-3	14-1	14-2	14-3	14-1	14-2	14-3	14-1	14-2	14-3
			LT-1	LT-2	LT-3	____"	____"	____"									
			LD-1	LD-2	LD-3	____"	____"	____"									
			LR-1	LR-2	LR-3	____"	____"	____"									
			B. LANDFILL L- 13														
			1. LD-13-1a			_____ inches			1.								
			2. LD-13-2a			_____ inches			2.								
			3. LD-13-3a			_____ inches			3.								
			4. LD-13-4a			_____ inches			4.								
			5. LD-13-5a			_____ inches			5.								
			6. LD-13-6a			_____ inches			6.								
			7. LR-13-1			_____ inches			7.								
			8. LR-13-2			_____ inches			8.								
			9. LR-13-3			_____ inches			9.								
			10. LR-13-4			_____ inches			10.								
			11. LR-13-5			_____ inches			11.								
			12. LR-13-6			_____ inches			12.								
			C. LANDFILL L-12														
			1. L-12-LD-N			_____ inches			1.								
			2. L-12-LD-S			_____ inches			2.								
			3. L-12-LR-N			_____ inches			3.								
			4. L-12-LR-S			_____ inches			4.								

Note: In the event of one inch of rainfall in 24 hours the Landfill Leachate Collection and Detection Systems must be inspected

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Mgr. Initials (Verifying Review):_____Inspector's Name:_____

Inspector's Title:_____

Figure A-2 ‡Rev. 9

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Daily Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: ACTIVE LANDFILLS / LEACHATE DUST SUPPRESSION USE

INSPECTION ELEMENT:

A. LANDFILL L-14 – Check the leachate dust suppression system. Check for evidence of ponding or runoff. Check that leachate are applied within the landfill foot print

B. LANDFILL L-13 – Check the leachate dust suppression system. Check for evidence of ponding or runoff. Check that leachate are applied within the landfill foot print

C. LANDFILL L-12 – Check the leachate dust suppression system. Check for evidence of ponding or runoff. Check that leachate are applied within the landfill foot print

The Active Landfill items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. LANDFILL L- 14				
	1. System Condition		1.		
	2. Ponding		2.		
	3. Runoff		3.		
	4. Within Lined Area		4.		
	B. LANDFILL L- 13				
	1. System Condition		1.		
	2. Ponding		2.		
	3. Runoff		3.		
	4. Within Lined Area		4.		
	C. LANDFILL L- 12				
	1. System Condition		1.		
	2. Ponding		2.		
	3. Runoff		3.		
	4. Within Lined Area		4.		

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name:_____

Inspector's Name/Title: _____

Figure A-2a ‡Rev 2

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

X **Daily Inspection Report**

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: **TANKS / STABILIZATION UNITS**

INSPECTION ELEMENT:

A. TREATMENT TANKS - Check for damage to visible portions of tanks
Check for evidence of spills and leaks
Check for sufficient freeboard in tanks
Check for evidence of corrosion of tanks

B. CONTAINMENT SUMPS - Check physical integrity of standpipes
Check for evidence of accumulation of liquid in primary sumps

The Tanks / Stabilization Unit items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status		If Unacceptable Specify Reasons
			Acceptable	Unacceptable	
	A. Treatment Tanks				
	Tank 1-a				
	Tank 1-b				
	Tank 2-a				
	Tank 2-b				
	Tank 3-a				
	Tank 3-b				
	Tank 4-a				
	Tank 4-b				
	Tank 5-a				
	Tank 5-b				
	Tank 6-a				
	Tank 6-b				
	B. Containment Sumps				
	Sump 1- Primary (a)	_____ inches			
	Sump 1- Primary (b)	_____ inches			
	Sump 2- Primary (a)	_____ inches			
	Sump 2- Primary (b)	_____ inches			
	Sump 3- Primary (a)	_____ inches			
	Sump 3- Primary (b)	_____ inches			
	Sump 4- Primary (a)	_____ inches			
	Sump 4- Primary (b)	_____ inches			
	Sump 5- Primary (a)	_____ inches			
	Sump 5- Primary (b)	_____ inches			
	Sump 6- Primary (a)	_____ inches			
	Sump 6- Primary (b)	_____ inches			

Emergency Coordinator Contacted: Yes / No Inspector's Signature_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name / Title:_____

Figure A-3 ‡Rev.7

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Daily Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: BULK STORAGE TANK / BUILDINGS

INSPECTION ELEMENT:

A. TANKS, TRUCK WASH (T-TW) - Check housekeeping of the area
Check if high level alarm activates
Check for evidence of spills
Check for removal of spill absorbent and cleanup materials
Check for cracks and gaps in curbing and walls of above-ground portions of tank and flume
Check for improperly stored equipment
Check for seepage outside containment of tanks and flume
Check building floor, curb, and flume for cracks or deterioration
Check hoses for deterioration
Check to verify liquid is below authorized freeboard (minimum 3 feet for primary tank and 2 feet for secondary tank)

B TANK, LAB (T-L) - Check if alarm system activates
Check for spills around the tank hatch and under lid
Check that the "Non-Regulated" label and accumulation date are in place
Check housekeeping
Check that handles are not bent or damaged

The Bulk Storage Tank / Buildings items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Truck Wash				
	T-TW-1				
	T-TW-2				
	B. Lab Tank				
	T-L-1				

Note: In the event of one inch of rainfall in 24 hours the Truck Wash Tanks must be inspected.

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name:_____

Inspector's Title:_____

Figure A-4

Figure A-5 Removed ‡Rev 4

ED_002469_00000117-00042

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Daily Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: WASTEWATER TREATMENT PLANT / TANKS AND CONTAINERS

INSPECTION ELEMENT:

A. TREATMENT UNIT& TANK SYSTEM –

- Check for spills around unloading areas, tanks and ports
- Check for structural integrity (Receiving tank, clarifier, surge tank, sludge tank, carbon filters, effluent tanks, piping, valves, flanges, reagent tanks, sand filters, carbon filters)
- Check for debris, clean-up residue, removal of spill absorbent and cleanup materials, improperly stored equipment
- Check housekeeping
- Check cracks in the tank coating and condition of secondary containment
- Check sump for the accumulation of liquid
- Check for corrosion of tanks
- Check for cracks and coating condition in 2ndry containment. Check high level alarm operability, and overflow controls
- Check for proper labels
- Check use of tank logs
- Check piping and hoses for leaks and deterioration
- Check Pond B Pipe and secondary containment port. If > 1gallon, see Insp. Plan.
- Check tank exterior for cracks, leaks, discoloration, or deformation

B. CONTAINERS (Outside and Inside) -

- Check containers for leaks
- Check containers for deterioration
- Check aisle space (2.5 feet)
- Labeling (Hazardous waste and Accumulation start dates for 90 day containers)
- Check containers for incompatible storage
- Check that drums are not in standing water
- Check that drums are closed

C. CONTINGENCY - Check emergency spill kit (check seal)

The Wastewater Treatment Plant / Tanks and Container items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Treatment Unit				
	All Tanks				
	Containment				
	Piping system				
	B. Containers				
	Outside				
	Inside				
	C. Contingency				
	Spill Kit				

Note: Accumulated liquid in sump must be pumped within 24 hours of discovery.

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name:_____

Inspector's Title:_____

Figure A-6 ‡Rev. 4 - 7

Figure A-7 Removed ‡Rev. 4

ED_002469_00000117-00044

Formatted Table

Chemical Waste Management of the Northwest, Inc. Page 1 of 2

Daily Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: ORGANIC RECOVERY UNIT TANKS, PIPING & CONTAINMENT

INSPECTION ELEMENT:

A. TANKS - Check for spills and leaks around tanks, ports, and unloading areas
Check tank exterior for cracks, leaks, discoloration, damage or deformation
Check for proper labels
Check high level alarm operability, and overflow controls
Check use of tank logs

B. TANK CONTAINMENT - Check condition of sump and coating of secondary containment
Check for evidence of spills and leaks
Check for removal of spill absorbent and cleanup materials
Check that spill kit is adequately stocked
Check housekeeping
Check that there is no liquid in the sump
Check container condition, labeling and compatibility
Check fill hose condition
Check that stored fill hoses are fully inside containment

C. PIPING - Check piping, valves and hoses for leaks and deterioration
Check for damage to pipes and ancillary equipment

D. CONTAINERS - Check lids
Check condition of containers
Check label for accumulation date
Check volumes in container

The Bulk Storage Tank items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Tanks				
	Desorber 1200-01				
	Quench 4200-01				
	Slinger 4210-01				
	Pack Bed Scrubber 4300-01				
	Sump 4230-01				
	Oil Water Separator 5200-01				
	Process Oil Tank 5210-01				
	Oil Storage Tank 5300-01				
	Oil Storage Tank 5300-02				

~~Figure A-7a (Continued)~~

~~Chemical Waste Management of the Northwest, Inc.~~ ~~Page 2 of 2~~

Figure A-7a (Continued)

Chemical Waste Management of the Northwest, Inc Page 2 of 2

Daily Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: ORGANIC RECOVERY UNIT TANKS, PIPING & CONTAINMENT

	Oil Storage Tank 5300-03				
	Centrifuge 4900-01				
	Centrifuge Oil Tank				
	Water Tank 5100-01				
	Process Water Storage Tank 5100-02				
	Carbon Filter 5320-01				
	B. Containment				
	Spills/Leaks				
	Used Absorbent				
	Spill Kit				
	Sump & Floor				
	Containers				
	Fill Hoses				
	C. Piping				
	Leaks				
	Condition				
	D. Containers				
	Sludge Bin 4910-01				
	90 Day Containers				

Note: Accumulated liquid in sump must be pumped within 24 hours of discovery.

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name:_____

Inspector's Title:_____

Figure A-7a

Formatted: Centered
Formatted Table
Formatted: Left, Indent: Left: 0", Right: 0.07"

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Weekly Inspection Report

Date of Inspection:_____/_____/_____ Equipment/Process

Unit Name: GENERAL SITE / SECURITY

INSPECTION ELEMENT:

A. FENCE - Inspect entire perimeter for breaks, damage

B. GATES - Check each gate for damage
Check that all gates are closed and locked after hours

The Communication System items listed below have been inspected for each of the check list items noted above. The results are summarized below.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Fences				
	B. Gates				
	#1				
	#3				
	#5				
	#6				
	#7				
	#8				
	#9				
	#10				
	#11				
	#12				
	#13				
	#14				
	#15				
	#16				
	#17				
	#18				
	#19				
	#20				
	#21				
	#22				
	#23				
	#24				
	#25				
	#26				
	#27				
	#28				
	#29				

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name / Title:_____

Figure A-8 ‡Rev. 5

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Weekly Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: LABORATORY / LABORATORY WASTES

INSPECTION ELEMENT:

A LABORATORY WASTES - Check that sampling wastes are stored in properly marked and dated containers
Check for drum deterioration, leaks or swelling
Check that drums are not open
Check for incompatible storage
Check that storage time limitations have not been exceeded

The Laboratory / Laboratory Wastes & Sample items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Laboratory Wastes				
	Metals Instrumentation Room				
	TCLP Room				
	Fingerprint Area				
	PCB Prep Area				
	Storage Area				
	PCB Storage Area				
	Chemical Hoods				
	Out-doors				
	Lab addition				

Emergency Coordinator Contacted: Yes / No

Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____

Inspector's Name:_____

Inspector's Title:_____

Figure A-9

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Weekly Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: CONTAINER STORAGE AREAS AND BUILDINGS

INSPECTION ELEMENT:

A STORAGE BUILDING (IN-DOORS) - Check for leaks in roof/walls
Check for structural integrity
Check sumps for liquids
Check gratings for deterioration
Check floor, sumps and curbing for deterioration and cracks
Check for the removal of spill clean-up materials

B. STORAGE AREA (OUT-OF-DOORS) - Verify storage is within proper area
Check sumps for liquids
Check for deterioration of containment structures
Check for the removal of spill clean-up materials

C. CONTAINERS - Check for closed drums
Check for leaks
Check for deterioration of containers
Check aisle space (2.5 ft.)
Check for proper placement and marking
Check for incompatible storage
Check that drums are not placed in standing water

D. SUBPART CC - Check for the presence of biotreatment containers in, S-5, S-6, and S-10; verify that Subpart CC controls are in place for any biotreatment containers found operating in these storage areas

The Container Storage Area items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes		Status: Acceptable	Status: Unacceptable	If Unacceptable Specify Reasons
	A. Storage Buildings					
	S-11A					
	S-2					
	B. Storage Areas					
	S-4					
	S-5					
	S-6					
	S-10					
	C. Containers					
	S-4					
	S-5					
	S-6					
	S-10					
	S-11A					
	S-2					
	D. Subpart CC					
	Bio-treatment Containers	Present and in Operation? Yes	Present and in Operation? No	Subpart CC Controls Present? Yes	Subpart CC Controls Present? No	

Note: Accumulated liquid in sump must be pumped within 24 hours of discovery.

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name / Title:_____

Figure A-10 ‡Rev. 6

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Weekly Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: PCB AREA

INSPECTION ELEMENT:

A. DRIP PANS - Check that pans are stored properly
Check for any spilled liquids in pans

B. VEHICLES - Check mobile equipment for visual contamination
Check that no unauthorized vehicles are in the area

C. FLOOR - Check to ensure area is sufficiently smooth for safe movement of materials
Check housekeeping for trash

D. SECONDARY CONTAINMENT - Check berms around the area for structural integrity
Check floor and curbing for deterioration

The PCB Area items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Drip Pans				
	Storage				
	B. Vehicles				
	PCB Area				
	C. Floor				
	PCB Area				
	D. Secondary Containment				
	Berms				
	Storage Containment				

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name:_____

Inspector's Title:_____

Figure A-11 ‡Rev. 6

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Weekly Inspection Report

Date of Inspection:_____/_____/_____ Equipment/Process

Unit Name: WASTE IMPOUNDMENTS

INSPECTION ELEMENT:
A FREEBOARD - Check for damage to the level indicator marks on the impoundment
Check for liquid level at or below approved limit (minimum 1.4 feet freeboard)
B. LINER FAILURE - Check for sudden drop in liquid level (From prior week)
C. RUN-ON DIVERSION - Check berms and ditches for erosion, siltation, or debris.
D. UNLOADING AREA - Check housekeeping
E. TRUCK WASHOUT EQUIPMENT - Check for deterioration of hoses
Check washout areas
Check transfer piping for leaks or damage
F. LYSIMETERS / LEAK DETECTION SYSTEM - Check condition of riser and closure cap
G. LINER LEAKAGE - Check for presence of liquid in sump (Record quantity removed)

The Waste Impoundment items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Freeboard				
	Impoundment A	Estimated Freeboard_____			
	Impoundment B	Estimated Freeboard_____			
	B. Liner Failure				
	Impoundment A				
	Impoundment B				
	C. Run-on Diversion				
	Impoundment A				
	Impoundment B				
	D. Unloading Area				
	Impoundment A				
	Impoundment B				
	E. Truck Washout Equipment				
	Impoundment A				
	Impoundment B				
	F. Lysimeters/ Leak Detection System				
	Impoundment A				
	Impoundment B				
	G. Liner Leakage				
	Impoundment A - LR	Pumped_____Sec. Gallons Removed_____			
	Impoundment A - LD	Pumped_____Sec. Gallons Removed_____			
	Impoundment B LR1	Pumped_____Sec. Gallons Removed_____			
	Impoundment B-LR2	Pumped_____Sec. Gallons Removed_____			
	Impoundment B - LD	Pumped_____Sec. Gallons Removed_____			

Note: In the event of one inch of rainfall in 24 hours the run-on diversion structures must be inspected.

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name / Title:_____

Figure A-12 ‡Rev.3

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Weekly Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: ACTIVE LANDFILLS / WIND CONTROL AND RUN-ON/RUN-OFF CONTROLS

INSPECTION ELEMENT:
A WIND DISPERSAL CONTROL - Check for fugitive dust suppression on roads
Check for evidence of wind dispersal of waste

B. RUN-ON DIVERSION - Check berms and ditches for erosion, siltation, of debris

C. RUN-OFF CONTROL SYSTEM - Check for erosion of deterioration of dikes, including seepage
Check for removal of rainfall accumulation at berms

The Active Landfill items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Wind Dispersal Control				
	Landfill L-12				
	Landfill L-13				
	Landfill L-14				
	B. Run-on Diversion				
	Landfill L-12				
	Landfill L-13				
	Landfill L-14				
	C. Run-off Control				
	Landfill L-12				
	Landfill L-13				
	Landfill L-14				

Note: In the event of one inch of rainfall in 24 hours the Run-on Diversion structures must be inspected.

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name:_____

Inspector's Title:_____

Figure A-13

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Monthly Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: CLOSED LANDFILLS / RUN-ON/RUN-OFF CONTROLS, LANDFILL CAP, AND LEACHATE DETECTION AND RECOVERY SYSTEMS

INSPECTION ELEMENT

A. RUN-ON / RUN-OFF CONTROL - Check for water erosion (rills or small channels greater than 4 inches in depth)
Check stormwater run-on/run-off control systems for significant siltation and accumulation of debris
Check for presence of standing water

B. LANDFILL CAP - Check for erosion, siltation, and debris
Check for non-uniform subsidence, settling, cracking or fracture, cracks at crests of slopes, bulging at toe of slopes, presence of standing water
Check for evidence of human activity (trails) and large, burrowing animals (holes, trails, tracks, droppings)
Check for lack of vegetation and/or maintenance of ground cover, evidence of vegetative stress, "leaning" vegetation
Check condition and displacement of landfill markers
Check for damage from vehicular traffic (ruts, car and bike tire marks)
Check for evidence of wind erosion in areas of concentrated winds
Check for leachate seeps

C. LEACHATE COLLECTION AND MONITORING SYSTEM - Check condition of riser cover and locks
Check for presence and level of liquid in sumps

The Closed Landfill items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Structure Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Run-on/Run-off				
	Landfill 1, 3, 5, & 6				
	Landfill 7				
	Landfill 8				
	Landfill 9				
	Landfill 10				
	Landfill 12				
	Landfill 13				
	B. Landfill Cap				
	Landfill 1, 3, 5, & 6				
	Landfill 7				
	Landfill 8				
	Landfill 9				
	Landfill 10				
	Landfill 12				
	Landfill 13				
	C. Leachate Collection				
	Landfill 5 - 2P	_____ Volume			

Note: In the event of one inch of rainfall in 24 hours the Run-on/Run-off Controls must be inspected

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name:_____

Inspector's Title:_____

Figure A-14 ‡Rev. 11

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Monthly Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: COMMUNICATION SYSTEM (RADIOS AND INTERNAL PAGING SYSTEM)

INSPECTION ELEMENT

A. RADIOS - Check all radios for operation and accessibility

B. INTERNAL PAGING SYSTEM - Check for operation

The Communication System items listed below have been inspected for each of the check list items noted above. The results are summarized below.

Time of Inspection	Equipment/Structure Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Radios				
1.	Lower Office	1.			
2.	Upper Office	2.			
3.	Shop	3.			
4.	Lab	4.			
5.	Drivers Lounge	5.			
6.	Operations Office	6.			
7.	WWTP	7.			
8.	WWTP (Bulk Liquid Storage)	8.			
9.	Storage Building S-2	9.			
10.	Heavy Equipment	10.			
11.	Site Vehicles	11.			
	B. Internal Paging Devices				
12.	All-Site	12.			

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name:_____

Inspector's Title:_____

Figure A-15

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Monthly Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: EMERGENCY EQUIPMENT / FIRE BLANKETS

INSPECTION ELEMENT:

A . FIRE BLANKETS - Check for accessibility
Check for deterioration
Check for adequate supply

The Emergency Equipment / Fire Blankets items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status		If Unacceptable Specify Reasons
			Acceptable	Unacceptable	
	A. Fire Blanket Locations				
	S-2 Storage Building				
	Shop				
	Fuel Pumps				
	B-9 Containment Building				
	Shop				
	Fire Truck				
	Laboratory				

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____ Inspector's Name:_____

Inspector's Title:_____

Figure A-16

Chemical Waste Management of the Northwest, Inc. Page 1 of 2

Monthly Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: EMERGENCY EQUIPMENT / FIRE EXTINGUISHERS

INSPECTION ELEMENT:

A. FIRE EXTINGUISHERS - Check to ensure access is not blocked
Check seal to ensure extinguisher has not been used
Check inspection tag to ensure annual maintenance by outside fire service is current
Check for adequate supply of fire fighting foam
Check for unit damage
Check pressure gauge for "full" charge

The Emergency Equipment/ Fire Extinguisher items listed below have been inspected for each of the check list items noted above. The results are summarized below.

Time of Inspection	Equipment/Structure Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Fire Extinguishers				
1.	Lower Office	1.			
2.	Upper Office	2.			
3.	Lunchroom	3.			
4.	Shop	4.			
5.	Safety Supply Room	5.			
6.	Laboratory	6.			
7.	Drivers Lounge	7.			
8.	Pump House	8.			
9.	S-2 Storage Building	9.			
10.	B-9 Containment Building	10.			
11.	S-11A Storage Building	11.			
12.	Truck Wash	12.			
13.	Records Room	13.			
14.	Shop Mezzanine	14.			
15.	Storage Shed	15.			

Chemical Waste Management of the Northwest, Inc. Page 2 of 2

Monthly Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: EMERGENCY EQUIPMENT / FIRE EXTINGUISHERS

INSPECTION ELEMENT

A. FIRE EXTINGUISHERS - Check to ensure access is not blocked
Check seal to ensure extinguisher has not been used
Check inspection tag to ensure annual maintenance by outside fire service is current
Check for adequate supply of fire fighting foam
Check for unit damage
Check pressure gauge for "full" charge

The Emergency Equipment/ Fire Extinguisher items listed below have been inspected for each of the check list items noted above. The results are summarized below.

Time of Inspection	Equipment/Structure Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Fire Extinguishers				
16.	Compressor Room	16.			
17.	Sampling Area	17.			
18.	WWTP	18.			
19	(removed Rev 4)				
20.	Fuel Pumps	20.			
21.	All Heavy Equipment	21.			
27.	All Site Vehicles	27.			
28.	Portable Welder	28.			
29.	Light Plant	29.			
30.	Portable Air Compressor	30.			

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____ Inspector's Name:_____

Inspector's Title:_____

Figure A-17

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Monthly Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: EMERGENCY EQUIPMENT / FIRST AID KITS

INSPECTION ELEMENT:

A. FIRST AID KITS - Check accessibility
Check for adequate supply

The Emergency Equipment / First Aid Kit items listed below have been inspected for each of the check list items noted above. The results are summarized below.

Time of Inspection	Equipment/Structure Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. First Aid Kits				
1.	Lower Office	1.			
2.	Upper Office	2.			
3.	Lunchroom	3.			
4.	Shop	4.			
5.	Safety Supply Room	5.			
6.	Laboratory	6.			
7.	Drivers Lounge	7.			
8.	Pump House	8.			
9.	S-2 Storage Building	9.			
10.	B-9 Containment Building	10.			
11.	S-11A Storage Building	11.			
12.	S-11B Storage Building	12.			
13.	Truck Wash	13.			
14.	Records Room	14.			
15.	Locker Room	15.			
16.	WWTP	16.			
17	(removed Rev 4)				
18.	All Heavy Equipment	18.			
19.	All Site Vehicles	19.			

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name:_____

Inspector's Title:_____

Figure A-18

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Monthly Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: EMERGENCY EQUIPMENT / BREATHING APPARATUS

INSPECTION ELEMENT:

A. BREATHING APPARATUS - Check accessibility of supplied air breathing apparatus and escape packs
Check accessibility of escape pack (Equipment with escape packs are identified with asterisk (*)
Check for full charge of air bottle (escape packs only)
Check for adequate supply (over 500 psi)
Check for deterioration or damage to all units
Check for function of all units on equipment and trailers

The Emergency Equipment / Breathing Apparatus items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Breathing Apparatus				
	* D8L Dozer				
	* 225 Backhoe				
	* 225 Backhoe				
	* 980C Loader				
	950B Loader				
	Scott Air Packs (1, 2, 3, & 4)				
	Scott Air Packs (5, 6, 7, & 8)				
	* 140G Grader				
	* 627B Scraper				
	Portable Air Unit				
	* 627E Scraper				
	* 826C Compactor				
	Service Van Truck				
	* D-7H Dozer				
	* EL200B Excavator				
	* 613 Water Wagon				
	* Terex Loader				

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name:_____

Inspector's Title:_____

Figure A-19

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Monthly Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: EMERGENCY EQUIPMENT / SAFETY STORAGE AREA

INSPECTION ELEMENT:

A SAFETY STORAGE AREA - Check for accessibility
Check for adequate supply of each safety item

The Emergency Equipment / Safety Storage items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status		If Unacceptable Specify Reasons
			Acceptable	Unacceptable	
	A. Safety Storage Area				
	Scott Air Pack				
	Extra Air Pack Cylinder				
	Chemical Resistant Rubber Gloves				
	Chemical Resistant Disposable Clothing				
	Large First Aid Kit for Trauma				
	Stretchers				
	Portable Oxygen Tank				
	Traction Splint				
	Air Splint				
	Resuci Folding Bag				
	Blankets				

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____ Inspector's Name:_____

Inspector's Title:_____

Figure A-20

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Monthly Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: EMERGENCY EQUIPMENT / SPILL RESPONSE & ALARM SYSTEM

INSPECTION ELEMENT:

A SPILL RESPONSE EQUIPMENT - FIRE WATER LINE (Pump House Pressure Gauge) - Check for adequate pressure (60 psi)
ABSORBENT SUPPLY - Check for adequate supply (1 ton)
RECOVERY DRUMS - Check for adequate supply (10 / 85 gallon overpacks)

B. ALARM SYSTEM - SIREN (On Top of the Water Tower) - Check accessibility of activation switch (Activate audible alarm)
FLASHING LIGHT - Check flashing light operability

The Emergency Equipment / Spill Response and Alarm System items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Spill Response				
	Fire Water Line				
	Absorbent Supply				
	Recovery Drums				
	B. Alarm System				
	Siren				
	Flashing Light				

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name:_____

Inspector's Title:_____

Figure A-21

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

X **Daily Inspection Report**

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: TANKS / STABILIZATION UNITS

INSPECTION ELEMENT:

A TREATMENT TANKS - Check for damage to visible portions of tanks
Check for evidence of spills and leaks
Check for sufficient freeboard in tanks
Check for evidence of corrosion of tanks

B. CONTAINMENT SUMPS - Check physical integrity of standpipes
Check liquid levels in secondary sumps

The Tanks / Stabilization Unit items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Treatment Tanks				
	Tank 1-a				
	Tank 1-b				
	Tank 2-a				
	Tank 2-b				
	Tank 3-a				
	Tank 3-b				
	Tank 4-a				
	Tank 4-b				
	Tank 5-a				
	Tank 5-b				
	Tank 6-a				
	Tank 6-b				
	B. Containment Sumps				
	Sump 1- Secondary	_____			
	Sump 2- Secondary	_____			
	Sump 3- Secondary	_____			
	Sump 4- Secondary	_____			
	Sump 5- Secondary	_____			
	Sump 6- Secondary	_____			

Emergency Coordinator Contacted: Yes / No Inspector's Signature_____

Environmental Manager's Initials (Verifying Review):_____ Inspector's Name / Title:_____

Figure A-21a ‡Rev. 6

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Quarterly Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: EMERGENCY EQUIPMENT / SHOWERS AND EYEWASH STATIONS

INSPECTION ELEMENT:

A. EMERGENCY SHOWERS AND EYEWASH STATIONS - Check that units activate and shut off properly
Check accessibility
Check for damage to units
Check eyewash covercaps
Check that eyewash activates and shuts off properly

The Emergency Equipment / Shower and Eyewash Station items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Shower and Eyewash				
	Near Landfill L-7				
	Maintenance Bldg. Shower				
	Laboratory				
	Near Impoundment A (North)				
	Near Impoundment A (South)				
	Near Impoundment B (North)				
	Near Impoundment B (South)				
	Truck Sampling Area				
	Stabilization Units				
	Near Containment Building Area B-9				

Rev 4 removed Old WWTP
Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name:_____

Inspector's Title:_____

Figure A-22

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Semi-Annual Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: CLOSED LANDFILLS (Without Liquid) / LEACHATE DETECTION AND RECOVERY SYSTEM

INSPECTION ELEMENT:

A. LEACHATE COLLECTION AND MONITORING SYSTEM - Check condition of riser covers and locks
Check for presence and level of liquid in sumps

The Closed Landfill items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Leachate Collection & Monitoring				
	Landfill 5 – 1P	_____Volume			
	Landfill 7 – 1	_____Volume			
	Landfill 7 – 2	_____Volume			
	Landfill 7 – 3P	_____Volume			
	Landfill 9 – 3P	_____Volume			

Note: In the event of one inch rainfall in 24 hours the Run-on/Run-off Controls Must be inspected.

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name:_____

Inspector's Title:_____

Figure A-23

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Annual Inspection Report

Date of Inspection:_____/_____/_____ Equipment/Process

Unit Name: GENERAL SITE / SECURITY

INSPECTION ELEMENT:

A. WARNING SIGNS - Check to ensure signs are in place and legible

The General Site / Security items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Warning Signs				

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name:_____

Inspector's Title:_____

Figure A-24

Chemical Waste Management of the Northwest, Inc. Page 1 of 1

Weekly Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: **CONTAINMENT BUILDINGS**

INSPECTION ELEMENT:

A VISIBLE BUILDING SURFACE - Check for damage to the visible portion of the buildings
Check for gaps, cracks, or other damage

B. WASTE LEVEL - Check that the level of stored waste does not extend beyond the limits of the building

C CONTAMINATION CONTROL - Check exterior surfaces adjacent to equipment decontamination areas to ensure so that waste is not tracked out of the building.
Check personnel decontamination rooms at Containment Buildings B-1 and B-5 for presence of waste

D. FUGITIVE EMISSION CONTROLS - Check that no visible emissions are occurring from the building
Check baghouses, stacks, and other air handling equipment for visible emissions

E. LINER INSPECTION - Check sump for the presence of liquids

F. PREVENTIVE MAINTENANCE – Confirm with appropriate personnel that preventive maintenance is being performed on the air handling equipment at the frequency recommended by manufacturer.

The Containment Building items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes		Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Bldg Structure					
	All Containment Bldgs					
	B. Waste Level					
	All Containment Bldgs					
	C. Contamination Control					
	All Containment Bldgs					
	D. Fugitive Controls					
	All Containment Bldgs					
	E. Liner Inspection					
	Containment Building B-1 Primary Sump					
	Containment Building B-2 Primary Sump					
	Containment Building B-2 Secondary Sump					
	Containment Building B-4 Primary Sump					
	Containment Building B-5 Primary Sump	East	West			
	Containment Building B-5 Secondary Sump	East	West			
	F. Preventative Maintenance					
	Air Handling Equipment			Yes	No	

Emergency Coordinator Contacted: Yes / No Inspector's Signature_____

Environmental Manager's Initials (Verifying Review):_____ Inspector's Name / Title:_____

Figure A-25

Chemical Waste Management of the Northwest, Inc. **Page 1 of 1**

Weekly Inspection Report

Date of Inspection:_____/_____/_____

Equipment/Process Unit Name: Waste Pile Impoundment

INSPECTION ELEMENT:

A. OPERATIONS AREA: Verify all concrete is being processed and stored in the designated area
Check Surface Area for desiccation cracks or surface anomalies

B. RUN-ON/RUN-OFF CONTROLS: Check Control Berms for erosion, silting or standing water

C. SUMPS: Check sumps for the accumulation of liquids
Liquids accumulation must not exceed 12" over top of sumps (Head)

The Waste Pile Area items listed below have been inspected for each of the checklist items noted above.

Time of Inspection	Equipment/Unit Item	Additional Inspection Notes	Status Acceptable	Status Unacceptable	If Unacceptable Specify Reasons
	A. Operations Area				
	Confined to Area				
	Desiccation Cracking				
	B. **Run On/Run Off**				
	Erosion'/Silting				
	Standing Water				
	C. **D. Sumps**				
	Liquids present				
	Below 12" Head				

NOTES:

Emergency Coordinator Contacted: Yes / No Inspector's Signature:_____

Environmental Manager's Initials (Verifying Review):_____Inspector's Name:_____

Inspector's Title:_____

Figure A-26

ED_002469_00000117-00068

Chemical Waste Management of the Northwest

Daily Inspection Report

Date

D-4

Organic Recovery Unit, Tanks, Piping, Containment

Check for Spills, Check Structural Integrity of Tanks and Equipment, Piping Valves and Hoses. Check for Accumulation of Liquids in Secondary Containment. Check condition of Secondary Containment. Check containers for Labels, Compatibility, Leaks and Closed Lids.

Time	TREATMENT UNIT	Acceptable	Time	Unit	Acceptable
	TANKS	Unacceptable		Piping	
	ATDU D-1201	Y N		Leaks	Y N
	Sand Filter 1	Y N		Condition	Y N
	Sand Filter 2	Y N		Containment	
	Carbon Filter 1	Y N		Spills/ Leaks	Y N
	Carbon Filter 2	Y N		Containers	Y N
	Oil Water Separator F-1401	Y N		Fill Hoses	Y N
	Process water Tank F-1402	Y N		Containers	
	Carbon Filter vapor 1	Y N		Sludge Bin 4910-01	Y N
	Carbon Filter Vapor 2	Y N		90 day containers	Y N
	Mix Tank 1 F-1403	Y N		Notes	
	Mix Tank 2 F-1404	Y N			
	Product Tank 1 F- 1417	Y N			
	Product Tank 2 F- 1418	Y N			
	Product Tank 3 F-1419	Y N			
	Process Water 1 F-1405	Y N			

Page 2 D-4

Time	TREATMENT UNIT	Acceptable
	TANKS	Unacceptable
	Process water 2 F-1406	Y N
	Process water 3 F-1407	Y N
	Process water 4 F-1408	Y N
	Process water 5 F-1409	Y N
	Process water 6 F-1410	Y N
	Process water 7 F-1411	Y N
	Process water 8 F-1412	Y N
	Process water 9 F-1413	Y N
	Process water 10 F-1414	Y N
	Process water 11 F-1415	Y N
	Process water 12 F-1416	Y N
	Interceptor F-1301	Y N
		Y N
		Y N
		Y N

Notes

Inspector Signature

EC Contacted Y N

EPM Initials

State of Oregon
Department of
Environmental
Quality

Closure/Post-Closure Plan, Financial Assurance, Insurance

For

Chemical Waste Management of the Northwest, Inc.

Arlington Facility • ORD 089 452 353
17629 Cedar Springs Lane
Arlington, Oregon

Standalone Document No. 5

This document is issued by the
Oregon Department of Environmental Quality

~~December 2015~~ Month & Year pending approval

1 CLOSURE PLAN 1-1
1.1 Facility Identification 1-1
1.2 Introduction 1-1
1.3 Closure Policies and Practices 1-1
1.4 Waste Management Units and Closure Procedures 1-2
1.4.1 Regulatory Requirements 1-2
1.4.2 Closure Procedures 1-3
1.4.3 Remaining Structures 1-4
1.4.4 Wastewater Treatment Unit 1-4
1.4.5 Waste Impoundments 1-4
1.4.6 Landfills 1-6
1.4.7 Existing RCRA Container Storage Buildings and Areas 1-8
1.4.8 Stabilization Unit 1-9
1.4.9 Decontamination of Auxiliary Equipment 1-9
1.4.10 Containment Buildings 1-10
1.4.11 Waste Crushing Facility 1-10
1.4.12 Organic Recovery Unit 1-10
1.5 General Facility Closure Requirements 1-11
1.5.1 Estimate of Maximum Potential Waste Inventory 1-11
1.5.2 Closure Schedule 1-11
1.5.3 Inventory Elimination 1-12
1.5.4 Inspection 1-12
1.5.5 Closure Certification 1-13
1.5.6 Documentation Regarding Deed Notification 1-13
1.6 Closure Cost Estimates 1-13
TABLE 1-1 – WASTEWATER TREATMENT FACILITY CAPACITY 1-15
TABLE 1-2 – WASTE IMPOUNDMENT CAPACITY 1-16
TABLE 1-3 – LANDFILL CAPACITY 1-17
TABLE 1-4 – CONTAINER STORAGE CAPACITY 1-18
TABLE 1-5 – STABILIZATION UNIT CAPACITY 1-19
TABLE 1-6 – CONTAINMENT BUILDING CAPACITY 1-20
TABLE 1-7 – WASTE CRUSHING FACILITY 1-21
TABLE 1-8 – ORGANIC RECOVERY UNIT 1-22
TABLE 1-9 – Waste Pile Unit WP-1 ±REV 19 ..... 1-24~~3~~
TABLE 1-10 – MAXIMUM RCRA WASTE INVENTORY ±REV 19 ..... 1-25~~4~~
TABLE 1-11 – CLOSURE SCHEDULE FOR EXISTING AND PROPOSED 1-27
TABLE 1-12 – WASTE MANAGEMENT OPERATIONS ..... 1-29~~8~~
2 POST-CLOSURE PLAN 2-1
2.1 Facility Identification 2-1
2.2 Regulatory Requirements 2-1
2.3 Inspection of Closed Units 2-1
2.3.1 Security Fencing 2-2

ED_002469_00000118-00002

2.3.2 Erosion Control and Maintenance of Cover and Vegetation 2-2
2.4 Groundwater Monitoring 2-5
2.5 Leachate Collection 2-6
2.5.1 Tertiary Sump Monitoring 2-6
2.6 Procedures for Protection and Maintenance of Benchmarks 2-6
TABLE 2-1 – POST-CLOSURE SCHEDULE OF INSPECTION FREQUENCY 2-8
3 FINANCIAL ASSURANCE 3-1
4 INSURANCE 4-1
A APPENDIX A – SOILS SAMPLING AND ANALYSIS PLAN A1
B APPENDIX B – EQUIPMENT DECONTAMINATION PROCEDURES B1
C APPENDIX C – SUPPORTING CALCULATIONS AND TIME SCHEDULES FOR CLOSURE OF WASTE IMPOUNDMENTS AND LANDFILLS C1
D APPENDIX D – WASTE MANAGEMENT AREA (WMA-4) D1

ED_002469_00000118-00003

1 CLOSURE PLAN

1.1 Facility Identification

EPA Facility Identification Number:	ORD 089 452 353
Owner's or Operator's Name:	Chemical Waste Management of the Northwest, Inc.
Address and Telephone Number:	17629 Cedar Springs Lane Arlington, OR 97812 (541) 454-2030

1.2 Introduction

The Chemical Waste Management of the Northwest, Inc. (CWMNW) Arlington Facility is a hazardous waste treatment, storage, and disposal (TSD) facility located on a 1,288-acre parcel of property. The property is owned by CWMNW. The facility is located approximately 12 miles by road from the town of Arlington, Oregon.

1.3 Closure Policies and Practices

The *Closure/Post-Closure Plans* are based on the following policies and practices:

- A copy of the approved *Closure/Post-Closure Plans*, as revised, will be maintained at the site until closure is completed.
- CWMNW requests an extension from the United States Environmental Protection Agency (EPA) and/or Oregon Department of Environmental Quality (DEQ) of the 180 days allowed for completion of closure after receipt of the final volume of wastes. The additional time is required for evaporation of the wastes in the surface impoundments, the final processing of wastes in the landfills, and the bioremediation of contaminated soils in containers and containment buildings
- As required by 40 CFR 264.113(b)(2), CWMNW will take all necessary steps to prevent the occurrence of threats to human health and the environment during and after closure of the facility.
- Sequential closure of the hazardous waste management units or operations will be followed for closing the entire facility. The processing of the hazardous wastes within the facility and individual waste management units will be performed using the same procedures that normally would be used if the facility were not being closed. A discussion of the sequential steps in closing the various waste management units and operations is provided in Section 1.4.
- It is intended that closure will be performed by trained CWMNW technicians familiar with the various processing units. However, facility closure cost estimates and associated financial assurance mechanisms will be based on third party costs.
- For the currently proposed facility configuration, landfills and surface impoundments occupy (or will occupy) about 50 acres of the 1,288 acre site. These waste management units are the only repositories that will contain hazardous wastes after the closure period.
- Landfills will be operated to provide sufficient reserve capacity for disposal of solid and stabilized materials during closure of the individual units and final closure of the facility.

ED_002469_00000118-00004

- All RCRA storage and treatment tanks and associated equipment, liners, piping, and instrumentation will be either decontaminated and left in-place or dismantled and disposed of in on site landfills. All RCRA containment areas and process buildings will be either decontaminated and left in-place or demolished and placed in on site landfills.
- Containment buildings will be closed and managed as landfill units during the post-closure monitoring period in accordance with 40 CFR 264.1102(b).
- Former hazardous waste management unit areas (except those sites where new units are to be located) will be contoured and revegetated to prevent ponding and wind erosion.
- Soil sampling and analysis will be conducted in accordance with the plan presented in Appendix A.
- The portions of trucks and earth moving equipment that have come into contact with waste constituents during closure of these units will be decontaminated before use elsewhere on the site. The decontamination procedures described in Appendix B to this document will be used.
- On the basis of maximum depths of liquid in the impoundments and the net evaporation rate for the facility, it is estimated that approximately 17-29 months will be required before stabilization of residues and closure of the waste impoundments can commence.
- The groundwater monitoring (GWM) program established for the operating facility will be maintained during the closure period for all applicable waste management units.
- When closure is completed, CWMNW will submit to the DEQ certification both by CWMNW and an independent professional engineer that closure of the facility has been conducted in accordance with the specifications contained in this Closure Plan.
- The closed facility will be protected by perimeter fencing.

1.4 Waste Management Units and Closure Procedures

1.4.1 Regulatory Requirements

Owners or operators of hazardous waste management facilities are required to have a *Closure Plan* that describes how and when the facility will be partially closed (if applicable) and finally closed. This plan must identify the maximum extent of facility operations that will be unclosed during the life of the facility and how the requirements of 40 CFR Part 264, Subpart G (general and unit-specific closure requirements) will be met. Also, a closure schedule for each waste management unit and final closure of the facility must be provided. The closure performance standard established by 40 CFR 264.111 requires that the owner or operator close the facility in a manner that:

- Minimizes the need for further maintenance; and
- Controls, and minimizes or eliminates, to the extent necessary to protect human health and the environment, the post-closure escape of hazardous wastes, waste constituents, leachate, contaminated rainfall, or waste decomposition products to the groundwater, surface waters, or the atmosphere.

This *Closure Plan* for CWMNW describes the steps that will be undertaken to close existing and planned individual waste management units as well as the entire facility. Based on current facility development plans, the facility configuration described in Section 1.5.1 represents the maximum extent of unclosed operations that is expected to occur during the lifetime of the facility.

ED_002469_00000118-00005

A copy of the approved *Closure Plan* will be kept at the facility until final closure is complete and certified in accordance with 40 CFR 264.112.

1.4.2 Closure Procedures

The basic utilities and waste management units at CWMNW described in this *Closure Plan* are:

Existing and Proposed Utilities and Waste Management Units

Basic Utilities

- Main Office Building
- Scales
- Laboratory and Laboratory Chemical Storage
- Receiving Building and Offices
- Maintenance Shops and Offices
- Truck Wash Facility

Storage Units

- Container Storage Areas/Buildings (4 areas/2 buildings)

Treatment/Process Units

- Waste Impoundments (2)
- Wastewater Treatment Facility
- Waste Crushing Facility
- Organic Recovery Unit

Disposal Units

- Existing Active Landfills (3)

Stabilization Unit

- Tanks (12)

Containment Buildings

- Existing Buildings (5)

Closure of the various waste storage, process, and treatment units includes the following common procedures:

- Discontinue receiving hazardous waste;
- Treat and/or remove inventory via normal sequential steps;
- If necessary, decontaminate non-waste handling structures and equipment and salvage or leave in-place;
- All waste management equipment (e.g., tanks, wiring, piping, and valves) and physical structures (e.g., buildings, concrete aprons, and foundation pads) will be decontaminated and left in-place or removed and disposed of in an on-site landfill;
- Decontaminate closure equipment; and
- Dispose of decontamination fluids and contaminated soils into waste impoundments and landfill, respectively. Wash water and rinsate will also be evaporated or stabilized in-place for eventual placement in an on-site landfill.

The closure steps will include the following:

- Discontinue receiving hazardous waste;

ED_002469_00000118-00006

- Reduce inventory through evaporation;
- Stabilize remaining liquid and sludges;
- Remove and dispose stabilized waste residues and liner system from designated processing area;
- Perform soil sampling program as appropriate; and
- Contour area.

In the following sections, specific closure procedures, dimensions, and capacities are described for each of the waste management units or operations at CWMNW. Included is the estimated time to close each unit.

1.4.3 Remaining Structures

At final closure, the scales, laboratory, laboratory chemical storage building, receiving building, maintenance shops, sampling station, wastewater treatment facility and transportation maintenance facility will be cleaned thoroughly and left in-place. Laboratory chemicals that cannot be salvaged will be lab packed and landfilled or otherwise disposed of appropriately. Wash water (decontamination fluid) will be either processed in the wastewater treatment plant and discharged to a waste impoundment, stabilized and placed into a landfill, or otherwise disposed of properly. The perimeter fencing and gates will be inspected and maintained during the closure period.

1.4.4 Wastewater Treatment Unit

Ten bulk storage tanks in the wastewater treatment unit are used for storage of bulk aqueous wastes prior to and following processing through the wastewater treatment units. Nine[1] processing tanks are used for processing of aqueous wastes. The pertinent physical information for each tank at the wastewater treatment unit is shown in Table 1-1.

Inventory Reduction. Bulk wastes in the tank systems will be processed and transferred to the surface impoundments. Stored liquids likely will be treated and discharged into a compatible waste impoundment or disposed off-site. If necessary, advanced treatment methods will be available on-site or at another Chemical Waste Management, Inc. facility which is permitted to manage bulk liquid wastes.

Closure Procedures. The bulk liquid storage and wastewater treatment tanks will be closed per procedures outlined in Section 1.4.2. The tanks and the concrete areas will be decontaminated and closed in-place or dismantled and placed into an on-site landfill.

Schedule. Closure of the bulk liquid waste storage and wastewater treatment tanks is estimated to take place over a 5-month period. Closure is estimated to involve 30 to 60 days for inventory reduction and 60 to 90 days for either dismantling the tanks and containment and placement in an on-site landfill or decontamination and in-place closure.

1.4.5 Waste Impoundments

[1] Two of the carbon vessels will be installed in the future and are included in the closure cost determination.

ED_002469_00000118-00007

Facility waste impoundments are used for the storage and solar evaporation of selected liquid wastes. Table 1-2 provides pertinent information for the existing waste impoundments.

Inventory Reduction. After the final on-site liquid waste inventory has been processed, liquid wastes will cease to be accepted at the waste impoundments. The quantity of liquid will be reduced through solar evaporation. Remaining free liquids and sludges will be stabilized by the application of a stabilization agent (e.g., fly ash, cement kiln dust, etc.). Stabilization materials will be placed into the waste impoundment via earthmover, front-end loader, dump truck and/or equivalent.

Alternately, stabilization may be accomplished through excavation and mixing outside the impoundment. In this scenario stabilization material and waste liquids and sludges may be mixed in steel tanks. The material will be mechanically mixed with the sludges by front-end loader, backhoe, bladed tractor or equivalent. The mixed material will continue to be turned over while additional stabilization materials are being added. This process will continue until the mixture passes the Paint Filter Liquids Test (SW 846 Method 9095). The stabilized material will then be removed from the bin and transported to an on-site RCRA landfill for disposal.

For purposes of closure cost estimating, it has been assumed that on an average, 50 percent of the volume of the waste impoundment will evaporate and 50 percent will require stabilization at a ratio of one part sludge to one part stabilization agent.

Closure Procedures. Waste impoundments will be closed under the requirements of 40 CFR 264.228 and OAR 340-104-228. All wastes, waste residues, contaminated subsoils, liners, structures, and equipment will be removed and disposed of in an on-site landfill. The soils underneath the impoundment will be tested for contamination and any contaminated soil will be disposed of in the on-site landfill. All existing impoundments have liner and leachate collection and removal systems that are designed to prevent subsurface contamination.

Auxiliary equipment used to close the waste impoundments will be decontaminated according to procedures described in Section 1.4.9. The contaminated water will be disposed of in another impoundment or will be stabilized, depending on the alternatives available at closing.

Schedule. The time required to close a waste impoundment will depend on the size of the individual impoundment, volume of residual wastes, weather conditions, time of year and method of closure. Closure of an individual impoundment is estimated to take anywhere from 688 to 1,057 days. Therefore, CWMNW requests an extension of the 180-day closure allowance for facility waste impoundments.

On average, the net annual evaporation rate[2] at Arlington, Oregon is approximately 3.3 feet, based on Hermiston, Oregon data. However, because of the waste composition, the actual impoundment evaporation rate is estimated to be only 70 percent of this idealized pan evaporation rate, or 2.3 feet per year. As mentioned previously, approximately 50 percent of each impoundment's capacity will be evaporated as part of closure activities. Based on these considerations, the number of evaporation days required to evaporate 50 percent of the contents of each impoundment can be calculated as follows:

$$\frac{(0.50)(\text{Impoundment depth - Freeboard allowance}) \times 365 \text{ days}}{}$$

[2] Net annual evaporation rate is calculated by subtracting the average total precipitation from the average total evaporation.

ED_002469_00000118-00008

(3.3 feet)(0.70)

Using this calculation, the evaporation period for the existing waste impoundments is as follows:

P-A	877 days
P-B	877 days

Waste stabilization, liner and stabilized waste removal or handling, soil sampling, and backfilling to grade will require an additional 180 days. Calculations and assumptions for closure of the waste impoundments are provided in Appendix C.

Alternative Closure Procedures. The waste impoundments may be converted into "landfills" at the time of closure, or at any time during the active life of the facility. This is possible due to the fact that these impoundments are designed and constructed to standards that meet the design specifications required by 40 CFR 264 Subpart N, for landfills. Accordingly, waste impoundments P-A and P-B may be considered landfills at the time of closure, and subsequently can be closed in-place as landfills. Department approval will be obtained to convert Ponds P-A and P-B into landfills, after all liquids are eliminated, during the active life of the facility to utilize them for disposal of waste as described in this plan. The facility's *Landfill Final Cover Design Plans* document will be amended to include the waste impoundments final cover design prior to implementation of closure activities.

1.4.6 Landfills

Facility landfills will be used for the permanent disposal of bulk solid hazardous wastes, containerized wastes free of liquids, and stabilized wastes. Table 1-3 identifies the capacity of each existing and unconstructed landfill unit.

Sufficient reserve landfill capacity is maintained to accept the maximum waste inventory that may exist at the time of facility closure. This capacity will be used for the disposal of solid or stabilized waste such as:

- Residues from the closure of the processing units;
- Discarded tools, fixtures, piping, wiring, etc.;
- Stabilized residues from the closure of processing units;
- Soils generated from the closure of processing units; and
- Stabilized residues and liner materials from impoundments undergoing closure by removal.

Closure Procedures. Landfills L-12, L-13 and L-14 have synthetic base liners. On placement of the final wastes in each landfill, the materials will be covered in accordance with normal operating practices. Any area of the landfill that previously has not been covered will be covered with native soils to establish grade and to serve as the base for the final cover. Closure of the landfills will begin in late spring or early summer to allow substantial completion of the earthwork before the winter months.

The closure cover design for the currently active landfills (L-12, L-13, and L-14 [Cell No.'s 1, 2, and 3]) is an earthen-based evapotranspiration (ET) cover. A copy of the alternative final cover design report is included in the facility's *Landfill Final Cover Design Plans* document. The remaining landfills (L-1, L-3, L-5, L-6, L-7, L-8, L-9, and L-10) have already been closed in accordance with an approved closure plan.

ED_002469_00000118-00009

The *Landfill Final Cover Design Plans* document addresses landfill cover information related to specific cover soil source, cover thickness and construction, vegetation, erosion and drainage control, and cover grades. Proposed final cover designs and contours for each landfill are also included.

Leachate monitoring and collection procedures for synthetically lined landfills will continue as specified in the permit throughout the closure period and until closure has been certified as complete. Thereafter, landfills and any impoundments closed in-place will be inspected and monitored in accordance with the *Post-Closure Plan* (see Section 2.0). Equipment used to close a landfill will be decontaminated (as necessary).

Schedule. Depending on the specific size of each active landfill, the starting date for closure, and weather conditions, it is estimated that the time for closure of Landfills L-12 and L-13 will range from 112 to 227 days. Therefore, CWMNW requests an extension of the 180-day closure allowance for facility landfill units. Placement of final deliveries, on-site wastes, and the addition of native soils to achieve final grade will require 60 to 180 days, depending on the remaining unfilled capacity of the landfill[3]. Calculations to support the time estimates required for landfill closure are provided in Appendix C. Landfills L-1, L-3, L-5, and L-6 were closed during 1988, L-8 was closed in 1990, L-7 and L-9 were closed in 1991, and L-10 was closed in 2002. It is estimated that L-13 will close during 2016, and L-12 will close during 2015.

1.4.6.1 Landfill L-14

Landfill L-14 is designed as a multi-phase landfill consisting of five hydraulically separated cells. It is planned that each cell be constructed and filled in sequence (i.e., Cell 1, Cell 2, Cell 3, Cell 4, and Cell 5). Cell 5 may be further subdivided and constructed as two or more hydraulically linked cells. This multi-phase design allows CWMNW flexibility with respect to operational considerations, predicted landfill disposal capacity requirements and closure. It is planned to close Landfill L-14 in three separate closure events as the respective closure areas reach final grade.

The entire Landfill L-14 when constructed will consist of five cells occupying a total area of 35.5 acres but will be closed in three phases (Closure Area 1 through Closure Area 3). Closure Area 1, which occupies 10.0 acres, has a disposal capacity of 1,735,427 cubic yards. Closure Area 2, occupies 13.6 acres, and has a disposal capacity of 2,876,826 cubic yards. Closure Area 3 occupies 11.9 acres, and has a disposal capacity of 1,734,151 cubic yards. In general, the active life of a disposal unit is dependent upon how quickly waste is placed in the unit. Since disposal rates can vary with time, weather or season, the active life of a disposal unit can only be estimated.

For the purpose of determining the current closure cost, this *Closure/Post-Closure Plan* assumes that the cells constructed to date (Cells 1 – 3) will be closed as one closure event. Closure procedures and schedule for Cells 1 – 3 are presented in this section. This *Closure/Post-Closure Plan* document will be amended should subsequent cells be constructed.

[3]Closure of the final landfill will require more time to allow for the disposal of final facility wastes (i.e., waste impoundment residues).

ED_002469_00000118-00010

Cell 1 – 3 Closure Procedures. Closure of Cells 1 – 3 will include the following procedures:

- Discontinue receiving hazardous waste;
- If necessary, decontaminate non-waste handling equipment, and either salvage or leave in-place;
- Decontaminate closure equipment; and
- Dispose of decontamination fluids and contaminated soils into surface waste impoundments and landfills, respectively.

Upon placement of the final wastes in Cells 1 – 3, the materials will be covered in accordance with normal operating practices. Any area of Cells 1 – 3 that previously has not been covered will be covered with native soils to establish grade and to serve as the base for the final cover. The detailed closure cover design for the Cells 1 – and 3 can be found in the facility's *Landfill Final Cover Design Plans* document.

The closure cover design addresses issues relating to and the specific source of soil to be used for the ET cover, recommended vegetation, erosion and drainage control, and cover grades. Proposed final cover designs and contours are also included.

For Cells 1 – 3, the point at which the maximum unclosed portion is expected to occur will be when all of Cells 1 – 3 has been filled to capacity and the cells are waiting for placement of the final cap. The maximum area requiring closure at that point will be approximately 653,400 (planar) and 618,552 (surface) square feet.

Cell 1 – 3 Closure Schedule. It is estimated that the time for closure for Cell's 1 – 3 will be 226 days. Weather permitting, closure of Cell's 1 – 3 will begin within 60 days after final receipt of wastes in the cells, and ready for construction of the closure cover within 180 days of beginning closure activities. Since the normal construction season extends from April 15 to October 15, and because closure of Cell 1, 2, or 3 will require 3 to 4 months each to construct the final cap, it is not appropriate to begin closure construction immediately if the final waste receipt occurs between June 15 and February 15.

Therefore, the following incremental closure schedule is recommended: if Cell 1, 2, or 3 has reached final grades by February 15, closure activities will be completed by October 15 of that year. If Cell 1, 2, or 3 reaches final grades after February 15, closure activities will be completed by October 15 of the following year. The time estimate for closure of Cells 1 – 3 are presented in Appendix C.

1.4.7 Existing RCRA Container Storage Buildings and Areas

All RCRA-regulated hazardous wastes accepted at the Arlington Facility, with the exception of containerized solids and bulk liquids and solids, are processed through the container storage areas. The pertinent physical information for all the existing container storage units is shown in Table 1-4.

Inventory Reduction. All drums will be loaded onto facility vehicles by forklifts and transported to the appropriate treatment or disposal unit. Liquid wastes will be treated and landfilled on-site or shipped to off-site treatment as appropriate. Non-reactive solid wastes will be treated and landfilled, or shipped off-site for treatment.

ED_002469_00000118-00011

Closure Procedures. Containers remaining in the existing storage units will be removed and processed through the existing waste management operations as described above. Foundation soils from each area (S-4, S-5, S-6, and S-10) will be analyzed for contamination. Any contaminated soil will be removed and disposed of in an on-site RCRA landfill. For the purpose of estimating closure costs, it is assumed that a maximum depth of 1 foot of soil from 100 percent of the surface area will be removed from these units. The structure and the concrete for the storage bays in Container Storage Building S-2 will be decontaminated and left in-place or removed and disposed of in an on-site landfill.

Schedule. Closure of the emptied areas is estimated to take place over a 150- to 180-day period. Closure is estimated to involve 30 days for removal of inventory and another 120 to 150 days for sampling, analysis, and decontamination activities.

1.4.8 Stabilization Unit

CWMNW has built a Stabilization Unit for the treatment of solids, sludges, semi-solids, and aqueous wastes from direct deliveries, containers, truck wash sumps, waste impoundments, leachate, and waste management units undergoing closure. The pertinent physical information for estimating closure costs for the unit is shown in Table 1-5.

Inventory Reduction. After stabilized wastes have been tested to ensure that the treatment process is adequate, they will be removed from the treatment tanks and disposed of in an on-site compatible landfill.

Closure Procedures. The Stabilization Unit will be closed per procedures outlined in Section 1.4.2. At the time of closure, the steel tanks may be decontaminated and left in-place. Alternatively, the steel tanks, reagent tanks, concrete vaults, synthetic liners, and all associated equipment may be dismantled and placed in an on-site landfill.

Schedule. Final closure of the Stabilization Unit is estimated to take place over a 150- to 180-day period. Approximately 30 to 60 days will be required to process the existing waste inventory and another 120 days will be required for decontamination or dismantling activities.

1.4.9 Decontamination of Auxiliary Equipment

A current list of the type and number of facility equipment that are available for closure activities is maintained at the facility. The equipment used during the closure period will be decontaminated by either high-pressure water or steam washing of the tires and undercarriage. Appropriate chemical additives will be added to the cleaning solution, as specified by the chemical manufacturer. The adequacy of cleaning will be verified through visual inspection, and when the equipment is found to be clean (i.e., no visible evidence of contaminated soil or liquid), cleaning with water or steam will be repeated one more time.

Rinse waters will be collected in on-site tanks and will be transported to the wastewater treatment plant, treated, and discharged into an on-site waste impoundment after a compatibility determination is made.

Decontamination of the facility equipment used in the size reduction of solid waste (crushing operations) can be accomplished with compressed air inside the enclosed structure housing the operation. The compressed air will be effective at removing any dust residue on the equipment and any airborne dust particles will be collected and removed by the air handling and filtration

ED_002469_00000118-00012

system. Solid waste residue which cannot be blown from the equipment will be cleaned using conventional decontamination procedures.

The facility maintenance program requires regular equipment inspection and provides for periodic servicing and replacement of equipment.

1.4.10 Containment Buildings

The pertinent physical information for estimating closure costs for the containment buildings is shown in Table 1-6.

Inventory Reduction. All waste will be loaded onto facility vehicles and transported to the appropriate treatment or disposal unit.

Closure Procedures. Waste remaining in the existing containment buildings will be removed and processed through the existing waste management operations. If dismantled, foundation soils from each area will be analyzed for contamination. Any contaminated soil will be removed and disposed of in an on-site RCRA landfill. The building structure and concrete for each building (B-1, B-2, B-4, B-5, and B-9) will be decontaminated and left in-place or dismantled and disposed of in an on-site landfill. In this latter case, the soil under the building would be verified to be clean in accordance with the procedures specified in Appendix A.

Schedule. Closure of the emptied areas is estimated to take place over a 150- to 180-day period. Closure is estimated to involve 30 days for removal of inventory and another 120 to 150 days for sampling, analysis, and decontamination activities.

1.4.11 Waste Crushing Facility

The pertinent physical information for estimating closure costs for the waste crushing facility is shown in Table 1-7.

Closure Procedures. The waste crushing facility will be closed per procedures outlined in Section 1.4.2. The equipment used in the operation will be decontaminated as described in Section 1.4.9. The building structure and concrete for each building will be decontaminated and left in-place or dismantled and disposed of in an on-site landfill. If dismantled, foundation soils from each area will be analyzed for contamination. Any contaminated soil will be removed and disposed of in an on-site RCRA landfill.

Schedule. Closure of the waste crushing facility is estimated to take place over a 60- to 90-day period for sampling, analysis, and decontamination activities.

1.4.12 Organic Recovery Unit

The pertinent physical information for estimating closure costs for the Organic Recovery Unit (ORU) is shown in Table 1-8.

Closure Procedures. The ORU will be closed per procedures outlined in Section 1.4.2. The equipment used in the operation will be decontaminated as described in Section 1.4.9. The equipment and concrete will be dismantled and disposed of in an on-site landfill. Foundation soils from the area will be analyzed for contamination. Any contaminated soil will be removed and disposed of in an on-site RCRA landfill.

Schedule. Closure of the ORU is estimated to take place over a 60- to 90-day period for sampling, analysis, and disposal activities.

ED_002469_00000118-00013

1.5 General Facility Closure Requirements

The Arlington Facility will be closed in a manner that protects human health and the environment and minimizes the need for post-closure maintenance, in accordance with the standards found in 40 CFR 264, Subpart G.

1.5.1 Estimate of Maximum Potential Waste Inventory

As required by 40 CFR 264.112(b)(3), the *Closure Plan* must provide an estimate of the maximum extent of operations and maximum inventory of hazardous wastes on-site over the active life of the facility. This estimate is then used to determine the maximum cost of closure, as required by 40 CFR 264.142(a)(1).

The maximum inventory of hazardous waste on-site over the active life of the facility is shown in Table 1-9. The costs associated with the closure of each of these units are summarized in the following document:

- *Cost Estimates for Facility Closure and Post-Closure Care at Chemical Waste Management of the Northwest, Inc. Arlington Facility*

A copy of this cost estimate is kept on file at CWMNW. This cost estimate is continually revised as required by 40 CFR 261.142.

CWMNW will notify the DEQ of the closure of any waste impoundment, landfill, or waste treatment unit at least 60 days prior to the start of closure. If the closure of any waste management unit reduces the maximum extent of operation of the facility and if sufficient funds remain in the trust fund to cover the maximum cost of closing the facility over its remaining operating life, CWMNW may request reimbursement for partial closure activities, as allowed by 40 CFR 264.143(a)(10).

1.5.2 Closure Schedule

Based on the existing waste management units and the construction schedule for the proposed facilities, the Arlington Facility is estimated to have an active disposal life at least until the year 2047. In the course of normal operations, CWMNW plans to replace aging units or units whose capacities have been reached with new units. New units also will be introduced in response to future advances in waste treatment/management technologies.

Final facility closure, whenever it occurs, will be conducted in a carefully sequenced manner that will allow disposal of the total inventory of wastes at the facility as well as contaminated materials and residues generated during closure. The estimated closure dates for the existing and proposed waste management units are provided in Table 1-10. The chronological sequence for the final closure, assuming that the facility does not close prematurely, is shown in Table 1-11.

CWMNW requests an extension of the 90 days for removal of hazardous wastes and 180 days allowed to complete closure, in accordance with 40 CFR 264.113(a) and 264.113(b). It is estimated that slightly more than 4 years would be needed to complete closure of the facility. The additional time required for final site closure results primarily from the time required to evaporate 50 percent of the remaining waste impoundment inventory, to stabilize the remaining residues, and to close the final landfill. Calculations to support the time schedule extension are provided in Appendix C.

ED_002469_00000118-00014

CWMNW will notify the DEQ in writing at least 60 days prior to the initiation of final closure of the facility. Once closure is complete, CWMNW will submit to the EPA Regional Administrator a certification by both CWMNW and by an independent registered professional engineer that the site has been closed in accordance with the specifications in the approved *Closure Plan*.

1.5.3 Inventory Elimination

Once the decision is made to close the facility, aqueous wastes requiring treatment and evaporation in waste impoundments will no longer be accepted. Remaining liquid wastes will be rejected gradually thereafter. Containerized and bulk solids (no free liquids) will be the last wastes accepted.

Waste inventory will be eliminated in the various waste management operations in a sequential manner. Containerized solid waste storage inventory will be the first inventory eliminated. Containerized liquids and reactive solids inventories will be eliminated at the same time. Aqueous wastes in bulk liquid storage tanks also will be eliminated, followed by Stabilization Unit inventories. At this point, the last liquid wastes (except for decontamination water) will be placed into the waste impoundments.

Following the removal of the inventory from individual waste management operations, remaining aqueous waste sludges will be stabilized in-place and disposed of in an on-site RCRA landfill. Wash water generated from the decontamination of waste management units and auxiliary equipment will be treated and disposed of in the remaining waste impoundment(s), or stabilized and placed in an approved RCRA facility.

Waste impoundment inventories will be reduced on average by approximately 50 percent as a result of solar evaporation. Remaining free liquids and sludges in the impoundments will be stabilized using stabilization agents, such as fly ash or the like. The impoundments will be closed either by removal of wastes and liners for disposal in an on-site RCRA landfill, or closed in-place as "landfills".

Unpaved access roads, truck staging areas, and stormwater management areas (ditches, catchment basins) will be checked for soil contamination. Any contaminated soil will be removed and disposed of in an on-site landfill or approved RCRA facility.

Routine groundwater and leachate monitoring and removal will continue throughout closure as required by the Permit. Upon certification of final closure of the site, the *Post-Closure Plan* (see Section 2.0) will be implemented.

1.5.4 Inspection

CWMNW has developed an inspection program for the Arlington Facility to conform with the requirements of 40 CFR 264.15. This program is divided into two elements: (1) general facility inspection instructions and records, and (2) inspection procedures specific to individual waste management units. This program will continue during closure as required by the Permit. A copy of the approved *Inspection Plan* will be available at the facility through closure certification.

The inspection program is carried out by individuals who have the training and authority to conduct the necessary evaluations and hazard assessments, and recommend appropriate corrective or remedial actions. Inspection frequencies have been established for components of each waste management unit. Procedures for confirming the effectiveness of corrective measures and for reinspection of problem areas also are provided. Until final certification

ED_002469_00000118-00015

closure, inspections will be made according to the facility's *Inspection Plan*. Construction monitoring and engineering certification of disposal areas will continue throughout the placement of soil cover during closure.

1.5.5 Closure Certification

As required by 40 CFR 264.115, CWMNW will certify that the activities performed to close the facility are in accordance with the procedures described in the approved *Closure Plan*. The certification will be signed by CWMNW and an independent registered professional engineer and will be submitted to the DEQ within 60 days of the completion of final closure. Documentation supporting certification will be provided to the DEQ on request.

CWMNW will also obtain certification of closure by an independent registered professional engineer for any waste impoundment or landfill that is closed prior to final facility closure, as required by 40 CFR 264.115.

1.5.6 Documentation Regarding Deed Notification

The only portions of the Arlington Facility upon which hazardous wastes will be disposed of permanently are the landfills including impoundments closed as "landfills". In order to satisfy the requirements of 40 CFR 264.119, within 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, CWMNW will be required to:

- Record in accordance with state law, a notation on the deed to the facility Property - or on some other instrument which is normally examined during title search - that will in perpetuity notify any potential purchaser of the Property that:
  - The land has been used to manage hazardous wastes;
  - Its use is restricted under 40 CFR Subpart G regulations; and
  - The survey plat and reward of the type, location, and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility required by 40 CFR 264.116 and 264.119(a) have been filed with the local zoning authority or the authority with jurisdiction over local land use and with the DEQ; and
- Submit a certification, signed by CWMNW, that CWMNW has recorded the notation specified in (1) above, including a copy of the document in which the notation has been placed, to the DEQ.

On completion official closure of each of the future units, a legal description will be prepared to precisely reflect the as-built location of disposal units at the facility. This description will be submitted to the state along with the certification that final closure has been completed as specified in the approved *Closure Plan*.

At the time that the closure certification for each disposal unit (existing and future) or final closure of the facility is presented to the state, CWMNW also will submit a survey plat prepared by a registered land surveyor which shows the location and dimensions of landfill cells as required under 40 CFR 264.116.

1.6 Closure Cost Estimates

Cost estimates for the closure of all waste management units, basic utilities, and structures that are subject to these *Closure and Post-Closure Plans* have been prepared and are maintained as required by the Permit. Current closure cost estimates form the basis for the financial assurance

ED_002469_00000118-00016

mechanisms that have been prepared for the facility. Cost estimates for facility closure at the time of maximum waste inventory have also been summarized. However, these costs have no bearing on the facility's financial assurance demonstration. Cost estimates necessarily will change as completed units are closed and new units become operational.

Closure costs are calculated based on third party costs (i.e., the costs that would be required if someone other than CWMNW conducted closure activities) and include third party management during closure. Nevertheless, current plans are to use CWMNW personnel and equipment for most closure activities, including waste storage/treatment unit closure, surface impoundment waste stabilization, waste transfer/disposal in on-site units, grading, final cover placement, etc.

CWMNW adjusts the closure costs estimates for inflation annually as required by 40 CFR 264.142(b) and the Permit. Cost estimates are also revised within 30 days if a change in the *Closure/Post-Closure Plans* increases the cost of closing the facility and/or the cost of post-closure care.

A copy of the most recent cost estimates is maintained on file at CWMNW.

ED_002469_00000118-00017

TABLE 1-1 – WASTEWATER TREATMENT FACILITY CAPACITY

Unit/Component	Component ID	Surface Dim Ft^2	Total Capacity Gallons
Total Building Footprint		10,080	
AREA 1 Containment Capacity		3,240	10,528
(Wastewater Treatment Production Area)			
Mix Tank #1	MT-1		5,200
Mix Tank #2	MT-2		5,200
Clarifier	IPC-3		1,500
Thickener Tank	TH-800		26,00
Sand Filter #1	SF-1		400
Sand Filter #2	SF-2		400
Bag Filter #1	BF-1		11
Bag Filter #2	BF-2		1,700
Carbon Vessel #1	CF-1		1,700
Carbon Vessel #2	CF-2		1,700
Carbon Vessel #5	CF-5		1,700 (1)
Carbon Vessel #6	CF-6		1,700 (1)
AREA 2A Containment Capacity		2,255	11,982
(Wastewater/Treated Effluent Storage)			
Tank	ST-901		10,500
Tank	ST-902		10,500
Tank	ST-903		10,500
Tank	ST-904		10,500
Tank	EFT-950		10,500
Tank	EFT-951		10,500
AREA 3 Containment Capacity		1,259	13,706
(Wastewater/Treated Effluent/Product Storage)			
Tank	ST-905		2,500
Tank	ST-906		6,500
Tank	ST-907		6,500
Tank	ST-908		7,000
Total liquid storage capacity			**109,312**

Notes:

(1) To be installed in the future.

ED_002469_00000118-00018

TABLE 1-2 – WASTE IMPOUNDMENT CAPACITY

Impoundment	As-Built Total Dimensions (feet)	Calculated Freeboard (feet)	Operating Capacity at Calculated Freeboard (gallons)[1]
P-A	290 x 290 x 12.6	(84,100 sq ft) 1.4	4,250,000
P-B	290 x 290 x 12.6	(84,100 sq ft) 1.4	4,250,000
Total		(168,200 sq ft)	8,500,000 gal

Notes:

[1] Total capacity minus freeboard allowance.

ED_002469_00000118-00019

TABLE 1-3 – LANDFILL CAPACITY

Unit	Dimensions (feet)	Total Capacity (acre feet)[1]
CLOSED		
L-1	500 x 60 x 25	17
L-3	500 x 65 x 32	21
L-5	350 x 160 x 32[2]	37
L-6	700 x 175 x 30 (avg)	84
L-7	525 x 255 x 48 (avg)[2]	167
L-8	600 x 120 x 30	65
L-9	200 x 400 x 50[b]	101
L-10	600 x 400 x 66 (equiv.)	362
ACTIVE		
L-13	850 x 900 x 85 (equiv., 765,000 sq ft)	1,487
L-12	900 x 440 x 54 (equiv., 396,000 sq ft)	493
L-14 (Cell 1)	980 x 303 x 87 (equiv., 296,644 sq ft)	590
L-14 (Cell 2)	980 x 180 x 154 (equiv., 176,854 sq ft)	625
L-14 (Cell 3)	980 x 180 x 164 (equiv., 176,854 sq ft)	662
UNCONSTRUCTED		
L-14 (Cell 4)	980 x 394 x 111 (equiv., 385,942 sq ft)	985
L-14 (Cell 5)	1,250 x 407 x 92 (equiv., 508,781 sq ft)	1,072

Notes:

(1) Volume of landfill including mounding of waste above grade.
(2) RCRA waste portion only.

ED_002469_00000118-00020

TABLE 1-4 – CONTAINER STORAGE CAPACITY

Unit	Storage Surface Dimensions (Feet)	Total Capacity[1] (gallons)
S-2	27.7 x 30.15	9,020
	24.3 x 30.15	7,810
	24.3 x 30.15	7,810
	25.3 x 30.15	7,810
	39.5 x 24.7	10,340
S-4	140 x 79 (avg)	83,270
	53 x 79 (avg)	29,040
S-5	147 x 319	2,035,898 (= 504 20-yd^3 containers)
S-6	347 x 163	2,714,530 (= 672 20-yd^3 containers)
S-10	80 x 91.5	54,945
	80 x 95	54,980
	80 x 91.5	54,945
	23 x 9	2,420
Total	145,187 ft^2	5,074,818

Notes:

(1) Based on drum inventory.

ED_002469_00000118-00021

TABLE 1-5 – STABILIZATION UNIT CAPACITY

Unit	Dimensions (feet)	Total Tank Capacity[1] (gallons)
Tanks		
T-S-1a	8 x 25 x 10	15,000
T-S-1b	8 x 25 x 10	15,000
T-S-2a	8 x 25 x 10	15,000
T-S-2b	8 x 25 x 10	15,000
T-S-3a	8 x 25 x 10	15,000
T-S-3b	8 x 25 x 10	15,000
T-S-4a	8 x 20 x 12.5	15,000
T-S-4b	8 x 20 x 12.5	15,000
T-S-5a	8 x 20 x 12.5	15,000
T-S-5b	8 x 20 x 12.5	15,000
T-S-6a	8 x 20 x 12.5	15,000
T-S-6b	8 x 20 x 12.5	15,000
Total (12 tanks)	2,160 sq ft	180,000

Notes:

(1) Operational capacity of the tanks is normally 50 percent of the total capacity to allow mixing of the wastes and the stabilization agent.

ED_002469_00000118-00022

TABLE 1-6 – CONTAINMENT BUILDING CAPACITY

Unit	Dimensions (feet)	Total Capacity (cubic yards)
Existing Buildings		
B-1	80 x 200 x 30 (16,000 sq ft)	3,022[1]
B-2	80 x 200 x 30 (16,000 sq ft)	6,044
B-4	80 x 300 x 30 (24,000 sq ft)	9,067
B-5	390x230 x 30 (89,700 sq ft)	28,340[2]
B-9	59 x 40 x 21 (2,360 sq ft)	180
Total 5 Buildings	116,380 sq ft	46,653 cu yd

Notes:

(1) 50% of total capacity is assumed since approximately half of Containment Building B-1 is used for part of the crushing operation.
(2) B-5 total capacity reduced by 25% to account for the ORU water tanks, ORU infeed hopper and conveyor systems and ORU waste handling area.

ED_002469_00000118-00023

TABLE 1-7 – WASTE CRUSHING FACILITY

Unit	Dimensions (feet)	Total Surface Area (square feet)
Waste Crushing Facility	40 x 200 x 30 (8,000 sq ft)	8,000

ED_002469_00000118-00024

TABLE 1-8 – ORGANIC RECOVERY UNIT

Unit/ Component	Surface Dimensions (square feet)	Total Capacity (gallons)
ORU 1		
Total ~~Building~~ Equipment PadFootprint		13,365 ft^2
Oil/Water Separator (#5200-01)		16,000 gal
Oil/Water Separator (#5200-02; Inside B-5)		16,990 gal
Small Heated Oil/Water Separator (#5200-03)		5,674 gal
Large Heated Oil/Water Separator (#5200-04)		10,000 gal
Large Heated Oil/Water Separator (#5200-05)		10,000 gal
Heated Tank (#5252-01)		7,500 gal
Sludge Bin (#5251-01)		300 gal
Process Oil Tank (#5210-01)		2,000 gal
Process Water Tank #(5100-01)		7,400 gal
Process Water Tank (#5100-02; Inside B-5)		6,450 gal
Process Water Transfer Tank (#5100-03)		500 gal
Process Water Transfer Tank (#5100-04)		500 gal
Carbon Filter (CF-3)		500 gal
Carbon Filter (CF-4)		500 gal
Centrifuge (CFG-1)		60 gal
Centrifuge Receiving Tank (#5200-6)		560 gal
Oil Storage Tank 5300-01		5,300 gal
Oil Storage Tank 5300-02		5,300 gal
Oil Storage Tank 5300-03		5,300 gal
Total		100,834 gal
WWTP 2		
Total Equipment Pad Footprint		22,085 ft^2
Process Water Tank (#F-1402)		20,000 gal
Process Water Mix Tank 1 (#F-1403)		20,000 gal

Formatted: Space After: 6 pt

Formatted: Not Highlight

TABLE 1-8 – ORGANIC RECOVERY UNIT (ORU) (Continued)

Formatted: Not Highlight

Unit/ Component	Surface Dimensions (square feet)	Total Capacity (gallons)
Process Water Mix Tank 2 (#F-1404)		20,000 gal
Treated Process Water Tank 1 (#F-1405)		20,000 gal
Treated Process Water Tank 2 (#F-1406)		20,000 gal
Treated Process Water Tank 3 (#F-1407)		20,000 gal
Treated Process Water Tank 4 (#F-1408)		20,000 gal
Treated Process Water Tank 5 (#F-1409)		20,000 gal
Treated Process Water Tank 6 (#F-1410)		20,000 gal
Treated Process Water Tank 7 (#F-1411)		20,000 gal
Treated Process Water Tank 8 (#F-1412)		20,000 gal
Treated Process Water Tank 9 (#F-1413)		20,000 gal
Treated Process Water Tank 10 (#F-1414)		20,000 gal
Treated Process Water Tank 11 (#F-1415)		20,000 gal
Treated Process Water Tank 12 (#F-1416)		20,000 gal
Product Tank 1 (#F-1417)		20,000 gal
Product Tank 2 (#F-1418)		20,000 gal
Product Tank 3 (#F-1419)		20,000 gal
Total		360,000gal

ED_002469_00000118-00026

TABLE 1-9 – Waste Pile Unit WP-1 ±REV 19

WASTE PILE UNIT WP-1

Unit	Dimensions (feet)	Total Surface Area (square feet)
Waste Pile WP-1	490 x ~329 x ~2	161,210

ED_002469_00000118-00027

TABLE 1-10 – MAXIMUM RCRA WASTE INVENTORY ±REV 19

Unit	Waste Capacity
Container Storage	
S-2	42,790 gal
S-4	112,310 gal
S-5	2,035,898 gal
S-6	2,714,530 gal
S-10	166,870 gal
S-11A	2,420 gal
Total Inventory	5,074,818 gal
Storage Tanks	
ST-901	10,500 gal
ST-902	10,500 gal
ST-903	10,500 gal
ST-904	10,500 gal
ST-905	2,500 gal
ST-906	6,500 gal
ST-907	6,500 gal
ST-908	7,000 gal
EFT-950	10,500 gal
EFT-951	10,500 gal
Oil Storage Tank 5300-01	5,300 gal
Oil Storage Tank 5300-02	5,300 gal
Oil Storage Tank 5300-03	5,300 gal
Product Tank 1 (#F-1417)	20,000 gal
Product Tank 2 (#F-1418)	20,000 gal
Product Tank 2 (#F-1419)	20,000 gal
Total Inventory	~~101,400~~161,400 gal
Treatment Facility Capacity	
Mix Tank #1 (MT-1)	5,200 gal
Mix Tank #2 (MT-2)	5,200 gal
Clarifier	1,500 gal
Thickener Tank (TH-800)	2,600 gal
Surge Tank (T-4)	1,690 gal
Sand Filter #1 (SF-1)	400 gal
Sand Filter #2 (SF-2)	400 gal
Carbon Vessel #1 (CF-1)	1,700 gal
Carbon Vessel #2 (CF-2)	1,700 gal
Carbon FilterVessel #5 (CF-5)	1,700 gal
Carbon FilterVessel #6 (CF-6)	1,700 gal
Bag Filter #1 (BF-1)	11 gal
Bag Filter #2 (BF–2)	11 gal
Total Capacity of Treatment Facility	23,812 gal
Laboratory Tank	1,050 gal

ED_002469_00000118-00028

TABLE 1-10 (Continued) – MAXIMUM RCRA WASTE INVENTROY

Unit	Waste Capacity
Organic Recovery Unit Capacity	
ORU 1	
Oil/Water Separator (#5200-01)	16,000 gal
Oil/Water Separator (#5200-02)	16,990 gal
Small Heated Oil/Water Separator (#5200-03)	5,674 gal
Large Heated Oil/Water Separator (#5200-04)	10,000 gal
Large Heated Oil/Water Separator (#5200-05)	10,000 gal
Heated Tank (#5252-01)	7,500 gal
Sludge Bin (#5251-01)	300 gal
Process Oil Tank (#5210-01)	2,000 gal
Process Water Tank (#5100-01)	7,400 gal
Process Water Tank (#5100-02)	6,450 gal
Process Water Transfer Tank (#5100-03)	500 gal
Process Water Transfer Tank (#5100-04)	500 gal
Carbon Filter #3 (CF-3)	500 gal
Carbon Filter #4 (CF-4)	500 gal
Centrifuge (CFG-1; ORU)	60 gal
Centrifuge Receiving Tank (#5200-6)	560 gal
WWTP 2	
Process Water Tank (#F-1402)	20,000 gal
Process Water Mix Tank 1 (#F-1403)	20,000 gal
Process Water Mix Tank 2 (#F-1404)	20,000 gal
Treated Process Water Tank 1 (#F-1405)	20,000 gal
Treated Process Water Tank 2 (#F-1406)	20,000 gal
Treated Process Water Tank 3 (#F-1407)	20,000 gal
Treated Process Water Tank 4 (#F-1408)	20,000 gal
Treated Process Water Tank 5 (#F-1409)	20,000 gal
Treated Process Water Tank 6 (#F-1410)	20,000 gal
Treated Process Water Tank 7 (#F-1411)	20,000 gal
Treated Process Water Tank 8 (#F-1412)	20,000 gal
Treated Process Water Tank 9 (#F-1413)	20,000 gal
Treated Process Water Tank 10 (#F-1414)	20,000 gal
Treated Process Water Tank 11 (#F-1415)	20,000 gal
Treated Process Water Tank 12 (#F-1416)	20,000 gal
Total	~~84,934~~384,934 gal

ED_002469_00000118-00029

TABLE 1-10 (Continued) – MAXIMUM RCRA WASTE INVENTORY

Unit	Waste Capacity
Stabilization Tanks	
Tank 1-a	15,000 gal
Tank 2-a	15,000 gal
Tank 3-a	15,000 gal
Tank 4-a	15,000 gal
Tank 5-a	15,000 gal
Tank 6-a	15,000 gal
Tank 1-b	15,000 gal
Tank 2-b	15,000 gal
Tank 3-b	15,000 gal
Tank 4-b	15,000 gal
Tank 5-b	15,000 gal
Tank 6-b	15,000 gal
Total Inventory	180,000 gal
Impoundments	
P-A	4,250,000 gal
P-B	4,250,000 gal
Total Inventory	8,500,000 gal
Landfills	
L-12	493 acre-feet
L-13	1,487 acre-feet
L-14	3,934 acre-feet
Total Inventory	5,914 acre-feet

ED_002469_00000118-00030

TABLE 1-10 (Continued) – MAXIMUM RCRA WASTE INVENTORY

Unit	Waste Capacity
Containment Buildings	
B-1	3,022 cy
B-2	6,044 cy
B-4	9,067 cy
B-5	28,340 cy
B-9	180 cy
Total Inventory	46,653 cy
Waste Pile Unit	
WP-1	60,000 cy
Total Inventory	60,000 cy

ED_002469_00000118-00031

TABLE 1-11 – CLOSURE SCHEDULE FOR EXISTING AND PROPOSED WASTE MANAGEMENT UNITS ±REV 19

Waste Management Unit	Actual/ Estimated Construction Date(s)	Estimated Closure Date(s)	Length of Time to Close (days)
Container Storage Areas S-4 and S-5[1]	1979-1998	2047	150-180
Container Storage Area S-6	1998	2047	180-480
Container Storage Building S-2	1999	2047	150-180
Container Storage Area S-10	1997	2047	150-180
Container Storage Building S-11A	1997	2047	150-180
Waste Water Treatment Unit	2006/2007	2047	90-150
Stabilization Unit	1988-1990	2047	150-180
Containment Buildings B-1, B-4, and B-9	1997-1999	2047	150-180
Containment Building B-2	1998	2047	180-480
Containment Building B-5	2004	2047	180-480
Waste Crushing Facility	1998-1999	2047	60-90
Organic Recovery Unit	2009	2047	60-90
Impoundments P-A, P-B	1987- 2000	2047	1057
Landfill L-12	1993-1994	2015	112
Landfill L-13	1987-1989	2016	227
Landfill L-14 (Cell No.'s 1 – 3)	2003-2011	2047	226
Landfill L-14 (Cell No.'s 4 – 5)	To be determined	To be determined	To be determined
Waste Pile Unit WP-1	2013	2020	120-180

Notes:

(1) Container Storage Area S-5 is permitted but not constructed to date

ED_002469_00000118-00032

TABLE 1-12 – WASTE MANAGEMENT OPERATIONS AT FINAL CLOSURE AND CLOSURE SEQUENCE ±REV 19

Final Closure Sequence (Days)

Waste Management Unit	Start[1]	Complete
Submit Closure Plan to DEQ Administrator, DEQ Approval	[2]	
Container Storage Units		180
Containment Buildings	30	180
Organic Recovery Unit	30	180
Wastewater Treatment Unit	30	180
Stabilization Unit	30	180
Waste Impoundments	60	1,117
Final Landfill	1,072	1,429
Basic Utilities (including Laboratory)	1,250	1,429
Final Inspection and Certification by Professional Engineer	1,429	1,520

Notes:

(1) Closure activities for each unit begin with inventory reduction/removal.
(2) 60 days prior to initiating final closure.

ED_002469_00000118-00033

2 POST-CLOSURE PLAN

2.1 Facility Identification

EPA Facility Identification Number:	ORD 089 452 353
Owner's or Operator's Name:	Chemical Waste Management of the Northwest, Inc.
Address and Telephone Number:	17629 Cedar Springs Lane Arlington, OR 97812 (541) 454-2030

2.2 Regulatory Requirements

Facilities that have disposal operations are required by 40 CFR 264.118 to have a *Post-Closure Plan* that identifies the activities that must be carried on after the facility is closed. The regulations require that post-closure care of the facility be continued for 30 years after the date of closure of each hazardous waste management unit, unless the EPA Regional Administrator determines that a reduced period is sufficient to protect human health and the environment.

This *Post-Closure Plan* for the Chemical Waste Management of the Northwest, Inc. (CWMNW) Arlington Facility identifies post-closure care activities that will be carried out either after closure and certification of any disposal unit has occurred or following final facility closure and certification. The *Post-Closure Plan* presents the requirements for post-closure care activities, including periodic groundwater and leachate monitoring, site inspections and maintenance activities, and measures to assure restricted site access.

A copy of the current approved *Post-Closure Plan* will be kept at the facility. After that time, an updated copy of the approved plan will be kept at CWM corporate offices.

The *Post-Closure Plan* will be amended whenever changes in operating plans, facility design, or other factors (including a change in the expected year of final site closure) affect the plan.

A certification of completion of post-closure care will be provided by CWMNW to the appropriate agencies no later than 60 days after the established post-closure care period for each hazardous waste management unit. The certification will be signed by CWMNW and an independent registered professional engineer and will certify that all post-closure activities were performed in accordance with the specifications of the approved *Post-Closure Plan*. Documentation to support the certification will be provided to the agencies on request.

2.3 Inspection of Closed Units

The post-closure procedures and technical activities for periodic inspections will commence following certification that the entire Arlington Facility has been closed in accordance with the requirements of the approved *Closure Plan* and will continue for the period specified by 40 CFR 264.117(a) or, alternately, for the period specified by the EPA Regional Administrator. For the purpose of this *Post-Closure Plan*, this period has been assumed to be 30 years. Throughout the post-closure period, the facility will be inspected at the intervals shown on the schedule in Table 2-1.

ED_002469_00000118-00034

Following the occurrence of a recorded 1-inch, 24-hour storm, additional inspections will be scheduled for the cover, embankments, roads, dikes, surface run-off containments, and drainage ways.

The frequency of inspection has been selected on the basis of CWMNW's experience with its presently closed landfills and recommended landfill post-closure cover integrity monitoring established by the Interstate Technology Regulatory Council (ITRC)[4] . These landfills have not required maintenance since closure. The landfills will be the only units containing hazardous waste that will remain at the site after closure and consequently are the only units that will require maintenance. This, coupled with the remote location of the facility, makes it unnecessary to inspect landfills more frequently.

The date, time, results of the inspection, and the maintenance activities performed will be logged and filed in the facility operating record. The results of the initial semi-annual inspections will provide a data base from which CWMNW will be able to better define the nature and extent of necessary post-closure care activities and costs that will occur after the facility is finally closed.

Any necessary repairs or maintenance of the disposal unit covers, leachate detection and removal systems, groundwater monitoring wells, benchmarks, or fencing will be accomplished during the scheduled inspection or shortly thereafter.

2.3.1 Security Fencing

The Arlington Facility has about 13,395 feet of security fencing around its perimeter. During each inspection, CWMNW personnel will check the fence for holes, damaged posts, broken or missing wire, gate damage, and erosion under the fence and around the posts. It is estimated that the entire fence will be replaced at some time during the 30-year post-closure period.

2.3.2 Landfill Cover Integrity Monitoring

After final cover construction, standard inspections of alternative final covers (AFCs) are needed to indicate the need for maintenance. Site inspections will be conducted as part of a long-term surveillance or monitoring program contained in Permit Standalone Document 3 (*Inspection Plan*). The general site inspection consists of conducting visual observations of the AFC. Drainage channels and swales will also be inspected for any erosion damage. Notable damage to or degradation of the soil cover including the formation of rills, loss of vegetation over significant portions of the cover, or development of visible animal burrows or trails over the soil cover will be documented for corrective maintenance. Site inspections are conducted in accordance with the approved *Inspection Plan*. These inspections consist of conducting such operations as on-site visual inspection, aerial mapping, measurements at erosion control monuments, collecting vegetation data, and documenting the findings in the site inspection forms. The review of vegetation establishment and the potential degradation mechanisms for the soil cover will be completed monthly using the inspection form contained in the approved *Inspection Plan*.

Inspections are conducted in accordance with the requirements of the task-specific health and safety plan for conducting long-term operations and maintenance of the closed landfills. Routine

[4]Technical and Regulatory Guidance for Design, Installation, and Monitoring of Alternative Final Landfill Covers, ITRC, December, 2003.

ED_002469_00000118-00035

maintenance and repair activities are defined and conducted as needed. Other non-routine repairs that are not defined may require documentation in a repairs and verification report.

This report could include the following:

- plan objective,
- description of deficiencies requiring repair or maintenance,
- proposed action to address deficiency,
- implementation plan and schedule, and
- supporting documentation

Repairs should not be initiated when conditions exist that could damage the cover system. Such conditions include excessive soil moisture following a precipitation event and excessive dry soil and windy conditions.

Cover integrity monitoring is accomplished by inspecting for signs of settlement, erosion, vegetation, stability, animal intrusion, and vandalism. The following are the descriptions of each of these areas.

2.3.2.1 Settlement Monitoring

Subsidence inspections are used to determine the location and amount of settlement that has occurred underneath or within a cover. Settlement plates physically measure the amount of settlement for the cover and foundation materials and are used to distinguish the difference between cover and foundation settlement. The settlement plate is placed on the foundation material during construction and cover materials are placed at the specified density around the vertical rod to the marking ring located on the rod. Measurements are taken of the northing, easting, and elevation of the rod tip and recorded for later comparison. During annual settlement inspections, the northing, easting and elevation of the respective settlement plate rod tip will be measured. Movement of the surface of the soil in reference to the marking ring on the rod indicates that either erosion or settlement of the cover materials has occurred. If the rod tip has moved from the reference measurement, settlement below the cover has occurred. The surface should also be inspected for areas where water has ponded or where soil cracking or sliding is occurring. Annual surveys will evaluate the rate of landfill settlement for areas of significant rate (i.e., more than 1% of the volume of the total amount of post closure settlement).

Monthly inspections will review the cover for evidence of differential or local settlement (e.g., resulting in ponding, etc.). If settlement has affected the performance of the surface-water management system, grades should be reestablished to promote positive drainage.

2.3.2.2 Erosion Monitoring

The soil cover will be visually inspected during the monthly inspection for the following:

- rills (cracks or small channels measuring up to 6 inches wide by 4 inches deep),
- gullies (cracks or small channels measuring greater than 6 inches wide by 4 inches deep),
- increased exposure of erosion control monuments,
- intrusion by humans or animals,
- trails showing human or animal activity, and
- damage from vehicular traffic such as ruts and tire marks.

ED_002469_00000118-00036

- wind erosion in areas of wind concentration.

Annual erosion inspections will be used to determine the location and amount of erosion that has occurred at the surface of the cover by using the settlement monuments installed during construction. To determine erosion, a measurement of the cover surface at each control monument and at four elevations evenly spaced and approximately 10 feet from the control monument. The measurements can be taken in the four cardinal directions (north, south, east, and west) as determined by survey system. The average of the four measurements will be compared to the baseline established during the initial site survey to assess the extent of and/or potential for erosion. Surveying the elevations outward from the erosion control monument and comparing those elevations to the base line elevations determines the extent of the deficient area.

An average annual soil loss of 0.7 tons per acre per year is anticipated from closed areas containing waste. On-site soil will be used for redressing in areas eroded or areas where settlement has occurred that may cause ponding. Other conditions which may necessitate replacement of disturbed soil and/or revegetation include the burrowing activities of rodents or other small animals and the occurrence of a major storm. The soil will be replaced from a borrow area as necessary and vegetated.

2.3.2.3 Vegetation Monitoring

Visual inspections of the overall health of the cover vegetation will be completed monthly. Areas will be reviewed for burned areas, overall vigor, excessive grazing, disease or pests, and weed infestations. Vegetation requirements as defined for the alternative final cover are generally not critical for the proper performance of the designed cover system. Inspections should focus on the general health of the volunteer vegetation in the following areas.

- Monitor the entire cover for evidence of vegetative stress,
- Evaluate the cause of the stress (e.g., landfill gas, excessive water, poor sunlight, lack of soil nutrients, too little water, wind erosion, etc.).
- If the stress is caused by landfill gas escaping through a breach in the cap, then check for evidence of other landfill gas problems that could also result from a breach in the cover (e.g., odors, off-site migration).

2.3.2.4 Stability Monitoring

Stability of the landfill and final cover system will be evaluated annually using topographic surveys of the landfill. Monthly visual inspections will be conducted to identify; cracks at crests of slopes, bulging at toes of slopes, or "leaning" vegetation. Monitoring will be increased during periods of high infiltration potential (e.g., spring melting, rainy seasons, after significant storm events).

2.3.2.5 Animal Intrusion

Monthly inspections for evidence of animal intrusion will be conducted during the monthly cover inspections. The cover will be reviewed for the following;

- Evidence of animal traffic on cover (e.g., tracks, trails, droppings, etc.)
- Evidence of animal holes in the landfill, which could be a conduit for liquid migration into or gas migration from the landfill; fill such holes as needed and consider the need for features that prevent animal intrusion (e.g., rock barriers, etc.).

ED_002469_00000118-00037

- Fill animal intrusion holes as soon as possible to discourage population increase.

2.3.2.6 Vandalism Or Uncontrolled Access

CWMNW is inspected regularly for breaches in access controls (fences, gates, natural barriers) in accordance with the approved *Inspection Plan*. Additional visual inspections during the monthly cover integrity inspection will review the following;

- Evidence of on-site activity (e.g., motorcycle tracks, trails, etc.) as evidence of uncontrolled access and potential damage to the cover system or related components.
- Vandalism or uncontrolled access to final cover areas.

2.3.2.7 Leachate Seeps

Although seeps are not expected in a Subtitle C hazardous waste landfill monitoring for evidence of seeps through the final cover and other related problems (e.g., stressed vegetation) will be reviewed during the monthly cover integrity inspection. Should seeps be identified remediation-related solutions as a means to address seep problems may include the following:

- Repair of seeps quickly by excavating through the low-permeability layer beneath the seep and covering the repaired area with low-permeability soil.
- Evidence of locations near the seep where surface water might have been inadvertently routed to a breach in the cover, resulting in the seep.
- Monitor leachate quantity for increases or decreases. Increases in leachate quantity could be an indication of a breach in the cover.
- If changes in quantity are identified, check the cover in the area for evidence of excessive settlement.

2.3.3 Surface Water Control

The drainage control system will be checked for damaged sections, debris and/or excessive vegetation, or other conditions detrimental to the system's operation. The dry climate and slow growth of vegetation will make mowing unnecessary. However, clearing will take place if weeds or grass threaten to interrupt the flow of surface water in the ditches or threaten the integrity of the closure cap. It is estimated that approximately 1,000 feet of ditch will require major maintenance and 20 feet of culvert will need replacement each year during the post-closure period. Ditches will be inspected for high or low spots and erosion.

The design features of the closure cap slopes and facility drainage system minimize the potential for deterioration of the estimated 50 acres of closed waste disposal areas. In addition, the sequential completion of burial areas during the life of the facility will result in vegetation being firmly established over a major portion of the site waste repository area prior to closure of the facility.

2.4 Groundwater Monitoring

Groundwater monitoring (GWM) will continue at the Arlington Facility for 30 years following final closure. Waste Management Area (WMA) monitoring wells will be sampled semiannually throughout this 30-year period. Wells monitoring past practice units will be monitored annually.

At the time of the closure of the Arlington Facility, the GWM network will increase with the addition of five wells for post-closure monitoring of WMA-4. WMA-4 encompasses an area surrounding the containment buildings and Container Storage Building S-2. A Technical

ED_002469_00000118-00038

Memorandum describing the design of the post-closure GWM for future WMA-4 is provided in Appendix D.

During the sampling visit, the monitoring wells will be inspected for signs of failure or deterioration. If problems are identified, repair or replacement of the well(s) will be scheduled within one month of the identification of the problem. It is estimated that the bladders of the groundwater pumps will need replacement once every 10 years.

2.5 Leachate Collection

Monitoring and maintenance of the leachate collection systems of individual closed landfills will be performed on a monthly basis while the facility is still active. After final facility closure, the leachate collection and removal system will be inspected in accordance with the schedule set forth in Table 2-1, or as needed. The leachate collection sump system will be checked for liquid accumulation. If there is any liquid accumulation, the liquid will be removed using a portable pump and analyzed for hazardous waste characteristics. Based on the results of the analysis, the liquid will be sent to a sanitary or industrial sewage treatment facility, or to a RCRA hazardous waste facility (as appropriate).

The leachate collection systems have no mechanical parts to maintain. The manhole and piping systems will be maintained as required. Any problems discovered during inspection will be corrected promptly.

2.5.1 Tertiary Sump Monitoring

Landfill L-14 has an additional tertiary sump constructed beneath the primary and secondary leachate collection sump systems within each cell. The tertiary sump acts as an 'engineered vadose zone' in an area of the landfill with the highest likelihood of a potential release (i.e., leachate collection sumps). The tertiary sump monitoring will continue for each cell for a period of 30 years following final closure of the each cell. The tertiary sump will be monitored semi-annually (provided liquids are present) throughout the 30-year period, unless monitoring during the active life of the cells, dictates that a greater or less frequency is warranted.

If there is any liquid accumulation, the liquid will be removed using a portable pump and analyzed for hazardous waste characteristics. Based on the results of the analysis, the liquid will be sent to a sanitary or industrial sewage treatment facility, or to a RCRA hazardous waste facility (as appropriate).

The tertiary sump systems have no mechanical parts to maintain. The manhole and piping systems will be maintained as required. Any problems discovered during inspection will be corrected promptly.

2.6 Procedures for Protection and Maintenance of Benchmarks

Benchmarks will be located at strategic corners of the perimeter of the closure cap of each closed disposal unit. The benchmarks will consist of surface monuments constructed by placing a 3-foot long No. 6 steel bar in a 3-foot deep by 1-foot diameter, concrete-filled hole. A 4-foot tall steel fence post will be installed near the benchmark to aid in visual location and to minimize the potential for accidental damage. A properly installed benchmark should not require maintenance.

ED_002469_00000118-00039

If a shifted or damaged monument is discovered during the course of regular post-closure inspections, inspection personnel will notify a survey crew, which will re-establish the monument.

ED_002469_00000118-00040

TABLE 2-1 – POST-CLOSURE SCHEDULE OF INSPECTION FREQUENCY

Time After Closure	Activity	Frequency	Total Number of Inspections
0 to 10 years	Site Inspection	Semiannually	20
	Groundwater Monitoring	Semiannually	20
	Cover Monitoring	Monthly	1,200
10 to 30 years	Site Inspection	Annually	20
	Groundwater Monitoring	Semiannually	40
	Cover Monitoring	Semiannually	1,200

ED_002469_00000118-00041

3 FINANCIAL ASSURANCE

CWMNW maintains financial assurance via a surety bond for the current closure and post-closure cost estimates in accordance with 40 CFR 264.143 and 145. Financial assurance documentation is included in this combined *Closure/Post-Closure Plans, Financial Assurance, Insurance* document. Financial assurance documentation for post-closure remedial action as required by the ORS 466.150(2)(e) is also included in this combined *Closure/Post-Closure Plans, , Financial Assurance, Insurance* document. CWMNW will revise the cost estimates and provide an updated financial assurance on an annual basis or as needed to reflect the current status of the facility in terms of the construction and closure of waste management units.

ED_002469_00000118-00042

4 INSURANCE

CWMNW maintains insurance to meet the requirements of liability coverage for sudden and non-sudden accidental occurrences. Copies of the certificates of liability insurance are included in this combined *Closure/Post-Closure Plans, Financial Assurance, Insurance* document.

ED_002469_00000118-00043

APPENDIX A – SOILS SAMPLING AND ANALYSIS PLAN

ED_002469_00000118-00044

A1 SOIL SAMPLING AND ANALYSIS PLAN

Soils will be sampled and analyzed to determine the existence or extent of contamination at the Arlington Facility according to the following procedures:

- Surrounding soils will be sampled and analyzed for the presence of contamination for all hazardous waste storage and treatment units, except those which will be constructed with impervious concrete foundations and containments.
- For areas where soil sampling will occur, the area will be divided into four quadrants. A grid system of twenty-five squares will be established in each quadrant. A random-number generator will be used to select five of the twenty-five squares for sampling. The 5 samples will be mixed to form a single composite sample for each quadrant. All sampling locations will be measured and marked with flags for future reference.
- In addition to the random sampling grid, at least one sample shall be obtained from each area of known contamination or obvious visual contamination. Samples from such areas shall not be composited with any other samples for analyses.
- Final confirmation of the absence of contamination of hazardous constituents in soil shall be demonstrated by analysis for hazardous constituents as contained in 40 CFR Part 261 Appendix VIII (for which analytical procedures are available), rather than the constituents contained in the priority pollutant list.
- Background samples will be collected from areas where no waste activity has been conducted. At least 5 background samples will be taken with each sampling consisting of 5 samples composited into a single sample. The analytical results from these background samples will serve as the standard against which contaminated area results are compared for detecting the presence of residual contamination. Criteria used for the selection of background sample locations are as follows:
  - Samples must be taken from areas within a nominal 1,200-foot horizontal distance from the contaminated area, but not so close that they could be affected by past operation of the area or by other activity at the facility, and
  - Samples must be taken from similar geologic strata at similar depths as those samples taken from the contaminated area to which they will be compared.
  - If analysis of any background sample indicates that it is an outlier using the method provided in ASTM E-17880, Section 4.3 as calculated at a one percent significance level, then the Permittee may delete that sample from the background set and may replace it with a new background sample or the Permittee may demonstrate that the outlier sample is a valid background sample, representative of natural background concentrations for the constituent(s) in question. All background values for each parameter shall be subject to review and acceptance or rejection by the DEQ before such values are used to determine the clean up standard at each unit.
- Soil samples will be taken with a standard sampling shovel at a depth of approximately 2-6 inches below the ground surface. All field sampling equipment will be rinsed between locations to eliminate cross contamination. Soil samples for inorganic analyses will be placed into either polyethylene containers or glass containers and sealed to prevent desiccation during transport to the laboratory. Soil samples for organic analyses will be placed into Teflon sealed glass containers with septum tops (or equivalent). The choice

of container size and preservative method will depend on the analytical parameters in accordance with the procedures outlined in the most currently approved version of EPA Publication SW-846 ("Test Methods for Evaluation Solid Waste, Physical/Chemical Methods,") at the time each unit undergoes closure.

- Preliminary sampling and analytical testing will be performed by on-site personnel to assure that all contaminated material has been removed. If such tests show that contamination persists, additional material will be removed until test results are satisfactory. (These tests are discretionary in nature and are not used for closure certification.) Once this has been accomplished, an independent engineer will perform final certification sampling and analysis.

Successful closure is defined as test results showing concentrations of test parameters in the soil below the unit that are at (or below) the measured maximum concentration of these parameters in background samples. On a case-by-case basis, test parameters which are at de minimis levels over the maximum background concentration of that parameter may be approved by the DEQ.

ED_002469_00000118-00046

APPENDIX B – EQUIPMENT DECONTAMINATION PROCEDURES

ED_002469_00000118-00047

B1 STRUCTURES AND EQUIPMENT DECONTAMINATION PROCEDURES

Purpose: To ensure that structures and equipment are decontaminated following use in contaminated areas of the facility.
Scope: This practice outlines the methods utilized for decontamination of structures and equipment used for closure of waste management units on-site, or for other activities in contaminated areas on-site, in accordance with regulatory requirements.
User: Facility and Equipment Operators, Mechanics, Material Handlers

B1.1 Documentation/Forms:

- Decontamination will be documented on the 'Structures and Equipment Decontamination Report'
- Decontamination Report Form (See Attachment 1) for all structures and equipment, as performed.
- Reports will be filed in the Records Department.

B1.2 Additional Protective Equipment: See PPE Chart

B1.3 Specialized Structures, Equipment, Tools, Supplies:

- Template (10 x 10 cm^2)
- PCB Wipe Test Kit: gauze pad (Q-tip) or glass wool saturated with hexane in a vial

B1.4 Procedures:

Described in Part B Permit; Attachment 8; Appendix B

- Place decontamination cleaning equipment adjacent to where operations are to take place.
- Manually scrape visible evidence of contaminated solid material off concrete, structures, and equipment where necessary.
- Using brooms and/or brushes clean structures and equipment until no visible contamination material is present. If unable to remove use high pressure wash in accordance with Part B Permit.
- Request visual inspection of the structures and equipment by either the Technical Manager, Operations Manager or Environmental Manager. (Part B Permit requirement)

B1.5 PCB

A PCB log will be maintained in structures and equipment engaged in construction work in PCB areas. Each operator will note whether PCB materials contacted the structures and equipment during his/her shift. Structures and equipment which contacted PCBs since the last decon must be decontaminated before exiting the landfill in accordance with the following section. If the PCB Log is absent or incomplete, the piece of equipment is presumed contaminated and must be tested or deconned.

- These procedures are required for any structures or equipment that has come into direct contact with PCBs that must leave a PCB landfill or PCB storage area, and drive on or through areas that are not approved for PCB activities.
- After completing the decontamination procedures listed above; obtain the template and outline a wipe area.

ED_002469_00000118-00048

B1.5.1 Wipe Test Procedures

- A minimum of three samples must be collected from each facility and vehicle. For the structures, one from the ceiling, walls and floor. For the equipment, one sample from each track, and one from the blade or front of the vehicle.
- Open the vial and swab the entire area as follows:
  - Using uniform pressure, wipe from left to right in rows from the top to the bottom.
  - Wipe again in columns from the top to the bottom from the left side to the right side.
- Label each vial; noting the name of the facility or equipment, sample location, date and time sampled, and sampler name.
- Return sample vial to the lab. Samples from a facility or piece of equipment may be composted.
- Do not permit the facility or equipment to come into direct contact with PCBs while sample is being processed.
- If the sample tests positive for PCBs, contact the Technical Manager and do not disturb the facility or move the equipment from the landfill or PCB storage area.

Note: Structures or vehicles which can be prevented from PCB contact via a soil barrier or liner may be considered as not PCB contaminated for the purpose of section 7.5.

B1.6 User Responsibilities:

- Contact an authorized manager (listed in 7.4) for visual inspection immediately following decontamination.
- Do not disturb structures or remove decontaminated equipment from the area before visual inspection and approval is obtained.
- Ensure contaminated material removed from the structures or equipment is properly disposed.
- Ensure liquids used in the decontamination procedure are properly treated and disposed in the on-site impoundments.
- PCB-contaminated structures will be washed in-situ. Vehicles will not be washed in the truck wash.

B1.7 User Performance Criteria:

- Only dedicated site equipment or contractors equipment will be used for closure of units.
- No facility components, equipment or material used in or derived from closure activities will be removed from the active site until it has been decontaminated in accordance with the requirements of this procedure.
- The portion of the structures, trucks and earth moving equipment which have come in contact with waste constituents during closure activities will be decontaminated in accordance with the Part B Permit before use outside the active units.
- All persons engaged in structures or equipment decontamination shall comply with standard site safety procedures and requirements.

B1.8 Cross Reference:

- Job Safety Analysis (JSA) *Equipment Decon. with Water.*
- Job Safety Analysis (JSA) *Equipment Decon. with Steam Cleaner.*

ED_002469_00000118-00049

B1.9 Regulatory/Permit Requirements:

- 40 CFR Part 265.114
- US EPA SW846 Test Methods
- Part B Permit, Attachment 8, Closure/Postclosure Plan, Attachment B, Equipment Decontamination Procedure.
- Part B Permit, Attachment 2, Waste Analysis Plan.
- 40 CFR Part 761.123; Definition of Standard Wipe Test; 6/19/87
- PCB Operation Plan, Section 11.2; August 1994
- Wipe Sampling and Double Wash/Rinse Cleanup as Recommended by The EPA PCB Spill Cleanup Policy; June 23, 1987

B1.10 Glossary of Terms: None

ED_002469_00000118-00050

APPENDIX C – SUPPORTING CALCULATIONS AND TIME SCHEDULES FOR CLOSURE OF WASTE IMPOUNDMENTS AND LANDFILLS

ED_002469_00000118-00051

C1 SUPPORTING CALCULATIONS AND TIME SCHEDULES FOR CLOSURE OF WASTE IMPOUNDMENTS

Table C-1 describes the capacities of existing and proposed waste impoundments and provides details for the times required for closure activities. The following assumptions are used for the final closure scenario:

- Approximately 50 percent of the pond volume is evaporated;
- A conservative annual evaporation rate of 2.3 feet (i.e., 70 percent of average pan evaporation rate, 3.3 feet) is used to estimate the time required for evaporation;
- The remaining 50 percent of the pond volume is stabilized in-place; and

An additional 180 days are required to:

- Stabilize 50 percent of the pond volume (45 days)
- Remove the stabilized waste and liners (30 days)
- Sample and remove any contaminated soil (60 days)
- Backfill the impoundment excavation to grade (30 days)
- Certify impoundment closure (15 days).

This schedule will be revised if the waste impoundments are closed in-place as landfills using the alternative closure procedures discussed in Section 1.4.5.

C2 CLOSURE OF LANDFILLS

Tables C-2 and C-3 provide the construction details and time schedules for placement of the final cover over active and proposed landfills. The following assumptions are used in preparing the estimates and are based on ideal situations (e.g., weather, equipment availability, etc.)

- Average rate for placement of final cover soil is 2,500 yd^3/day
- Average rate for seeding the vegetative cover is 2 acres/day.

Note: No time has been allowed for setting up bids, contracts, or material deliveries (expected to require a minimum of 90 days).

ED_002469_00000118-00052

TABLE C-1 – Waste Impoundment Closure Times

WASTE IMPOUNDMENT CLOSURE TIMES

Impoundment	Capacity (gallons)	Time to Evaporate 50 Percent of Capacity (days)	Time to Close Impoundment (days)	Total Time (days)
P-A	4,250,000	877	180	1,057
P-B	4,250,000	877	180	1,057

TABLE C-2 Existing Landfill Closure Times

EXISTING LANDFILL CLOSURE TIMES

Unit	Time to Place Final Wastes (Days)[1]	Area to Receive Closure Cap (ft^2)	Cover Volume (yd^3)	Placement Time (days)	Seeding (days)	Total Time To Close (days)
L-12	90	377,888	41,988	17	5	112
L-13	180	818,997	91,000	37	10	227
L-14 (Cell No.'s 1 – 3)	180	618,552	68,728	28	8	226

Notes:

[1] Includes receipt of final facility waste inventory and the filling of unused landfill capacity to final grade.

ED_002469_00000118-00054

TABLE C-3 Proposed Landfill Closure Times

PROPOSED LANDFILL CLOSURE TIMES

Unit	Time to Place Final Wastes (Days)[1]	Area to Receive Closure Cap (ft^2)	Cover Volume (ft^3)	Placement Time (days)	Seeding (days)	Total Time To Close (days)
L-14 (Closure Area 1)	90	869,562	96,618	39	10	139
L-14 (Closure Area 2)	90	1,185,840	131,760	53	14	157
L-14 (Closure Area 3)	90	1,030,563	114,507	46	12	148

Notes:

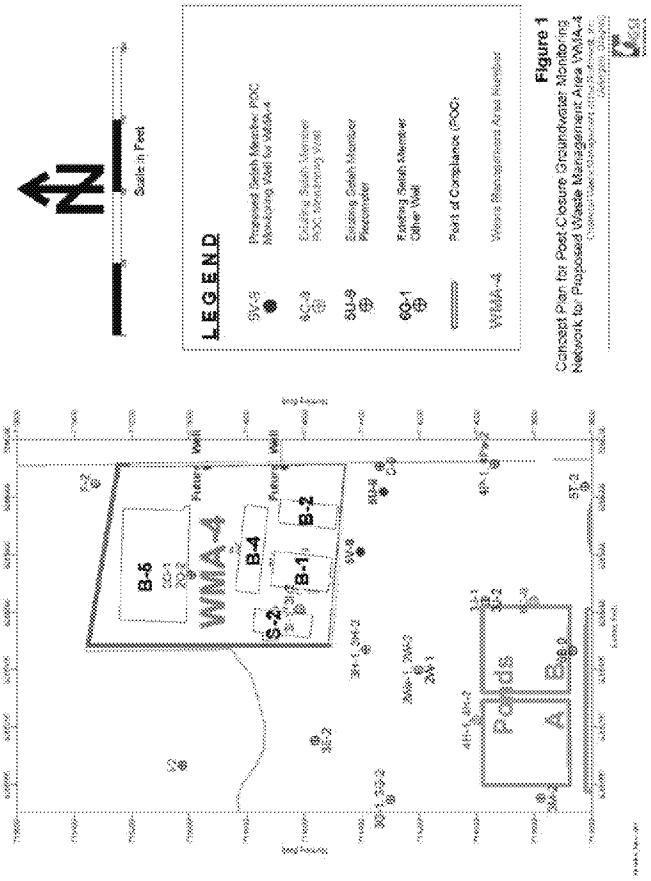
[1] Includes receipt of final facility waste inventory and the filling of unused landfill capacity to final grade.

ED_002469_00000118-00055

APPENDIX D – D1 – WASTE MANAGEMENT AREA (WMA-4)

ED_002469_00000118-00056

Figure 1


N
Scale in Feet
LEGEND
SV-5
Proposed Detsch Monitor, POC Monitoring Well for WMA-4
Existing Detsch Monitor POC Monitoring Well
SU-9
Existing Detsch Monitor Piezometer
EQ-1
Existing Detsch Monitor Other Well
Point of Compliance (POC)
WMA-4
Volume Reconstruction Area Number
Figure 1
Closure Plan for Post-Closure Groundwater Monitoring Network for Proposed Waste Management Area WMA-4
WMA-4
B-5
B-4
B-2
B-1
S-2
Wall
Wall
Pond
A
B

Appendix D – D2

ED_002469_00000118-00058

BOND NO. 5885411

RIDER

To be attached to and form a part of Bond No. 5885411

executed by CHEMICAL WASTE MANAGEMENT OF THE NORTHWEST, INC. as Principal

and by WESTERN SURETY COMPANY as Surety,

in favor of OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY,

and effective as of September 1, 2009

In consideration of the mutual agreements herein contained the Principal and the Surety hereby consent to changing the penal sum of the bond is amended as follows:

FROM: Closure: $15,757,880.00 Post Closure: $3,535,561.50 Total: $19,272,441.50

TO: Closure: $14,214,077.00 Post Closure: $3,181,884.00 Total: $17,395,961.00

Nothing herein contained shall vary, alter or extend any provision or condition of this bond except as herein expressly stated. This rider is effective on the 9th day of August, 2013.

Signed and sealed this 13th day of August, 2013.

CHEMICAL WASTE MANAGEMENT OF THE NORTHWEST, INC.
Principal

BY: Donna L. Meals
Donna L. Meals, Authorized Representative

WESTERN SURETY COMPANY
Surety

BY: Jennifer Copeland
Jennifer Copeland, Attorney-in-Fact

Accepted:

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
Obligee

BY: _____

Western Surety Company

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

Know All Men By These Presents, That WESTERN SURETY COMPANY, a South Dakota corporation, is a duly organized and existing corporation having its principal office in the City of Sioux Falls, and State of South Dakota, and that it does by virtue of the signature and seal hereon affixed hereby nominate, constitute and appoint

Lupe Tyler, Lisa Ward, Wendy W Stuckey, Michael J Harrad, Margaret Bubeltz, U Theresa Gardner, Nancy A Thomas, Roger Smiddy, Donna Williams, Jennifer Copeland, Individually

of Houston, TX, its true and lawful Attorney-in-Fact with full power and authority hereby conferred to sign, seal and execute for and on its behalf bonds, undertakings and other obligatory instruments of similar nature:

- In Unlimited Amounts -

and to bind it thereby as fully and to the same extent as if such instruments were signed by a duly authorized officer of the corporation and all the acts of said Attorney, pursuant to the authority hereby given, are hereby ratified and confirmed.

This Power of Attorney is made and executed pursuant to and by authority of the By-Law printed on the reverse hereof, duly adopted, as indicated, by the shareholders of the corporation.

In Witness Whereof, WESTERN SURETY COMPANY has caused these presents to be signed by its Vice President and its corporate seal to be hereto affixed on this 24th day of October, 2012.

WESTERN SURETY COMPANY

Paul T. Bruflat, Vice President

State of South Dakota }
County of Minnehaha } ss

On this 24th day of October, 2012, before me personally came Paul T. Bruflat, to me known, who, being by me duly sworn, did depose and say: that he resides in the City of Sioux Falls, State of South Dakota; that he is the Vice President of WESTERN SURETY COMPANY described in and which executed the above instrument; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; that it was so affixed pursuant to authority given by the Board of Directors of said corporation and that he signed his name thereto pursuant to his authority, and acknowledges same to be the act and deed of said corporation.

My commission expires

June 23, 2015

J. Nelson
Notary Public

CERTIFICATE

I, L. Nelson, Assistant Secretary of WESTERN SURETY COMPANY do hereby certify that the Power of Attorney hereinabove set forth is still in force, and further certify that the By-Law of the corporation printed on the reverse hereof is still in force. In testimony whereof I have hereunto subscribed my name and affixed the seal of the said corporation this 13th day of August 2013.

WESTERN SURETY COMPANY

L. Nelson, Assistant Secretary

ED_002469_00000118-00060

Standby Trust Agreement dated May 17, 2004
Chemical Waste Management of the Northwest, Inc. as Grantor

SCHEDULE A
(Revised 8/8/13)

Permit ORD 089 452 353

Chemical Waste Management of the Northwest, Inc.
17629 Cedar Springs Lane
Arlington, OR 97812-9709

Closure: $14,214,077.00
Post-Closure: $ 3,181,884.00

ED_002469_00000118-00061

State of Oregon
Department of Environmental Quality

Organic Recovery Unit #2
Design and Operations Plan

For

Chemical Waste Management of the Northwest, Inc.

Arlington Facility • ORD 089 452 353
17629 Cedar Springs Lane
Arlington, Oregon

Standalone Document No. 22

This document is issued by the
Oregon Department of Environmental Quality

ED_002469_00000119-00001

TABLE OF CONTENTS

1 Organic Recovery Unit #2 1-1
1.1 Introduction 1-1
1.2 Purpose 1-1
1.2.1 Organic Recovery Unit ORU-2 1-1
1.3 ORU-2 System 1-1
1.4 Wastes Approved for Recycling 1-1
1.5 Waste Segregation 1-2

2 ORU-2 System Overview 2-3
2.1 Anaerobic Thermal Desorption Unit 2-3
2.2 ATDU Operating Conditions 2-3
2.3 ATDU Shutdown Strategy 2-3
2.3.1 Emergency Shutdown 2-3
2.3.2 Normal Plant Shutdown 2-4
2.3.3 Shutdown due to Malfunction 2-4
2.4 Feed Systems 2-4
2.5 Treated Ash Systems 2-5
2.6 Vapor Recovery System 2-5
2.7 Petroleum Fractions 2-5
2.8 Non-Petroleum Fractions 2-5
2.8.1 Settled Solids 2-5
2.8.2 Process Water System 2-5
2.9 Air Emission Controls 2-6

3 ORU-2 System Tanks 3-7
Table 22-3: ORU-2 Tank Listing 3-7

4 System Secondary Containment 4-8
Table 22-4: ORU-2 System Containment 4-8

5 ORU-2 Operations 5-9
5.1 Organic Recovery Unit Contaminated Waste Handling 5-9
5.2 Subpart CC Waste Handling 5-9
5.3 Subpart FF Waste Handling 5-9
5.4 Waste Preparation for Organic Recovery 5-9

ED_002469_00000119-00002

5.5 Organic Recovery Unit Treatment Capacity ORU-2 5-9

6 ORU-2 Regulatory Standards 6-10

6.1 Organic Recovery Unit - 40 CFR Part 264 Subparts J/X Compliance 6-10
6.1.1 40 CFR Part 264, Subpart J Compliance 6-10
6.1.2 40 CFR Part 264, Subpart X Compliance 6-10
6.1.3 Routine Tank Inspections 6-10
6.2 RCRA Subparts AA, BB and CC and Benzene NESHAPS - Applicability and Compliance for Organic Recovery Systems 6-10
6.2.1 40 CFR Part 264, Subpart AA Applicability 6-10
6.2.2 40 CFR Part 264, Subpart BB Applicability and Compliance 6-11
6.2.3 40 CFR Part 264, Subpart CC Applicability 6-11
6.2.4 40 CFR Part 61, Subpart FF Applicability and Compliance 6-11

7 ORU-2 Controls and Monitoring 7-12

7.1 Control Device Monitoring 7-12
7.2 Tank Monitoring 7-12
7.3 Other Equipment Monitoring 7-13

LIST OF APPENDICES

Appendix A As-Built Design Plans for ORU
Appendix B Process Flow Diagram
Appendix C Secondary Containment Calculations
Appendix D TDU System Capacity

ED_002469_00000119-00003

1 Organic Recovery Unit #2

1.1 Introduction

This *Organic Recovery Unit #2 Design and Operations Plan* (Plan) establishes the design and operating standards for the Organic Recovery Unit (ORU) recycling processes.

1.2 Purpose

- Provide for the legitimate recycling of oil-bearing materials;
- To ensure compliance with all applicable aspects of Organic waste treatment under 40 CFR §264 subparts AA, BB, and CC air emissions standards and;
- To ensure land disposal standards are achieved for all treated wastes per 40 CFR §268.40.

1.2.1 Organic Recovery Unit ORU-2

CWMNW operates two Organic Recovery Units (ORU), designated ORU-1 and ORU-2. Both ORU systems are located adjacent to Containment Building B-5. ORU-1 received approval to operate in 2010 and has been operating since that time. ORU-1 is covered under *Standalone #19 – Bioremediation and Organic Recovery Unit Design and Operations Plan.*

ORU-2 was constructed and commissioned in 2017. The ORU-2 treatment unit manages listed and/or excluded hazardous wastes excluded under 40 CFR 261.6(3)(iv)(C), using an indirect fired thermal process to reduce listed hazardous wastes to the levels specified in 40 CFR Part 268. Secondary treatment methods may be required to reduce the recycling residues to the levels specified in 40 CFR Part 268 prior to land disposal. Materials accepted for recycling through the ORU-2 system are staged inside Building B-5 and in approved containers in permitted storage areas. Solids awaiting LDR clearance or further treatment are temporarily stored in piles inside Building B-4 or B-5.

1.3 ORU-2 System

ORU-2 material handling conveyers receive material from two feed hoppers and convey the media to be treated to the ORU unit. System feed conveyors are fully enclosed and vented to the thermal oxidizer. The ORU-2 system consists of a double pass rotary furnace that indirectly heats the media traveling through the inside of the rotary tube, and the residual media discharges at the feed end of the unit. System components subject to freezing are heat traced and insulated to prevent freezing. As-built design plans for the ORU-2 are contained in Appendix A.

1.4 Wastes Approved for Recycling

ORU-2 physically recycles media with organic content. The following table illustrates the general waste families and possible associated RCRA Codes being treated by the system, excluded under 40 CFR 261.6(3)(iv)(C).

ED_002469_00000119-00004

Table 19-1: ORU Approved Waste Codes

APPROVED EPA CODES
D001, D018, F037, F038, , K048, K049, K050, K051, K052, K143, K169, K170, K171, K172

The ORU system is made up of several subsystems that include the feed systems, an indirect fired Anaerobic Thermal Desorption Unit (ATDU), ash handling systems, vapor condensing system, process water handling and treatment systems, and air emissions control systems. A process flow diagram for the various systems is contained in Appendix B.

1.5 Waste Segregation

The treatment of the wastes with codes in Table 19-1 through the ORU system may require the isolation of process residuals dependent on the EPA codes associated with the waste being recycled. These incompatible wastes will be managed separately following a system change over. The system changeover process shall include the following tasks, all wastes in the feed system will be processed through the ATDU, all process water will be evacuated from the system and treated through the process water treatment system, and all sludges accumulated in the sludge removal system will be removed and stored in accordance with the WAP. Evacuated residual sludges and process waters will be treated and/or managed in accordance with the WAP.

ED_002469_00000119-00005

2 ORU-2 System Overview

2.1 Anaerobic Thermal Desorption Unit

The system is designed to separate the organic constituents from contaminated media in such a manner that they are preserved for collection and recycling or return to the refining process. The Anaerobic Thermal Desorption Unit (ATDU) includes a rotating cylinder that is slightly inclined downward from the product feed end. This rotating cylinder is enclosed within an outer shell, within which heat is applied to the outside of the rotating cylinder. Either Landfill Gas or Propane will be used to fire the ATDU. Wastes inside the ATDU do not directly contact the heat source, and an inert atmosphere is maintained in the cylinder to prevent oxidation of the organic constituents. The indirectly heated cylinder vaporizes water and organics contained in the waste. The primary heat transfer mechanism is conduction through the cylinder wall.

2.2 ATDU Operating Conditions

The ATDU rotating cylinder operates under an inert anaerobic atmosphere, thereby preventing any oxidation or destruction of the hydrocarbon or chemical constituents. The inert anaerobic atmosphere is maintained during start-up and shutdown by purging the ATDU with steam to displace the oxygen. During normal operations, the water content of the feedstock is typically sufficient to generate enough water vapor to maintain the inert atmosphere inside the desorber and additional steam is therefore not required. The seals at the inlet and discharge ends of the rotary drum combined with the double tipping valve airlocks at either end maintain a non-oxidizing atmosphere in which the waste can be safely vaporized.

An oxygen sensor connected to the SCADA control system is installed in the discharge end of the ATDU continuously monitors the oxygen concentration within the rotary drum which during normal operations is typically below 1 percent. The SCADA control system the oxygen sensor measures the oxygen concentration inside the drum, in the event the oxygen level increases above 1 percent, steam can be added to reduce the oxygen concentration down to normal levels. In the event the oxygen level rises above 5 percent this would constitute a malfunction condition, the SCADA system will automatically shut down the burners and stop feed into the ATDU.

2.3 ATDU Shutdown Strategy

The system is shutdown employing three scenarios; these are Normal. Malfunction, and Emergency scenarios. The following is a discussion for each scenario;

2.3.1 Emergency Shutdown

Emergency shutdowns are required for

- Feed to the ATDU system is shutdown, feed conveyor system are shutdown
- Burners shutdown
- ATDU shutdown.
- Thermal Oxidizer bypass valve set to open
- Thermal Oxidizer is shutdown

Hardwired interlocks will initiate an emergency shutdown upon loss of primary electrical power, high oxygen concentration inside the ATDU or a runaway stack temperature in the ATDU

ED_002469_00000119-00006

furnace or Thermal Oxidizer Unit. Redundant gas safety valves installed on each burner spring fail closed if there is any loss in the numerous permissive conditions or interlocks that allow their opening. Feed to the plant is stopped automatically. In certain cases, the thermal oxidizer will remain running but should the emergency condition involve the thermal oxidizer, the system will divert process vapors away from the thermal oxidizer until the upset condition can be remedied. An uninterruptible power supply (UPS) supports the control system to allow the operator to monitor the system shutdown in the event of complete power loss.

2.3.2 Normal Plant Shutdown

The normal shutdown procedure involves shutting down equipment from the feed end of the unit down through the discharge equipment, allowing adequate time for each conveyor or piece of equipment to fully discharge before proceeding to the next item. The rotary drum will be allowed to cool before drum rotation is stopped. During this cooldown period steam is added to ensure the anaerobic atmosphere inside the ATDU is maintained. After the unit has cooled the vapor recovery and ancillary support systems are shut down. Finally, the thermal oxidizer system is shutdown

2.3.3 Shutdown due to Malfunction

The ATDU system is programmed with both software and hardwired process interlocks to ensure components shut down automatically upon the failure or malfunction of any critical piece of process equipment. Failure of the system to maintain proper combustion in the furnace, process conditions in the ATDU or thermal oxidizer, or a failure of the material handling equipment downstream of the ATDU will cause the system to automatically switch off the combustion system, stop the feed of material into the unit. Should the malfunction involve the thermal oxidizer, the system, will divert process vapors away from the thermal oxidizer until the upset condition can be remedied.

2.4 Feed Systems

A below grade mixing hopper south of contaminant Building B5 receives untreated medias, moisture conditions them if necessary and feeds the waste through a series of conveyors to the ATDU for thermal separation. If desired this mixing hopper feed system can also pile the moisture conditioned media inside Building B-5 allowing for storage of the media inside the building. A second feed hopper inside the building is loaded by mechanical methods, the hopper feeds a debris screen which removes materials meeting the definition of debris contained in 40 CFR 268.45 from the waste. Oversize media separated by the screening system is classified as debris and is stored on the floor in containment Building B-5 for delivery to other treatment methods in accordance with Standalone #11 - *Debris Treatment Plan*. The undersize media is then fed through a series of conveyors to the ATDU for thermal separation. An arrangement of airlocks ensure that oxygen is not able to enter the unit during the process operation. The ORU Feed Systems are designed to maintain compliance with 40 CFR 61, Subpart FF (Benzene Waste Operations NESHAP, or BWON) control and treatment standards to manage BWON subject materials when required.

2.5 Treated Ash Systems

The ORU vaporizes organic contaminants contained in media and produces a residual ash that is cooled through jacketed cooling conveyors. A series of transfer conveyors route the processed solids to several separate discharge points in Building B-4, each discharge point will be used to create piles inside the containment building approximately 250 tons in size. Ash may also be stored in containment Building B-5 or in approved containers prior to disposal or further treatment. The ash from the recycling process can be landfilled once the waste meets LDR limits in 40 CFR 268.7. Ash that does not meet the constituent specific LDRs is further treated and cleared before disposal. Confirmation testing is completed in accordance with Standalone #1-*Waste Analysis Plan.*

2.6 Vapor Recovery System

The organic vapors and water are gasified inside the rotating cylinder, and conveyed to a condensing system. The condensing system uses process water to quench the organic vapors. Once quenched the resulting quench water is separated into an organic fraction and a water fraction. The organic fraction separated from the treated wastes can be generally classified in two categories;

2.7 Petroleum Fractions

The condensed and separated organic fraction for wastes with recoverable petroleum fraction is not regulated according to 40 CFR 261.6(a)(3)(iv)(C) or 40 CFR 261.4(a)(12), and is transferred to one of three product storage tanks in the tank farm area. Organic fraction product for these wastes is recycled as a commodity or reintroduced into the refining process depending on original classification.

2.8 Non-Petroleum Fractions

Non-recoverable petroleum fractions (i.e. water soluble) are subject to the disposal requirements contained in 40 CFR 268 and are managed in accordance with *Standalone #1 – Waste Analysis Plan.* The condensed organic fraction is transferred as process water to the water treatment system in the tank farm area.

2.8.1 Settled Solids

Settled solids which accumulate in the vapor recovery sump are conveyed out of the sump into a closed hopper. These accumulated solids may be reintroduced back into the ORU feed system for treatment using pumps or mechanical means. In some cases, a centrifuge may be used to dewater these solids for shipment offsite for additional treatment. Liquids separated in the centrifuging process are introduced back into the process water for reuse and/or final treatment.

2.8.2 Process Water System

Reclaimed commodities are separated from the process water fraction in the oil water separator. Process water is recycled back into the system, and any residual water condensed out of the incoming waste is stored in the process water tank. Residual process water is transferred to surge tanks in the tank farm area. Process water is treated through an onsite water treatment system in the tank farm area with sand and carbon filtration. Chemical treatment prior to filtration may be required for some waste streams. Treated process water meeting LDR

ED_002469_00000119-00008

requirements may be reused for moisture conditioning of the ash and/or wastes in the solidification and stabilization process, or sent to the facilities solar evaporation ponds.

2.9 Air Emission Controls

Any residual non-condensable organic vapors are passed through a thermal oxidizer for complete destruction. The thermal oxidizer operation and performance is regulated by the facilities ACDP permit.

ED_002469_00000119-00009

3 ORU-2 System Tanks

The following twenty-one (21) tanks are used in the ORU treatment system. Tank numbers listed below coincide with tank numbers provided on the flow diagram in Appendix B. All hazardous waste storage tanks associated with the ORU treatment system are managed in accordance with Standalone #8 – *Bulk Storage Plan*.

Table 22-3: ORU-2 Tank Listing

TANK #	DESCRIPTION	TYPE	CAPACITY (Gal)
RCRA Tanks			
F-1301	Interceptor	Above ground, horizontal, flat bottom, CS	3,000
F-1401	Oil Water Separator	Above ground, horizontal, cone bottom, CS	13,200
F-1402	Process Water Tank	Above ground, vertical, cone bottom, CS	20,000
F-1403	Process Water Mix Tank 1	Above ground, vertical, cone bottom, CS	20,000
F-1404	Process Water Mix Tank 2	Above ground, vertical, cone bottom, CS	20,000
F-1405	Treated Process Water Tank 1	Above ground, vertical, cone bottom, CS	20,000
F-1406	Treated Process Water Tank 2	Above ground, vertical, cone bottom, CS	20,000
F-1407	Treated Process Water Tank 3	Above ground, vertical, cone bottom, CS	20,000
F-1408	Treated Process Water Tank 4	Above ground, vertical, cone bottom, CS	20,000
F-1409	Treated Process Water Tank 5	Above ground, vertical, cone bottom, CS	20,000
F-1410	Treated Process Water Tank 6	Above ground, vertical, cone bottom, CS	20,000
F-1411	Treated Process Water Tank 7	Above ground, vertical, cone bottom, CS	20,000
F-1412	Treated Process Water Tank 8	Above ground, vertical, cone bottom, CS	20,000
F-1413	Treated Process Water Tank 9	Above ground, vertical, cone bottom, CS	20,000
F-1414	Treated Process Water Tank 10	Above ground, vertical, cone bottom, CS	20,000
F-1415	Treated Process Water Tank 11	Above ground, vertical, cone bottom, CS	20,000
F-1416	Treated Process Water Tank 12	Above ground, vertical, cone bottom, CS	20,000
ME-1101	Mix Hopper A	Above Ground Mix/Feed Hopper, CS	7,473
ME-1102	Feed Hopper B	Above Ground Feed Hopper	1,742
V-1401A	Sand Filter A	Above Ground Sand Filter A	100
V-1401B	Sand Filter B	Above Ground Sand Filter B	100
V-1402	Carbon Filter	Stainless Steel	3,950
Non-RCRA Tanks			
F-1417	Product Tank 1	Above ground, vertical, cone bottom, CS	20,000
F-1418	Product Tank 2	Above ground, vertical, cone bottom, CS	20,000
F-1419	Product Tank 3	Above ground, vertical, cone bottom, CS	20,000

ED_002469_00000119-00010

4 System Secondary Containment

The ORU-2 System containment is made up of 5 separate containment systems as listed below:

Table 22-4: ORU-2 System Containment

Site Plan Identifier	Area Description	Construction	Required Containment	Actual Containment
C	ORU System Equipment	Reinforced Concrete	3,739.3 ft^3	4,101.3 ft^3
B3	Product Tank Storage	Reinforced Concrete	2,948.6 ft^3	3,152.5 ft^3
B2	Process Water Treatment Area	Reinforced Concrete	2,932.1 ft^3	3,502.5 ft^3
B1	Treated Water Storage	Reinforced Concrete	3,433.3 ft^3	6,265.2 ft^3
D	Mixing Hopper Vault	Reinforced Concrete	1,018.4 ft^3	9,781.3 ft^3
A	Truck Offload Area	Reinforced Concrete	120 ft^3	159.8 ft^3

All ORU-2 containment areas are designed to meet the requirements contained in 40 CFR §264.193. 40 CFR §264.193(e)(2) requires that the secondary containment areas be large enough to contain the capacity of the largest tank plus precipitation from a 25-year, 24-hour storm, (refer to Appendix C for containment calculations). All joints in containment slabs are constructed with chemical-resistant water stops meeting the requirements of 40 CFR §264.193(e)(2)(iii)). The slab is coated with a chemically compatible impermeable coating meeting the requirements of 40 CFR §264.193(e)(2)(iv)). Stormwater collected from the sumps in these containment areas will be pumped to the process water system and ultimately treated through the process water treatment system. The P.E. certification of the containment structures and tanks required by 40 CFR 264.192(b) will be maintained at the facility in the operating record.

5 ORU-2 Operations

5.1 Organic Recovery Unit Contaminated Waste Handling

Following arrival and acceptance of the waste, the wastes are either stored in approved storage areas or fed directly into the treatment system through two feed hoppers in the system.

5.2 Subpart CC Waste Handling

Wastes subject to Subpart CC Level 1 controls will be stored or accepted in roll-off boxes and dump type vehicles may be placed on the slab floor in Containment Building B-5. Wastes subject to Subpart CC Level 2 controls will remain in the Level 2 shipping containers in accordance with Standalone # 9 - *Container Storage Design and Operations Plan* until they are transferred to the ORU-2 outside mixing feed hopper and amended with drying agents as necessary. Wastes with higher moisture contents may also be mixed with dryer materials in the mixing feed hopper or inside Building B-5 to attain appropriated moisture content.

5.3 Subpart FF Waste Handling

CWMNW tracks the facility's Total Annual Benzene (TAB) and it has historically been less than 1 Mg; therefore, CWMNW is not subject to controls in Subpart FF. However, in the event that generators require their specific wastes to be managed under controls, wastes subject to 40 CFR 61, Subpart FF may be handled in controlled containers such as roll off boxes until the material is transferred into the ORU-2 mixing feed hopper. These wastes will be maintained in containers that meet BWON control requirements, and shall be inspected and monitored in order to comply with all related standards. The vapors throughout the ORU feed system are routed through closed-vent systems to control devices, and all the equipment and piping lines are subject to BWON inspection and monitoring requirements.

5.4 Waste Preparation for Organic Recovery

In general, waste preparation improves the ability of the ORU-2 to treat the contaminated waste. This preparation includes specific operations for screen sizing and size reduction that are also dependent on the uniformity, moisture, and liquid content of the incoming contaminated waste.

Screening (vibrating or non-vibrating) is a primary operation, and wastes are screened or strained to remove debris. Blending low and high concentration waste or high and low boiling point wastes optimizes the operation and reduces problems in liquids recovery.

5.5 Organic Recovery Unit Treatment Capacity ORU-2

The indirect-fired ATDU has an ultimate design capacity of 30 million British thermal units (30 MMBtu), and a theoretical heat transfer efficiency of 60-percent. The temperature capacity of the system is 1,200°F. The actual operating temperatures vary depending upon the boiling points of the organic constituents being extracted such that optimal fuel consumption is maintained.

The theoretical treatment capacity of the system (tons/hour) depends primarily upon the moisture content of the waste and the thermal capacity of the ATDU. Appendix D provides the estimated treatment capacity of the system running at 900° F, based upon the moisture content of incoming waste, and using a thermal transfer efficiency of 60-percent.

ED_002469_00000119-00012

6 ORU-2 Regulatory Standards

6.1 Organic Recovery Unit - 40 CFR Part 264 Subparts J/X Compliance

6.1.1 40 CFR Part 264, Subpart J Compliance

The ORU contains process water tanks that store and/or treat hazardous waste and are subject to 40 CFR Part 264, Subpart J. These tanks are managed in compliance with Standalone #8 - *Bulk Storage Plan*, which contains requirements for inspection and operation of these tanks. The hazardous waste storage tank systems in both of the ORU systems have been adequately designed, have sufficient structural integrity, and are acceptable for storing hazardous waste. Required engineer's certifications are contained in Standalone #8 - *Bulk Storage Plan*. Further, the tanks are provided with sufficient secondary containment meeting the requirements of 40 CFR 264.193. Containment calculations for the system are shown in Appendix C. All tanks associated with the ORU are included in Standalone #8 - *Bulk Storage Plan*, which includes all permitted RCRA tanks at the facility.

In the event of any leak or spill from a tank system or secondary containment system, the facility shall comply with response requirements per 40 CFR 264.196. Closure and post-closure care of the hazardous waste tank systems are discussed in Standalone #5 – *Closure/Post-Closure Plan*.

6.1.2 40 CFR Part 264, Subpart X Compliance

The ORU-2 treatment system contains a thermal desorption unit (TDU), shaker screen and two feed hoppers that while performing recycling of oil bearing wastes is not subject to 40 CFR Part 264, Subpart X.

6.1.3 Routine Tank Inspections

The elements and frequency of routine inspections of ORU-2 systems hazardous waste tanks, piping and containment are included in Standalone #3 - *Inspection Plan*. The tanks and piping shall be inspected for visible leaks and general condition. The overfill alarm systems shall be tested to insure they are in working order. The containment area and sumps shall be inspected for evidence of any liquid collection and evidence of any leakage from the associated pipes, pumps, tanks and equipment contained within the area. An inspection form for both the ORU systems tanks, piping and containment is contained in Standalone #3 - *Inspection Plan*.

6.2 RCRA Subparts AA, BB and CC and Benzene NESHAPS - Applicability and Compliance for Organic Recovery Systems

6.2.1 40 CFR Part 264, Subpart AA Applicability

40 CFR Part 264, Subpart AA defines the air emission standards for process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations. ORU-2 does not contain any distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam streaming operation; and thus, 40 CFR Part 264, Subpart AA does not apply to either ORU Treatment system and subsystems.

ED_002469_00000119-00013

6.2.2 40 CFR Part 264, Subpart BB Applicability and Compliance

ORU-2 systems are not subject to the requirements of 40 CFR Part 270 while performing recycling operations;

6.2.3 40 CFR Part 264, Subpart CC Applicability

The requirements of 40 CFR Part 264, Subpart CC are not applicable to the operation of ORU-2 while performing recycling operations. As discussed in Section 3.6.1, the ORU does contain hazardous waste storage tanks subject to 40 CFR Part 264, Subpart J; however, per 40 CFR 264.1080(b)(7), the requirements of 40 CFR Part 264, Subpart CC do not apply to a hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulation codified under 40 CFR Part 60, Part 61, or Part 63. All hazardous waste storage tanks in the ORU are equipped with and operate with air emission controls in accordance with 40 CFR Part 61, Subpart FF; and thus, the hazardous waste storage tanks in the ORU are not subject to 40 CFR Part 264, Subpart CC.

6.2.4 40 CFR Part 61, Subpart FF Applicability and Compliance

ORU-2 at certain times is subject to 40 CFR Part 61, Subpart FF (BWON), since it is part of a larger facility that intermittently treats, stores, and disposes of BWON wastes from chemical plants and petroleum refineries. CWMNW tracks the facility's Total Annual Benzene (TAB), and has historically been less than 1 Mg. Therefore, CWMNW facility is not subject to controls in Subpart FF unless wastes treated from refineries are subject to Subpart FF requirements. In cases where wastes are subject to Subpart FF requirements these wastes will be managed under controls, in accordance with 40 CFR 61, Subpart FF. These wastes shall be maintained in containers that meet BWON control requirements, and shall be inspected and monitored as to comply with all related standards. The vapors throughout the ORU-2 feed system are routed through closed-vent systems to control devices, and all the equipment and piping lines are subject to BWON inspection and monitoring requirements.

7 ORU-2 Controls and Monitoring

The entire ORU-2 unit is centrally-monitored and controlled using a SCADA control package. The computer-based process controls provide graphic screens for effective plant control, monitoring, and data storage. The ORU-2 SCADA control system allow real-time access to all key plant parameters, and records the required operating parameters for compliance with the Part B permit and the ACDP permit. The demonstrated compliance SCADA system records the following parameters:

- Monitoring point CP1 - TDU Flue gas temperature - Deg F
- Monitoring point CP2 - TDU Syngas temperature - Deg F
- Monitoring point CP3 – TDU Infeed rate - TPH
- Monitoring point CP4 - Thermal oxidizer chamber temperature - Deg F
- Monitoring Point CP5 - Thermal oxidizer feed valve position – Open/Closed

The SCADA process controls enable the operator to improve system capacity, optimize fuel consumption, and protect the system against accidental malfunctions. The computerized system includes automatic fail safes for controlled shutdown of the system during upsets.

The process instrumentation and electrical switch gear is housed in a motor control center. The SCADA control system and operators control station is located in the control room south of the thermal processing system. Plant operators are trained in the operational and maintenance aspects of the system and these requirements are contained in Standalone #2 - *Security Procedures, Hazard Prevention, and Training Plan.*

7.1 Control Device Monitoring

The emissions control devices throughout the ORU system require monitoring of several different parameters, and the requirements for these are established in the facilities ACDP permit. The facility shall manage leaks identified by regular inspections using the following methods: Audible, Visual, and Olfactory (AVO), Monitoring shall be conducted quarterly consistent with industry best management practices, and to satisfy the BWON quarterly visual inspection requirements.

7.2 Tank Monitoring

As indicated in Section 3.6.3, all hazardous waste storage tanks in the ORU-2 system are equipped with and operate with air emission controls in accordance with 40 CFR Part 61, Subpart FF; and thus, the hazardous waste storage tanks in the ORU-2 system are not subject to 40 CFR Part 264, Subpart CC. The facility shall comply with all applicable requirements under 40 CFR Part 61, Subpart FF. All hazardous waste tanks are equipped with a fixed roof cover and shall be visually inspected by the owner and operator quarterly, and monitored via Method 21 annually.

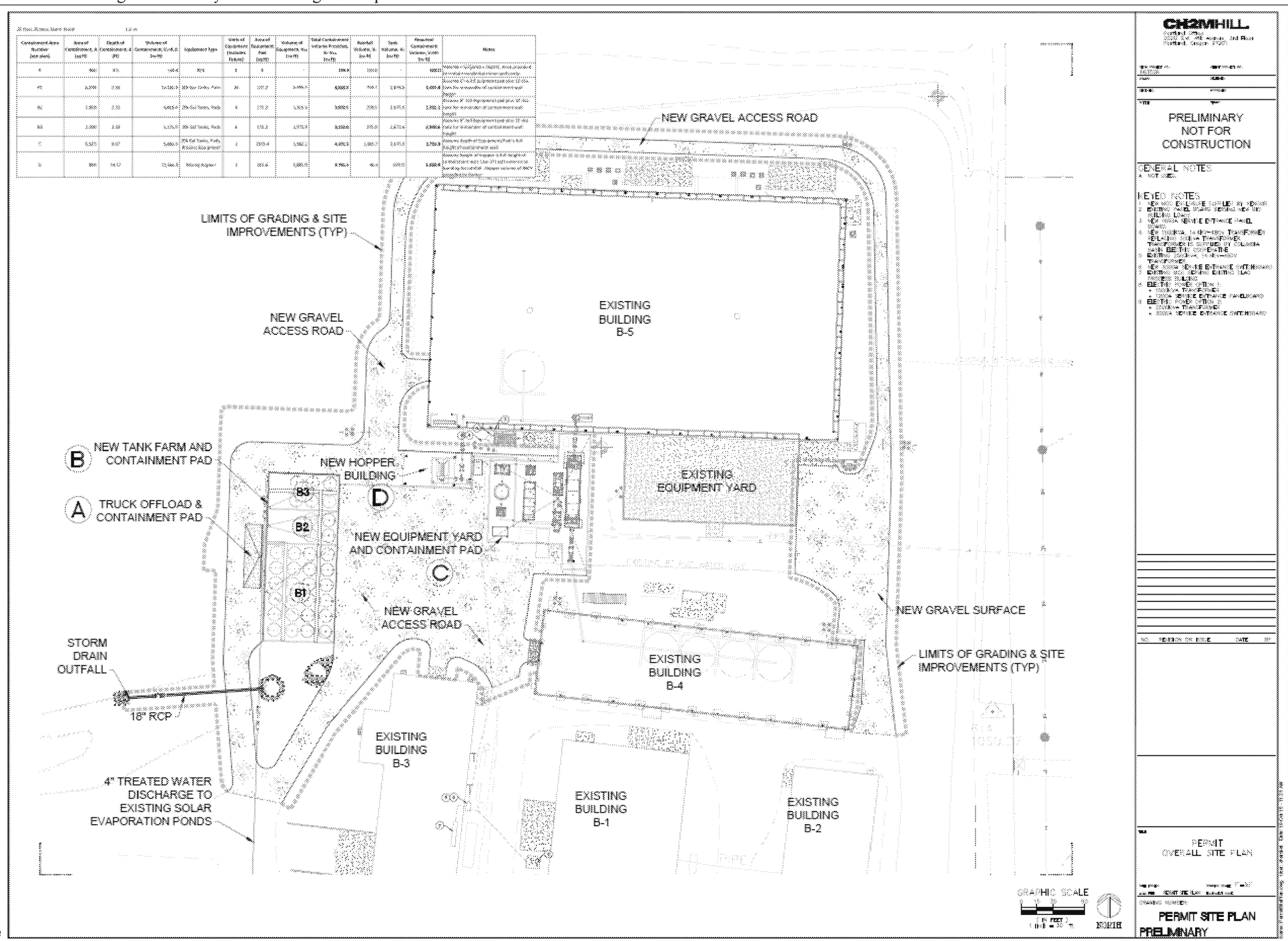
7.3 Other Equipment Monitoring

While the ORU-2 is not subject to Subpart BB requirements while performing recycling of oil bearing wastes, All ORU-2 pumps, valves, and pressure relief devices shall be observed for potential leaks using the following methods: Audible, Visual, and Olfactory (AVO), Monitoring shall be conducted quarterly consistent with industry best management practices, and to satisfy the BWON quarterly visual inspection requirements. When a leak is discovered, 40 CFR Part 60, Method 21 shall be used to measure the severity.

ED_002469_00000119-00016

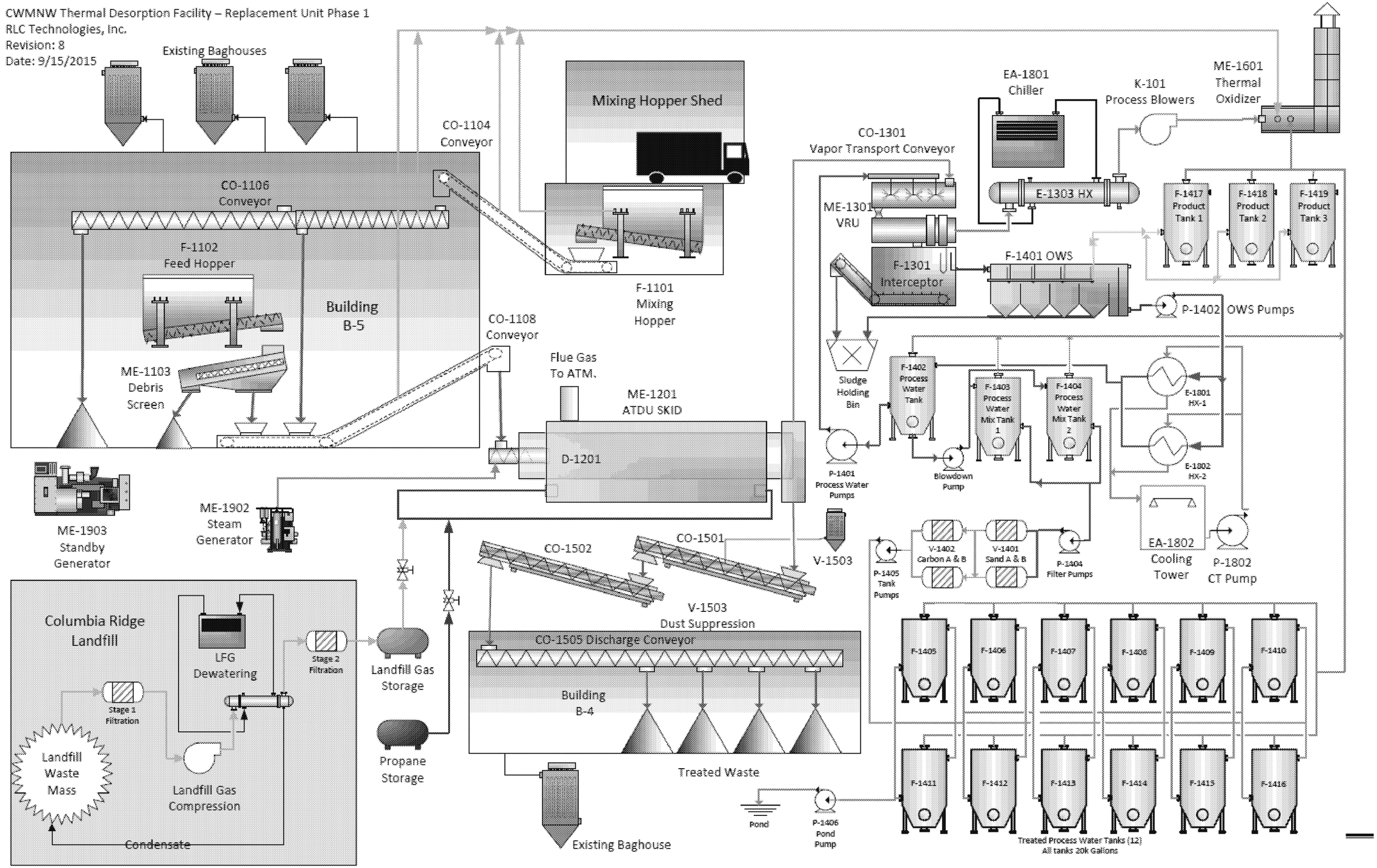
APPENDIX A
AS-BUILT DESIGN PLANS FOR ORU-2

ED_002469_00000119-00017


NEW GRAVEL ACCESS ROAD
LIMITS OF GRADING & SITE IMPROVEMENTS (TYP)
NEW GRAVEL ACCESS ROAD
EXISTING BUILDING B-5
B
NEW TANK FARM AND CONTAINMENT PAD
NEW HOPPER BUILDING
D
EXISTING EQUIPMENT YARD
A
TRUCK OFFLOAD & CONTAINMENT PAD
B3
B2
B1
NEW EQUIPMENT YARD AND CONTAINMENT PAD
C
NEW GRAVEL ACCESS ROAD
NEW GRAVEL SURFACE
STORM DRAIN OUTFALL
18" RCP
EXISTING BUILDING B-4
LIMITS OF GRADING & SITE IMPROVEMENTS (TYP)
EXISTING BUILDING B-3
4" TREATED WATER DISCHARGE TO EXISTING SOLAR EVAPORATION PONDS
EXISTING BUILDING B-1
EXISTING BUILDING B-2
GRAPHIC SCALE
NORTH
CH2MHILL
PRELIMINARY NOT FOR CONSTRUCTION
GENERAL NOTES
KEYED NOTES
PERMIT OVERALL SITE PLAN
PERMIT SITE PLAN
PRELIMINARY

APPENDIX B
PROCESS FLOW DIAGRAM

ED_002469_00000119-00019


CWMNW Thermal Desorption Facility – Replacement Unit Phase 1
RLC Technologies, Inc.
Revision: 8
Date: 9/15/2015
Existing Baghouses
Mixing Hopper Shed
CO-1104 Conveyor
CO-1106 Conveyor
F-1102 Feed Hopper
Building B-5
F-1101 Mixing Hopper
CO-1108 Conveyor
ME-1103 Debris Screen
Flue Gas To ATM.
ME-1201 ATDU SKID
D-1201
ME-1903 Standby Generator
ME-1902 Steam Generator
CO-1301 Vapor Transport Conveyor
EA-1801 Chiller
K-101 Process Blowers
ME-1601 Thermal Oxidizer
E-1303 HX
ME-1301 VRU
F-1301 Interceptor
F-1401 OWS
F-1417 Product Tank 1
F-1418 Product Tank 2
F-1419 Product Tank 3
P-1402 OWS Pumps
Sludge Holding Bin
F-1402 Process Water Tank
F-1403 Process Water Mix Tank 1
F-1404 Process Water Mix Tank 2
E-1801 HX-1
E-1802 HX-2
P-1401 Process Water Pumps
Blowdown Pump
V-1503
V-1402 Carbon A & B
V-1401 Sand A & B
P-1404 Filter Pumps
P-1405 Tank Pumps
EA-1802 Cooling Tower
P-1802 CT Pump
CO-1502
CO-1501
V-1503 Dust Suppression
CO-1505 Discharge Conveyor
Building B-4
Treated Waste
Existing Baghouse
Pond
P-1406 Pond Pump
Columbia Ridge Landfill
LFG Dewatering
Stage 2 Filtration
Stage 1 Filtration
Landfill Waste Mass
Landfill Gas Compression
Condensate
Landfill Gas Storage
Propane Storage
F-1405
F-1406
F-1407
F-1408
F-1409
F-1410
F-1411
F-1412
F-1413
F-1414
F-1415
F-1416
Treated Process Water Tanks (12)
All tanks 20k Gallons

APPENDIX C
SECONDARY CONTAINMENT CALCULATIONS

ED_002469_00000119-00021

25 Year, 25 Hour Storm Event *2.5 in*

Containment Area Number (see plan)	Area of Containment, A (sq ft)	Depth of Containment, d (ft)	Volume of Containment, V_c=A.d (cu ft)	Equipment Type	Units of Equipment (Includes Future)	Area of Equipment Pad (sq ft)	Volume of Equipment, V_{eq} (cu ft)	Total Containment Volume Provided, V_c-V_{eq} (cu ft)	Rainfall Volume, V_r (cu ft)	Tank Volume, V_t (cu ft)	Required Containment Volume, V_r+V_t (cu ft)	Notes
A	960	0.5	159.8	N/A	0	0	-	159.8	120.0	-	120.0	Volume = 1/3[Area x Depth]. Area provided to contain incidental minor spills only.
B1	6,078	2.33	14,180.8	20k Gal Tanks, Pads	36	172.2	7,895.5	6,265.2	759.7	2,673.6	3,433.3	Assume 6"-tall Equipment pad plus 12' dia. tank for remainder of containment wall height
B2	2,068	2.33	4,818.4	20k Gal Tanks, Pads	4	172.2	1,315.9	3,502.5	258.5	2,673.6	2,932.1	Assume 6"-tall Equipment pad plus 12' dia. tank for remainder of containment wall height
B3	2,200	2.33	5,125.9	20k Gal Tanks, Pads	4	172.2	1,973.9	3,152.0	275.0	2,673.6	2,948.6	Assume 6"-tall Equipment pad plus 12' dia. tank for remainder of containment wall height
C	8,525	0.67	5,683.5	20k Gal Tanks, Pads, Process Equipment	1	2373.4	1,582.2	4,101.3	1,065.7	2,673.6	3,739.3	Assume depth of Equipment/Pad is full height of containment wall
D	894	14.17	12,666.3	Mixing Hopper	1	203.6	2,885.0	9,781.3	46.4	972.0	1,018.4	Assume height of hopper is full height of containment wall. Use 371 sqft exterior to building for rainfall. Hopper volume of 36CY provided by Owner.

PRELIMINARY
NOT FOR CONSTRUCTION

ED_002469_00000119-00022

APPENDIX D
TDU SYSTEM CAPACITY

ED_002469_00000119-00023

RLC Technologies TDU System Capacity 30.0 MMBTU/HR

MMBTU/HR Required

	Tons per Hour																			
% Water	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
0%	0.692	1.383	2.075	2.767	3.458	4.150	4.842	5.533	6.225	6.917	7.608	8.300	8.992	9.683	10.375	11.067	11.758	12.450	13.142	13.833
5%	0.898	1.796	2.694	3.591	4.489	5.387	6.285	7.183	8.081	8.979	9.877	10.774	11.672	12.570	13.468	14.366	15.264	16.162	17.060	17.957
10%	1.104	2.208	3.312	4.416	5.520	6.624	7.729	8.833	9.937	11.041	12.145	13.249	14.353	15.457	16.561	17.665				
15%	1.310	2.621	3.931	5.241	6.551	7.862	9.172	10.482	11.792	13.103	14.413	15.723	17.034							
20%	1.516	3.033	4.549	6.066	7.582	9.099	10.615	12.132	13.648	15.165	16.681									
25%	1.723	3.445	5.168	6.891	8.613	10.336	12.059	13.781	15.504	17.227										
30%	1.929	3.858	5.787	7.716	9.644	11.573	13.502	15.431	17.360											
35%	2.135	4.270	6.405	8.540	10.675	12.811	14.946	17.081												
40%	2.341	4.683	7.024	9.365	11.706	14.048	16.389													
45%	2.547	5.095	7.642	10.190	12.737	15.285	17.832													
50%	2.754	5.507	8.261	11.015	13.769	16.522														
55%	2.960	5.920	8.880	11.840	14.800	17.759														
60%	3.166	6.332	9.498	12.664	15.831															
65%	3.372	6.745	10.117	13.489	16.862															
70%	3.579	7.157	10.736	14.314	17.893															
75%	3.785	7.569	11.354	15.139																
80%	3.991	7.982	11.973	15.964																
85%	4.197	8.394	12.591	16.788																
90%	4.403	8.807	13.210	17.613																
95%	4.610	9.219	13.829																	
100%	4.816	9.631	14.447																	

****** MMBTU/HR required estimates above use 60% Thermal Transfer Efficiency and 900Deg F operating temperatures**