Re: August 27, 1992 Response to Comments
Replacement Directions for Revised Pages
Hydrocarbon Recyclers Inc. of Wichita, d/b/a USPCI

# Attachment A

## RCRA Permit Application - Replacement Pages

| Remove | Add |
|---|---|
| **Section A** | |
| Pages 4A - 4B of 7 | Pages 4A - 4B of 7 |
| Pages 13 - 16 | Pages 13 - 16 |
| **(Find Page 13 after Figure 2.4)** | |
| P000 | Figure A.1 |
| **(Find P000 after Page 16)** | |
| P001 | Figure A.2 |
| P002 | Figure A.3 |
| P003 | Figure A.4 |
| P004 | Figure A.5 |
| P005 | Figure A.6 |
| P006 | Figure A.7 |
| P007 | Figure A.8 |
| Pages 25 - 26 | Pages 25 - 26 |
| **(Find Page 25 after Figure A.8)** | |
| Pages 1 - 2 (Addendum A) | Pages 1 - 2 (Addendum A) |
| **(Find Page 1 after color photo 53)** | |
| Pages 1 - 2 (Addendum B) | Pages 1 - 2 (Addendum B) |
| **Section B** | |
| Page 6 | Pages 6 / 6A |
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| Pages 24 - 27 | Pages 24 - 27 |
| **Section C** | |
| Page 11 | Page 11 / 11-A |
| Page 12 | Page 12 |



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# Attachment A

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| Remove | Add |
|---|---|
| **Section C, Appendix C-A** | |
| Appendix C-A | Appendix C-A |
| **(Replace pages i through 96)** | |
| Attachment C-A, Page C-A.i | Attachment C-A, Page C-A.i |
| Attachment C-A, HRIW MRR | Attachment C-A, HRIW MRR |
| Attachment C-A, LDR Notification | Attachment C-A, LDR Notification |
| Attachment C-A, CCW; Table | Attachment C-A, CCW; Table |
| Attachment C-A, CCWE; Table Tables | Attachment C-A, CCWE; Table Tables |
| Attachment C-B, WCL | Attachment C-B, WCL |
| Attachment C-C, Page C-C-2 | None |
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| Page 14 | Page 14 |
| Page 18 | Page 18 |
| Appendix E-A Attachment 2 | Appendix E-A Attachment 2 |
| Appendix E-B | |
| **(Replace drawings 50-56-V5-001, 50-56-V5-001)** | |
| **(Remove drawings 50-56-V29-001, 50-56-V30-001 50-56-V31-001, 50-56-V32-001)** | |
| None | Appencix E-C |

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|---|---|
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| Appendix F-A | Appendix F-A |
| Appendix F-C, Page 2 | Appendix F-C, Page 2 |
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# Attachment A

## RCRA Permit Application - Replacement Pages

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| **Section J** | |
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| Page i | Page i |
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| Pages 12 and 13 | Pages 12 and 13 |
| None | Page 61 |
| Appendix M-A | Appendix M-A |
| **Replace Figures M.2, M.6, and M.11 only.** | |
| None | Appendix M-C - Add emissions study summary. |

for tanks and containers make up the active portion of the facility. The facility boundary, a distance of 1000 feet around the facility boundary and the active portion of the facility are shown on Figure B.2 (Drawing 50-01-11-001). ~~The site abuts privately owned land on the south, west (Derby Refinery) and north (Union Pacific Railroad and Overnite Transportation);~~ Privately owned land abuts the facility on three sides: Union Pacific Railroad and Overnite Transportation own property to the north; Derby Refinery is located south of the facility; and land owned by Derby refinery adjoins the site to the west. New York Avenue is located to the east of the facility.

The administration and hazardous waste management areas as well as general facility layout, access control, and sewer lines are shown on Figure B.3, Facility Layout (Drawing 50-01-01-002, Facility Layout). The hazardous waste storage buildings and associated loading areas are shown on Figure B.4, Hazardous Waste Management Areas (Drawing 50-01-10-001, Hazardous Waste Management Areas). The drawings generally show access roads and internal roadways, administration and process plant buildings, and hazardous waste management locations. The storage of ignitable and reactive wastes on-site is in compliance with the

Avenue is a low volume, industrial roadway consisting of two-lane, two-way traffic; no ADT is recorded.

Truck traffic into the facility may average up to approximately twenty (20) ~~fifteen (15)~~ shipments of hazardous waste per day. Typical trucks accessing the facility will be tractor trailer rigs and straight trucks. The overall level of service on local streets and highways is not anticipated to be affected by facility traffic. Railcar traffic into the facility is expected to average up to two railcars per week.

The facility is located in an ~~light~~ industrial area of Wichita. The existing local streets and highways currently accommodate heavy vehicles carrying the maximum legal load.

**B-4b** **<u>On-site Traffic and Load-Bearing Capacity</u>:**

Enclosed tractor trailers, tanker trucks, dump trucks, dump trailers, or intermodal transport container trailers, etc., may be used to transport materials to, from, and within the facility. The roadway foundation is adequate to accommodate traffic consisting of truck and trailer combination vehicles. No bridges exist on-site.

administration building, personnel change rooms, laboratory, and etc., are also provided to support the various unit operations. Refer to Figure B.3, Facility Layout (Drawing 50-01-01-002) for general location of these buildings.

The general location of waste management areas are depicted on Figure B.4, Hazardous Waste Management Areas (Drawing 50-01-10-001); flow of wastes between units is addressed in Section N (Air Emissions). A general description of tank, container and processing systems follows. Detailed discussions of these systems is provided in Sections D (Use and Management of Containers), E (Tank Systems) and M (Other Regulated Units).

Hazardous waste storage, treatment, and processing occurs in seven storage areas at the HRIW facility. Hazardous waste is managed in tanks, containers and process units in Building D and the Processing Area; Building C, the Drum Dock, Building B, Building I and Building J are utilized for hazardous waste management in containers and process units. ~~In addition, future waste water treatment operations in tanks, containers and process units are anticipated at the facility.~~ An overview regarding these activities is presented in the following paragraphs.

**B-6b** **Container Management Systems:**

Seven (7) buildings at the facility are designated for container management. Permitted storage capacities for each building are designated in Addendum B to the Part A Permit Application (Section A). Container management areas will be operated such that the stored volume will not exceed the permitted capacity. ~~neither the capacity identified in the Part A Application nor specific unit capacities will exceed permitted volumes.~~ The volume of waste stored in any of the container storage buildings is dictated by containment volumes and operational requirements. Specifics regarding container management at the facility are discussed in Section D, Container Management.

**B-6c** **Tank Systems:**

A variety of tank systems are used at the HRIW facility. Tanks are used to store and/or treat liquids, solids, and sludge. The tank systems presently in use or planned are identified and discussed in detail in Section E, Tank Systems.

**B-6d** **Other Regulated Units:**

Additional units are utilized for hazardous waste management activities at the HRIW facility; these units are discussed in detail in Section M, Other Regulated Units.

**B-6e** **Non-regulated Units and Activities:**

In addition to hazardous wastes regulated under 40 CFR 264, other industrial wastes as well as selected household wastes are managed at the HRIW facility. These wastes include, but are not limited to, used oil destined for burning for energy recovery (regulated under 40 CFR 266 Subpart E), synthetic oil reprocessing, industrial coolants and waste waters.

Processing equipment on-site as described in the Part A application may be utilized for management of non-hazardous waste. The procedures used for decontaminating equipment between hazardous waste service and subsequent non-hazardous waste service are provided in Attachment C-A to Section C (Waste Characterization) and Section E (Tank Systems).

## B-7 Anticipated Change of Operations/Units:

Additional waste management and operations planned for the HRIW facility after permit issuance are of two types: 1) changes as a result of new regulations and permitting requirements, and 2) expansion of operations to meet the challenges of future local and regional waste management requirements. Anticipated waste management needs include:

- The addition of newly identified wastes (as they become regulated) to the Part A permit;

- Modification of the facility and permit application to accommodate evolving local, state, and federal regulations~~; and~~

- ~~Development of a waste water treatment facility is currently in the planning stages. This facility will be designed to manage waste water associated with superfund activities or production of commercial products and to assist local agencies with waste water management. Submittal of a Class~~

~~3 permit modification to implement this plan is anticipated by late 1992 or 1993.~~

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- Lab Packs;
- Nonhazardous Wastes; and
- Vitrified, Cemented, and Other Materials Exhibiting High Structural Integrity.

**C-2d <u>Frequency of Analysis:</u> 40 CFR 264.13(b)(4)**

An analysis of the wastes may be conducted at selected management stages including the following.

- Before a waste stream is accepted (pre-acceptance);
- When a waste arrives (incoming load);
- At selected management stages (in-process); and
- A minimum of every two years (recharacterization).

The decision to accept a waste for management at HRIW will be in part based on a characterization or profile of the waste. At a minimum, this characterization is accomplished through knowledge of the waste or laboratory analysis of the waste during the pre-acceptance procedure. HRIW will recharacterize incoming waste streams at least every two years to verify that the original

characterization of the waste is still accurate. Any incoming load accepted at HRIW must have been characterized (or recharacterized) within the

last twenty-four (24) months. A sample of an incoming load may be used for the recharacterization. HRIW may also repeat the pre-acceptance characterization if:

- a generator notifies HRIW that the process generating the waste has changed,
- the incoming load is outside of the acceptable tolerance ranges provided in the WAP, or
- it is suspected that a particular waste shipment differs from the pre-acceptance characterization.

Any waste characterization or recharacterization that assigns or removes a hazardous waste characteristic code for a Kansas generated waste shall be performed by a Kansas certified laboratory in accordance with KAR 28-31-4(b)(3).

**C-2e <u>Additional Requirements for Wastes Generated Off-site:</u> 40 CFR 264.13(b)(5), 264.13(c), and 264.73(a) and (b)**

Using the information available from the generator, HRIW will develop a characterization or profile of the waste stream during

**Hydrocarbon Recyclers, Inc. of Wichita d/b/a USPCI**
**RCRA Permit Application**
**Section C - Waste Characterization**
**Appendix C-A - Waste Analysis Plan**

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- Sampling methods (Section 4.0).
- Pre-acceptance procedures (Section 5.0).
- Incoming load procedures (Section 6.0).
- Storage, treatment or other waste management activities (Section 7.0).
- Quality assurance and quality control (Section 8.0).

Any modifications to this Waste Analysis Plan will be made in accordance with 40 CFR 270.42.

## 1.2 Definitions:

The terms provided below, applied within the WAP, will have the following meanings.

- Analysis: The term "analysis" means any method by which the value of, or a range of values for, a particular parameter is determined. These methods may include laboratory procedures specified in Attachment C-C. If these procedures cannot be performed, the circumstances will be documented in the operating record and the value of, or range of values for, a

particular parameter will be determined based ~~or may rely~~ on knowledge of the waste or of the process generating the waste.

- Batch: The term "batch" will refer to some quantity of waste consisting of an individual waste stream or a

mixture of waste streams which have been combined for the purpose of management at HRIW.

- Bulk Container: The term "bulk container" will mean any container as defined in 40 CFR 260.10 which has a capacity of greater than 450 gallons (e.g., an intermodal container, end-dump truck, gondola, tanker truck, etc.).

- Container: The term "container," without the qualifier "bulk," will have the same meaning as defined in 40 CFR 260.10.

- Hazardous waste: The definition of "hazardous waste" shall be as defined in 40 CFR 261.3.

- Incoming Load: The term "incoming load" refers to a waste shipment manifested to HRIW. Upon arrival, the shipment will be staged or placed in a CMU and will remain an incoming load until it is either rejected, trans-shipped to another location, or finally accepted for management at HRIW.

- Radioactive: A "radioactive" material, or "regulated radioactive material," will mean any material as defined by 10 CFR 20.3 or by KAR 28-35-135.

- Solid Waste: The definition of "solid waste" shall be as provided in 40 CFR 261.2.

- Staging: The term "staging" refers to the temporary placement of containers during movement into or out of storage or processing areas. Staging generally occurs for a few hours, and will not exceed 72 hours (three days). Typical staging areas are loading and receiving areas and areas situated adjacent to processing units. ~~prior to the actual acceptance of a waste shipment for management at the facility. Staging may occur for up to ninety (90) days provided the containers are staged in a container management unit with secondary containment.~~

- Suitable Laboratory: A "suitable laboratory" is an analytical laboratory which meets the minimum quality assurance requirements as specified in this WAP, operates under a Quality Assurance/Quality Control

Plan, and uses appropriate SW-846 methods or methods listed in Attachment C-C. Analytical results submitted from off-site laboratories must certify what standard analytical methods were used to obtain the data. If non-standard methods (e.g., methods modified and approved for use at that laboratory) were used,

documentation must be provided to support the validity of the data.

- Technical Manager: The "Technical Manager" refers to the individual, or a designee, responsible for implementation of the WAP.

- Transfer Facility: A transfer facility means any transfer related facility including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous waste are held during the normal course of transportation for a period not to exceed 10 days, between the point of generation and the shipment destination. The transfer facility does not serve as the treatment, storage, or disposal location for that manifest, and is not identified on the manifest. A 10-day transfer facility has the same meaning in this document.

- Trans-Shipment: Trans-shipment is the temporary storage of wastes at the facility for the purpose of shipping the wastes to another facility without on-site processing. Trans-shipped wastes will be subject to

the minimum incoming load procedures, and will be managed on-site in the same manner as all other wastes in storage.

- Typical Form: The "typical forms" provided in Attachment C-A are examples of forms currently in use at HRIW. These forms may be revised as needed to respond to changes in regulations and recordkeeping procedures at HRIW.

- Value of a Parameter: The "value of a parameter" will refer to the value or a range of values of a parameter as determined by analysis.

- Waste Stream: A "waste stream" will refer to wastes from a single generator with similar characteristics or originating from similar processes. Each waste stream will typically be identified for recordkeeping purposes by a unique number.

## 2.0 Analytical Parameters and Rationale: 40 CFR 264.13(b)(1) and (2)

### 2.1 Introduction:

A list of parameters has been developed for which each batch of waste will be analyzed. These parameters are referred to as "mandatory" parameters. Mandatory analyses will be performed on each incoming load of waste, except as discussed in Section 6.0. In addition to performing analysis for the mandatory parameters, the values or a range of values of other parameters may be determined at any time prior to, or during, management of the waste at HRIW to more fully define the waste characteristics. These additional parameters will be determined at the discretion of the Technical Manager. Since these parameters are discretionary, they are referred to as "supplemental" parameters.

### 2.2 Mandatory Parameters:

#### 2.2.1 Mandatory Pre-acceptance Parameters:

Prior to acceptance ~~receipt~~ at HRIW, a hazardous waste must first be screened to determine if it is acceptable for management at the

facility. This screening, described in Section 5.0, is performed during the pre-acceptance procedures. The pre-acceptance procedures are intended to provide information to allow HRIW to decide whether or not to accept a waste stream at the facility. The pre-acceptance phase generally occurs prior to wastes being shipped to the HRIW facility.

The pre-acceptance procedures require the collection of information about a waste stream; the information is used to determine if a waste stream is acceptable for management at HRIW. The information collected for this purpose includes the values or a range of values of a set of material parameters. Table C.1 contains a list of the mandatory pre-acceptance parameters.

Table C.1 provides a list of the incoming load parameters for which the values or a range of values will be determined during the incoming load procedures.

## 2.3 Supplemental Parameters:

Analyses for supplemental parameters may be performed at any step of the waste management process if the Technical Manager decides that further information on the waste is necessary. Some supplemental parameters are always required for wastes going to specific waste processing units, as defined in Section 2.4.2.

Some examples of supplemental parameters include:

- reactive cyanides screen,
- reactive sulfides screen,
- flash point,
- bulk density,
- total organic halogens,
- heating value,
- chlorides,
- percent ash,
- solvent screen,

- Heating Value is measured as an aid in waste characterization or to determine if a waste is eligible for fuels blending. The parameter "heating value" is typically measured in units of Btu/lb. Heating value must be performed during pre-acceptance procedures on all hazardous wastes intended for processing through kiln fuel blending.

- Chloride concentration may be indicative of compounds subject to land disposal restrictions. Chloride concentration may also be determined as a final product requirement for fuels blending.

- Percent Ash is used to assist in formulating waste blends.

- Solvent Screen is used to screen for the presence of and, when possible, the concentration of solvents in a waste stream. This information is necessary to make waste management decisions such as whether a waste stream qualifies for solvent recovery or whether land disposal restrictions are applicable. Solvent screen

must be performed during pre-acceptance procedures for all hazardous wastes intended for solvent reclamation.

- PCB Screen is used to screen for TSCA regulated PCB material which is not acceptable for management at

## 3.0 Analytical Procedures: 40 CFR 264.13(b)(1) and (2)

The typical analytical methods used to obtain the values of the parameters of concern are described in this section. As new analytical procedures are developed, these procedures may be adopted and the WAP updated accordingly, as provided in 40 CFR 270.42.

In some situations, analyses by the HRIW laboratory may not be necessary or appropriate. Such situations would include:

- when the laboratory analyses are performed by another suitable laboratory,
- when the analyses and/or information are provided by the generator and provide an understanding of the waste to allow proper storage and handling,
- when a representative sample cannot be obtained (e.g., contaminated debris and equipment, personal protective equipment (PPE), etc.),
- when sampling may not be appropriate (e.g., nonhazardous waste, lab packs, 10-day transfer ~~trans-shipped~~ loads), or

In these situations, alternative methods of characterizing the waste will be used. Alternative methods may include information sources such as the Technical Manager's or the generator's knowledge of the waste or of the process(es) generating the waste.

When the generator provides the results of analytical testing performed by an off-site laboratory, the report must include certification of what standard analytical method was used to obtain the results. If a non-standard method was used, documentation must be provided to support the validity of the results. All methods of record will follow approved procedures specified in this Waste Analysis Plan.

### 3.1 Analytical Methods for Mandatory Parameters:

Analytical methods for the mandatory parameters are listed in Table C.2. The methods include standard test methods from EPA and ASTM. In addition to the standard methods, unique procedures and protocols formulated for the management of hazardous waste by USPCI may be utilized. These unique methods, provided in Attachment C-C, have proven to be useful for waste characterization.

## 4.0 Sampling Methods: 40 CFR 264.13(b)(3), 40 CFR Part 261, Appendix I

This section presents methods to be utilized by HRIW to obtain a representative sample of wastes. These methods will apply to waste generated off-site (when sampled by HRIW) as well as facility-generated waste. ~~It should be noted that s~~Samples received for pre-acceptance analysis are ~~not~~ typically sampled by ~~HRIW~~ the generator or his agent at the point of origin of the manifest, although HRIW or USPCI may, on occasion, serve as the generator's agent to perform the sampling. Incoming load samples are typically taken by HRIW personnel at the HRIW facility, except when a shipment from HRI or USPCI is sampled at the point of origin (see Section 4.5.4). Discussions of the circumstances under which the sampling will be performed are presented in Sections 5.0 through 7.0. The specific sampling methods selected are dependent on both the nature of the waste and the type of container or tank that the waste is in, and will be decided upon prior to sampling.

### 4.5.5 Lab Packs:

Since lab packs contain small quantities of multiple wastes, they are not sampled. Instead, the generator or a representative of the generator will provide an inventory of the contents of the lab pack. The inventory will be reviewed for incompatibility of contained wastes and land disposal restrictions. HRIW may sample bulked-up lab pack wastes according to container sampling procedures.

### 4.5~~6~~.6 Nonhazardous Wastes:

Nonhazardous wastes will be accepted at HRIW. In order for a load of nonhazardous waste to be accepted, a nonhazardous waste form or a hazardous waste manifest must be completed by the generator. Typical examples of these forms are provided in Attachment C-A. The nonhazardous form utilized has the generator or treatment facility attest that the material is nonhazardous. These wastes will be inspected for physical appearance, at a minimum. Other information, including analytical data, will be obtained as necessary to ensure proper waste management.

### 4.5.7 Vitrified, Cemented, and Other Materials Exhibiting High Structural Integrity:

There are several wastes which do not allow representative sampling. For example, structural steel, tanks, pipe, cement, glass, filter cartridges, and several other materials will be managed which do not allow the implementation of normal sampling protocols. Of necessity, these materials must be managed on a case-by-case basis.

### 4.5.8 Regulatory Cleanups

W~~Additionally, w~~hen a regulatory agency, or their contractor, undertaking a clean-up of a site (e.g., EPA or Kansas Department of Health and Environment) has established the waste characterization information, HRIW may utilize this characterization in lieu of pre-acceptance analytical and incoming load analytical information.

the decision to approve the waste for management, to approve the waste under certain conditions (e.g., packaging, etc.), or to reject the waste for management.

If the waste is to be received from a foreign source, the Kansas Department of Health and Environment will be notified in writing at least four weeks in advance of the first scheduled shipment, in accordance with 40 CFR 264.12(a). This notification will include the generator's name, address, quantity of hazardous waste, and EPA hazardous waste code(s).

## 5.2 Recharacterization Frequency:

HRIW will recharacterize incoming waste streams at least every two (2) years. Any incoming load accepted at HRIW must have been characterized (or recharacterized) within the last twenty-four (24) months. A sample of an incoming load may be used for the recharacterization. HRIW will also repeat the pre-acceptance characterization if:

- a generator notifies HRIW that the process generating the waste has changed,

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- the incoming load is outside of the acceptable tolerance range provided in Table C.3 (unless the discrepancy can be resolved as described in Section 6.1.5, Incoming Load Evaluation), or
- the Technical Manager suspects that a waste shipment differs from the pre-acceptance characterization (the generator may be contacted prior to recharacterizing the waste).

In the event that a Kansas-generated waste changes such that the recharacterization involves assigning or removing a waste code, the related analyses will be performed at a Kansas certified laboratory.

## 6.0 Incoming Load Procedures: 40 CFR 270.14(b)(2), 40 CFR 264.13(a), (b)(4), and (c)

The purpose of these incoming load procedures is to determine if a waste shipment (incoming load) arriving at HRIW matches the characterization of waste on which the pre-acceptance evaluation was based. Wastes which correspond to the waste characterization documented during the pre-acceptance procedures may be accepted for management at HRIW. This section provides the procedures for determining if a significant difference exists between the pre-acceptance characterization and the waste shipment.

On occasion, a generator will ship a load before pre-acceptance procedures are completed. Incoming loads that have not been qualified through pre-acceptance procedures prior to arrival at HRIW will not be accepted until the pre-acceptance procedures described in Section 5.0 have been performed. In the case of loads of containers, the containers may, before or after they are unloaded from the transport vehicle, be sampled for analysis of the mandatory pre-acceptance parameters. The containers will remain staged in one or more container management unit(s) until

the pre-acceptance procedures are completed. Under these circumstances, the same analytical results may be considered both as pre-acceptance and incoming load analyses.

The procedures described in this section apply to hazardous waste generated off-site which will ultimately be managed at HRIW. Facility generated wastes are not subject to the incoming load procedures described in this Section. Wastes received at HRIW only for the purpose of transfer ~~eventual trans shipment~~ to another facility in accordance with 40 CFR 263.12 and 264.1(g)(9) are also not subject to the incoming load procedures. These 10-day transfer ~~trans shipped~~ wastes may remain at the site for a period not to exceed ten (10) days prior to continuing the journey to the designated treatment, storage, or disposal site. 10-day transfer loads remain "in transit" during the entire stay at the site. These wastes may be off-loaded and transferred to another vehicle. Because these 10-day transfer loads are never accepted into the HRIW waste management system, no analyses are performed on the loads. However, 10-day transfer wastes are tracked using the Waste Tracking System. ~~be stored at a container management unit for a period not to exceed ninety (90) days prior to shipment off site. Management decisions for these wastes will be based on information from the pre acceptance evaluation and the accompanying manifest.~~

## 6.1 Typical Incoming Load Procedures:

The events which typically occur during the incoming load procedures are described below. The events discussed are not necessarily performed in the sequence presented.

### 6.1.1 Incoming Load Arrival:

Incoming load evaluation will be performed after arrival of the waste shipment at HRIW. An incoming load will remain in the receiving area, except for containers to be managed in the container management units, until any significant discrepancies have been resolved. Shipments of containers may be sampled before they are unloaded, or they may be unloaded at the container management units for staging and sampling.

Wastes may remain on the transport vehicle or in a staging area for up to 72 hours ~~ten (10) days~~ while awaiting completion of acceptance procedures. If incoming load procedures are not completed within that time, the containers will be placed in a container management unit, segregated according to the

information available from the manifest, Waste Profile Sheet, and other documentation. In the event that subsequent information (e.g., analytical results) indicates that the material is incompatible with the other wastes stored in that CMU, the container will be moved to an appropriate CMU. The Waste Tracking System will record the location and date of acceptance for each container received at the site. ~~After acceptance, hazardous waste will be transferred into permitted storage areas within five (5) days.~~

If a significant discrepancy in waste type cannot be resolved, the affected wastes will be rejected. Causes for rejection can include, but are not limited to, variance from expected constituents and constituent concentrations and variance from expected physical characteristics. If a significant discrepancy in piece count or volume cannot be resolved, the load may be accepted or rejected. If ~~and~~ the load is accepted, HRIW will notify the Kansas Department of Health and Environment ~~will be notified~~ in accordance with 40 CFR 264.72(b), and will submit an exception report. The decision to reject a waste load is made by the Facility Manager or his designee. ~~Alternatively, the affected wastes will be rejected.~~

### 6.1.3 Inspection, Sampling and Analysis:

Analysis will be performed as outlined in this WAP on the incoming load for the parameters listed on Table C.1. The methods of sampling and sample preparation will vary depending on the physical state of the waste and the type of container in which the waste shipment arrives. Samples for incoming load

generator or sent to an alternate facility of the generator's choosing.

Incoming load evaluation is aided by the use of Figure C.1. This figure is intended to serve only as a guide in the decision-making process.

For lab packs, the Incoming Load procedures including a piece count, inspection of drum numbers and identification, and a review of the inventory list provided in the accompanying paperwork to verify that the manifest and pre-acceptance information match.

## 6.2 Waste Material Transfer and Tracking:

Waste will be assigned and tracked by a unique ~~EPA~~ Identification Number assigned by HRIW upon arrival ~~or other such numbers as may be deemed appropriate prior to and after acceptance~~ at HRIW. Waste tracking information is maintained as part of the operating record. Internal tracking and recording of waste movement includes:

- waste identification,
- arrival ~~recording by~~ date ~~received~~,
- ~~recording of~~ weight and/or quantity of wastes received, ~~and~~
- current and previous storage locations on-site; and
- recording of waste management after receipt.

The Waste Tracking System will also provide a record of manifest information, analytical data, and other relevant information.

A waste tracking report will be generated for each day that waste is moved, and as necessary will be printed and made available to site personnel and inspectors. Historical waste tracking information will be maintained on-site as part of the operating record.

## 7.0 Storage, Treatment or Other Waste Management Activities:

Management of a given waste within the facility which results in a change of its character may make the waste subject to additional inspection, sampling, and analysis. Many of the analyses needed for storage, treatment or off-site disposal are performed during either the pre-acceptance or incoming load procedures specified in Sections 5.0 and 6.0 of the WAP. Additional analyses may be conducted, before off-site management ~~disposal~~ of the waste, if there is reason to document ~~believe~~ that the waste may have significantly changed during storage or treatment or to confirm compliance with the restrictions on land disposal contained in 40 CFR Part 268.

The waste management processes for which periodic sampling and analysis may be applicable include:

- Storage, consisting of containers and tanks;
- Treatment, including blending, particle sizing, drying, drum scraping and washing, and treatment in containers and container management activities; and

- Visual Inspection: For containers placed in the container management units for storage or treatment at HRIW, ten (10) percent of the shipping containers from a waste stream are sampled during the incoming load procedures (this does not apply to wastes which cannot be sampled such as lab packs, debris, etc., or trans-shipped wastes destined to another waste management facility). The exterior of all containers is visually inspected during unloading, and subsequently will be inspected in accordance with the Inspection Plan (Section F). The contents of all containers that are emptied, mixed, or otherwise processed are subject to visual inspection at least once prior to processing.

- Storage Areas: Following unloading, hazardous wastes in containers are stored in areas equipped with secondary containment.

- Compatibility: Once they have been unloaded, analyzed, and accepted, ~~and unloaded,~~ wastes are segregated to ensure that incompatible wastes are not stored together. Even if

Incoming Load procedures are not completed within 72 hours, containers will be placed into CMUs, segregated according to information from the manifest, Waste Profile Sheet, and other documentation. If subsequent analytical results or other information indicate that the waste may be incompatible with other wastes in that CMU, the waste will be moved into an appropriate CMU.

- Waste with Ignitable and Reactive Characteristics: Ignitable and reactive wastes are identified through the pre-acceptance and incoming load procedures described in the WAP and by information submitted by the generator. Wastes identified as reactive will be

managed so as to ensure that these wastes do not contact potentially incompatible wastes. Even if Incoming Load procedures are not completed within 72 hours, containers will be placed into CMUs, segregated according to information from the manifest, Waste Profile Sheet, and other documentation. If subsequent analytical results or other information indicate that the waste may be incompatible with other wastes in that CMU, the waste will be moved into an appropriate CMU.

### 7.1.2 Storage in Tanks:

In addition to the incoming load procedures for waste in storage tanks, the following considerations will be observed.

- Compatibility: Wastes added to the tanks must be compatible with the contents of the tank and the material of construction of the tank. A compatibility evaluation as detailed in Attachment C-C (USPCI-25) will be performed prior to transferring a waste into a tank.

it can be sent to the next step (e.g., disposal, further treatment, discharge, reuse, etc.).

### 7.2.1 Blending:

The process of blending waste is performed to produce a mixture which can be used as a supplemental fuel for boilers, industrial furnaces, lime and cement kilns, or similar operations. The blended wastes may also be incinerated. In this process, wastes containing sufficient heating values will be blended with other suitable wastes. Pre-acceptance analyses are used to determine the acceptability of each waste stream for the blending process. Additional analysis for heating value ~~may~~ will be performed during pre-acceptance procedures for all hazardous wastes ~~materials~~ destined for supplemental fuels. The heating value of supplemental fuels sent to BIFs that have not received a RCRA permit will comply with the requirements of 40 CFR 266 or applicable state law, whichever is more stringent.

minimum heating value and a maximum chlorine content, then the blend requirements will be a function of these specifications.

### 7.2.2 Particle Sizing:

The process of shredding or granulating waste is performed to reduce particle size to facilitate further processing ~~blending~~ and/or to meet the requirements of the facility which will receive the waste from HRIW. Pre-acceptance analyses are used to determine the acceptability of each waste stream for the shredding or granulating process.

In-process analyses may be performed to monitor and characterize the intermediate mixture. Post-treatment analyses may consist of those tests necessary to ensure that the shredded or granulated waste mixture meets or exceeds the final product specifications. Additional analysis for heating value may be performed for materials destined for supplemental fuels.

### 7.2.5 Treatment in Containers and Tanks, and Container Management Activities:

Treatment in containers and container management activities will include the following. Due to the nature of these treatments, supporting analyses are not typically required except as discussed below.

- Lab Pack Container Repackaging: Lab packed wastes ~~Laboratory scale quantities of chemicals~~ may be ~~compatibly~~ combined for treatment, recycling, incineration, kiln fuel use, or other off-site ~~disposal~~ management.
- Filtration: Portable filtration units are used to remove particulates from liquid streams.
- Absorption or Solidification: HRIW may use non-reactive absorbent material to absorb or solidify small quantities of incidental liquid or sludge in containers of solids. This activity is intended to make the material more amenable to proper transportation or to satisfy the requirements of the disposal facility for a uniform material, not to change the pre-acceptance

management category of the waste. Due to land disposal restrictions, fly ash, cement, or other material will be used to solidify liquids if the material is destined for disposal at a landfill. If absorbents are used, the receiving landfill facility will be notified.

- Physical/chemical treatment: HRIW may treat wastes in containers or tanks using neutralization, phase separation, blending, stabilization, phase changes, polymerization, or other treatment methods that change the physical or chemical characteristics of the waste. Pre-treatment analyses are used to determine whether a waste is amenable to treatment and, as necessary, to determine the appropriate reagents and mix ratios to ensure safe and complete treatment.

  In-process analyses may be performed to monitor and characterize the intermediate mixture. Post-treatment analyses may be used to determine that treatment is complete or to determine that treatment product requirements have been met.

## 7.3 Off-site Management ~~Disposal~~:

Many of the analyses needed for off-site management ~~disposal~~ are performed during either the pre-acceptance or incoming load procedures. Additional analyses may be conducted if there is reason to document ~~believe~~ that the waste may have significantly changed during storage or treatment or to confirm compliance with the land disposal restrictions when applicable.

## 7.4 Other Considerations:

### 7.4.1 Lab Packs:

Lab Pack inventories will be reviewed during the incoming load procedures for consistency with shipping papers and the manifest, incompatibility of contained materials, and land disposal restrictions. Since lab packs contain many small

quantities of individual materials, they will not be sampled. All lab packs will be visually inspected, and at least t~~T~~en (10) percent of the lab packs received will~~, however,~~ be opened and visually inspected. The contents of lab packs that are decanted and bulked into larger containers will then be subject to container sampling procedures as facility generated wastes. A record of all on-site movement of lab pack wastes will be part of the waste tracking system. ~~checked in an effort to ensure adequate absorbent is present.~~

### 7.4.2 Management of Facility Generated Wastes:

Examples of facility generated wastes include:

- sump residues;
- clean-up from spills and decontamination of waste management units;
- floor sweepings from hazardous waste management units;
- wash water;
- residue from in-line basket strainers or other process related ancillary equipment;
- personal protective equipment;

the facility generated waste is added to a tank or container already containing waste.

### 7.4.3 Change of Tank or Container Service:

A change in service of a container, ~~or~~ tank system, or other equipment (i.e., placing a waste which is incompatible with the previous contents) will only occur if the cleaning ~~decontamination~~ procedures described below are followed. The container or tank will be rinsed with a neutral or mutually compatible material. This material can be other wastes. The rinse can also be accomplished by filling the container or tank with other wastes. Upon removal of the "rinse", the container or tank will be considered ready for the change in service. Tank entry and inspection will be performed as necessary. Material in the tank will maintain all listed codes between tank cleanings.

A change in service from hazardous waste to non-hazardous waste treatment or storage will involve slightly different cleaning procedures. The unit will be emptied of waste and cleaned using whatever means necessary (e.g., brush, sweep, scrape, wash,

rinse, etc.) to remove residuals. When the unit shows no visible evidence of contamination, the unit will be determined to be cleaned sufficiently to enable non-hazardous waste use. As an extra precaution, the first three volumes of non-hazardous waste run through the unit following cleaning will be managed as hazardous waste carrying the codes that had been contained in the tank previously. Subsequent batches of non-hazardous waste will be managed as non-hazardous.

For units that are not amenable to the cleaning described above, the facility will run three times the volumetric capacity of waste or a cleaning agent through the unit prior to managing subsequent wastes as non-hazardous.

The facility may, on occasion, opt to manage non-hazardous wastes through a hazardous waste unit that has not been cleaned. Under these circumstances, HRIW will manage those non-hazardous wastes as hazardous, in accordance with 40 CFR 261.3.

## Attachment C-A

### Table of Contents:

1. Waste Profile Sheet Instructions (1 page)
2. Waste Profile Sheet (1 page)
3. Uniform Manifest (2~~1~~ page~~s~~)
4. HRIW Material Receipt Record (1 page)
5. Notification of Waste Subject to Land Disposal Restrictions (2 pages)
6. Certification by Generator or Treatment Facility of Restricted Waste Meeting Treatment Standards (1 page)
7. Table CCWE (4~~1~~ page~~s~~)
8. Table CCW (12~~5~~ pages)
9. List of Halogenated Organic Compounds Regulated Under Section 268.32 (1 page)
10. Non-Hazardous Waste Form (1 page)

~~Waste Profile Sheet~~

~~Hydrocarbon Recyclers, Inc. of Wichita~~

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~~WASTE PROFILE SHEET INSTRUCTIONS~~

~~This Waste Profile Sheet (WPS) has been specifically designed to provide USPCI with all necessary information to transport, treat, store and dispose of your waste in full compliance with state and federal regulations.~~

~~A revised WPS must be submitted to USPCI by the generator if 1) the chemical and physical characteristics and/or the process generating the waste has changed, 2) change in state or federal regulations which changes the regulated state of the waste stream or any constituents thereof occurs.~~

~~If a particular question is not applicable to your waste stream please signify with the response "NA" (Not Applicable). If you do not know the answer to a particular question, please signify with the response "unknown". A response of "unknown" may require USPCI to request additional information (e.g. a sample or the results of analysis of a sample) if the unknown information is considered essential for the proper evaluation of the waste stream.~~

~~The completed WPS (and a representative sample when appropriate) should be sent to HRIW. Guidelines for obtaining a representative sample are provided in 40 CFR 261, Appendix I, Representative Sampling Methods. A copy of the WPS should be retained by the generator (or a representative of the generator).~~

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**Hydrocarbon Recyclers, Inc. of Wichita d/b/a USPCI**
**Waste List**

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| D027 (E) | 1,4-Dichlorobenzene |
| D028 (E) | 1,2-Dichloroethane |
| D029 (E) | 1,1-Dichloroethylene |
| D030 (E) | 2,4-Dinitrotoluene |
| D031 (E) | Heptachlor (and its hydroxide) |
| D032 (E) | Hexachlorobenzene |
| D033 (E) | Hexachloro~~-1,3-~~butadiene |
| D034 (E) | Hexachloroethane |
| D035 (E) | Methyl ethyl ketone |
| D036 (E) | Nitrobenzene |
| D037 (E) | Pentachlorophenol |
| D038 (E) | Pyridine |
| D039 (E) | Tetrachloroethylene |
| D040 (E) | Trichloroethylene |
| D041 (E) | 2,4,5-Trichlorophenol |
| D042 (E) | 2,4,6-Trichlorophenol |
| D043 (E) | Vinyl Chloride |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| | carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum. |
| F007 (R,T) | Spent cyanide plating bath solutions from electroplating operations |
| F008 (R,T) | Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process. |
| F009 (R,T) | Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process. |
| F010 (R,T) | Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process. |
| F011 (R,T) | Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations |
| F012 (T) | Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process. |
| F019 (T) | Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| | sediments sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. |
| F034 (T) | Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. |
| F035 (T) | Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. |
| F037 (T) | Petroleum refinery primary oil/water/solids separation sludge--Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| F039 [1] | Leachate (liquids that have percolated through land disposed wastes) resulting from the ~~treatment, storage, or~~ disposal of more than one restricted waste classified as hazardous ~~wastes classified by more than one waste code~~ under Subpart D~~, or from a mixture of wastes classified under Subparts C and D~~ of this part. (Leachate resulting from the disposal ~~management~~ of one or more of the following EPA Hazardous Wastes and no other ~~h~~Hazardous ~~w~~Wastes retains its EPA ~~H~~hazardous ~~w~~Waste Number(s) ~~code(s)~~: F020, F021, F022, ~~F023,~~ F026, F027, and/or F028). |

[1]All constituents for which treatment standards are specified for multi-source leachate (wastewaters and non-wastewaters) under 40 CFR 268.43(a), Table CCW.

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K107 (C,T) | Column bottoms from product seperation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazines. |
| K108 (I,T) | Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides. |
| K109 (T) | Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides. |
| K110 (T) | Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides. |
| K111 (C,T) | Product washwaters from the production of dinitrotoluene via nitration of toluene. |
| K112 (T) | Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene. |
| K113 (T) | Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation dinitrotoluene. |
| K114 (T) | Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|

**Discarded Commercial Chemical Products, Off-Specification Species, Container Residues, and Spill Residues Thereof (Chemical Abstract Numbers are presented in 40 CFR 261.33):**

| | | |
|---|---|---|
| P001 | (H) | Warfarin, & salts, when present at concentrations greater than 0.3%. |
| P002 | (H) | 1-Acetyl-2-thiourea |
| P003 | (H) | Acrolein |
| P004 | (H) | Aldrin |
| P005 | (H) | Allyl alcohol |
| P006 | (R,T) | Aluminum phosphide |
| P007 | (H) | 5-(Aminomethyl)-3-isoxazolol |
| P008 | (H) | 4-Aminopyridine |
| P009 | (R) | Ammonium picrate |
| P010 | (T) | Arsenic acid $H_3AsO_4$ |
| P011 | (T) | Arsenic pentoxide |
| P012 | (T) | Arsenic trioxide |
| P013 | (H) | Barium cyanide |
| P014 | (T) | Benzenethiol |
| P015 | (H) | Beryllium |
| P016 | (H) | Methane, oxybis[chloro- |
| P017 | (T) | Bromoacetone |
| P018 | (H) | Brucine |
| P020 | (H) | Dinoseb |
| P021 | (H) | Calcium cyanide |
| P022 | (T) | Carbon disulfide |
| P023 | (H) | Chloroacetaldehyde |
| P024 | (H) | p-Chloroaniline |
| P026 | (H) | 1-(o-Chlorophenyl)thiourea |
| P027 | (H) | 3-Chloropropionitrile |
| P028 | (H) | Benzyl chloride |
| P029 | (H) | Copper cyanide |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|

**Commercial Chemical Products, Manufacturing Chemical Intermediates, or Off-Specification Commercial Chemical Products (Chemical Abstract Numbers are presented in 40 CFR 261.33):**

| | | |
|---|---|---|
| U001 | (I) | Ethanal |
| U002 | (I) | Acetone |
| U003 | (I,T) | Acetonitrile |
| U004 | (T) | Acetophenone |
| U005 | (T) | 2-Acetylaminofluorene |
| U006 | (C,R,T) | Acetyl chloride |
| U007 | (T) | Acrylamide |
| U008 | (I) | Acrylic acid |
| U009 | (T) | Acrylonitrile |
| U010 | (T) | Mitomycin C |
| U011 | (T) | Amitrole |
| U012 | (I,T) | Aniline |
| U014 | (T) | Auramine |
| U015 | (T) | Azaserine |
| U016 | (T) | Benz[c]acridine |
| U017 | (T) | Benzal chloride |
| U018 | (T) | Benz[a]anthracene |
| U019 | (I,T) | Benzene |
| U020 | (C,R) | Benzenesulfonyl chloride |
| U021 | (T) | Benzidine |
| U022 | (T) | Benzo[a]pyrene |
| U023 | (C,R,T) | Benzotrichloride |
| U024 | (T) | Dichloromethoxy ethane |
| U025 | (T) | Dichloroethyl ether |
| U026 | (T) | Chlornaphazin |
| U027 | (T) | Dichloroisopropyl ether |
| U028 | (T) | Diethylhexyl phthalate |
| U029 | (T) | Methyl bromide |
| U030 | (T) | Benzene, 1-bromo-4-phenoxy- |
| U031 | (I) | n-Butyl alcohol |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

## F-1 Introduction:

Hydrocarbon Recyclers, Inc. of Wichita (HRIW) has developed this Inspection Plan in compliance with 40 CFR 264.15 and 270.14; changes to the inspection plan will be may in accordance with permit modification procedures found in 40 CFR 270.42. It is intended to provide a systematic method of identifying potential problems, malfunctions, or deterioration which may cause or lead to a release of hazardous constituents to the environment or a threat to human health. Inspections will be used to identify potential operational problems, and to identify required maintenance of in-service equipment and structures while the facility is operational or equipment is in service. The corrective program will include a Remedial Work Order (RWO) system to document and track the resolution of problems identified during inspections.

One or more inspectors will be designated to perform the inspections as scheduled. A record of the inspections and the schedule will be maintained at the facility. The results of the inspections will be recorded on an Inspection Log which will be maintained in the operating record. The Inspection Log will include the date, the time of the inspection, the name of the inspector, his/her initials, items examined, problems noted, and the identifying number of each RWO issued to address any problem

## D-1 Summary Description:

**Referenced Drawings**

| | |
|---|---|
| Drawing 50-01-10-001 | Hazardous Waste Management Areas |
| Drawing 50-01-10-002 | Material Containment Areas |

There are seven (7) storage buildings which ~~are~~ ~~may be~~ subdivided into individual Container Management Unit (CMU)s at the HRIW facility utilized for container storage and processing of hazardous waste; CMUs allow flexibility of management options within the various container storage buildings. Location of these storage buildings is shown on Figure D.1, Hazardous Waste Management Areas and individual CMUs are shown on Figure D.2, Material Containment Areas. Figures showing individual storage buildings are presented in Appendix D-A, Container Storage Buildings; corresponding drawings are located in Section Y, Referenced Drawings. Specific information regarding areal extent, capacity and drum equivalents is discussed in Section A (Part A Permit Application; Addendum B). Capacities of container

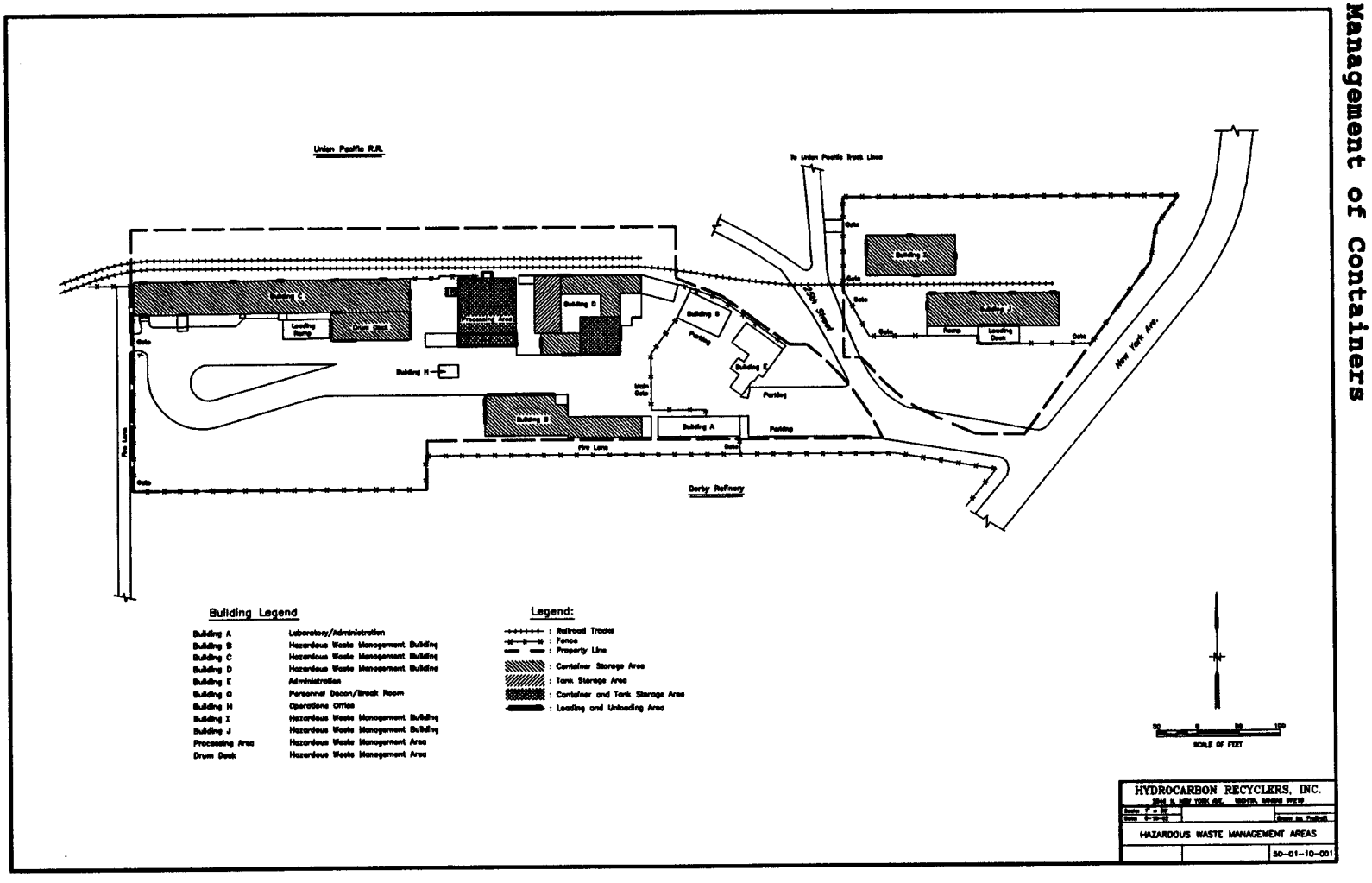



Figure D.1. Hazardous Waste Management Areas

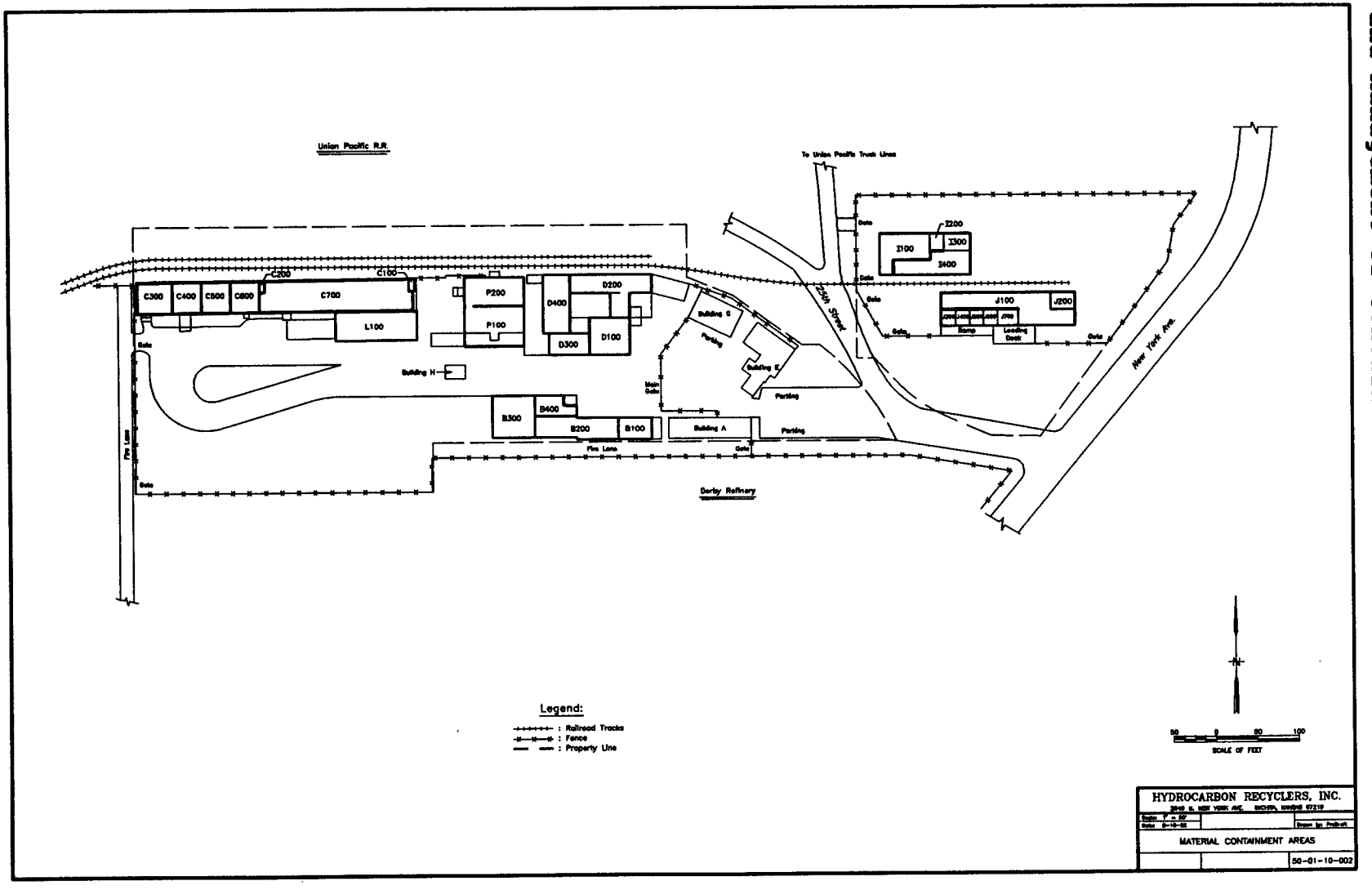



Figure D.2. Material Containment Areas

storage buildings are summarized in Table D.1, Container Storage Building Capacities. Table D.2, CMU Containment Summary, presents containment capacities for each CMU. The total permitted capacity for storage of containers at the HRIW facility is 325,490 ~~170,000~~ gallons.

HRIW has made the assumption, for design purposes, that all containers of hazardous wastes managed at HRIW contain free liquid; thus, containment as prescribed in 40 CFR 264.175 is provided for all CMUs. The design does not preclude storage of wastes that do not contain free liquids.

40 CFR 264.175(b)(3) requires that the secondary containment system contain the volume of the largest container, or ten (10) percent of the volume of the containers in the unit, whichever is greater. Containment areas have been designed to meet this requirement. Secondary containment calculations are shown in Appendix D-B, Secondary Containment Calculations.

A wide variety of containers other than drums may be stored within the waste storage buildings. Wastes with free liquids may

## Table D.1

## Container Storage Building Capacities

| Container Storage Building | Materials Managed | Permitted Storage Capacity (Gallons) | Storage Capacity (55 Gallon Drum Equivalents) |
|---|---|---|---|
| Building D | Ignitable and/or non-ignitable or combination of both | 46,640 | 848 |
| Processing Area | Liquid and solid hazardous and/or non-hazardous materials | 9,900 | 180 |
| Building C | Ignitable and non-ignitable hazardous and non-hazardous materials | 99,110 | 1,802 |
| Drum Dock | Containerized materials | 14,960 | 272 |
| Building B | Corrosives and other non-ignitable hazardous and non-hazardous materials | 55,000 | 1,000 |
| ~~Building I~~ | ~~Hazardous and non-hazardous materials~~ | ~~38,720~~ | ~~704~~ |
| Building I | Hazardous and non-hazardous materials | 50,600 | 920 |
| ~~Building J~~ | ~~Hazardous and non-hazardous materials~~ | ~~58,080~~ | ~~1,056~~ |
| Building J | Hazardous and non-hazardous materials | 49,280 | 896 |
| ~~Total Capacity~~ | | ~~322,410~~ | ~~5,862~~ |
| Total Capacity | | 325,490 | 5,918 |

Note: Total capacity (gallons) is the additive container storage capacity for all storage buildings~~; total permitted container storage capacity (170,000 gallons) for the facility will not be exceeded~~. Note that additional storage of waste in tanks occurs in some of these areas; permitted waste tank storage capacity is not reflected in this summary.

## Table D.2

## CMU Containment Summary

| Container Management Unit (CMU) | Maximum Number of Drums Stored (55 gallon drum equivalents) | | Gallons - Containment Capacity Required for Containers (10 % Container Capacity) | Gallons - Containment Provided |
|---|---|---|---|---|
| | Drums | Gallons | | |
| D100/D200 | 784 | 43,120 | 4,312 | 13,480 ~~13,389~~ |
| ~~D300~~ | ~~32~~ | ~~1,760~~ | ~~176~~ | ~~3,762~~ |
| D300 | 64 | 3,520 | 352 | 3,606 |
| P100/P200 | 180 | 9,900 | 990 | 32,583 ~~22,524~~ |
| C100 | 16 | 880 | 88 | 244 ~~247~~ |
| C200 | 16 | 880 | 88 | 192 ~~270~~ |
| C300 | 240 | 13,200 | 1,320 | 3,842 ~~3,837~~ |
| C400 | 184 | 10,120 | 1,012 | 3,195 ~~3,194~~ |
| C500 | 192 | 10,560 | 1,056 | 3,233 ~~3,224~~ |
| C600 | 192 | 10,560 | 1,056 | 3,233 ~~3,224~~ |
| C700 | 962 | 52,910 | 5,291 | 16,690 ~~16,800~~ |
| L100 | 272 | 14,960 | 1,496 | 1,835 ~~3,172~~ |
| B100 | 120 | 6,600 | 660 | 2,262 ~~2,251~~ |
| B200 | 384 | 21,120 | 2,112 | 5,592 ~~5,640~~ |
| B300 | 360 | 19,800 | 1,980 | 5,630 ~~5,625~~ |
| B400 | 136 | 7,480 | 748 | 2,582 ~~2,536~~ |
| I100 | 416 | 22,880 | 2,288 | 5,399 |
| I200 | 64 | 3,520 | 352 | 483 |
| I300 | 128 | 7,040 | 704 | 870 |
| I400 | 312 | 17,160 | 1,716 | 3,407 |
| ~~I100~~ | ~~704~~ | ~~38,720~~ | ~~3,872~~ | ~~12,671~~ |

| | | | | |
|---|---|---|---|---|
| J100 | 448 | 24,640 | 2,464 | 6,787 |
| J200 | 96 | 5,280 | 528 | 987 |
| J300 | 64 | 3,520 | 352 | 502 |
| J400 | 64 | 3,520 | 352 | 502 |
| J500 | 64 | 3,520 | 352 | 502 |
| J600 | 64 | 3,520 | 352 | 502 |
| J700 | 96 | 5,280 | 528 | 754 |
| ~~J100~~ | ~~1,056~~ | ~~58,080~~ | ~~5,808~~ | ~~16,912~~ |

Note 1: These containment volume requirements do not include requirements for tank systems. The letter shown in the CMU identification number indicates the location by building (D - Building D, P - Processing Area, C - Building C, L - Drum Dock, B - Building B, I - Building I, and J - Building J).

Note 2: The largest container in Area I100 would be a 5,000 gallon tanker. The containment provided (5,399 gallons) is sufficient to hold the volume of this container.

be stored in containers such as tote boxes, overpack containers, etc. The total volume of waste in containers is limited by the secondary containment volumes provided for each CMU~~,~~ and by the capacity of each storage building~~, and by the permitted container storage capacity for the facility. Hence, while a CMU may hold the maximum amount of waste in accordance with 40 CFR 264.175(b)(3), the total volume of wastes in a building's CMUs will not exceed that shown in Table D.1. Likewise, while one or more building(s) may hold the maximum volume of waste as shown in Table D.1, t~~The total volume of waste stored at the facility will not exceed the permitted amount (i.e., 325,490 ~~170,000~~ gallons).

Containerized hazardous wastes are delivered to the facility by truck or rail car. These containers may be managed in unloading areas prior to waste storage. Railcar receipt and unloading will take up to 10 days. Similarly, loading and shipment of railcars off-site may take up to 10 days. On occasion, HRIW will receive railcars, analyze the wastes, and remanifest the railcars off-site without off-loading. HRIW may also transfer loads of containers from truck to rail under the 10-day transfer provisions (40 CFR 264.1(g)) without site receipt.

Containers may be located within other waste management units and are used to accumulate and store site generated residues such as pump strainer residues, tank bottoms, in-line process materials, incidental spills, discarded Personal Protective Equipment (PPE), etc. HRIW will manage these wastes according to the standards set forth in 40 CFR Part 262. Containers of on-site generated ~~such~~ wastes will not

M, Other Regulated Units). Waste managed in this area may be processed or treated in containers as well as managed in one or more of the tanks or process units on site. Diking and berms divide~~s~~ this building into four (4) contained sections; three (3) of these sections are utilized for storage of hazardous waste in containers.

**D-1b <u>The Process Area:</u>**

The Process Area is designed to accommodate storage of wastes in containers and tanks (tank management is addressed in Section E, Tank Systems). Several process units are located there: the Drum Scraper, Drum Washing, and Dispersing Units (see Section M, Other Regulated Units). Waste managed in this area may be processed or treated in containers as well as managed in one or more of the tanks or process units on site. This building is managed as two operational areas which share common secondary containment. ~~Diking divides this area into two (2) containment sections.~~

**D-1c <u>Building C:</u>**

Building C is utilized for container storage, treatment, and management. Waste managed in this area may be processed or

treated in containers. Rooms and d~~D~~iking in this building will provide containment for four (4) ~~one (1) to five (5)~~ separate CMUs.

**D-1g <u>Building J:</u>**

Building J is designated for container storage, treatment, and management. Waste managed in this area may be processed or treated in containers. Rooms and d~~D~~iking in this building will provide containment for seven (7) ~~one (1) to five (5)~~ separate CMUs.

Diking separates containment areas of individual CMUs. Waste containers are palletized or equipped with skids during storage, or are otherwise managed to protect the outside walls of the containers from contact with accumulated liquids. Concrete surfaces of the secondary containment systems are sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.

Rooms have open areas which provide maneuvering room for mobile equipment such as forklifts, and, if needed, for staging and/or stacking of drums during pre-acceptance and processing.

**D-2b <u>Unloading Areas:</u>**

Containerized hazardous wastes are unloaded onto loading docks, loading areas, or directly into areas provided with secondary containment. Containers are placed into CMUs upon completion of unloading procedures or within 72 hours, whichever comes first. Appendix C-A provides a more detailed discussion of these procedures. ~~Wastes may remain on the transport vehicle for up to ten (10) days while awaiting completion of~~

~~acceptance procedures. After acceptance, hazardous waste will be transferred into permitted storage areas within five (5) days.~~ Prior to placement in permitted storage, waste in containers will be managed in unloading areas and/or staged in an

appropriate CMU. Containers arriving on-site by truck may be unloaded at any of the seven (7) storage buildings; rail spur shipments may be unloaded directly into Building C, Building D, Process Area, Building I, or Building J, or transferred to other buildings as needed. See Figure D.1, Hazardous Waste Management Areas, for location of unloading areas.

Two (2) buildings are equipped with truck loading docks. These docks are located on the south and west sides of Building J and to the west of the Drum Dock container storage area. Truck bays are located in Building I (I100) and the Process Area (P100). Containers are moved in and out of the various buildings utilizing ramps installed to facilitate movement of equipment and materials over containment dikes.

**D-2c <u>Building D:</u>**

**Referenced Drawings**

Drawing 50-16-10-001 Building D

Building D is designed to manage hazardous waste in tanks and containers in several CMUs~~. (Waste~~ (tank storage in this area is addressed in Section E, Tank Systems).~~)~~ Containerized wastes managed in this building include both ignitable~~,~~ and non-ignitable ~~(or a combination of both)~~ materials and combinations. These materials are destined either for on-site management, recycling as waste fuel, waste water management, solvent recovery, or transport off-site for additional management. Processing of containerized wastes in Building D may involve treatment in containers or management in any of the several on-site processing units. Processing units (discussed in Section M, Other Regulated Units) permanently located in Building D include: 1) the Drier Unit, 2) the Shredder Unit, and 3) the Granulator Unit. Some portable units (e.g., filters, ~~spargers~~ etc.) may be present or used in this area.

The principal processes which occur in Building D are decanting of liquids, treatment in containers, other physical treatment (including drying, shredding and granulating), repackaging, bulking, ~~solvent/water sparging,~~ phase separation, consolidation of solid residues, and loading and unloading of hazardous waste in containers.

**D-2c(1)** **Secondary Containment:**

Building D is divided into four operational areas; ~~of secondary containment (or CMUs) by diking, areas~~ D100, D200, D300, and D400. The berm between Areas D100 and D200 provides separate secondary containment for tank V-18, but D100 and D200 share common secondary containment for containers. Areas D300 and D400 are independent, separated by diking or berms from each other and from D100/D200. These areas are shown on Figure D.2, Material Containment Areas, and Figure D.3, Building D, presented in Appendix D-A (Drawing 50-16-10-001 in Section Y). The secondary containment areas are constructed of concrete floors and concrete or cinder block diking which are free of cracks and gaps. Additionally, the floor and diking of areas D100 and D400 have been lined with a chemically resistant coating to comply with the requirements of 40 CFR 264.193. The CMUs are designed to meet

the storage requirements for RCRA regulated wastes, to promote sound container management practices, and to minimize the potential for a release of hazardous waste into the environment.

**D-2d <u>Processing Area:</u>**

**Referenced Drawings**

Drawing 50-55-10-001 Processing Area

The Processing Area is designed to manage hazardous wastes in tanks and containers in~~to~~ two operational areas with shared secondary containment ~~CMUs. (Waste~~ (storage in tanks is addressed in Section E, Tank Systems).~~)~~ Containerized wastes managed in this area include liquids which will be pumped to bulk storage and solids which will be handled in the Drum Processing Area. These materials are destined for on-site management, recycling as waste fuel, waste water management, solvent recovery, or transport off-site for additional management. Processing of containerized wastes in this area may involve treatment in containers or management in any of the several on-site processing units. Processing units (discussed in Section M, Other Regulated Units) permanently located in the Processing Area include: 1) the Drum Scraper Unit, 2) the Drum Washing Unit, and 3) the Dispersing Unit. Some portable units (e.g., filters, pumps, etc.) may be present or used in this area.

The principal processes which occur in the Processing Area are decanting of liquids, treatment in containers, other physical treatment (including dispersing and scraping), repackaging, bulking, consolidation of solid residues, and loading and unloading of hazardous waste in containers.

Waste management in the container process line is briefly summarized below. Free liquids may first be decanted from containers. Decanting from containers may be performed on a conveyor or elsewhere in a CMU, using decanting wands, diaphragm pumps, or another suitable method. Containers may also proceed directly to the Dispersing Unit. When appropriate, containers which are found to contain solids or non-flowable sludges may bypass the Dispersing Unit and be returned to storage for alternate management, or for eventual shipment off-site, or loaded immediately for shipment off-site. ~~Decanted liquids~~ Materials removed from containers are transferred ~~pumped~~ to processing units, tankers, other containers, or tanks for blending, treatment, off-site shipment, or storage. Storage tanks are provided for low BTU liquids, chlorinated and nonchlorinated solvents, waste fuels, aqueous/solvent mixtures, and recovered solvents. The operation of the tank systems and

the design of the Dispersing Unit are described in detail in Section E, Tank Systems, and in Section M, Other Regulated Units,

respectively. If, after decanting, a container is determined to be "RCRA empty" as per 40 CFR 261.7, it may be sent for recycling, for reuse, or for off-site disposal; containers may be crushed on-site prior to shipment for disposal. If a container holds RCRA regulated material ~~sludges~~ that cannot be practicably removed, the container is further managed as RCRA waste. Materials removed from containers may be processed in the Dispersing Unit or in another appropriate unit. Waste solvent or fuel may be added to the wastes in the Dispersing Unit to enhance processing (e.g., breaking up lumps and rendering the waste pumpable). Pumpable wastes are then transferred to a storage tank or directly transported off-site for further management. After emptying, the container and any remaining residues will be managed as described above.

**D-2d(1)** **<u>Secondary Containment:</u>**

The Processing Area is divided ~~by diking~~ into two (2) operational areas, ~~CMUs,~~ P100 and P200. These two areas are managed as a shared secondary containment system. These areas are shown on Figure D.4, Processing Area, presented in Appendix D-A (Drawing 50-55-10-001 in Section Y). The CMUs are designed to meet the storage

requirements for RCRA regulated wastes, to promote sound container management practices, and to minimize the potential for a release of

hazardous waste into the environment. The CMUs are constructed of concrete floors and diking which are free of cracks and gaps. Additionally, the entire area has been lined with a chemically resistant coating to comply with the requirements of 40 CFR 264.193.

40 CFR 264.175(b)(3) requires that the secondary containment system contain the volume of the largest container, or ten (10) percent of the volume of the containers in the unit, whichever is greater. Any size container may be managed in a CMU provided that the maximum sized container does not exceed the CMU's containment volume. Detailed calculations supporting the secondary containment and storage volumes in the Processing Area may be found in Attachment 2 of Appendix D-B.

**D-2d(2)** **Building Design:**

The Processing Area consists of one ~~several~~ CMU~~s~~ shared by two operational areas, and its overall size is approximately eight-three (83) feet long by seventy-one (71) feet wide. Waste containers managed in the Processing Area are palletized or equipped with skids during storage, or are otherwise managed to protect the outside walls of the containers

**D-2h <u>Building I:</u>**

**Referenced Drawings**

Drawing 50-17-10-001 Building I

Building I is an existing Interim Status waste management area that is currently (as of August, 1992) undergoing renovation. This section has been written to recognize the configuration and usage of Building I as it will be operated when the renovations are completed.

Building I has been ~~will be~~ designed to manage containerized wastes in four (4) ~~as many as five (5)~~ contained areas (CMUs). Containerized wastes managed in this building include ignitable, non-ignitable, reactive, non-reactive and other hazardous and non-hazardous ~~materials~~ wastes. These materials are destined primarily for off-site management, but may also be destined for on-site management, recycling as waste fuel, waste water management, or solvent recovery ~~or transport off site for additional management~~. Processing of containerized wastes in Building I may involve treatment in containers, repackaging, or management in any of the several on-site processing units.

The principal processes which occur in Building I are storage, treatment in containers, repackaging, bulking, consolidation ~~of solid residues~~, and loading and unloading of hazardous waste in containers.

**D-2h(1) Secondary Containment:**

Building I is designed with four (4) CMUs (I100 through I400) which are diked or walled ~~will be made up of one (1) to five (5) CMUs; CMUs are (or will) be diked~~ to provide secondary containment. The layout of Building I is shown on Figure D.8 (Drawing 50-17-10-001), presented in Appendix D-A. ~~The area of the CMU shown on Figure D.8, Building I presented in Appendix D A (Drawing 50 17 10 001 in Section Y) is the largest available. This CMU may be further subdivided depending upon operational needs.~~ The CMUs are ~~and will be~~ designed to meet the storage requirements for RCRA regulated wastes, to promote sound container management practices, and to minimize the potential for a release of hazardous waste into the environment. The CMUs are (will be) constructed of concrete floors and diking, and concrete block walls. Seams in the floor are (will be) sealed using water stops.

40 CFR 264.175(b)(3) requires that the secondary containment system contain the volume of the largest container, or ten (10)

percent of the volume of the containers in the unit, whichever is greater. Any size container may be managed in a CMU provided that the maximum sized container does not exceed the CMU's containment volume. Detailed calculations supporting the secondary containment and storage volumes in Building I may be found in Attachment 6 of Appendix D-B.

**D-2h(2) Building Design:**

Building I has been ~~may be~~ subdivided into four (4) ~~individual~~ CMUs. The building has an overall size of approximately one-hundred-six (106) feet long by forty-eight (48) feet wide. Waste containers managed in Building I are palletized or equipped with skids during storage, or are otherwise managed to protect the outside walls of the containers from contact with accumulated liquids. Some management of containers may occur directly on the concrete floor (e.g., during processing). Concrete curbs or walls around the unit or portable containment units provide secondary containment. Adequate secondary containment volume is provided for this building, as described in D-2h(1).

**D-2i <u>Building J:</u>**

**Referenced Drawings**

Drawing 50-18-10-001 Building J

Building J is an existing Interim Status waste management area that is currently (as of August, 1992) undergoing renovation. This section has been written to recognize the configuration and usage of Building J as it will be operated when the renovations are completed.

Building J has been ~~will be~~ designed to manage containerized wastes in seven (7) ~~one (1) to five (5)~~ CMUs. Containerized wastes managed in this building include ignitable, non-ignitable, reactive, non-reactive, and other hazardous and non-hazardous ~~materials~~ wastes. These materials are destined primarily for off-site management, but may also be destined for on-site management, recycling as waste fuel, waste water management, or solvent recovery~~, or transport off site for additional management~~. Processing of containerized wastes in Building J may involve treatment in containers, repackaging, or management in any of the several on-site processing units.

The principal processes which occur in Building J are storage, treatment in containers, repackaging, bulking, consolidation ~~of solid residues~~, and loading and unloading of hazardous waste in containers.

**D-2i(1)** **Secondary Containment:**

Building J is designed with seven (7) CMUs, (J100 through J700), which are all diked or walled ~~will be made up of at least one (1) CMU; the CMU(s) are (or will be) diked~~ to provide secondary containment. The layout of Building J is shown on Figure D.9 (Drawing 50-18-10-001) in Appendix D-A. ~~The area of the CMU shown on Figure D.9, Building J presented in Appendix D A (Drawing 50 18 10 001 in Section Y) is the largest available; this CMU may be subdivided depending upon operational needs.~~ The CMUs are ~~and will be~~ designed to meet the storage requirements for RCRA regulated wastes, to promote sound container management practices, and to minimize the potential for a release of hazardous waste into the environment. The CMUs are (will be) constructed of concrete floors and diking, and concrete block walls. Seams in the floor are (will be) sealed using water stops.

40 CFR 264.175(b)(3) requires that the secondary containment system contain the volume of the largest container, or ten (10)

percent of the volume of the containers in the unit, whichever is greater. Any size container may be managed in a CMU provided that the maximum sized container does not exceed the CMU's containment volume. Detailed calculations supporting the secondary containment and storage volumes in Building J may be found in Attachment 7 of Appendix D-B.

**D-2i(2) Building Design:**

Building J has been ~~will be~~ subdivided into seven (7) ~~individual~~ CMUs. The building has an overall size of approximately one-hundred-sixty-two (162) feet long by forty (40) feet wide. Waste containers managed in Building J are palletized or equipped with skids during storage, or are otherwise managed to protect the outside walls of the containers from contact with accumulated liquids. Some management of containers may occur directly on the concrete floor (e.g., during processing). Concrete curbs or walls around the unit or portable containment units provide secondary containment. Adequate secondary containment volume is provided for this building, as described in D-2i(1).

**D-2j Bulk Container Storage:**

Bulk containers such as IMCs, gondola boxes, roll-on/roll-offs, and sludge boxes may be delivered by truck directly to the facility or by rail to the site or to a nearby siding. Containerized hazardous wastes are unloaded onto loading docks, loading areas, or directly into areas provided with secondary containment. Depending upon the volume of shipments arriving at the facility, the bulk containers may either be sampled upon arrival, or placed in a loading area or in one of the container storage areas prior to completion of the incoming load procedures ~~sampling~~. Bulk containers of wastes will be placed in a CMU within 72 hours of arrival at the site, with the exception of railcars. IMCs and other bulk rail containers holding wastes will be off-loaded within 10 days of arrival at the site. ~~Wastes may remain on the transport vehicle for up to ten (10) days while awaiting completion of acceptance procedures. After acceptance, hazardous waste will be transferred into permitted storage areas within five (5) days. Prior to placement in permitted storage, waste in containers will be managed in unloading areas and/or staged in an appropriate CMU.~~

Transport vehicles hauling wastes~~,~~ (e.g., end dump trucks, van trailers, and tankers, ~~(~~with or without tractors) may be stored in the truck bay portion of the Processing Area or adjacent to Building I and/or Building J. After sampling and incoming load ~~pre-acceptance~~ procedures are complete, the bulk containers may remain in

storage, be managed on-site, or be shipped off-site for alternate management.

The truck bay is of sufficient width to allow adequate aisle spacing to be maintained along the side of the building and containment structure. Aisle spacing of approximately two (2) feet or more will be maintained between double rows or pallets of containers. This spacing will allow inspection along the sides of the containers for leaks and proper labeling. The maximum sized RCRA container managed in a CMU is limited to the CMU containment volume; adequate containment is provided in the truck bay for management of any size container or bulk transport vehicles in this CMU. Containment capacity for the truck bay is addressed in section D-2d(1), which discusses the Processing Area, of which the truck bay is a part.

Area I100 in Building I is designed to store up to two bulk containers (e.g., tanker, gondola, etc.) or van trailers. Adequate containment is provided in Area I100 for storage of up to two bulk containers plus additional containers, maintaining aisle space of at least two feet. At no time will the maximum storage exceed the permitted capacity identified in Table D-2.

Secondary containment capacity is discussed in Attachment D.8 and Section D-2h.

## D-3 General Container Management Practices:

### D-3a Description of Containers:

The CMUs are capable of receiving and processing containers, both new and used, of various materials of construction, sizes, and capacities. The volume of individual containers managed in the CMUs is typically 450 gallons or less, except in the truck bay area, Building C, Building D, Building I, and in the Process Area where, after processing, wastes may be placed into bulk containers which may have volumes up to fifty-four (54) ~~twenty-five (25)~~ cubic yards. A wide variety of o~~O~~ther containers, such as paint cans, Marino bags, wooden cases, plastic tote tanks, and glass bottles may also be received.

Bulk containers~~, such as IMCs and sludge boxes, may be~~ managed on-site include, but are not limited to, IMCs, sludge boxes, gondolas, tankers, end dumps, and railcars. Some ~~All~~ storage areas have secondary containment and design capabilities for bulk ~~these~~ containers. Bulk containers may be used for virtually any of the waste types handled at the facility. HRIW will not place wastes into an unwashed container that has previously held incompatible wastes.

~~Several different types of bulk containers are handled at the HRIW facility; typical units have internal dimensions of about twenty (20) feet long, seven (7) feet wide, and five (5) feet high. The most common material of construction is carbon steel.~~

~~The lids of the IMCs may be made of a variety of materials such as carbon steel, aluminum, or tarpaulins. These types of bulk containers are generally used to handle non corrosive sludges or contaminated soils which are generated in large quantities.~~

**D-3b Handling of Containers: 40 CFR 264.173.**

The majority of containers managed at the HRIW facility are expected to be drums or similar containers delivered in van trailers. An industrial truck equipped with drum handling forks or a single container hand trolley will generally ~~may~~ be employed to unload non-palletized shipments. Palletized containers will generally ~~may~~ be unloaded with an industrial truck equipped with forks. Other container movement equipment may be used as available and appropriate. Ramps will ~~may~~ be used as necessary during transfer operations to facilitate movement of materials in and out of CMUs.

Containers may be moved within the facility by hand, by industrial truck, truck, railcar, or by other safe and appropriate means (e.g., conveyor). The specific method employed will be dependent on the distance, and the quantities and sizes of containers to be moved.

When moving containers between storage areas, loading areas, and/or process areas, the facility may need to temporarily stage containers prior to transfer to the next unit. This staging will generally occur in the unloading areas or in the area between Building C and the Processing Area. All staging will occur in paved areas. This staging of containers will not exceed one shift or eight hours.

Equipment is available to facilitate such operations as the transfer of wastes from a damaged container to a ~~clean~~ container in good condition, the manual repackaging of containers, the transfer of leaking containers into overpacks, and the removal of individual containers from CMUs.

During the unloading procedure, the containers will be visually checked. Those containers selected for sampling and analysis will be opened and sampled as described in Section C, Waste Characterization, Appendix C-A, Waste Analysis Plan (WAP). Sampling may occur on the unloading platform, in the working area, in a CMU or, prior to unloading, on the transport vehicle. Once samples have been obtained, the containers will be re-closed and will remain staged or be placed in a CMU until incoming load procedures are completed in accordance with the WAP. Containers which are not already in a containment unit will be moved into a CMU after the incoming load procedures are completed and the waste stream is accepted. If incoming load procedures cannot be completed in 72 hours, containers will be placed in an appropriate CMU, based on manifest, pre-acceptance, and other information available about the waste. If subsequent analytical or other information identifies a compatibility problem, the container will be moved to an appropriate CMU, rejected and returned to the generator, or transferred to another facility capable of handling the material.

Containers will be opened by one of a variety of methods. Liquid storage containers equipped with screw-in bungs in the lids will generally ~~may~~ be sampled by removing the bung, withdrawing a sample and replacing the bung. Containers with fully removable tops (i.e., with retaining rings) will generally ~~may~~ be opened by removing the lid and ring, sampling and replacing the lid and ring.

Containers are normally kept closed during storage. However, they may be opened for:

- inspection,
- sampling,
- treatment within the containers, and/or
- removal/addition of material.

Regularly scheduled inspections of the CMUs, loading/unloading areas, and processing areas are conducted to facilitate detection of open or deteriorating containers, improper storage in the CMUs, liquids on the floors or in sumps, or other improper conditions as outlined in Section F, Inspection Plan. The frequencies of these inspections are defined in the Inspection Plan.

Hazardous and non-hazardous wastes may be stored within the same CMU, but they will not be stored on the same pallet, except insofar as they have been received on the same pallet (e.g., lab packs, wrapped pallets, etc.). The Waste Tracking System will provide a record of the location of all wastes at the facility. This report will be available for facility personnel and inspectors to identify the location of both hazardous and non-hazardous wastes at the facility.

For purposes of meeting the requirements of 40 CFR 268.50, containers are dated during the incoming load or off-loading procedures.

~~Containers may be moved within the facility by hand, by industrial truck, or by truck. The specific method employed will be dependent on the distance, and the quantities and sizes of containers to be moved.~~

As the newly proposed second phase of the air emission standards for hazardous waste facilities becomes final, HRIW will address and implement air emission control devices for the affected container management activities as applicable.

**D-3b(1)** **Containers - 55 Gallon or Larger:**

At times, 55 gallon or larger containers may be stacked two (2) high (double-stacked), providing that the wastes are compatible and that such stacking is consistent with the National Fire Protection Association (NFPA) code for flammable storage.

~~Where applicable, i~~Inspection aisles of two (2) feet or more in width will be maintained between adjacent double rows of 55-gallon or larger containers in CMUs.

The bottom layer of containers in storage are placed on pallets or skids, or are otherwise managed to prevent contact of containers with any accumulated liquids. Rows will be no more than two (2) 55-gallon or larger containers wide. Dividers such as wooden pallets or plywood sheeting may be placed on top of the bottom row(s) of

Where applicable, inspection aisles of two (2) feet or more in width will be maintained in CMUs between adjacent rows of pallets of~~ized~~ containers ~~in CMUs~~ that hold less than 55 gallons.

The Waste Tracking System will provide a record of the location of each container of waste received at the facility, including those containers that are arranged or stacked in such a way that not all labels may be visible from the aisle. The Waste Tracking System will be updated at least once each day that containers of waste are moved.

**D-3c <u>Waste and Container Compatibility:</u> 40 CFR 264.172**

Wastes accepted for storage, treatment, or other management are required to be compatible with the containers used to store them. Acceptable containers for acidic wastes may include those made of plastic, steel lined with plastic, or fiberglass. Acceptable containers for other wastes ~~may~~ include, but are not limited to, steel, fiberglass, plastic, steel lined with plastic, and fiber drums and boxes, wooden cases, and fiber sacks. Solvent wastes are frequently stored in steel drums bearing DOT identification of 17 E or H. Alkaline wastes may be stored in plastic

containers or containers manufactured from carbon steel. Fiber sacks may be used to store, among other materials, contaminated debris or soils. New types of containers are routinely being developed and approved by the United States Department of Transportation (USDOT); USDOT and Performance Oriented Packaging Standards will dictate ~~facilitate~~ the shipment in, and use of, alternate containers meeting regulated performance requirements. HRIW may receive waste in any appropriate USDOT

about by USDOT's Performance Oriented Packaging Standards will be observed, by HRIW or generators sending shipments of waste to HRIW, as they are made effective.

Any containers found to be inadequately or improperly identified or deficient in the required information may be staged in a holding area until the deficiency can be resolved.

**D-3e <u>Response to Leaks:</u> 40 CFR 264.171**

Because the secondary containment system is designed to prevent storm water run-on, liquids found on the floor of a CMU will be either ~~may be assumed to be~~ blown precipitation or leaks of stored materials. When an inspection reveals liquid within a contained area, the source will be identified if possible. If liquids are discovered, they will be removed within twenty-four (24) hours of detection, or as soon as practical. The identification of the origin of the liquid may be accomplished in a number of ways, using a variety of inspection techniques. Visual inspection of the condition of containers for localized staining or leakage adjacent to a particular container is the technique most likely to be employed to trace the source of a leak. If this measure

fails, a sample of the liquid in the containment area will be analyzed for a range of parameters based upon the possible contents of the containers in the affected CMU. This process should indicate the waste stream type from which the leaking waste may have originated. All containers holding that waste stream type within the CMU will then be checked for leaks until the leak is found.

Wastes from the leaking container will be managed as described in D-3d. Liquid in the containment area may be transferred to an appropriate container, or to one or more storage tank(s), using a portable pump. Other suitable methods using absorbents, vacuum systems, etc., may also be used to manage spills. Any container into which wastes are transferred will be appropriately identified as to the type of waste stored in it. Minor quantities of liquids may be absorbed, collected, and placed in an appropriately identified container.

**D-3f <u>Special Requirements for Ignitable and Reactive Wastes:</u> 40 CFR 264.176.**

Ignitable and reactive wastes will be ~~stored in~~ segregated from incompatible materials ~~CMUs~~ within CMUs. ~~the container storage buildings.~~ Segregation may involve placement in separate CMUs,

or use of portable secondary containment units. Containers of ~~CMUs for~~ ignitable or reactive wastes are stored ~~located~~ at least fifty (50) feet from the

facility property boundary. CMUs that may contain ignitable or reactive wastes include C100, C200, C400, C500, C600, C700, L100, P100, P200, D100, D200, D300, D400, I200, I300, I400, J100, J200, J300, J400, J500, J600, J700, and all but the west twenty-five (25) feet ~~the east eighty (80) feet~~ of I100. Because of the requirements of 40 CFR 264.176, ignitable or reactive wastes will not be stored in CMUs C300, B100, B200, B300, B400, and the west twenty-five (25) feet of I100. Measures to prevent accidental ignition of ignitable wastes include the prohibition of smoking, use of non-sparking tools, and enforcement of procedures to control burning and welding in areas where these wastes are stored. Section F, Inspection Plan, addresses these procedures in detail.

**D-3g <u>Special Requirements for Incompatible Wastes:</u> 40 CFR 264.177.**

During unloading procedures, the containers will be visually checked. Those containers selected for sampling and analysis will be opened and sampled as described in the WAP (see Section C, Waste Characterization). Sampling may occur on the unloading platform, in the working area, in ~~an~~ CMU, or prior to unloading, on the transport vehicle. Once samples have been obtained, the containers will be re-closed and will remain staged in accordance

with the WAP until the incoming load procedures are completed. If incoming load procedures are not completed within 72 hours, the containers will be transferred into an appropriate CMU, as determined using available information (e.g., manifest, Waste Profile Sheet, etc.).

Containers which are not already in a CMU will be moved into a~~n~~ CMU after the incoming load procedures are completed or within 72 hours. ~~and the waste stream is accepted.~~ Should a container of waste be determined to be incompatible with the other wastes stored in a CMU as a result of analysis, it will be segregated from incompatible wastes. Portable containment units may be~~y~~ used to facilitate segregation.

Each RCRA CMU is equipped with secondary containment. These containment systems have sufficient capacity to contain a minimum of ten (10) percent of the volume of the maximum container capacity of wastes with free liquids permitted for storage in that unit. Wastes which are incompatible may be stored in adjacent CMUs separated by either diking, building walls, or other device.

The seven (7) container storage buildings are subdivided into individually contained CMUs. Adjacent CMUs may be used to manage incompatible wastes. The CMUs are used interchangeably. The criteria for CMU selection for storage of a specific waste type is based upon considerations of chemical compatibility, storage unit capacity, and operational demands.

To ensure that residues from wastes previously stored in a CMU do not contact potentially incompatible wastes about to be placed in the CMU, the following procedure will be observed. The CMU will be visually inspected when containers are removed for compatibility service change, and will be cleaned if evidence of a spill is found prior to placement of the next waste into the CMU for storage.

HRIW may transfer wastes from one container to another. In accordance with 40 CFR 264.177(b), hazardous waste will not be placed in an unwashed container that previously held an incompatible waste or material, except when that placement constitutes known and planned treatment as discussed in Section D-5, Treatment in Containers.

**D-3h <u>Transhipment of Containers of Waste:</u>**

The majority of wastes received at the HRIW facility will be stored, processed, and shipped off-site. However, some wastes, primarily waste in drums, which are intended for treatment or direct disposal at off-site facilities, may be temporarily stored ~~staged~~ at HRIW.

The facility may occasionally serve as a 10-day transfer station for wastes destined for incineration, disposal, or other management at another facility. This 10-day transfer will comply with the requirements of 40 CFR 263.12 and 264.1(g)(9). 10-day transfer stations are not subject to the permit requirements of 40 CFR 270 (see 40 CFR 270.1(c)(2)(vi)).

10-day transfer wastes may remain at the site for a period not to exceed ten (10) days prior to continuing the journey to the designated treatment, storage, or disposal site. 10-day transfer loads remain "in transit" during the entire stay at the site. These wastes may be off-loaded and transferred to another vehicle or to a railcar. Because these 10-day transfer loads are never accepted into the HRIW waste management system, no analyses are performed on the loads. They will, however, be identified in the Waste Tracking System.

~~Wastes arriving at HRIW which are destined for other facilities will be segregated from wastes to be managed on site. This will be accomplished either by transferring the wastes directly from the delivering vehicle into a second vehicle furnished to complete the delivery, or by staging the wastes temporarily. In the second case, CMUs will be assigned for the staging of this~~

~~category of containerized wastes until such time as the transfer and delivery to the other facilities can be completed. Compatibility and waste code acceptability are reviewed prior to staging of waste in containers. Staging of waste in containers will be limited to a maximum period of ninety (90) days.~~

~~Any container that is staged for ninety (90) days without being transhipped off site will undergo the acceptance procedures outlined in the WAP presented in Section C, Waste Characterization, Appendix C A.~~

**D-4 Storage in Containers without Free Liquid:** 40 CFR 264.175(c), 270.15(b).

HRIW has made the assumption, for design purposes, that all containers of wastes managed at the HRIW facility contain free liquid. Waste without free liquid is managed as appropriate for the waste code(s) carried. Management of containerized wastes without free liquids does not require containment (40 CFR 264.175(b)(3)); however, containers containing no free liquids may be managed in any container storage area on-site. Future operations may include storage areas without containment, for exclusive storage of containers (including bulk containers) without free liquids.

**D-5 Treatment in Containers**

HRIW may perform controlled treatment in containers (e.g., neutralization, phase separation, blending, phase change, etc.) in any of the permitted CMUs at the facility. Containers will remain open only for as long as is necessary to ensure complete and safe treatment. In general, treatment in containers will

involve the container being open for between one and four hours, although treatment in bulk containers may take as much as 24 hours.

Treatment in containers will involve the following steps:

- open the container;
- add materials or other wastes to serve as treatment reagents;
- mix the material in the container, as necessary;
- allow sufficient time for the reaction to be complete, and for any cooling, hardening, or other effects to occur as desired;
- observe the contents of the container and sample and analyze the treated mixture, as appropriate;
- if treatment is determined to be incomplete, repeat the four previous steps;
- when treatment is complete, close the container or transfer the contents to another container or tank.

Treatment in containers is performed to enable safer or more efficient handling of a waste or to prepare a waste for

subsequent processing. Treatment in containers may result in elimination of hazardous characteristics. In the event that this results in removal of a waste code from a waste, HRIW will use a Kansas certified laboratory to perform the analytical procedures.

# Appendix D-A

# Container Storage Buildings

## List of Figures

Figure D.3, Building D

Figure D.4, Processing Area

Figure D.5, Building C

Figure D.6, Drum Dock

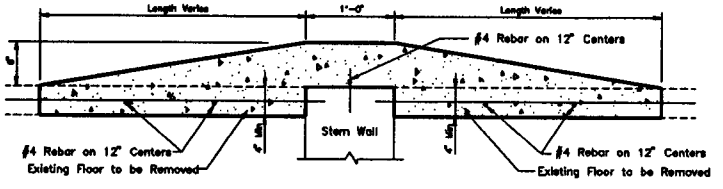
Figure D.7, Building B

Figure D.8, Building I

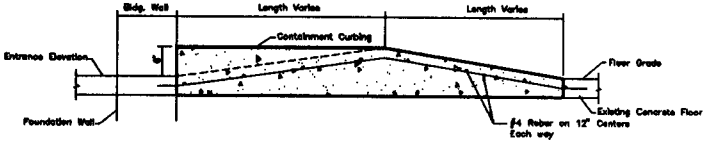
Figure D.9, Building J

**Figure D.3,**

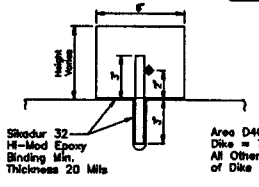
**Building D**




**Typical Ramp Cross Section**
Section B-B
Scale: 1 1/2" = 1'-0"

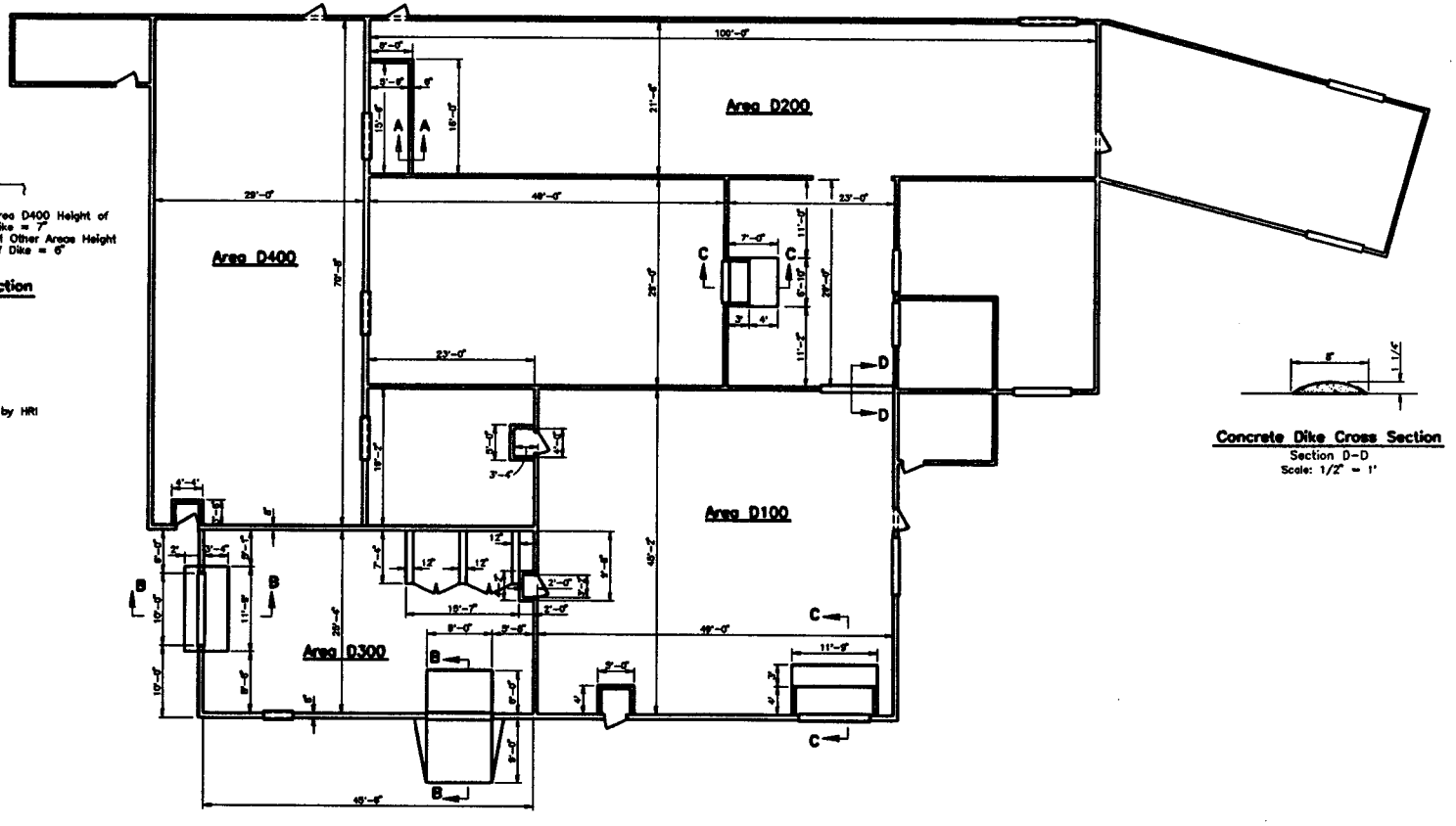



**Concrete Ramp Cross Section**
Section C-C
Scale: 1" = 1'




**Typical Dike Cross Section**
Section A-A
Scale: 3" = 1'

**Notes:**
1. 3000 PSI concrete
2. No. 4 rebar on 24" centers
3. Ramps furnished and installed by HRI
4. Concrete to be sandblasted where epoxy bonding goes






**Concrete Dike Cross Section**
Section D-D
Scale: 1/2" = 1'

| Drawing No. | Revision | Drawn By | Checked By | Designed By | Project | Customer | Scale | Project No. |
|---|---|---|---|---|---|---|---|---|
| 30-16-10-001 | | | | | DIKING AND RAMPS - BLDG. D | HYDROCARBON RECYCLERS INC. WICHITA, KANSAS | 1/8" = 1' | 570160 |
| | | | | | | | Date 8-16-92 | Sheet 1 of 1 |

**Figure D.4**

**Processing Area**

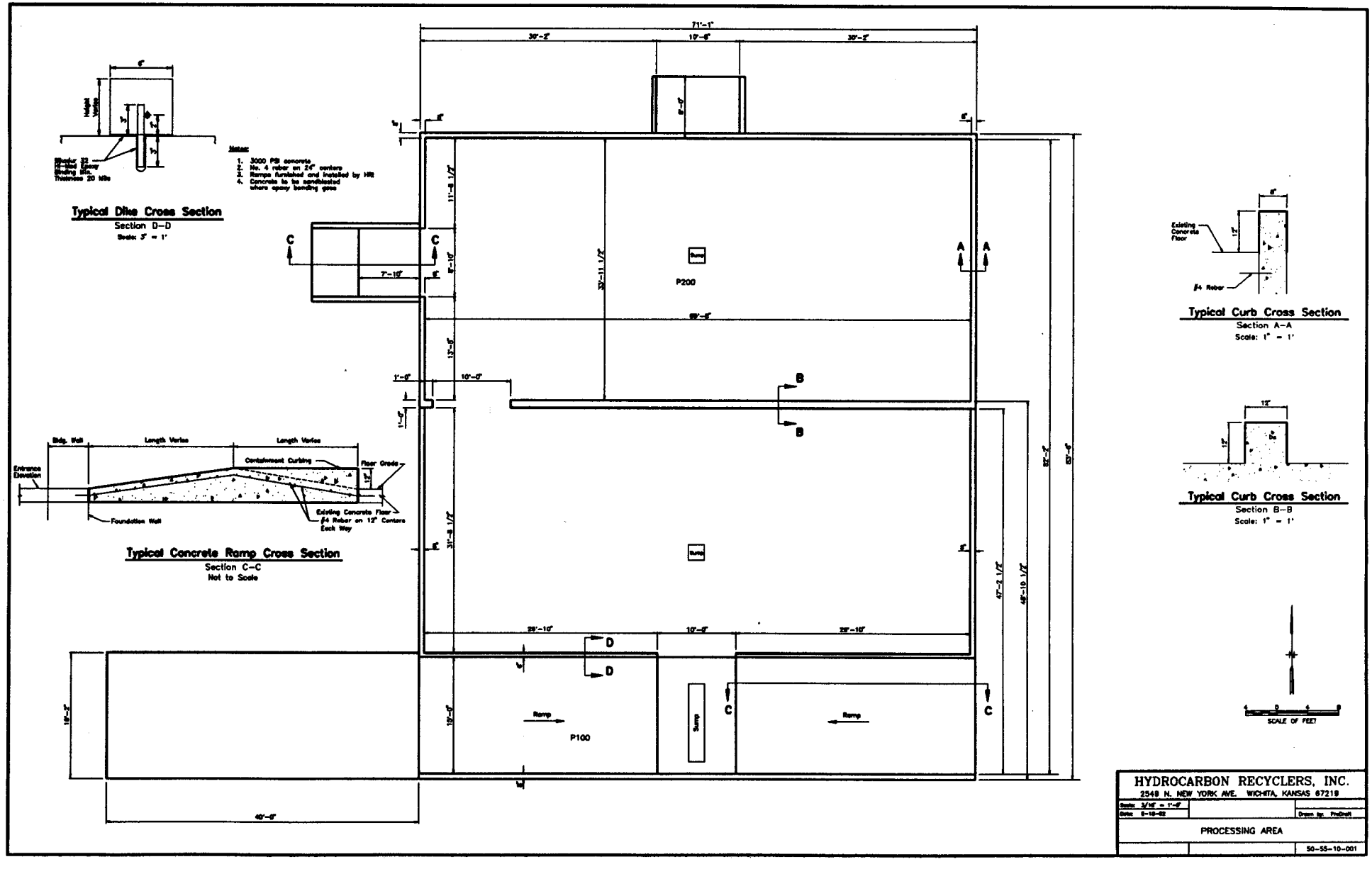
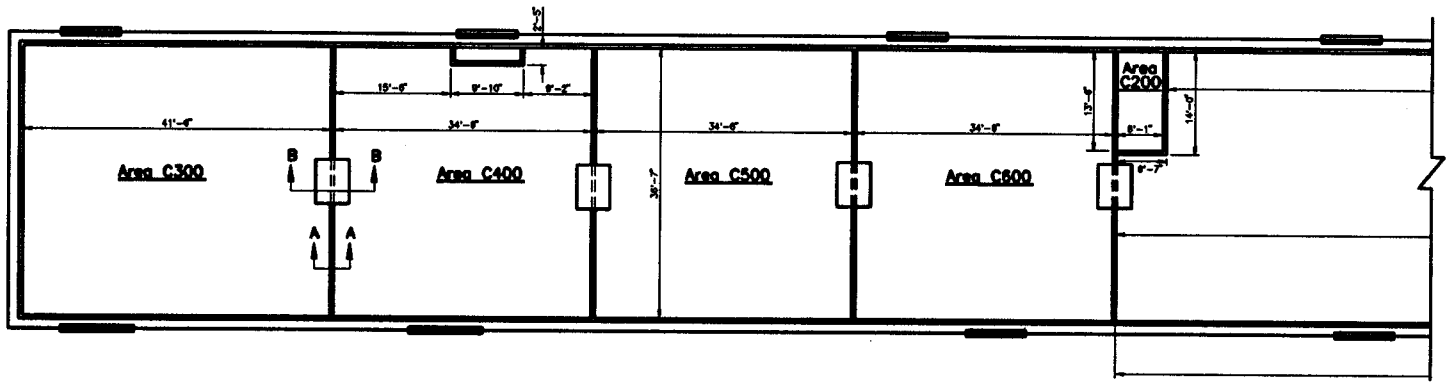
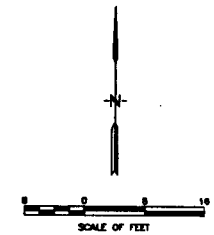
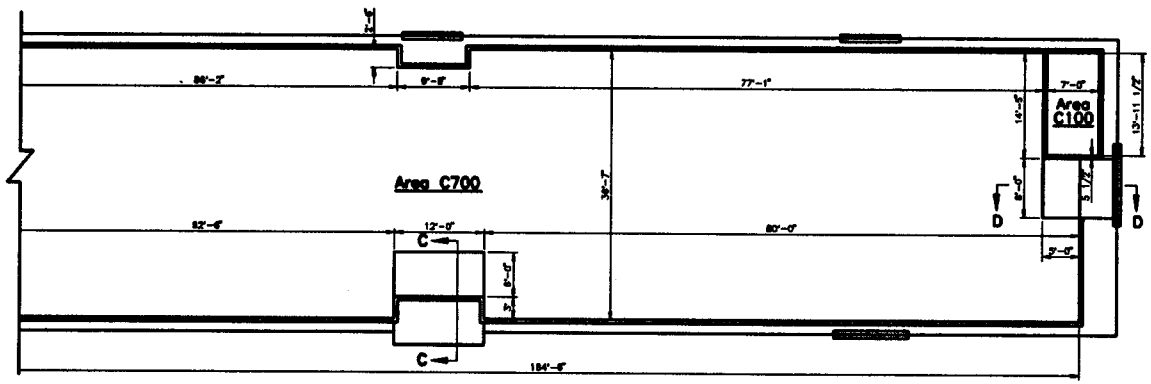

Typical Dike Cross Section
Section D–D
Scale: 3" = 1'
Notes:
1. 3000 PSI concrete
2. No. 4 rebar on 24" centers
3. Ramps furnished and installed by HRI
4. Concrete to be sandblasted where epoxy bonding goes
Typical Concrete Ramp Cross Section
Section C–C
Not to Scale
Bldg. Wall
Length Varies
Length Varies
Containment Curbing
Floor Grade
Entrance Elevation
Foundation Wall
Existing Concrete Floor
#4 Rebar on 12" Centers Each Way
71'–1"
30'–2"
19'–6"
30'–2"
P200
P100
Sump
Ramp
Typical Curb Cross Section
Section A–A
Scale: 1" = 1'
Existing Concrete Floor
#4 Rebar
Typical Curb Cross Section
Section B–B
Scale: 1" = 1'
SCALE OF FEET
HYDROCARBON RECYCLERS, INC.
2549 N. NEW YORK AVE. WICHITA, KANSAS 67219
PROCESSING AREA
50–SS–10–001

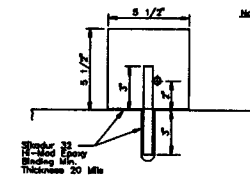
**Figure D.5**

**Building C**



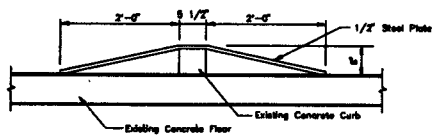



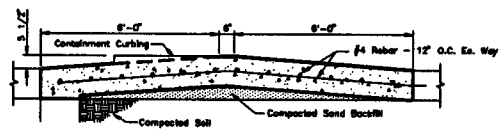




Notes:
1. 3000 PSI concrete
2. No. 4 rebar on 24" centers
3. Ramps furnished and installed by HRI
4. Concrete to be sandblasted where epoxy bonding goes

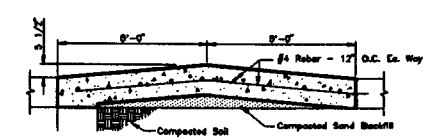
**Typical Dike Cross Section**
Section A–A
Scale: 3" = 1'




**Typical Steel Ramp Cross Section**
Section B–B
Scale: 1" = 1'




**Concrete Ramp Cross Section**
Section C–C
Scale: 1/2" = 1'

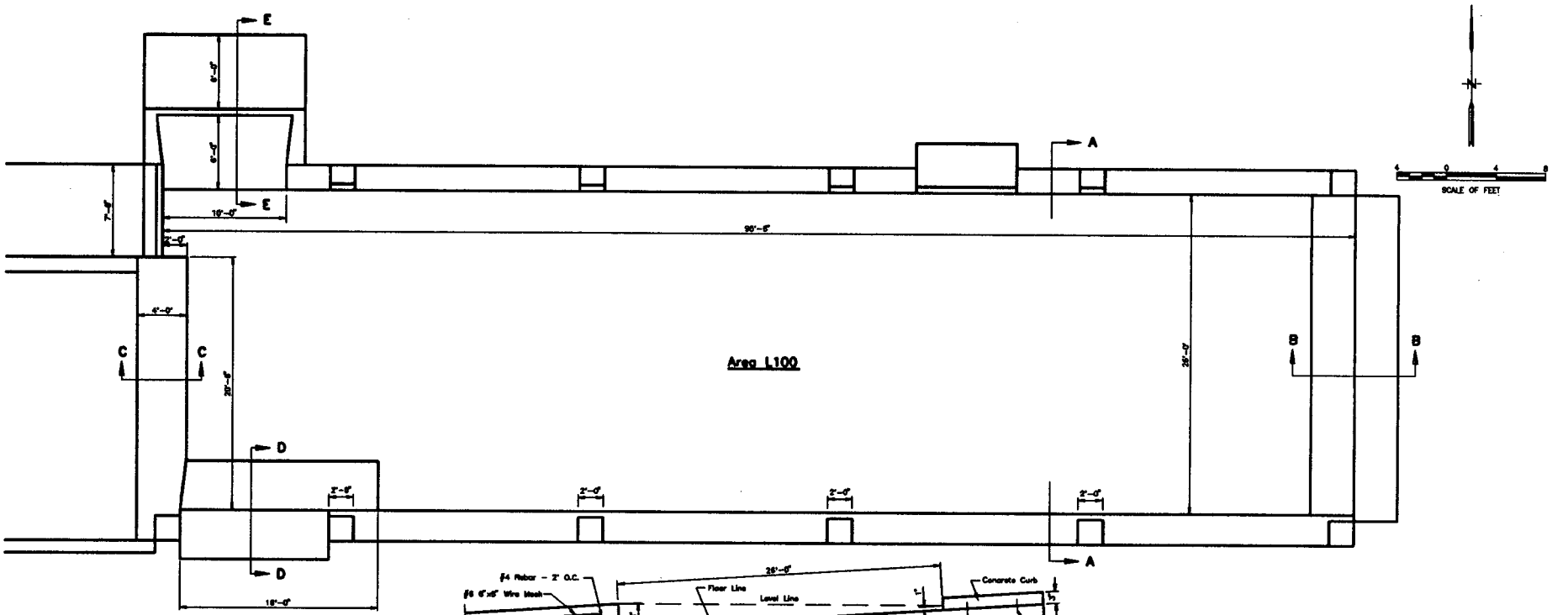


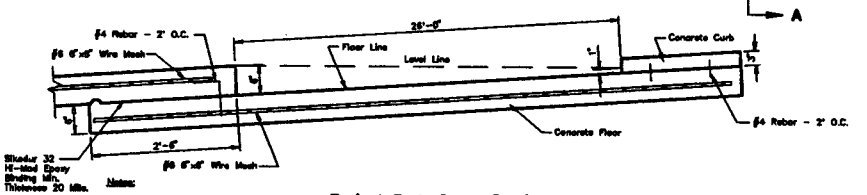

**Concrete Ramp Cross Section**
Section D–D
Scale: 1/2" = 1'

| Drawing No. | Revision | Drawn By | Checked By | Designed By | Project | Customer | Scale | Project No. |
|---|---|---|---|---|---|---|---|---|
| 50-15-10-001 | | Prothert | | | DIKING AND RAMPS - BLDG. C | HYDROCARBON RECYCLERS INC. WICHITA, KANSAS | 1/8" = 1' | STD180 |
| | | | | | | | Date 8-18-92 | Sheet 1 of 1 |

**Figure D.6**

**Drum Dock**

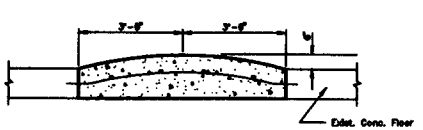


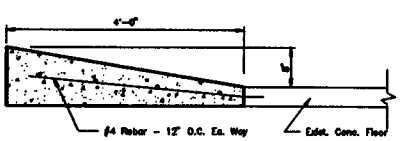

Notes:

1. 3000 PSI concrete
2. No. 4 rebar on 24" centers
3. Ramps furnished and installed by HRI
4. Concrete to be sandblasted where epoxy bonding goes

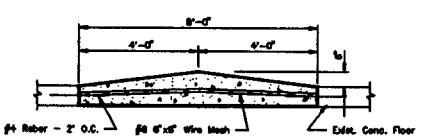
**Typical Curb Cross Section**
Section A-A
Scale: 1" = 1'



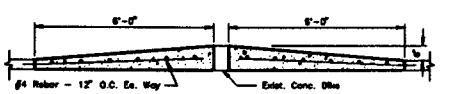

**Concrete Ramp Cross Section**
Section B-B
Not to Scale




**Concrete Ramp Cross Section**
Section C-C
Scale: 1" = 1'




**Typical Ramp Cross Section**
Section D-D
Scale: 1/2" = 1'

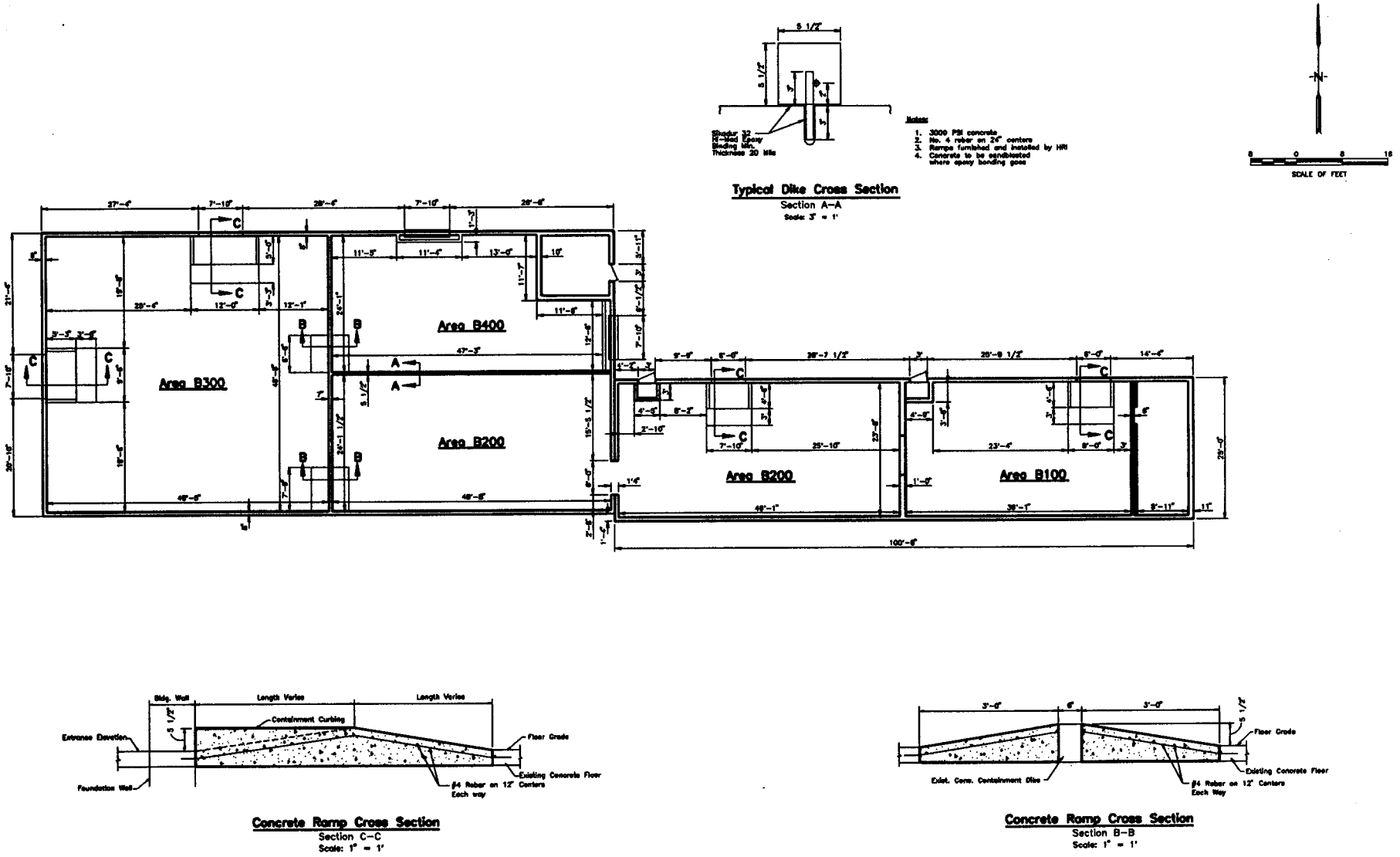



**Concrete Ramp Cross Section**
Section E-E
Scale: 1/2" = 1'

| Drawing No. | Revision | | Drawn By | | Checked By | Designed By | Project | | Customer | | Scale | Project No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20-19-10-002 | | | Project | | | | DIKING AND RAMPS - DRUM DOCK | | HYDROCARBON RECYCLERS INC. | WICHITA, KANSAS | 1/4" = 1' | 970180 |
| | | | | | | | | | | | Date 8-18-93 | Sheet 1 of 1 |

**Figure D.7**

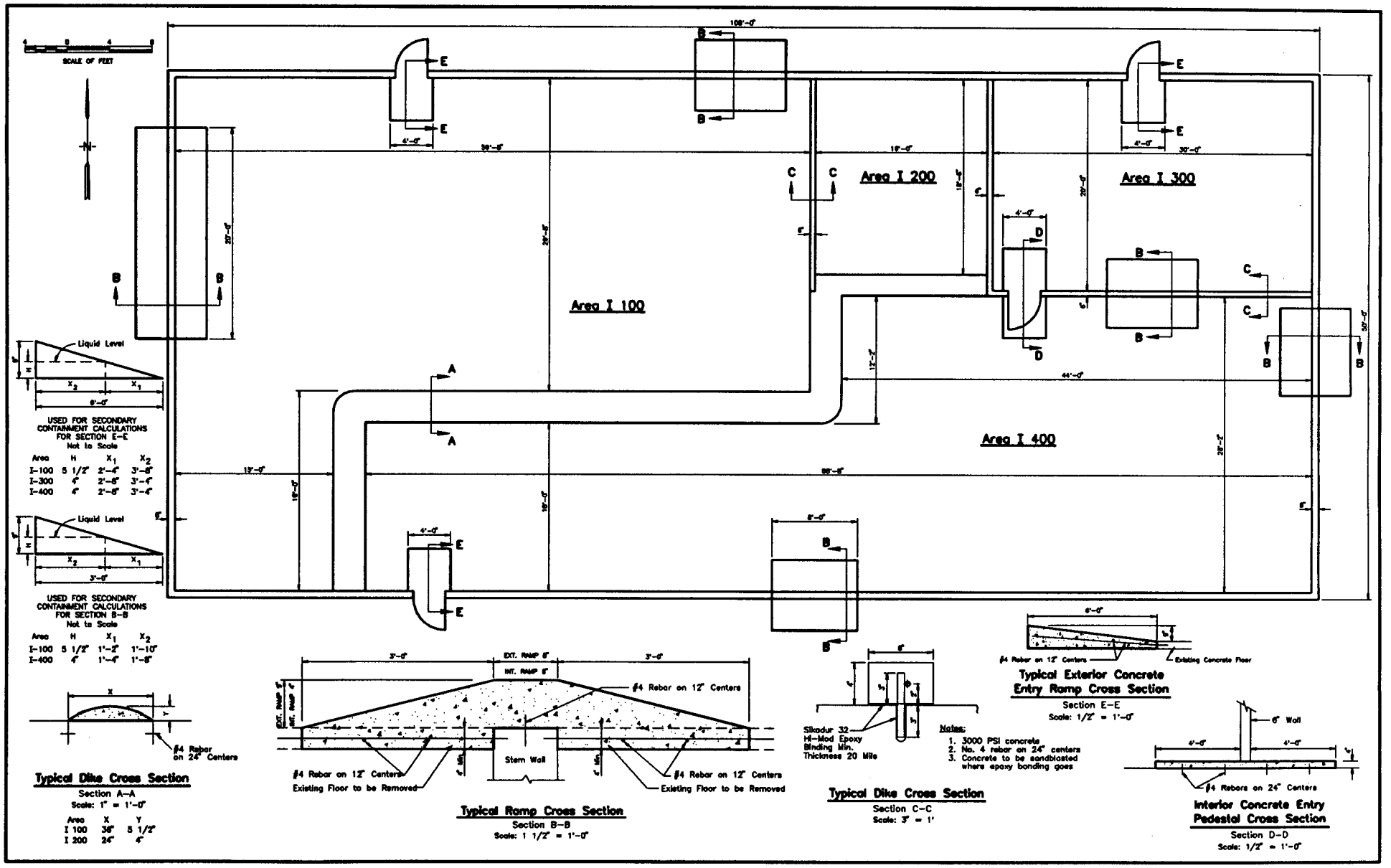
**Building B**




| Drawing no. | Revision | Drawn By | Checked By | Designed By | Project | Customer | Scale | Project no. |
|---|---|---|---|---|---|---|---|---|
| 90-14-10-001 | | Project | | | DIKING AND RAMPS - BLDG. B | HYDROCARBON RECYCLERS INC. WICHITA, KANSAS | 1/8" = 1' | STD180 |
| | | | | | | | Date 8-19-92 | Sheet 1 of 1 |

**Figure D.8**

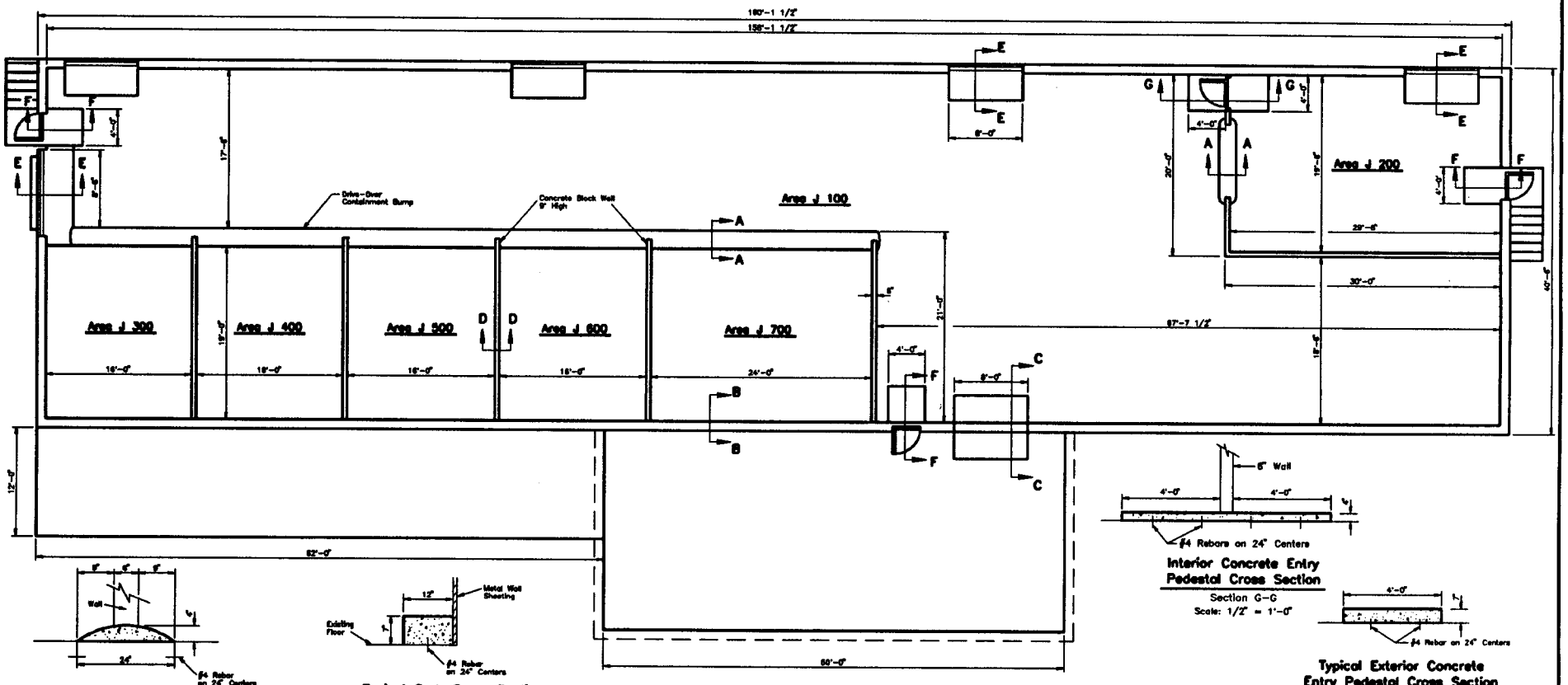
**Building I**

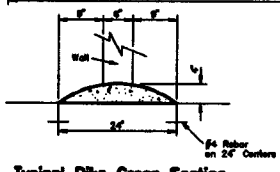



| Drawing No. | Revision | Drawn By | Checked By | Designed By | Project | Customer | Scale | Project No. |
|---|---|---|---|---|---|---|---|---|
| 00-17-10-001 | | | | | DIKING AND RAMPS - BLDG. I | HYDROCARBON RECYCLERS INC. WICHITA, KANSAS | 1/4" = 1' | 20127 |
| | | | | | | | Date 6-10-02 | Sheet 1 of 1 |

**Figure D.9**

**Building J**




**Typical Dike Cross Section**
Section A–A
Scale: 1" = 1'-0"



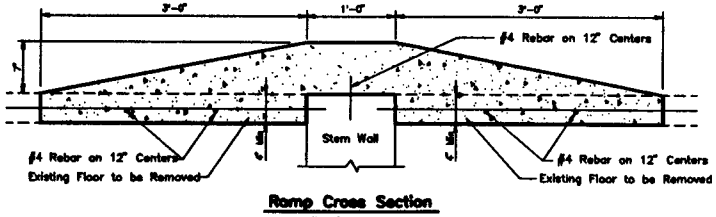

**Typical Curb Cross Section**
Section B–B
Scale: 1" = 1'-0"



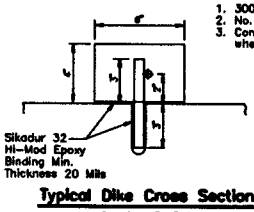

**Interior Concrete Entry Pedestal Cross Section**
Section G–G
Scale: 1/2" = 1'-0"




**Typical Exterior Concrete Entry Pedestal Cross Section**
Section F–F
Scale: 1/2" = 1'-0"

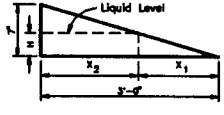



**Ramp Cross Section**
Section C–C
Scale: 1 1/2" = 1'-0"



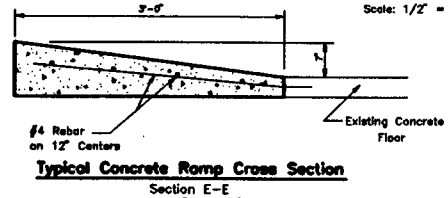

**Typical Dike Cross Section**
Section D–D
Scale: 3" = 1'

Notes:
1. 3000 PSI concrete
2. No. 4 rebar on 24" centers
3. Concrete to be sandblasted where epoxy bonding goes




USED FOR SECONDARY CONTAINMENT CALCULATIONS FOR SECTION E–E
Not to Scale

| Area | H | $X_1$ | $X_2$ |
|---|---|---|---|
| J–100 | 4" | 1'-8 1/2" | 1'-3 1/2" |
| J–200 | 4" | 1'-8 1/2" | 1'-3 1/2" |




**Typical Concrete Ramp Cross Section**
Section E–E
Scale: 1" = 1'-0"

| Drawing No. | Revision | Drawn By | Checked By | Designed By | Project | Customer | Scale | Project No. |
|---|---|---|---|---|---|---|---|---|
| 90-18-10-001 | | | | | DIKING AND RAMPS - BLDG. J | HYDROCARBON RECYCLERS INC. WICHITA, KANSAS | 3/16" = 1' | 30137 |
| | | | | | | | Date 9-18-92 | Sheet 1 of 1 |

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## List of Acronyms

Hydrocarbon Recyclers, Inc. of Wichita (HRIW)
Kansas Administrative Regulations (KAR)
Piping and Instrument Diagram (P&ID)
pounds per square inch gauge (psig)
National Fire Protection Association (NFPA)
Waste Analysis Plan (WAP)

## E-1 Introduction:

The purpose of this section is to provide information regarding the design, installation, and operation of the various tank systems at the Hydrocarbon Recyclers, Inc. of Wichita (HRIW) facility. This information is provided to fulfill the requirements of Kansas Administrative Regulations (KAR), Title 28, Article 31 as well as federal regulations as set forth in 40 CFR Part 264 Subpart J, and 40 CFR 270.16. The KAR incorporate, with few additions, the RCRA regulations contained in 40 CFR 260 through 270. Therefore, this section will refer only to the federal regulations.

A variety of tank systems are used at the HRIW facility. Tanks are used to store and/or treat liquids, solids, and sludges. There are twenty-two (22) ~~twenty-six (26)~~ waste storage tanks with a total permitted capacity of 137,051 ~~137,461~~ gallons at the facility. Individual tank capacities, dimensions, and tank system locations are summarized on Table E.1, Hazardous Waste Storage Tanks. Each of these tank systems is addressed in detail in the following pages.

**Table E.1**
**Hazardous Waste Storage Tanks**

| VESSEL | CAPACITY - WORK (gal) | CAPACITY - MAX (gal) | DIMENSIONS* | LOCATION |
|---|---|---|---|---|
| V-1 | 7,181 | 7,363 | 8'0"x 26'7"V | Process Area |
| V-2 | 7,084 | 7,084 | 8'0"x 18'10"V | Process Area |
| V-3 | 7,181 | 7,363 | 8'0"x 26'7"V | Process Area |
| V-4 | 7,181 | 7,363 | 8'0"x 26'7"V | Process Area |
| V-5 | 20,895 | 20,895 | 12'0"x 25'7"V | Process Area |
| V-6 | 20,895 | 20,895 | 12'0"x 25'7"V | Process Area |
| V-7 | 7,181 | 7,363 | 8'0"x 26'7"V | Process Area |
| V-8 | 7,181 | 7,363 | 8'0"x 26'7"V | Process Area |
| V-9 | 5,078 | 5,078 | 6'0"x 24'0"H | Building D |
| V-10 | 5,078 | 5,078 | 6'0"x 24'0"H | Building D |
| V-11 | 5,078 | 5,078 | 6'0"x 24'0"H | Building D |
| V-12 | 5,078 | 5,078 | 6'0"x 24'0"H | Building D |
| V-13 | 5,078 | 5,078 | 6'0"x 24'0"H | Building D |
| V-14 | 5,078 | 5,078 | 6'0"x 24'0"H | Building D |
| V-15A | 2,659 | 2,659 | 6'3"x 11'7"H | Building D |
| V-15B | 2,659 | 2,659 | 6'3"x 11'7"H | Building D |
| V-15C | 2,659 | 2,659 | 6'3"x 11'7"H | Building D |
| V-15D | 2,659 | 2,659 | 6'3"x 11'7"H | Building D |
| V-16 | 9,028 | 9,028 | 8'0"x 24'0"H | Building D |
| V-17 | 522 | 522 | 3'4"x 8'0"H | Process Area |
| V-18 | 489 | 489 | 4'0"x 5'8"H | Building D |
| V-26 | 1,129 | 1,155 | 6'0"x 5'7"V | Process Area |
| ~~V-29~~ | ~~90~~ | ~~90~~ | ~~2'0"x 4'0"H~~ | ~~Building D~~ |
| ~~V-30~~ | ~~90~~ | ~~90~~ | ~~2'0"x 4'0"H~~ | ~~Building D~~ |
| ~~V-31~~ | ~~115~~ | ~~115~~ | ~~2'0"x 5'0"H~~ | ~~Building D~~ |
| ~~V-32~~ | ~~115~~ | ~~115~~ | ~~2'0"x 5'0"H~~ | ~~Building D~~ |
| TOTAL | 137,051 ~~137,461~~ | 137,987 ~~138,397~~ | N/A | N/A |

Dimensions are given in feet and inches. The first dimension is the tank diameter and the second dimension is the length, followed by a 'V' for vertical tanks or an 'H' for horizontal tanks.

RCRA hazardous waste, as well as a variety of non-hazardous wastes, may be managed in the different tank systems. A list of RCRA waste codes acceptable for storage or treatment in the tank systems are provided in Section A, Part A Permit Application. Any waste code listed in the Part A may be handled in any tank at the facility. In general, tanks V-1 through V-8, V-17, and V-26 are located within the Processing Area and have a total working capacity of 86,430 gallons. Materials stored or treated in these vessels are ignitable and non-ignitable, hazardous and nonhazardous liquids and sludges. Tanks V-9 through V-16, including V-15~~Aa~~ through V-15~~Dd~~, are located within Building D and have a total working capacity of 50,132 gallons. Materials stored or treated in these vessels are non-ignitable, hazardous and nonhazardous liquids and sludges. Tank V-18 is ~~and tanks V-29 through V-32 are~~ also located in Building D. Tank V-18 has a working capacity of 489 gallons and receives solvents and water recovered from the Drier Unit. ~~Tanks V-29 through V-32 have a total working capacity of 410 gallons and receive recovered solvent and solvent contaminated water from the Sparging Units.~~

The secondary containment systems for HRIW's tank systems are designed such that no external shell of any tank, nor any external metal component of a tank will be in contact with soil

HRIW will use the appropriate controls and practices to prevent spills and overflows from tanks and containment systems. Spill prevention controls may include check valves, dry disconnect couplings, vacuum or gas purge, permanently fixed or mobile catch pans, and secondary containment around the activity. Overfill prevention controls include level sensing devices, high level alarms, an automatic pump activated by a float sensor, overfill bypass to another tank, and/or visual inspections during transfer. The control systems for the various tank systems are shown in the Piping and Instrument Diagram (P&ID)s provided in Section N, Air Emissions. Tank systems in hazardous waste service have, at a minimum, the following overflow protection systems:

- Secondary containment with chemical resistant coating,
- Automatic high level alarms on each individual tank, and
- Manual gauging ports.

Automatic level gauges are provided on some tanks and may be used in addition to the protection systems listed above. Adequate freeboard will be maintained in open top tanks to prevent liquids from blowing out of the top of the tank.

inch gauge (psig) pressure and approximately 0.5 ounce per square inch vacuum. In the event of a relief, these tanks are vented directly to the atmosphere. Tanks V-2, V-5, V-6, V-9 through V-14, V-15a through 15-d, V-16, and V-17 are closed top atmospheric tanks equipped with thief hatches with pressure relief set at approximately 2 ounces per square inch and vacuum relief set at 0.4 ounce per square inch. In the unlikely event of a relief, these tanks vent directly to the atmosphere. Tank V-26 is vented through a demister to the atmosphere, and tank~~s~~ V-18~~, V-29, V-30, V-31, and V-32 are~~ ~~is~~ vented directly to the atmosphere.

As the newly proposed second phase of the air emission standards for hazardous waste facilities becomes final, HRIW will address and implement appropriate air emission control devices for the affected tank systems.

**E-3c <u>Special Requirements for Handling Incompatible, Ignitable, or Reactive Waste:</u> 40 CFR 270.16(j), 264.198, 264.199, 264.17(b)**

Proper precautions are and will be taken (when managing ignitable or reactive wastes, or mixing incompatible wastes or incompatible wastes and other materials) to prevent reactions which: 1) generate extreme heat or pressure, fire or explosion, or violent

reactions; or 2) produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment. Wastes exhibiting the characteristics of ~~ignitability or~~ reactivity will not be placed in any of the tank systems located at the HRIW facility unless the waste is treated, otherwise managed, or mixed before or immediately after placement into a tank system so that:

- the resulting waste, mixture, or dissolved material no longer meets the definition of ~~ignitability or~~ reactivity; or

- the waste is stored or treated such that it is protected from any material or conditions that may cause the waste to ignite or react; or

- the tank system is used solely for emergencies ~~an emergency~~.

Tanks designated to accommodate storage of wastes exhibiting the characteristics of ignitability and reactivity will comply with the requirements for the maintenance of protective distances between the waste management area and any adjoining property lines as outlined in the National Fire Protection Association

(NFPA) "Flammable and Combustible Liquids Code" (1977 or 1981). Water and/or foam fire suppression systems are also located where required by NFPA regulations. Smoking or open flames will not be permitted in the vicinity of these tank systems. "No Smoking" signs are conspicuously placed wherever there is a hazard from ignitable or reactive waste.

Incompatible wastes or incompatible waste and material will not be placed in the same tank system for storage. A compatibility analysis will determine whether a waste meets the compatibility criteria for storage in a tank system. The procedures for this analysis are outlined in Appendix C-A, Waste Analysis Plan (WAP) located in Section C, Waste Characteristics, and will be performed when necessary to ensure that incompatible wastes or incompatible waste and material are ~~not~~ only placed in the same tank system under controlled circumstances. There may be instances where an incompatible waste is used as a reagent to treat another waste in a tank, under controlled circumstances. Additionally, hazardous waste will not be placed in a tank system that previously held an incompatible waste or material unless compliance with 40 CFR 264.17(b) is demonstrated. Certifications for Compatibilities of Wastes with Tank Materials are located in Appendix E-A.

**E-3d Inspections: 40 CFR 264.195**

A list of inspections performed for the various tank systems is provided in Section F, Inspection Plan. HRIW will document the results of these inspections in the operating record to be kept at the facility for a minimum of three years.

**E-3e Contingency Measures: 40 CFR 264.196**

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, will immediately be removed from service and HRIW will comply with the applicable requirements listed in 40 CFR 264.196. The Contingency/Emergency Plan (Section H), contains procedures for responding to a situation where there is a leaking or an unfit-for-use tank system.

**E-3f Tank Cleaning for Non-Hazardous Waste Service**

Tanks that have been in hazardous waste service are cleaned prior to non-hazardous waste service. This cleaning procedure will consist of the following steps:

- remove wastes from tank systems by draining and/or pumping;
- flush hoses and piping by pumping an appropriate detergent or solvent in a volume roughly equivalent to the total volume of the pipe or hose; and
- remove residuals by pumping, scraping, brushing, and/or washing, as necessary.

When visual inspection of the tank shows no evidence of contamination, the tank system is considered to be available for non-hazardous waste or product service. The above procedures, while not intended to close a tank, will make it available for non-hazardous waste management.

In some circumstances, HRIW may opt to store non-hazardous wastes in a tank that previously held hazardous wastes, without first cleaning that tank. Under these circumstances, HRIW will manage the non-hazardous wastes as if they are hazardous, in accordance with the mixture rule (40 CFR 261.3(b)).

## E-4 Containment and Detection of Releases: 40 CFR 264.193, 270.16(g)

Secondary containment systems for tank systems are designed, installed, and operated to prevent migration of wastes or accumulated liquid to the soil or groundwater. The containment systems enable the detection of, and collection of, releases and accumulated liquids. Liquids accumulated in a CMU will be removed from containment systems within 24 hours or as soon as practicable.

Secondary containment systems for tank systems consist of concrete slabs surrounded with concrete walls or dikes of appropriate height. The containment systems are sloped or tanks are constructed above the floor to facilitate detection of any released material or other liquid. Accumulated liquids will be removed and managed appropriately. Each area has been designed to surround the base of the tanks and cover the surrounding earth most likely to come into contact with a release of waste. These design and operating factors are, in combination, capable of preventing potential lateral and vertical migration of hazardous waste constituents. The secondary containment systems have been designed to have sufficient structural strength and thickness to minimize the potential of failure owing to pressure gradients, physical

**Table E.2**
**Tank System Containment Details**

| LOCATION | NUMBER OF TANKS & CONTAINERS & GALLONS EACH | CAPACITY REQUIRED (gallons) * | CAPACITY AVAILABLE (gallons) * | SECONDARY CONTAINMENT DESCRIPTION | GENERAL UTILIZATION |
|---|---|---|---|---|---|
| Building D<br>D400 | 6 @ 5,078<br>4 @ 2,659<br>1 @ 9,028 | 9,028 | 9,195 | Coated concrete curbs/slab inside a building~~•~~ | Storage of non-ignitable hazardous and nonhazardous liquids |
| D100 | 1 @ 489<br>152 @ 55 | 885 | 1,428 ~~1,432~~ | | |
| ~~D300~~ | ~~2 @ 90~~<br>~~2 @ 115~~<br>~~64 @ 55~~ | ~~392~~ | ~~3,762~~ | | |
| Processing Area<br>P100/P200 | 5 @ 7,181<br>1 @ 7,084<br>2 @ 20,895<br>1 @ 522<br>1 @ 1,129<br>180 @ 55 | 20,895 | ~~32,583~~<br>~~22,524~~ | Coated concrete walls/slab under a roof | Storage of non-ignitable and ignitable hazardous and nonhazardous liquids |
| ~~Future Operations~~ | ~~N/A~~~~+~~ | ~~N/A~~ | ~~N/A~~ | ~~N/A~~ | ~~Waste Water Treatment~~ |

* Capacity calculations are provided in Appendix E-A

~~+ Information not available~~

~~• Containment unit D300 is not coated at the present time. The tank systems within this area are not in service and will not be placed in service until a chemically resistant coating has been applied and the necessary tank system certifications are in place.~~

# Attachment 2, Tank Containment Certification Statements

Throughout this Attachment, the facility referred to as "HRS Wichita facility" is the same facility identified in the permit application as "HRIW."

# Appendix E-B
# Tank Drawings

## List of Drawings

| Drawing Number | Tank Description | Tank Designation |
|---|---|---|
| Drawing 50-56-V1-001 | Tank: 7,363 Gallon Maximum Capacity | V-1, V-3, V-4, V-7, V-8 |
| Drawing 50-56-V2-001 | Tank: 7,084 Gallon Maximum Capacity | V-2 |
| Drawing 50-56-V5-001 | Tank: 20,895 Gallon Maximum Capacity | V-5, V-6 |
| Drawing 50-56-V9-001 | Tank: 5,078 Gallon Maximum Capacity | V-9, V-10, V-11, V-12, V-13, V-14 |
| Drawing 50-56-V15A-001 | Tank: 2,659 Gallon Maximum Capacity | V-15-A |
| Drawing 50-56-V15B-001 | Tank: 2,659 Gallon Maximum Capacity | V-15-B, V-15-C, V-15-D |
| Drawing 50-56-V16-001 | Tank: 9,028 Gallon Maximum Capacity | V-16 |
| Drawing 50-56-V17-001 | Tank: 522 Gallon Maximum Capacity | V-17 |
| Drawing 50-56-V18-001 | Tank: 489 Gallon Maximum Capacity | V-18 |
| Drawing 50-56-V18-002 | Stand: 489 Gallon Maximum Capacity Tank | V-18 |
| Drawing 50-56-V26-001 | Tank: 1,155 Gallon Maximum Capacity | V-26 |
| ~~Drawing 50-56-V29-001~~ | ~~Tank: 90 Gallon Maximum Capacity~~ | ~~V-29~~ |
| ~~Drawing 50-56-V30-001~~ | ~~Tank: 90 Gallon Maximum Capacity~~ | ~~V-30~~ |
| ~~Drawing 50-56-V31-001~~ | ~~Tank: 115 Gallon Maximum Capacity~~ | ~~V-31~~ |
| ~~Drawing 50-56-V32-001~~ | ~~Tank: 115 Gallon Maximum Capacity~~ | ~~V-32~~ |

# Appendix E-C

# Documentation of Tank Ages

August 27, 1992
Revision No. 1

## APPENDIX E-C

## YEAR OF INSTALLATION OF HAZARDOUS WASTE TANKS

| VESSEL | YEAR INSTALLED | VESSEL | YEAR INSTALLED |
|---|---|---|---|
| V-1 | 1988 | V-12 | 1966 |
| V-2 | 1982 | V-13 | 1966 |
| V-3 | 1988 | V-14 | 1966 |
| V-4 | 1988 | V-15A | 1966 |
| V-5 | 1988 | V-15B | 1966 |
| V-6 | 1988 | V-15C | 1966 |
| V-7 | 1988 | V-15D | 1966 |
| V-8 | 1988 | V-16 | 1966 |
| V-9 | 1966 | V-17 | 1990 |
| V-10 | 1966 | V-18 | 1975 |
| V-11 | 1966 | V-26 | 1991 |

noted. The nature and date of any repairs are recorded on the RWO when the repairs are completed. The RWO is then filed by identifying number in the operating record.

Potential problems identified on the inspection log ~~sheet~~ will be corrected or addressed as soon as possible or practicable. If repairs are required, they will be made as soon as they can be safely and practically performed. If the problem identified is a threat to human health or the environment, then actions to mitigate the situation will be undertaken immediately. All steps necessary to allow the repairs (e.g., minimizing the exposure of the workers to hazardous materials, hazardous waste, or hazardous situations) will be taken prior to beginning the repair work. The inspection logs and RWOs will be maintained as part of the operating record for at least three years from the date of inspection. Examples of the inspection log are provided in Appendix F-A, Example of Inspection Log, and an example of the RWO is provided in Appendix F-B, Example of Remedial Work Order.

The facility inspector will communicate the occurrence of problems to the Operations Manager (or designee) through the RWOs. The timing of this notification will depend on the nature of the potential problem. A problem threatening human health or

**F-2b(3)** **Miscellaneous Units:** **40 CFR 264.602**

Inspection requirements for miscellaneous units include checks for releases, deterioration, or malfunction of each unit, and, as applicable, the unit's controls to prevent releases to the environment. These units are described in Section M, Other Regulated Units. Specific inspection items are addressed in Appendix F-F, Inspection Schedule for Miscellaneous Units.

Inspections with respect to miscellaneous units will follow the same procedures as all other regulated units. The inspections will identify potential operational problems and required maintenance of in-service equipment and structures while the facility is operational or equipment is in service. The corrective program will include a Remedial Work Order (RWO) type of system to document and track the resolution of problems identified during inspections.

# APPENDIX F-A

## SAMPLE INSPECTION LOG ~~SHEET~~

~~Form May be Modified~~

| INSPECTION PARAMETER | INSPECTION PROCEDURE | INSPECTION FREQUENCY |
|---|---|---|
| | Visually inspect sprinkler systems and other fire suppression systems. | Monthly |
| | Inspect external condition of safety showers and operate to verify adequate water flow. | Monthly |
| | Inspect external condition of eye wash stations and operate to verify adequate water flow. | Monthly |
| | Inspect spill response and decontamination equipment for operable condition. Spill response equipment includes the following:<br>Overpack drums<br>Absorbents<br>Portable pumps<br>Hand tools<br>Brooms<br>Detergent<br>Absorbent towels | Monthly |
| | Inspect inventory of Facility PPE for adequate supplies and operable condition. PPE includes the following:<br>Cartridge respirators<br>Supplied air respirators<br>Protective clothing<br>Specialized gloves<br>Specialized footwear<br>Hearing protection<br>Eye protection<br>Hard hats | Monthly |

This schedule applies to active Container Management Units (CMUs) at HRIW, except as noted.

| INSPECTION PARAMETER | INSPECTION PROCEDURE | INSPECTION FREQUENCY |
|---|---|---|
| Container Management System | Inspect containment system loading and unloading areas for evidence of spills or accumulated liquids. | Daily |
| | Inspect aisles in container storage areas for a minimum of two (2) feet of aisle space. | Daily |
| | Visually inspect containers for evidence of pressure build-up, structural damage, leaks, missing cap or bung, corrosion, or deterioration. | Weekly |
| | Visually inspect containers for legible markings or identification labels. | Weekly |
| | Inspect the container storage areas, concrete slab, and curbs for cracks, gaps, flaking, chips, gouges, and other signs of wear. | ~~Weekly~~ Daily |
| | Inspect sumps for presence of liquids. | Daily |
| | Inspect container management areas to ensure incompatible wastes are properly segregated. | ~~Monthly~~ Weekly |
| | Inspect equipment and conveyors for operability, condition. | Weekly |

| INSPECTION PARAMETER | INSPECTION PROCEDURE | INSPECTION FREQUENCY |
|---|---|---|
| Tank System: | Where appropriate, visually inspect the exterior condition of the tank (e.g. for evidence of leaks, stains, corrosion etc.) and the area immediately surrounding the externally accessible portion of the tank systems for erosion or evidence of releases of waste (e.g., wet spots, discolorations). | Daily |
| | Inspect tank containment system (concrete slab, sumps, and curbs) for cracks, gaps, flaking, chips, gouges, wet areas, puddles, and other signs of wear and leaking. | Daily |
| | Where appropriate, inspect monitoring equipment installed on the tanks for evidence of damage. | Weekly |
| | Inspect tank loading and unloading areas for evidence of spills. Inspect hoses for signs of wear, leakage or other damage. Inspect hose couplings for proper seals and leaks and other damage. | Daily |
| Overfill Control System | Check electronic indicator system for operability. | Weekly |
| | Manually check operability of ~~relief/detection valves~~overfill floats. | Quarterly |
| Containment for: Truck Docks and Unloading area | Visually inspect for evidence of spills. | Daily |

| INSPECTION PARAMETER | INSPECTION PROCEDURE | INSPECTION FREQUENCY |
|---|---|---|
| Miscellaneous Units | Check surface of unit for evidence of leaks or structural damage. | Daily, when in service |
| | Inspect the secondary containment, coating (where present), concrete slab, and curbs for cracks, gaps, flaking, chips,gouges, and other signs of wear. | Daily, when in service |

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Figure G.1, Facility Layout

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~~Appendix G A, Sample Inspection Log Sheet~~

## List of Referenced Drawings

Drawings located in Section Y, Referenced Drawings

Drawing 50-01-01-002, Facility Layout

## List of Acronyms

Hydrocarbon Recyclers, Inc. of Wichita (HRIW)
Public Address (PA)
Hazardous Waste Management Unit (HWMU)
Container Management Unit (CMU)
Personal Protective Equipment (PPE)
Self-Contained Breathing Apparatus (SCBA)
National Fire Protection Association (NFPA)

Figure G.1. Facility Layout

G-3 **Inspection Schedule:** 40 CFR 264.15, 264.33, 264.174, 270.14(b)(5)

Hydrocarbon Recyclers, Inc. of Wichita (HRIW) has developed an Inspection Plan to provide a systematic method of identifying potential problems, malfunctions, or deterioration which may cause or lead to a release of hazardous constituents to the environment or a threat to human health. The facility inspection plan, including inspection schedules, is presented in Section F, Inspection Plan.

~~G-3 Inspection Schedule: 40 CFR 264.15, 264.33, 264.174, 270.14(b)(5)~~

~~Inspections will be used to identify potential problems, to identify problems associated with operation, or to identify required maintenance of in service equipment and structures while the facility is operational or equipment is in service.~~

~~The general inspection schedule will include inspection of the facility perimeter, safety and emergency equipment, security devices, operating and structural equipment, communication systems, alarm systems, fire protection equipment, and decontamination equipment. Section F, Inspection Plan, provides specific information regarding facility inspection procedures.~~

~~The inspection schedules, presented as Appendices to Section F, Inspection Plan, indicate the frequency at which each item on the schedule is inspected. Inspection frequencies may range from daily to annually, depending upon the item. The frequencies have been based on the rate of probable deterioration of equipment, equipment manufacturers' recommendations, or operating experience at other USPCI facilities.~~

~~One or more inspectors will be designated to perform the inspections as scheduled. A record of the inspections and the schedule will be maintained at the facility. The results of the inspections will be recorded on an inspection log which will be maintained in the operating record. The inspection log will include the date, the time of the inspection, the name of the inspector, his/her initials, items examined, issues noted, and a record of the corrective actions taken.~~

~~Issues identified on the inspection sheet will be corrected or addressed as soon as possible or practicable. If repairs are required, they will be made as soon as they can be safely and practically performed. If the problem identified is a threat to human health or the environment, then actions to mitigate the situation will be undertaken immediately. All steps necessary to allow the repairs (e.g., minimizing the exposure of the workers to hazardous materials, hazardous waste, or hazardous situations) will be taken prior to beginning the repair work. The inspection logs will be maintained as part of the operating record for at least three years from the date of inspection. A typical inspection sheet is provided in Appendix G A, Sample Inspection Log Sheet.~~

Text of page 7 has been removed.

~~The facility inspector will communicate the occurrence of problems to facility operation management or appropriate designee. The timing of this notification will depend on the nature of the problem. A problem threatening human health or the environment would be reported immediately. If necessary, the inspector will notify the Emergency Response Coordinator as required by Section H, Contingency/Emergency Plan.~~

Text of page 8 has been removed.

- Containerized Wastes: Elevated docks are provided to facilitate loading and unloading of containerized wastes at the Drum Dock, and at Building J. Trucks are loaded or unloaded using an industrial truck or a drum dolly, or other appropriate container handling equipment. Containers are typically fifty-five (55) gallon drums, although larger and smaller containers may also be handled.

Manual handling of the containers will be minimized. Industrial trucks are capable of lifting and transporting one or more containers at a time. Drum grapplers (e.g., a semi-circular shaped arm attachment to the forks) or fork attachments for the forklift truck will be used for lifting and transporting individual containers. These drum grasping attachments are capable of securely holding a container during lifting and transporting without requiring additional straps or hooks. The operator is responsible for ensuring that the truck and the dock or ramp are properly aligned before any loading or unloading activities are initiated.

Drum dollies may be used to move individual containers (typically drums). The dollies have forks or a plate which can be inserted beneath the bottom of an individual container to support the container during lifting and transporting. The dollies either

**G-5b <u>Run-off and Run-on:</u> 40 CFR 270.14(b)(8)(ii)**

Precipitation and spills in waste management areas will be contained by dedicated secondary containment structures. These structures will prevent run-off to the environment or other facility areas. Secondary containment systems may contain one or more sumps to allow collection and removal of any accumulated liquids. Accumulated liquids will be managed in accordance with Section C, Waste Characterization. Containment systems not protected from precipitation by a building have been designed to accommodate the intrusion of precipitation from a twenty-five (25) year, twenty-four (24) hour storm event. Drawings showing the design and dimensions of containment systems are provided in Sections D, Use and Management of Containers ~~Waste Characterization~~ and E, Tank Systems of this permit application.

Precipitation falling outside of the containment areas is controlled to prevent run-on of storm water into a waste management unit. Storm water falling into the active areas of the site is managed through a storm water drainage system.

**G-5e <u>Personal Protective Equipment:</u> 40 CFR 270.14(b)(8)(v)**

Personal Protective Equipment (PPE) available at the facility will include the following.

- Self-Contained Breathing Apparatus (SCBA): A portable device to supply breathing air will be available on-site.

- Cartridge respirator: Employees will be issued the appropriate mask and cartridges for the work area. Cartridges for the masks will be stocked at the facility.

- Supplied air: Buildings I and J will be equipped with a supplied air system to minimize the necessity for respirators in the container handling areas.

- Protective clothing: Employees performing specific tasks in HWMUs will be issued hard hats, protective coveralls, safety glasses, chemical resistant steel toe boots, specialized gloves, and hearing protection as appropriate. A supply of the appropriate protective clothing will be maintained at the facility.

## G-5f Prevention of Releases to Atmosphere: 40 CFR 270.14(b)(8)(vi)

The facility is designed, constructed, maintained, and operated to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment as required by 40 CFR 264.31.

The facility Inspection Plan (Section F), Emergency/Contingency Plan (Section H), and Training Plan (Section I) have been developed to enable the facility to prevent releases including emissions and to respond to any releases that may occur.

Waste management practices designed to minimize potential releases to the atmosphere include procedures as specified in 40 CFR 264.173. Containers remain closed during storage, except when it is necessary to add or remove waste or reagents. Containerized hazardous waste is managed in a manner which minimizes the potential for rupture of containers or damage to containers which could result in leakage. Ramps and automated transfer equipment facilitate safe movement of waste between management areas.

Tank and process unit management practices are designed to comply with the requirements of 40 CFR 264.194. Materials are not intentionally placed in a tank system or process unit if they could cause the unit to rupture, leak, corrode, or otherwise fail. Some of the process units are equipped with emission control devices, as discussed in Section M, Other Regulated Units. Tank systems deemed unfit for use will be removed from service as required by 264.196. Releases from tank systems or process units will be removed and/or cleaned up at the earliest practicable time to minimize potential for release to atmosphere by evaporation.

An emissions monitoring program for equipment subject to 40 CFR Subpart BB is in place at the facility. Details regarding this program presented in Section N (Air Emissions) of this application.

processing through the Processing Area, re-containerized for shipment, treated in containers, or shipped off-site in their original containers.

Section G-6d provides information on the management of ignitable and reactive wastes in tanks.

- Wastes found to be incompatible under the procedures in Section C will not be placed in the same container except under controlled circumstances during treatment. Wastes added to containers must be compatible with ~~the contents of the container and with~~ the container itself.

**G-6d <u>Management of Ignitable or Reactive Wastes in Tanks:</u> 40 CFR 264.198, 270.16(j)**

Proper precautions are and will be taken (when managing ignitable or reactive wastes) to prevent reactions which: 1) generate extreme heat or pressure, fire or explosion, or violent reactions; and 2) produce uncontrolled toxic mists, fumes, dusts, gases in sufficient quantities to threaten human health or the environment. Wastes exhibiting the characteristic~~s~~ of ~~ignitability or~~ reactivity will not be placed in any of the tank systems located at the HRIW facility unless the waste is treated, otherwise managed, or mixed before or immediately after placement into a tank system.

Reactive wastes will be stored in tanks or containers in such a way that they are protected from ~~prevents contact with~~ materials or conditions which might produce a dangerous or unacceptable reaction.

# ~~APPENDIX G-A~~

## ~~SAMPLE INSPECTION LOG SHEET~~

~~Form May be Modified~~

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Drawings Located in Section Y, Drawings

Drawing 50-01-03-002, Emergency Equipment/Evacuation Routes

## Acronym Table

Hydrocarbon Recyclers, Inc. of Wichita (HRIW)
Emergency Response Coordinator (ERC)
City of Wichita Fire Department (CWFD)
Hazardous Materials Response Team (HMRT)
City of Wichita Police Department (CWPD)
National Response Center (NRC)
Reportable Quantity (RQ)
Local Emergency Planning Committee (LEPC)
Kansas Department of Health and Environment (KDHE)
National Fire Protection Association (NFPA)
Personal Protective Equipment (PPE)
Self-Contained Breathing Apparatus (SCBA)

## H-1 Introduction: 40 CFR 264.51(a), 264.53 (a),(b), 264.54

This Contingency/Emergency plan, when implemented, will minimize hazards to human health and the environment due to events such as fires, explosions, and/or releases of hazardous waste. This plan contains provisions addressing the requirements of 40 CFR Part 270 and 40 CFR Part 264. It is presented in a format designed to be useful for employees and response personnel during an emergency and for employee training purposes.

Copies of the plan will be kept at the facility and provided to the appropriate local authorities and emergency response agencies that may be called upon to provide emergency services. Amendment of the Emergency/Contingency Plan will be performed in accordance with the permit modification requirements of 40 CFR 270.42. The plan will be reviewed and may be amended, if necessary, whenever:

- the permit is revised;
- the plan may be improved by addressing shortcomings noted during practice or actual implementation;
- the list of Emergency Response Coordinators (ERC) changes, or the list of emergency equipment changes;

- the facility changes in a way that materially increases the potential for fires, explosions, releases of hazardous waste or hazardous waste constituents; or

# Table H-1

## Emergency Response Coordinators

Primary Emergency Response Coordinator

Name: Steve Keiter

[redacted]

316/268-9490 (work)

[redacted]

Ex. 6 PII

Alternate Emergency Response Coordinators

Name: Cary Mans

[redacted]

316/268-9490 (work)

[redacted]

Name: Joe Dowdey

[redacted]

316/268-9490 (work)

[redacted]

Name: Ronald Robertson

[redacted]

316/268-9490 (work)

[redacted]

Name: Beth Justice

[redacted]

316/268-9490 (work)

[redacted]

**H-5 Emergency Response Procedures: 40 CFR 264.56**

**H-5a Notification Procedures: 40 CFR 264.56(a)(2), 264.56(d)**

In the event of an emergency which may require notification of outside authorities, the ERC or person designated by the ERC, shall call the appropriate emergency authorities; the KDHE will be notified within 24 hours or in as timely a manner as is possible of any events that result in implementation of this Emergency/Contingency Plan.

A telephone listing of these authorities is provided in Appendix H-C, Emergency Telephone List of Local Authorities. This telephone list will be posted at or nearby every telephone in the active portion of the facility; emergency telephone numbers are also available in office areas. The person initiating the call will provide as much of the following information as is available.

- Name of caller
- Name of facility and telephone number
- Address and location of Facility
- Time and type of incident
- Type and quantity of material(s) involved
- Extent of injuries
- Possible hazards to health and environment outside the facility

- Evacuate the facility (see H-8 for evacuation procedures and routes).

- Within twenty-four (24) hours, or as soon as practicable after detection of the release, transfer sufficient waste from the tank or container, as necessary, to prevent further release of hazardous waste to the environment and to allow inspection of the unit. Any tank system from which there has been a leak or spill, or which is unfit for use, will be emptied and removed from service in accordance with 40 CFR 264.196.

- After the release is controlled, and it is deemed safe to do so, response personnel will enter the affected building or area to assess damage and to determine the condition of waste containers, and other affected equipment.

- Stop the release of liquid into an area by plugging, patching, or unloading any leaking tanks, pipes, or other equipment.

- Stop the release of liquid from its container by placing the leaking container into an overpack drum.

- Note in the operating record the time, date, and details of any incident that required implementing the contingency plan.

- Submit, from HRIW or the ERC, a written report of the incident to the Secretary~~Regional Administrator~~ within 15 days after the incident (see H-9 for the detailed reporting requirements).

- Submit, from HRIW or the ERC, a written report to the Secretary~~Regional Administrator~~ certifying that any emergency equipment involved in the incident or in the response and remediation are fit for their intended use.

## H-6 Emergency Equipment: 40 CFR 264.52(e)

Emergency equipment is available at the facility for response to emergency situations. Emergency equipment maintained on site is summarized in Table H-2, Emergency Equipment List. This equipment will be accessible and will be regularly inspected and appropriately serviced. A description of this equipment is listed below.

### H-6a Emergency Alarm and Communication Systems:

The facility is equipped with emergency alarm and communication systems to be used to notify and give emergency directions to both on-site and off-site personnel. These systems include:

- a facility-wide alarm system (siren), which is capable of alerting personnel of emergencies;

- a PA system which includes an intercom system accessible by telephones throughout the facility; and

- telephones, which are the primary means of communication within the facility and between the facility and the local emergency authorities.

## Table H-2

## Emergency Equipment List

| Equipment | Capabilities |
|---|---|
| Fire Extinguishers | Small fire control |
| Foam Supply | Fire control |
| Portable Sump Pump | Collection of spills/leaks |
| SCBA/Respirators | Minimize exposure of personnel |
| Personal Protective Equipment | Minimize exposure of personnel |
| Air Compressor | Supplied air line |
| Containers/Overpacks | Storage of collected material |
| Absorbants | Spill control |
| Squeegee, Shovel | Spill collection/containment |
| Portable P.A. System | Communication |

**H-6b Fire extinguishers:**

There are fire extinguishers located throughout the facility as required by the appropriate local fire code as well as the National Fire Protection Association (NFPA) code. The facility employs Type ABC fire extinguishers which are multipurpose combinations of the extinguisher types listed below.

- Type A is capable of extinguishing fires involving ordinary combustible wastes such as wood, cloth, paper, rubber, and many plastics.

- Type B is capable of extinguishing fires involving flammable liquids, oils, greases, tars, oil base paints, lacquers, and flammable gases.

- Type C is capable of extinguishing fires involving energized electrical equipment.

In Buildings I and J, small containers of dry powder fire extinguisher will be kept on hand in any area where open

containers are handled (i.e., Areas I300 and J200). In addition, Buildings I and J will be provided with a foam fire suppression system instead of the water sprinklers provided in other areas of the plant.

**H-6c Fire hydrants:**

Fire hydrants are available for fire control. They receive their water supply from the City of Wichita Department of Water.

**H-6f Safety Showers and Eye Wash Stations:**

There are two (2) stations located in the facility. They are designed to meet OSHA requirements. Locations for these stations are provided on Figure H.1, Emergency Equipment/Evacuation Routes.

**H-6g Self-Contained Breathing Apparatus (SCBA):**

SCBAs are available to provide breathing air, which may be needed by some personnel in the event of an emergency situation. Supplied air will be provided in Buildings I and J.

## H-9 Required Reports: 40 CFR 264.56(j)

### H-9a Reports to the Secretary~~Regional Administrator~~:

If the Contingency Plan is implemented per 40 CFR 264.51(b), HRIW will submit a written report to the Secretary~~Regional Administrator (Region VII)~~ within 15 days after the incident in compliance with 40 CFR 264.56(j).

The report will include the following information.

- Name, address, and telephone number of the owner or operator
- Name, address, and telephone number of the facility
- Date, time, and type of incident (e.g., fire, explosion)
- Name and quantity of material(s) involved
- The extent of injuries, if any
- An assessment of actual or potential hazards to human health or the environment, where this is applicable
- Estimated quantity and disposition of recovered material that resulted from the incident
- Notification that the equipment used in response to the incident is fit for its intended use

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## List of Referenced Drawings

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Drawing 50-01-10-002, Material Containment Areas
Drawing 50-01-03-001, Tank Locations
Drawing 50-57-10-001, Miscellaneous Unit Locations

## Acronym Table

Hydrocarbon Recyclers, Inc. of Wichita (HRIW)
Treatment, Storage, or Disposal Facilities (TSDFs)
Title 40 of the Code of Federal Regulations (40 CFR)
Hazardous Waste Management Units (HWMUs)
National Priorities List (NPL)
Potentially Responsible Party (PRP)
Kansas Department of Health and Environment (KDHE)
Toxic Characteristic Leaching Procedure (TCLP)
Container Management Unit (CMU)
Toxic Characteristic Leaching Procedure (TCLP)

## J-1 Introduction

This plan describes the activities to be performed at Hydrocarbon Recyclers, Inc. of Wichita (HRIW) at the time of facility closure; it addresses both partial unit closures and final facility closure. This plan is contained in the RCRA/HSWA Part B permit application as Section J. When the permit is issued pursuant to this application, this plan will supersede the existing plans covering current ~~(1991)~~ interim status operations.

HRIW is a wholly owned subsidiary of USPCI, Inc. The facility stores, treats, and recovers for recycling hazardous and nonhazardous wastes. HRIW blends BTU containing materials for beneficial use and energy recovery as cement kiln fuel and recovers solvents for further management. HRIW also stores, processes, and/or manages waste solvents, sludges, solids, and water for subsequent shipment to other permitted Treatment, Storage, or Disposal Facilities (TSDFs) for distillation, beneficial reuse, further treatment or disposal. HRIW also stores waste solvent, hydrocarbons, paint-related waste streams, solids, corrosive waste streams, and water-based waste streams. Storage and treatment occurs in both containers and tanks. (For

a more complete description of activities at HRIW, see Section B, Facility Description.) The facility operates under EPA I.D. No. KSD007246846.

The HRIW facility does not include ~~contain~~ disposal units. Also, all tank systems are equipped with secondary containment meeting the requirements of Title 40 of the Code of Federal Regulations (40 CFR) 264.193 (b) through (f). Therefore, the facility is subject to neither the post-closure care requirements of 40 CFR 264.116 through 264.120, nor the contingent post-closure plan requirements of 40 CFR 264.197(c).

## J-2 Hazardous Waste Management Units to be Closed

The HRIW facility's existing hazardous waste management units are summarized in Table J.1, Maximum Extent of Operations ~~Unclosed~~ - HRIW - Hazardous Waste Management Units, presented in Appendix J-A, Tables. Specific descriptions of container management units, tank systems, and miscellaneous units are located in Sections D (Container Management), E (Tank Management), and M (Miscellaneous Units), respectively.

## J-3 Closure Performance Standard

HRIW will close each hazardous waste management unit and/or the entire facility in a manner that minimizes the need for further maintenance, and controls, minimizes, or eliminates (to the extent necessary to protect human health and the environment) post-closure escape of hazardous waste, hazardous constituents, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere.

HRIW ~~USPCI~~ will meet this performance standard by removing all hazardous wastes and hazardous waste constituents to acceptable levels (see Section J-4a). All containers, tanks, miscellaneous units, piping, and other ancillary parts to the systems will be closed in one of the following ways:

1. They will be dismantled and disposed of as hazardous waste at a RCRA/HSWA permitted off-site disposal facility.

2. They will be decontaminated in accordance with the procedures discussed in Section J-4a ~~to an acceptable level~~ and disposed of at a solid waste landfill.

3. They will be decontaminated sufficiently to be salvaged for future use.

4. They will be transferred for use at another RCRA facility.

All permanent structures (e.g., concrete containment systems) will be closed in one of the following ways.

1. They will be dismantled and disposed of as hazardous waste at a RCRA/HSWA permitted off-site disposal facility.

2. They will be decontaminated in accordance with the procedures discussed in Section J-4a ~~to an acceptable level~~ and disposed of at a solid waste landfill.

3. They will be decontaminated in accordance with the procedures discussed in Section J-4a ~~to an acceptable level~~ and maintained in place for future use.

**J-3a <u>Establishment of Cleanup Standards</u>**

HRIW will close the subject Hazardous Waste Management Units (HWMUs) by removal of the waste so that there will not be any need for post-closure monitoring and maintenance of the units.

Since all units at HRIW have secondary containment, any leaks, spills, drips, etc. will have been contained, removed, and cleaned up in accordance with the operating conditions of this permit. Therefore, the surrounding soils and/or groundwater should not have been contaminated by regulated units during facility operations under this permit application.

The property on which the HRIW facility is located is included within the boundaries of the 29th and Mead Comprehensive Environmental Response, Compensation, and Liability Act or "Superfund" Site in Wichita, Kansas. The 29th and Mead Superfund Site is listed on the National Priorities List (NPL). Reid Supply Company has been named a Potentially Responsible Party (PRP) in the 29th and Mead Superfund Site. In 1986, Conservation Services, Inc. purchased certain assets, including the permit (operating under EPA I.D. #KSD007246846), from Reid Supply Co., Inc. Subsequently, Hydrocarbon Recyclers, Inc. of Wichita acquired the capital stock of Conservation Services, Inc. in 1987. The Reid Supply Company property functioned as a storage, recycling, and collection point for hazardous waste material and as a bulk chemical repackaging and distribution center since the 1970s.[1]

The 29th and Mead Superfund Site, located in north Wichita, Kansas, is bounded by 37th Street on the north, I-135 on the east, 17th Street on the south, and Broadway Street on the west. Located in a heavy industrial area, the Site has evolved over a 95 year time span, approximately. Current industry includes, but is not limited to, chemical supply companies, grain elevators, railroad facilities, metal fabricating companies, foundries, refineries, meat processing companies, recyclers/salvage facilities, roofing companies, concrete companies, food processing companies, and gasoline retailers.[1]

Past investigations, including one performed by Groundwater Technology, Inc.[1], have indicated the presence of soil and groundwater contamination. ~~In response to these investigations, several remedial actions have been implemented, including a hydraulic control system at the Reid Supply, Inc. property.~~ The investigation and remediation plan for the 29th and Mead Superfund Site is in preparation by U.S. EPA Region VII contractors. Due to this investigation into potential contamination of the area, the HRIW facility currently does not plan to conduct independent soil or groundwater studies during closure. At final closure, HRIW will use the Superfund site cleanup levels as the target levels for closure performance

standard for soils and groundwater (as appropriate) at the site. In the event that the Superfund cleanup levels have not been determined at the time of final facility closure, a health risk assessment will be performed and used to set the target closure levels for contaminants in soils and groundwater at the site. The health risk assessment and the recommended target levels will be provided to the appropriate regulatory agency for review and approval prior to implementation. During partial closure, soils will be removed or decontaminated if contaminant levels exceed background levels, as determined using the procedures in Section J-4. Subsequent removal of soils from the same area may occur at final closure, depending upon the target levels defined as discussed in the preceding paragraph.

~~Dependant on the conclusions of this investigation and the actions taken as a result of the conclusions (e.g., remediation of soils and~~

~~groundwater),~~ HRIW may amend this closure plan in the future ~~to include soil and/or groundwater studies~~in accordance with 40 CFR 270.42.

Because the scope and extent of future site remediation is unknown, this closure plan will address only potential contamination which resulted from hazardous waste management at HRIW ~~processes under this permit, once approved~~. Consequently, all areas where evidence of visible contamination exists and areas beneath secondary containment will be evaluated and closed in accordance with J-4a of this closure plan.

During facility operations under this permit application, hazardous waste management areas are covered and have secondary containment which includes diking. These controls minimize precipitation run-on and run-off and will subsequently be maintained during closure. These structures will not be removed until after all associated hazardous waste management units are decontaminated; or, if demolition is required, other practical methods will be implemented to control run-on and run-off.

Because the HRIW facility does not contain waste piles or surface impoundments, and the facility is not a disposal facility, other

activities such as groundwater monitoring and leachate collection are not applicable as part of ~~during~~ closure.

## J-4 Partial Closure and Final Closure Activities

Partial facility closure (i.e., closure of individual hazardous waste management units) may be necessary during the active life of the facility. If partial closure is necessary, the individual hazardous waste management unit would be closed in accordance with Section J-9 of this closure plan. Currently, however, HRIW plans to close all existing hazardous waste management units during the final facility closure. HRIW will close the facility in accordance with the following procedures.

1. HRIW will notify the Kansas Department of Health and Environment (KDHE) or the United States Environmental Protection Agency (USEPA), Region 7, Administrator at least 45 days before HRIW intends to begin final closure (within 30 days after receiving the known final volume of hazardous waste into a hazardous waste management unit).

2. If modifications to this closure plan are desired and have not been previously approved in accordance with 40 CFR 270.42 and 264.112, the modified portions of the plan will not be implemented until approval by KDHE or other authorized agencies has been received.

3. Within 90 days after receiving the final volume of hazardous wastes at a hazardous waste management unit or the facility, HRIW will either treat or remove from the unit or facility all hazardous wastes in accordance with this closure plan, unless an extension has been requested and approved in accordance with 40 CFR 264.113(a).

4. HRIW will complete final closure activities within 180 days after receiving either the final volume of hazardous wastes or final closure plan approval from the agency (whichever is later), unless an extension has been requested and approved in accordance with 40 CFR 264.113(b).

5. HRIW will close the facility in accordance with the schedule discussed in Section J-7 and outlined in Table J.3, Closure Activity Schedule - Final Facility Closure, of this closure plan.

6. The container management units will be closed in accordance with Section J-9a of this closure plan. The tank systems will be closed in accordance with Section J-9b of this plan. All miscellaneous units will be closed in accordance with Section J-9c of this plan.

7. All contaminated equipment and structures will be either properly disposed of as hazardous waste or decontaminated in accordance with Section J-4a of this closure plan. After decontamination, equipment (such as hand tools, forklifts, and conveyers) and structures may be salvaged for future use.

8. HRIW will visually inspect the surface soils at the facility. In accordance with Section J-4a of this closure plan, any visible evidence of contamination will be evaluated for hazardous constituents and (if contamination is present) subsequently removed for proper disposal. The target levels for soil contaminants at partial closure will be determined by comparison to local background levels. For final closure, target levels for closure will be determined by comparison to Superfund cleanup levels or, if necessary, levels set using a site-specific health risk assessment.

9. All wastes generated from closure activities will be handled in accordance with Section J-4b of this closure plan.

10. The HRIW facility does not contain disposal units. All tank systems have secondary containment meeting the requirements of 40 CFR 264.193 (b) through (f). Also, all hazardous

wastes and hazardous waste constituents will be removed from the facility during final closure and all structures will be decontaminated in accordance with this closure plan. Therefore, the facility is subject to neither the post-

closure care requirements of 40 CFR 264.116 through 264.120, nor the contingent post-closure plan requirements of 40 CFR 264.197(c).

11. Within 60 days of final closure completion, HRIW will submit, either by hand delivery or by registered mail, a certification of closure to KDHE or to the Regional Administrator of the USEPA, Region 7. The certification will be signed by HRIW, as the owner/operator of the facility, and by an independent registered professional engineer attesting that the units were closed in accordance with this closure plan.

## J-4a Disposal or Decontamination of Equipment, Structures and Soils

During the partial and final closure periods, all contaminated equipment and structures will be either properly disposed of or decontaminated.

**J-4a(1) Soils**

As discussed in Section J-3a, HRIW does not currently plan to perform extensive soil or groundwater studies for the purpose of closure because this would duplicate the ~~of a~~ pending ~~federal~~ Superfund investigation into potential historical contamination of the site and the surrounding area. ~~However,~~ The extent of remedial action which will be required at the 29th and Mead Superfund Site has not been determined.

During closure operations, HRIW will inspect the immediate area around all hazardous waste management units for indications of contamination. Any visible evidence of contamination (e.g., staining, discoloration) will be evaluated for hazardous constituents (performing limited soil sampling and analysis if applicable) and, if contamination is present, the soils will be ~~subsequently~~ removed for proper disposal ~~in accordance with the following procedures~~. In addition, the concrete base of the containment system will be inspected for evidence of damage (e.g., cracking, pitting, etc.). If this damage may have resulted in migration of hazardous constituents from the containment system, further investigations will be performed to determine the presence and extent of contamination, if any.

Visibly contaminated soil, either adjacent to or under containment systems of waste management units, will be removed. Excavated soil and debris will be analyzed according to standard laboratory procedures for the presence of hazardous constituents and managed in accordance with applicable regulations. Procedures for sampling and analysis of soil remaining after excavation (if applicable) are listed below.

1. For partial closure involving possible soil contamination, six ~~Three~~ representative background samples will be taken on-site but away from the visible contamination at ~~a~~ depths of 0-18 inches and 18-36 ~~12-24~~ inches at each of three sample points and analyzed using either USEPA SW-846 8260 and/or SW-846 8015, modified, or another equivalent, acceptable method. For all methods of record, deviations from SW-846 methods have either been included in the Waste Analysis Plan (Section C) for agency approval at this time, or will be submitted to the agency for approval prior to use. Background samples will be taken from the same soil type and at the same soil horizon as non-background samples. The facility "background" will be considered the mean plus three standard deviations.

2. All soil analysis procedures will be conducted in accordance with either USEPA method SW-846 numbers 6010, 7471, and/or 8260, modified (as appropriate) or other equivalent procedures. For all methods of record, deviations from SW-846 methods have either been included in the Waste Analysis Plan (Section C) for agency approval at this time, or will be submitted to the agency for approval prior to use.

3. Proper QA/QC procedures will be followed to control the potential loss of VOCs during sampling and transport.

4. All visibly contaminated soil will be removed.

5. All visibly contaminated soil which has been removed will be handled in accordance with Section J-4b of this closure plan.

6. After removal of the contaminated soil, two ~~one~~ sample~~s~~ will be taken from inside the area of removed soil at ~~a minimum~~ depth~~s~~ of 6-12 inches and 24-30 ~~0-6~~ inches. The sample~~s~~ will be analyzed ~~taken~~ using USEPA SW-846 8260 and SW-846 8015, modified, and ~~. The sample will be analyzed~~ in accordance with Step 2 above.

7. For partial closures, s~~S~~oil will be considered clean for closure when results of sample analyses are either at or below on-site ~~comparable to~~ background levels as determined under Item 1 of this list. For final closure, soil will be considered clean for closure when results of sample analyses are at or below health risk based

levels determined in conjunction with the Superfund process, or alternate standards determined using a health risk assessment and ~~as~~ approved by KDHE.

8. If the soil does not meet the conditions specified in Step 7 above, an additional 6 inches of soil will be removed from the same area and Steps 6 through 8 will be repeated.

During final closure operations, t~~T~~he soil beneath containment systems of all hazardous waste management units ~~individually contained secondary containment systems~~ will be ~~clean~~ closed as follows.

1. A visual inspection for evidence of release (i.e., staining or discoloration of soil, or damage to containment system) will be performed to determine selected sites for soil or concrete sampling. ~~Divide the area beneath the containment unit into four quadrants and select one sample point in each quadrant.~~ At the time of closure, if cracks or gaps which may have resulted in contaminant migration are observed in the hazardous waste management unit ~~containment~~, ~~the~~ a

sample site will be located on or near the crack location. Otherwise, concrete corings will not be taken. ~~the sample location may be selected anywhere in the quadrant.~~

2. Collect samples at two depths, 6-12 ~~0-6~~ inches and 24-30 ~~12-18~~ inches, at each sample point and analyze using either USEPA SW-846 8260 and/or SW-846 8015, modified, or another

acceptable method. The samples from each horizon will be composited. For all methods of record, deviations from SW-846 methods have either been included in the Waste Analysis Plan (Section C) for agency approval at this time, or will be submitted to the agency for their approval prior to use.

3. Collect ~~three~~ background samples in accordance with Item 1 on page 14 of this Closure Plan, unless background levels have already been determined for the site. ~~from the same depths on site for comparison analysis. Composite the samples from each depth.~~

4. Proper QA/QC procedures will be followed to control the potential loss of VOCs during sampling and transport.

5. Soil analysis procedures will be according to either USEPA method SW-846 numbers 6010, 7471 and/or 8260, modified (as appropriate) or other acceptable method. For all methods of record, deviations from SW-846 methods have either been included in the Waste Analysis Plan (Section C) for agency approval at this time, or will be submitted to the agency for their approval prior to use.

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6. For partial closures, ~~s~~Soil will be considered clean for closure when results of sample analysis are at or below on-site ~~comparable to~~ background levels as determined under Item 1 on page 13. For final closure, soil will be considered clean for closure when results of sample analyses are at or below health risk based levels determined in conjunction with the Superfund process, or alternate standards determined using a health risk assessment and ~~as~~ approved by KDHE.

7. If large areas of soil contamination, in excess of closure standards, are identified, a project specific assessment and cleanup plan will be prepared and submitted to the KDHE for approval and subsequent implementation. This will be done in accordance with the permit modification procedures of 40 CFR 270.42.

## J-4a(2) Hazardous Waste Management Units (HWMUs)

Decontamination procedures for hazardous waste management units (i.e., tank systems, container storage units, and miscellaneous units) are discussed in the following paragraphs. Specific procedures are outlined based on configuration of the equipment. "Exposed surfaces" are external surfaces and those internal surfaces which are readily scraped, sandblasted, brushed, or swept (i.e., accessible to standard techniques for removal of residual materials).

### J-4a(2)(a) HWMUs with no internal or complicated external parts

All tank systems, container management units, and miscellaneous units and their associated secondary containment system components and ancillary equipment will be decontaminated as follows (unless the unit has internal ~~parts~~ and/or complicated external parts exposed to waste).

1. Surfaces will be scraped, sandblasted, brushed, or swept to remove all loose or caked residue. Surfaces will then be triple rinsed. The first wash/rinse will be performed with a high-pressure stream of steam or water with suitable detergents or other cleaning additives. The second

wash/rinse will be performed using clean water with cleaning additives. Accumulated liquids from the two first washes will be collected and handled in accordance with Section J-4b of this closure plan. The third wash/rinse will be performed with clean (potable) water.

2. The equipment will be visually inspected after the triple wash/rinse to assess the presence of visible residue. If necessary, the facility will repeat all, or part, of the above procedures.

3. A representative sample will be taken of the rinse water from the final rinse of each hazardous waste management unit. These samples will be analyzed according to the Toxic Characteristic Leaching Procedure (TCLP) (40 CFR 261.24 as amended June 29, 1990).

4. A unit will be considered decontaminated when the rinsate sample analysis results are lower than the values/levels listed in Table J.2, Decontamination Rinsate Analysis, and when no visible residues remain on the unit.

5. If the unit is not decontaminated after performing Steps 1 through 4, the facility will either repeat the above procedures or dismantle the unit for further management and/or disposal at an off-site permitted TSDF as a hazardous waste. Equipment disposed of in a landfill will meet the applicable Land Disposal Restriction (LDR) standards of 40 CFR 268.

**J-4a(2)(b)** **HWMUs with internal or complicated external parts**

Any tank systems or miscellaneous units with external ~~parts~~ or complicated internal parts exposed to wastes (such as the Shredding Unit) will be decontaminated as follows.

1. Exposed surfaces will be scraped, sandblasted, brushed, or swept to remove all loose or caked residue. Surfaces will then be triple rinsed. The first wash/rinse will be performed with a high-pressure stream of steam or water with suitable detergents or other cleaning additives. The second wash/rinse will be performed using clean water with cleaning additives. Accumulated solids and liquids from the two first washes will be handled in accordance with section J.4b of this closure plan. The third wash/rinse will be performed with clean water.

2. The equipment will be visually inspected after the triple wash/rinse to assess the presence of visual residue. If necessary the facility will repeat all, or part, of the above procedures.

3. If visible contamination remains, go to Step 5 below. If no visible contamination remains, the facility will take a representative sample of the rinse water from the final rinse of the hazardous waste management unit. These samples will be analyzed according to the TCLP (40 CFR 261.24 as amended June 29, 1990).

4. A unit will be considered decontaminated when the rinsate sample analysis results are lower than the values/levels listed in Table J.2, and when no visible residues remain on the unit.

5. If, after performing the above rinsing procedures, the equipment can not be decontaminated, the equipment will be transported by a licensed/permitted hauler to an off-site, permitted TSDF for further treatment or disposal. ~~For the purposes of complying with 40 CFR 268, Land Disposal Restrictions, it is assumed that the equipment meets all Land Disposal Restrictions (LDR).~~ Equipment disposed of in a landfill will meet the applicable Land Disposal Restriction (LDR) standards of 40 CFR 268.

## J-4a(3) Closure of Miscellaneous Handling Equipment

A wide variety of equipment on site may be used for hazardous waste management. Equipment which has been in contact with hazardous waste will be decontaminated during closure activities. Equipment which may require decontamination during closure includes (but is not limited to) industrial trucks, drum dollies, handcarts, conveyers, augers, and other material transfer equipment, as well as hand tools such as shovels, brushes, scrapers, etc. ~~During operations, the facility utilizes miscellaneous equipment such as conveyers, forklifts, and hand tools which may come into contact with hazardous waste.~~ During final facility closure, this equipment will be closed in one of the following ways:

- For closure of small equipment (such as hand tools), if visible contamination exists, the equipment will be dismantled and disposed of as hazardous waste at a RCRA/HSWA permitted off-site disposal facility,

- For closure of all equipment (including hand tools), if visible contamination exists, equipment will be decontaminated and disposed of at a solid waste landfill. If evidence of contamination exists after decontamination, the equipment will be transported by a permitted/licensed hauler to a permitted RCRA/HSWA off-site TSDF for further treatment or disposal, or

- For closure of all equipment (including hand tools), if visible contamination exists, equipment will be

decontaminated sufficiently to be salvaged for future use and potentially transferred for use at another RCRA facility.

**J-4a(3)(a)** **<u>Decontamination of small miscellaneous handling equipment</u>**

All hand tools and equipment without internal or complicated external parts will be decontaminated in accordance with the following procedures.

1. Surfaces will be scraped, sandblasted, brushed, or swept to remove all loose or caked residue. Surfaces will then be rinsed with a high-pressure stream of steam or water, possibly with suitable detergents or other cleaning additives, until either all visible contamination is removed, or until further removal is not feasible. All accumulated solids and liquids will be handled in accordance with section J-4b of this closure plan.

2. The equipment will be visually inspected for evidence of visible contamination.

3. The equipment will be considered decontaminated when no visible evidence of contamination exists.

4. If visible evidence of contamination remains and cannot be removed, the equipment will be disposed of as a hazardous waste.

**J-4a(3)(b)** **Decontamination of large miscellaneous handling equipment with no internal or complicated external parts**

All large~~r~~ equipment with no internal ~~parts~~ or complicated external parts will be decontaminated as follows.

1. Surfaces will be scraped, sandblasted, brushed, or swept to remove all loose or caked residue. Surfaces will then be triple rinsed. The first wash/rinse will be performed with a high-pressure stream of steam or water with suitable detergents or other cleaning additives. The second wash/rinse will be performed using clean water with cleaning additives. Accumulated solids and liquids from the two first washes will be handled in accordance with section J.4b of this closure plan. The third wash/rinse will be performed with clean water.

2. The equipment will be visually inspected after the triple wash/rinse to assess the presence of visual residue. If necessary, the facility will repeat all, or part, of the above procedures.

3. A representative sample will be taken of the rinse water from the final rinse of each hazardous waste management unit. These samples will be analyzed according to the TCLP (40 CFR 261.24 as amended June 29, 1990).

4. The equipment will be considered decontaminated when the rinsate sample analysis results are lower than the values/levels listed in Table J.2, and when no visible residues remain on the unit.

5. If the unit is not decontaminated after performing Steps 1 through 4, the facility will either repeat the above procedures or dismantle the unit and transport it by a licensed/permitted hauler to an off-site, permitted TSDF for further treatment or disposal.

**J-4a(3)(c)** **Decontamination of large miscellaneous handling equipment with internal or complicated external parts**

All large equipment with internal ~~parts~~ and/or complicated external parts that contact waste will be decontaminated in accordance with the following procedures.

1. Surfaces will be scraped, sandblasted, brushed, or swept to remove all loose or caked residue. Surfaces will then be triple rinsed. The first wash/rinse will be performed with a high-pressure stream of steam or water with suitable detergents or other cleaning additives. The second wash/rinse will be performed using clean water with cleaning additives. Accumulated solids and liquids from the two first washes will be handled in accordance with section J.4b of this closure plan. The third wash/rinse will be performed with clean water.

2. The equipment will be visually inspected after the triple wash/rinse to assess the presence of visual residue. If necessary the facility will repeat all, or part, of the above procedures

3. If visible contamination remains, go to Step 5 below. If no visible contamination remains, the facility will take a representative sample of the rinse water from the final rinse of the hazardous waste management unit. These samples will be analyzed according to the TCLP (40 CFR 261.24 as amended June 29, 1990).

4. A unit will be considered decontaminated when the rinsate sample analysis results are lower than the values/levels listed in Table J.2, and when no visible residues remain on the unit.

5. If after performing the above rinsing procedures, the equipment can not be decontaminated, the equipment will be transported by a licensed/permitted hauler to an off-site, permitted TSDF for further treatment or disposal. ~~For the purposes of complying with 40 CFR 268, Land Disposal Restrictions, it is assumed that the equipment meets all Land Disposal Restrictions (LDR).~~Equipment disposed of in a landfill will meet the applicable Land Disposal Restriction (LDR) standards of 40 CFR 268.

## J-4b <u>Hazardous Waste Handling Procedures</u>

All contaminated solids, liquids, sludges, ~~and~~ soils, and debris generated by the closure process will be managed in accordance with applicable regulations as site generated solid waste (i.e., HRIW is the generator). Generated wastes meeting the definition of "hazardous waste" under 40 CFR 261.3 will be handled in the manner discussed below.

~~Site-g~~Generated hazardous wastes may be stored on-site in containers, existing tanks, or temporary portable tanks prior to treatment or removal from the facility. The wastes may be treated on-site in accordance with the facility's RCRA/HSWA permit. A temporary storage area may be developed for storage of these generated wastes, and if so, wastes will be stored in this area for less than ninety days. These wastes will then be transported to a permitted off-site Treatment, Storage, or Disposal Facility (TSDF) by a permitted hazardous waste hauler for appropriate disposal or further treatment (e.g. landfill, deep-well injection, incineration, cement kiln, recycling facility).

## J-5 Maximum Extent of Operations ~~Unclosed~~

Table J.1 lists all existing and proposed hazardous waste management units at the HRIW facility. This table represents the maximum extent of operations which are currently planned to exist at this facility.

## J-6 Maximum Waste Inventory

The maximum inventory of wastes in storage exists when all hazardous waste management units contain their maximum permitted capacity of waste. HRIW's potential maximum waste inventory is 463,477 ~~307,461~~ gallons.[a]

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[a] The maximum waste inventory was calculated by adding S01 (storage in containers) and S02 (storage in tanks) in the Part A permit application.

325,490 ~~170,000~~ gallons (S01) + 137,987 ~~138,000~~ gallons (S02) = 463,477 ~~308,000~~ gallons

## J-7 Schedule for Final Closure

Table J.3, Closure Activity Schedule - Final Facility Closure outlines the anticipated schedule for closing the HRIW Wichita facility. The schedule assumes that all hazardous waste management units identified in this plan (See Table J.1) will be closed.

During final closure, hazardous waste management units may be closed simultaneously or sequentially. Also, a temporary storage area may be developed for storage of wastes which are generated on-site during ~~by~~ closure activities, and if so, wastes will be stored in this area for less than ninety days in appropriate containers or temporary tanks.

## J-7a Expected Year of Final Closure

HRIW does not expect to close the facility prior to the permit expiration (i.e., ten years after the effective date of the permit). Since the facility does not consist of disposal units such as landfills or surface impoundments, capacity restraints (such as landfill capacity) do not exist to force facility

closure. Therefore, HRIW will not estimate the year of final closure [per 40 CFR 264.112(b)(7)].

## J-8 Closure Plan Amendment

HRIW maintains a copy of the closure plan at the facility. HRIW will submit a written request for approval to change the closure plan, in accordance with 40 CFR 264.112(c) and 40 CFR 270.42, whenever one of the following occurs.

1. Changes in operating plans or facility design affect the closure plan.

2. Change in the estimated year of final closure (see section J-7a).

3. In conducting partial or final closure activities, unexpected events occur which affect the closure plan.

This notification will include a copy of the amended closure plan for review or approval by KDHE. It will be submitted at least 60 days prior to the proposed change in facility design or operation, or no later than sixty days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure

period, HRIW will submit the notification or request no later than 30 days after the unexpected event's occurrence.

## J-9 Individual Unit Closures

This section details the closure procedures of each individual hazardous waste management unit. During final facility closure and partial facility closure, each hazardous waste management unit will be closed in accordance with this section.

### J-9a Container Management Unit (CMU) Closure

Partial facility closure (closure of an individual hazardous waste management unit), may be necessary during the active life of the facility. If a container management unit must be closed during the active life of the facility, it will be closed in accordance with this section (J-9a). At final closure of a container management unit, all hazardous waste and hazardous waste residues will be removed from the containment system. Remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues will be either decontaminated or removed.

## J-9a(1) Process and Unit Description

The container management units at the HRIW facility are used for storing and staging containers of hazardous and non-hazardous wastes. The container management units may also be used for the treatment of hazardous waste in containers. The wastes managed in these areas include liquids, sludges, and solids and are managed in containers of varying sizes. The HRIW facility manages containerized waste in seven container management buildings, each roofed and constructed with concrete diking to minimize run-on and run-off. ~~Several of t~~These buildings are divided into independently ~~exclusively~~ contained sub-areas called Container Management Unit (CMU)s. The maximum total permitted storage capacity of container management units on site is approximately 325,490 ~~170,000~~ gallons. Figure J.1, Material Containment Areas (Drawing 50-01-10-002, Material Containment Areas presented in Section Y) depicts the location of each CMU at the facility; Section D of this permit application describes each CMU in more detail.

Figure J.1. Material Containment Areas

**J-9a(2)** **Unit Closure Procedures**

For the purposes of this closure plan, each container management unit includes the following structures/equipment:

- Containers, drums, pallets, marino bags, etc., and associated hazardous wastes, waste residues and constituents.

- All associated secondary containment structures (concrete pads, curbs, ramps, etc.).

- Associated equipment (e.g., conveyors, etc.).

- ~~Underlying soil.~~

Buildings which enclose CMUs and which do not come into direct contact with hazardous waste or hazardous waste containers are not part of the container management unit. Therefore, the buildings associated with CMUs, including floors which are not part of the container management unit, will not be subject to the decontamination procedures of this closure plan and may be left in place. However, these walls and floors will be visually

inspected and, if evidence of contamination exists, these structures will be cleaned.

HRIW will close all CMUs at the facility as follows.

1. If modifications to the closure plan are desired and have not been previously approved in accordance with 40 CFR 270.42 and 264.112, the modified portions of the plan will not be implemented until approval by KDHE or other authorized agencies has been received.

2. HRIW will close the CMU(s) in accordance with the schedule outlined in Table J.4, Closure Activity Schedule - Container Management Unit (CMU) and discussed in Section J-9a(3) of this closure plan.

3. Within ninety days after receiving the final volume of hazardous wastes at the CMU(s), HRIW will remove all waste inventory and portable equipment from the area unless an extension has been requested and approved in accordance with 40 CFR 264.113(a). All waste inventories will be either treated on-site in accordance with the facility's RCRA/HSWA permit or transported to a permitted TSDF for off-site management~~treatment or disposal~~.

HRIW will attempt to empty all drums to the extent described by 40 CFR 261.7(b) to satisfy the requirements for the exemption as defined by 40 CFR 261.7(a)(1). The successfully emptied drums will be transported to an off-site industrial waste disposal facility or a permitted RCRA/HSWA TSDF for disposal. If a container cannot be emptied to meet the definition in 40 CFR 261.7(b), then the container will be transported by a licensed hazardous waste hauler to a permitted off-site RCRA/HSWA TSDF for management~~treatment or disposal~~.

4. All contaminated equipment, structures, and secondary containment systems will be:

   A. Dismantled and disposed of as hazardous waste at a RCRA/HSWA permitted off-site disposal facility, or

   B. Decontaminated in accordance with Section J-4a and disposed of at a solid waste landfill, or

   C. Decontaminated in accordance with Section J-4a and either salvaged for future use or left in place.

D. Successfully decontaminated equipment may be transferred to another TSDF for use.

5. HRIW will visually inspect the surface soils around the CMU(s). Any visible evidence of contamination will be evaluated for hazardous constituents and (if contamination is present) subsequently removed for proper management ~~disposal~~ in accordance with Section J-4a of this closure plan.

   At final closure, t~~T~~he soil beneath the ~~container management unit individually contained~~ secondary containment systems will be ~~clean~~ closed in accordance with Section J-4a of this closure plan.

6. All wastes generated on-site from closure activities will be handled in accordance with Section J-4b of this closure plan.

7. HRIW will complete closure activities within 180 days after receiving either the final volume of hazardous wastes or closure plan approval by the agency, unless an extension has been requested and approved in accordance with 40 CFR 264.113(b).

8. The CMUs are not disposal units. Also, all hazardous wastes and hazardous waste constituents will be removed from the CMU during closure and all structures will be decontaminated in accordance with this closure plan. Therefore, the CMUs are not subject to the post-closure care requirements of 40 CFR 264.116 through 264.120.

## J-9a(3) Unit Closure Schedule

Table J.4 outlines the anticipated schedule for the individual closure of a container management unit at the HRIW facility. During final closure of the facility, all HWMUs may be closed simultaneously and in accordance with the schedule presented in Table J.3.

## J-9b Tank System Closure

Partial facility closure (closure of an individual hazardous waste management unit) may be necessary during the active life of the facility. If a tank or tank system must be closed during the active life of the facility, it will be closed in accordance with this section (J-9b). At closure of a tank or tank system, all hazardous waste and hazardous waste residues will be removed from the tank/tank system. Tanks, ancillary equipment, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues will be either decontaminated or removed.

### J-9b(1) Process and Unit Description

Tank systems at the HRIW facility include storage/treatment tanks; the maximum permitted storage capacity of tanks on site is 137,987 ~~137,461~~ gallons. The storage/treatment tanks have several uses at the HRIW facility, some of which are discussed below.

- Solvent and solid waste streams are blended, accumulated, and stored in tanks prior to being transported to an off-site cement kiln to be burned as an alternative fuel.

- Other wastes are received from generators either in drums or bulk and are transferred to tanks to await transportation to an off-site reclamation facility, incinerator, deep-well injection facility, landfill or other permitted TSDF.

- Finally, the HRIW facility manages solvent laden cartridges (e.g., dry cleaning cartridges). Cartridges are shredded and/or dried to recover solvent or other material for energy recovery and/or reuse, or they may be sent to an off-site TSDF without on-site processing. Recovered vapors are condensed and accumulated in a vessel which is purged after each drier batch. The solvent and water are separated in a phase separation tank, and then stored separately in designated tanks prior to shipment off-site to a TSDF for further reclamation, ~~or~~ for disposal, or for other appropriate management.

The tanks used at HRIW vary in size. All tanks utilized for

hazardous waste management are equipped with a manual gaging port and high level alarms to minimize the potential for overflow. All hazardous waste management tanks operating under this permit

have secondary containment designed, installed, and operated to prevent migration of wastes or accumulated liquid to the environment. These containment systems, consisting of concrete slabs surrounded by concrete walls or dikes of varying height, enable the detection of and collection of releases and accumulated liquids. The concrete containment liner is also maintained free from cracks and gaps.

These tanks are summarized in Table J.1. In addition, Figure J.2, Tank Locations (Drawing 50-01-03-001, Tank Locations presented in Section Y) shows the location of each tank system at the facility. Section E of this permit application ~~closure plan~~ describes the tank systems in more detail. The tank systems are designed, constructed, and operated in accordance with 40 CFR 264.190 through 199.

**J-9b(2)** **<u>Unit Closure Procedures</u>**

For the purposes of this closure plan, each tank system includes:

- Tanks and associated hazardous wastes, waste residues and constituents;

- All ancillary equipment including, but not limited to, piping, fittings, flanges, valves, and pumps; and

Figure J.2. Tank Locations

- All associated secondary containment structures (concrete pads, curbs, ramps, etc.).~~; and~~

- ~~Underlying soil.~~

The buildings which contain tank systems and which do not come into direct contact with hazardous waste or hazardous waste tank systems are not part of the tank system. Therefore, these buildings associated with the tank systems, including floors which are not part of the tank system, will not be subject to the decontamination procedures of this closure plan and may be left in place. However, these walls and floors will be visually inspected and, if evidence of contamination exists, these structures will be cleaned.

The tank units at the Wichita facility may undergo periodic changes and upgrading in order to accommodate required regulatory and capacity changes and improvements in technology. Also, HRIW will replace tanks if they become unfit for use. Since each secondary containment system contains several tanks, the HRIW facility could potentially close a single tank unit without closing the associated secondary containment system. However,

upon final facility closure all tank systems, including secondary containment, will be closed in accordance with this section.

HRIW will close all tanks and/or tank systems at the facility as follows.

1. If modifications to the closure plan are desired and have not been previously approved in accordance with 40 CFR 270.42 and 264.112, the modified portions of the plan will not be implemented until approval by KDHE or other authorized agencies has been received.

2. HRIW will close the tanks and/or tank systems in accordance with the schedule outlined in Table J.5, Closure Activity Schedule - Tanks and Tank Systems and as discussed in Section J-9b(3) of this closure plan.

3. Within ninety days after receiving the final volume of hazardous wastes into the tank/tank system, HRIW will remove all waste inventory from the unit(s) unless an extension has been requested and approved in accordance with 40 CFR 264.113(a). All waste inventories will be either treated on-site in accordance with the facility's RCRA/HSWA permit

or transported to a permitted TSDF for off-site management~~treatment or disposal~~.

4. All tanks, ancillary equipment, structures, and secondary containment systems (when applicable) will be:

   A. Dismantled and disposed of as hazardous waste at a RCRA/HSWA permitted off-site disposal facility, or

   B. Decontaminated in accordance with Section J-4a and disposed of at a solid waste landfill, or

   C. Decontaminated in accordance with Section J-4a and either salvaged for future use or left in place.

   D. Successfully decontaminated equipment may be transferred to another TSDF for use.

5. This step applies only when closing an entire tank system, including its secondary containment. If only closing a tank unit, go to Step 6 below. When closing a tank system, HRIW will visually inspect the surface soils around the tank system containment area. In accordance with Section J-4a of

this closure plan, any visible evidence of contamination will be evaluated for hazardous constituents and, if contamination is present, subsequently removed for proper disposal or other appropriate off-site management.

At final closure, t~~T~~he soil beneath the ~~tank systems' individually contained~~ secondary containment systems will be ~~clean~~ closed in accordance with Section J-4a of this closure plan.

6. All wastes generated on-site from closure activities will be handled in accordance with Section J-4b of this closure plan.

7. HRIW will complete closure activities within 180 days after receiving either the final volume of hazardous wastes into the tank unit(s) or closure plan approval from the agency, whichever is later, unless an extension has been requested and approved in accordance with 40 CFR 264.113(b).

8. The tank systems are not disposal units, and they have secondary containment meeting the requirements of 40 CFR 264.193(b) through (f). Also, all hazardous wastes and hazardous waste constituents will be removed from the

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tanks/tank systems during closure and all structures will be decontaminated in accordance with this closure plan. Therefore, the tank/tank systems are subject to neither the post-closure care requirements of 40 CFR 264.116 through 264.120, nor the contingent post-closure plan requirements of 40 CFR 264.197(c).

## J-9b(3) Unit Closure Schedule

Table J.5 outlines the anticipated schedule for the individual closure of a tank/tank system at the HRIW facility. During final closure of the facility, all HWMUs may be closed either sequentially or simultaneously and in accordance with the schedule presented in Table J.3.

## Endnote

1. Groundwater Technology, Inc., Draft Remedial Investigation Report for the 29th and Mead RI/FS, August 27, 1991.

# APPENDIX J-A

## TABLES

TABLE J.1

**MAXIMUM EXTENT OF OPERATIONS ~~UNCLOSED~~**

**HRIW - HAZARDOUS WASTE MANAGEMENT UNITS**

| HWMU[b] | UNIT | Wastes Stored/Function |
|---|---|---|
| C | CMU C100[c] | Hazardous waste - Container Management |
| C | CMU C200 | Hazardous waste - Container Management |
| C | CMU C300 | Hazardous waste - Container Management |
| C | CMU C400 | Hazardous waste - Container Management |
| C | CMU C500 | Hazardous waste - Container Management |
| C | CMU C600 | Hazardous waste - Container Management |
| C | CMU C700 | Hazardous waste - Container Management |
| C | CMU B100 | Hazardous waste - Container Management |
| C | CMU B200 | Hazardous waste - Container Management |
| C | CMU B300 | Hazardous waste - Container Management |

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[b] HWMU - Hazardous Waste Management Unit - All HWMUs at the HRI Wichita facility are either Container Management Areas (C), Tanks/Tank Systems (T), or Miscellaneous Units (M) as defined by 40 CFR 260.10. The unit closure procedures for these units are detailed in Section J-9a, Section J-9b, and Section J-9c respectively.

[c] Each section represents an individually contained area (i.e. CMU). See Figure J.1 for CMU locations.

| HWMU | UNIT | WASTES STORED/FUNCTION |
|---|---|---|
| C | CMU B400 | Hazardous waste - Container Management |
| C | CMU D100 | Hazardous waste - Container Management |
| C | CMU D200 | Hazardous waste - Container Management |
| C | CMU D300 | Hazardous waste - Container Management |
| C | CMU I100 | Hazardous waste - Container Management |
| C | CMU I200 | Hazardous waste - Container Management |
| C | CMU I300 | Hazardous waste - Container Management |
| C | CMU I400 | Hazardous waste - Container Management |
| C | CMU J100 | Hazardous waste - Container Management |
| C | CMU J200 | Hazardous waste - Container Management |
| C | CMU J300 | Hazardous waste - Container Management |
| C | CMU J400 | Hazardous waste - Container Management |
| C | CMU J500 | Hazardous waste - Container Management |
| C | CMU J600 | Hazardous waste - Container Management |
| C | CMU J700 | Hazardous waste - Container Management |
| C | CMU L100 | Hazardous waste - Container Management |
| C | CMU P100 | Hazardous waste - Container Management |
| C | CMU P200 | Hazardous waste - Container Management |
| T | V-1 | Hazardous Waste Liquid |
| T | V-2 | Hazardous Waste Liquid |
| T | V-3 | Hazardous Waste Liquid |
| T | V-4 | Hazardous Waste Liquid |

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| HWMU | UNIT | WASTES STORED/FUNCTION |
|---|---|---|
| T | V-5 | Hazardous Waste Liquid |
| T | V-6 | Hazardous Waste Liquid |
| T | V-7 | Hazardous Waste Liquid |
| T | V-8 | Hazardous Waste Liquid |
| T | V-9 | Hazardous Waste Liquid |
| T | V-10 | Hazardous Waste Liquid |
| T | V-11 | Hazardous Waste Liquid |
| T | V-12 | Hazardous Waste Liquid |
| T | V-13 | Hazardous Waste Liquid |
| T | V-14 | Hazardous Waste Liquid |
| T | V-15A | Hazardous Waste Liquid |
| T | V-15B | Hazardous Waste Liquid |
| T | V-15C | Hazardous Waste Liquid |
| T | V-15D | Hazardous Waste Liquid |
| T | V-16 | Hazardous Waste Liquid |
| T | V-17 | Hazardous Waste Liquid |
| T | V-18 | Solids Dryer Water/Waste Water Accumulator and Separator |
| M | V-19 | Drier Unit |
| M | V-20 | Shredder Unit |
| M | V-21 | Granulator Unit |
| M/T | V-26 | Dispersing Unit |

| HWMU | UNIT | WASTES STORED/FUNCTION |
|---|---|---|
| ~~T~~ | ~~V-29~~ | ~~Hazardous Waste Liquid~~ |
| ~~T~~ | ~~V-30~~ | ~~Hazardous Waste Liquid~~ |
| ~~T~~ | ~~V-31~~ | ~~Hazardous Waste Liquid~~ |
| ~~T~~ | ~~V-32~~ | ~~Hazardous Waste Liquid~~ |
| M | V-34 | Drum Washing Unit |
| M | V-35 | Drum Scraping Unit |
| ~~C~~ M | All CMUs | Treatment in Containers |
| ~~T~~ | ~~V-50~~ | ~~Proposed~~ |
| ~~T~~ | ~~Waste water treatment system~~ | ~~Proposed~~ |
| ~~C~~ | ~~Container Storage Adjacent to Shredder/Grinder~~ | ~~Proposed~~ |

**TABLE J.2**

**DECONTAMINATION RINSATE ANALYSIS[d]**

| Contaminant | Max Concentration Increase (mg/L)[e] |
|---|---|
| Arsenic | 5.00 |
| Barium | 100.00 |
| Benzene | 0.50 |
| Cadmium | 1.00 |
| Carbon tetrachloride | 0.50 |
| Chlordane | 0.03 |
| Chlorobenzene | 100.00 |
| Chloroform | 6.00 |
| Chromium | 5.00 |
| o-Cresol | 200.00[f] |
| m-Cresol | 200.00[f] |
| p-Cresol | 200.00[f] |
| Cresol | 200.00[f] |

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[d]Reference: 40 CFR 261.24 - Table 1 (as amended June 29, 1990)

[e] The values given are the maximum allowable increase in a contaminant's concentration, over the level that exists in the final rinse water prior to use.

[f] If o-,m-,and p-Cresol concentration cannot be differentiated, the total Cresol concentration should be used. The regulatory level of total Cresol is 200 mg/L.

| Contaminant | Max Concentration Increase (mg/L) |
|---|---|
| 2,4-D | 10.00 |
| 1,4-Dichlorobenzene | 7.50 |
| 1,2-Dichloroethane | 0.50 |
| 1,1-Dichloroethylene | 0.70 |
| 2,4-Dinitrotoluene | 0.13 |
| Endrin | 0.02 |
| Heptachlor (and its epoxide) | 0.008 |
| Hexachlorobenzene | 0.13 |
| Hexachlorobutadiene | 0.50 |
| Hexachloroethane | 3.00 |
| Lead | 5.00 |
| Lindane | 0.40 |
| Mercury | 0.20 |
| Methoxychlor | 10.00 |
| Methyl ethyl ketone | 200.00 |
| Nitrobenzene | 2.00 |
| Pentachlorophenol | 100.00 |
| Pyridine | 5.00 |
| Selenium | 1.00 |
| Silver | 5.00 |
| Tetrachloroethylene | 0.70 |

| Contaminant | Max Concentration Increase (mg/L) |
|---|---|
| Toxaphene | 0.50 |
| Trichloroethylene | 0.50 ~~0.70~~ |
| 2,4,5-Trichlorophenol | 400.00 |
| 2,4,6-Trichlorophenol | 2.00 |
| 2,4,5-TP(Silvex) | 1.00 |
| Vinyl Chloride | 0.20 |

**TABLE J.3**

**CLOSURE ACTIVITY SCHEDULE - FINAL FACILITY CLOSURE**

| Calendar Days Lapsed | Closure Activity |
|---|---|
| -45 ~~15~~ | Notification to KDHE or the EPA Region 7 ~~6~~ Administrator. |
| 0 | Receipt of known final volume of hazardous waste or receipt of final closure plan approval from agency (whichever is later). Begin work-force mobilization. |
| ~~30 — 90~~ | Begin treatment and removal of tank waste inventory. |
| | Begin treatment and removal of container waste inventory. |
| 90 | Complete treatment and removal of all hazardous waste inventories. |
| 120 | Complete decontamination of tanks, container management units and miscellaneous units. |
| 150 | Complete dismantling/removal of all generated wastes, temporary storage units, and decontaminated tanks, equipment, and structures (if removal is necessary). |
| | Visually inspect surface soils for contamination and begin remediation procedures if necessary. |
| 180 | Complete final closure activities. |
| 200 | Inspection of facility by a Professional Engineer. |
| 240 | Submit a certification of closure to KDHE or the EPA Region 7 ~~6~~ Administrator. |

**TABLE J.4**

**CLOSURE ACTIVITY SCHEDULE - CONTAINER MANAGEMENT UNIT**

| Calendar Days Lapsed | Closure Activity |
|---|---|
| 0 | Receipt of known final volume of hazardous waste into the container management unit or receipt of closure plan approval from agency (whichever is later). Begin work-force mobilization. |
| ~~30~~ | Begin treatment and removal of waste inventory. |
| 90 | Complete treatment and removal of all hazardous waste inventories. |
| 120 | Complete emptying all drums and removal of drums from facility. |
| 150 | Complete decontamination of secondary containment structures and hazardous waste handling equipment.<br><br>Visually inspect surface soils for contamination and begin remediation procedures if necessary. |
| 180 | Complete final closure activities. |

**TABLE J.5**

**CLOSURE ACTIVITY SCHEDULE - TANKS AND TANK SYSTEMS**

| Calendar Days Lapsed | Closure Activity |
|---|---|
| 0 | Receipt of known final volume of hazardous waste or receipt of closure plan approval from agency (whichever is later). Begin work-force mobilization. |
| ~~30~~ | Begin treatment and removal of tank waste inventory. |
| 90 | Complete treatment and removal of all hazardous waste inventories. |
| 120 | Complete decontamination of tanks, ancillary equipment, and secondary containment systems (when applicable). |
| 150 | Complete dismantling/removal of decontaminated tanks, equipment, and secondary containment structures (when removal is necessary). |
| | Visually inspect surface soils for contamination and begin remediation procedures if necessary. |
| 180 | Complete final closure activities. |

**TABLE J.6**

**CLOSURE ACTIVITY SCHEDULE - MISCELLANEOUS UNITS**

| Calendar Days Lapsed | Closure Activity |
|---|---|
| 0 | Receipt of known final volume of hazardous waste or receipt of closure plan approval from agency (whichever is later). Begin work-force mobilization. |
| 120 | Complete decontamination of miscellaneous unit(s), ancillary equipment, and secondary containment systems (when applicable). |
| 150 | Complete dismantling/removal of decontaminated miscellaneous unit(s), equipment, and secondary containment structures (when removal is necessary).<br><br>Visually inspect surface soils for contamination and begin remediation procedures if necessary. |
| 180 | Complete final closure activities. |

# APPENDIX J-B

# CLOSURE COST ESTIMATE

August 27, 1992
Draft Revision No. 1

# Summary - Closure Cost Estimate

**Hydrocarbon Recyclers, Inc. of Wichita (HRIW)**
**Wichita, Kansas**

The following table is a summary of the cost for closing the HRIW facility. The figures for closing the HRIW facility are set forth assuming the plant has the maximum storage of hazardous waste and that tanks V-29, V-30, V-31, and V-32 are not yet closed. The Closure Cost Estimate ~~It~~ has been prepared in accordance with 40 CFR 264.142 (Cost Estimate For Closure). Cost estimate calculations are provided in the seven sections attached. In the first section, the cost for transporting and disposing of the stored waste is calculated. The second section calculates the cost of evaluating and decontaminating soils and ~~the~~ concrete. The third section estimates the cost of decontaminating the existing hazardous waste management equipment in the plant. Transportation and disposal of the residues collected are calculated in the next three sections. An independent registered professional engineer's cost is figured into the last section, as required ~~described~~ in the ~~F~~federal ~~R~~register. Section VII calculates the contingency required by 40 CFR 264.142.

| Cost | Section |
|---|---|
| $828,290.77 | Waste Disposal of Maximum Inventory |
| $145,430.25 | Assessment of Soil and Concrete Decontamination |
| $19,851.75 | Equipment Decontamination |
| $25,379.26 | Management of Aqueous Decontamination Residue |
| $1,562.19 | Management of Kiln Fuel Decontamination Residue |
| $1,350.58 | Management of Incinerable Decontamination Residue |
| $3,640.00 | Closure Certification |
| $1,025,504.80 | Subtotal |
| $153,825.72 | Contingency 15% |
| $1,179,330.52 | **Total Closure Cost Estimate** |

## I. WASTE DISPOSAL OF MAXIMUM INVENTORY

### ASSUMPTIONS

55 GALLONS/DRUM
80 DRUMS/LOAD
6000 GALLONS/TANKER
$20.00 /HOUR LAB LABOR

$8.65 /HOUR LABOR
1,100 GALLONS/HOUR PUMPING
75 DRUMS/HOUR LOADING
$3.50 /MILE TRANSPORTATION

### STORAGE SUMMARY

| VESSEL | CAPACITY |
|---|---|
| V-1 | 7,181 |
| V-2 | 7,084 |
| V-3 | 7,181 |
| V-4 | 7,181 |
| V-5 | 20,895 |
| V-6 | 20,895 |
| V-7 | 7,181 |
| V-8 | 7,181 |
| V-9 | 5,078 |
| V-10 | 5,078 |
| V-11 | 5,078 |
| V-12 | 5,078 |
| V-13 | 5,078 |
| V-14 | 5,078 |
| V-15A | 2,659 |
| V-15B | 2,659 |
| V-15C | 2,659 |
| V-15D | 2,659 |
| V-16 | 9,028 |
| V-17 | 522 |
| V-18 | 489 |
| V-26 | 1,129 |
| V-29 | 90 |
| V-30 | 90 |
| V-31 | 115 |
| V-32 | 115 |
| TOTAL | 137,461 |

| STORAGE BUILDING | STORAGE AREA (SQ.FT.) | STORAGE CAPACITY (GAL) | DRUM EQUIVALENTS (55 GAL) |
|---|---|---|---|
| BUILDING D | 13,803 | 46,640 | 848 |
| PROCESSING AREA | 6,278 | 9,900 | 180 |
| BUILDING C | 13,520 | 99,110 | 1,802 |
| DRUM DOCK | 2,660 | 14,960 | 272 |
| BUILDING B | 7,304 | 55,000 | 1,000 |
| BUILDING I | 5,292 | 50,600 | 920 |
| BUILDING J | 6,318 | 49,280 | 896 |
| TOTAL | 55,175 | 325,490 | 5,918 |

INVENTORY REMOVAL

CONTAINER INVENTORY

| DISPOSAL METHOD | PECENTAGES | DRUMS | UNIT COST | DISPOSAL LOCATIOI | MILEAGE | DISPOSAL COST |
|---|---|---|---|---|---|---|
| LIQUID KILN FUEL | 7 | 414 | $0.21 /GAL | FREDONIA, KS | 100 | $4,781.70 |
| SOLID KILN FUEL | 40 | 2367 | $50.00 /DRUM | FREDONIA, KS | 100 | $118,350.00 |
| INCINERATION | 30 | 1776 | $3.00 /GAL | COFFEYVILLE, KS | 150 | $293,040.00 |
| LANDFILL | 13 | 769 | $275.00 /DRUM | WAYNOKA, OK | 150 | $211,475.00 |
| DEEP WELL | 3 | 178 | $1.00 /GAL | DALLAS, TX | 364 | $9,790.00 |
| RECYCLE | 7 | 414 | $0.21 /GAL | TULSA, OK | 180 | $4,781.70 |
| TOTAL | 100 | 5918 | | | | $642,218.40 |

TANK INVENTORY

| DISPOSAL METHOD | PECENTAGES | GALLONS | COST | DISPOSAL LOCATIOI | MILEAGE | DISPOSAL COST |
|---|---|---|---|---|---|---|
| LIQUID KILN FUEL | 46 | 63,232 | $0.21 /GAL | FREDONIA, KS | 100 | $13,278.73 |
| INCINERATION | 10 | 13,746 | $3.00 /GAL | COFFEYVILLE, KS | 150 | $41,238.30 |
| DEEP WELL | 33 | 45,362 | $1.00 /GAL | DALLAS, TX | 364 | $45,362.13 |
| RECYCLE | 11 | 15,121 | $0.21 /GAL | TULSA, OK | 180 | $3,175.35 |
| TOTAL | 100 | 137,461 | | | | $103,054.51 |

LABOR

| | |
|---|---|
| 3,136 DRUMS TO LOAD | $361.69 LOADING |
| 2,762 DRUMS TO TANKERS | $1,203.22 PUMPING |
| 137,461 GALLONS TO TANKERS | $1,080.94 PUMPING |
| | $2,645.84 TOTAL LABOR |

TRANSPORTATION

WASTES FROM CONTAINERS

| DISPOSAL METHOD | # OF LOADS | DRUMS | DISPOSAL LOCATION | MILEAGE | COST |
|---|---|---|---|---|---|
| LIQUID KILN FUEL | 4 | 414 | FREDONIA, KS | 100 | $1,400.00 |
| SOLID KILN FUEL | 30 | 2367 | FREDONIA, KS | 100 | $10,500.00 |
| INCINERATION | 17 | 1776 | COFFEYVILLE, KS | 150 | $8,925.00 |
| LAND FILL | 10 | 769 | WAYNOKA, OK | 150 | $5,250.00 |
| DEEP WELL | 2 | 178 | DALLAS, TX | 364 | $2,548.00 |
| RECYCLE | 4 | 414 | TULSA, OK | 180 | $2,520.00 |
| TOTAL | 67 | 5918 | | | $31,143.00 |

WASTES FROM TANKS

| DISPOSAL METHOD | # OF LOADS | GALLONS | DISPOSAL LOCATION | MILEAGE | COST |
|---|---|---|---|---|---|
| LIQUID KILN FUEL | 11 | 63,232 | FREDONIA, KS | 100 | $3,850.00 |
| INCINERATION | 3 | 13,746 | COFFEYVILLE, KS | 150 | $1,575.00 |
| DEEP WELL | 8 | 45,362 | DALLAS, TX | 364 | $10,192.00 |
| RECYCLE | 3 | 15,121 | TULSA, OK | 180 | $1,890.00 |
| TOTAL | 25 | 137,461 | | | $17,507.00 |

NOTE
**********
SOLIDS (E.G., SOLID KILN FUEL, LANDFILLED WASTES) ARE SHIPPED
IN DRUMS AT 80 DRUMS PER LOAD
LIQUIDS ARE SHIPPED IN BULK AT 6000 GALLONS PER LOAD
**********

CONTAINER DISPOSAL

| ACTIVITY | PARAMETER | UNIT VALUES | RESIDUE GENERATED | COST |
|---|---|---|---|---|
| DRUM WASHING | | | | |
| | NO. OF DRUMS | 2,782 DRUMS | | |
| | LABOR | $8.65 PER HOUR | | |
| | TIME | 60 DRUMS/HOUR | | $401.07 LABOR WASHING |
| | KILN FUEL GENERATED | 2 GAL/DRUM | 5,564 GALLONS KILN FUEL | |

NOTE
THE DRUM WASHER CAN PROCESS 60 DRUMS/HOUR
THE WASHER GENERATES 2 GALLONS ADDITIONAL SOLVENT WASTE PER DRUM WASHED
TRANSPORTATION AND DISPOSAL OF RESIDUE GENERATED IS CALCULATED IN LATER SECTIONS

| | | | | |
|---|---|---|---|---|
| DRUM CRUSHING | LABOR | $8.65 PER HOUR | | $802.14 LABOR CRUSHING |
| | TIME | 30 DRUMS/HOUR | | |
| | TRANS & DISP | $10.00 PER DRUM | | $27,820.00 DRUM DISPOSAL |

NOTE
THE DRUM CRUSHER CAN PROCESS 30 DRUMS/HOUR
TRANSPORTATION AND DISPOSAL ARE INCLUDED IN THE USPCI COST PER DRUM

TANK DECONTAMINATION

| | | | | |
|---|---|---|---|---|
| TANK WASHING | | | | |
| | LABOR | $8.65 PER HOUR | | $2,698.80 LABOR WASHING |
| | TIME | 4 HOURS/TANK | | |
| | NO. OF TANKS | 26 TANKS | | |
| | CREW SIZE | 3 MEN/TANK | | |
| | WASTE WATER GENERATEC | 165 GAL/TANK | 4,290 GALLONS WASTE WATER | |

NOTE
3--MAN CREW, 4 HOURS/TANK
THE RESIDUE VOLUME IS ESTIMATED BASED UPON PAST EXPERIENCE

SECTION I SUBTOTAL $828,290.77

II. ASSESSMENT OF SOIL AND CONCRETE CONTAMINATION

| ACTIVITY | PARAMETER | UNIT VALUES | RESIDUE GENERATED | COST |
|---|---|---|---|---|
| CORE AND SAMPLE CONCRETE | LABOR | $20.00 PER HOUR | | $500.00 LABOR SAMPLING |
| | EQUIPMENT | $15.00 PER SAMPLE | | $375.00 CORING EQUIPMENT |
| | TIME | 1 HOUR/SAMPLE | | |
| | NO. OF SAMPLES | 25 SAMPLES | | |
| ANALYSIS | LABORATORY FEE | $1,500.00 FOR TCLP & F SCAN | | $37,500.00 ANALYTICAL |
| DECONTAMINATE THE CONCRETE | LABOR AND EQUIPMENT | $45.00 PER HOUR | | |
| | TIME | 1,500 FT2/HOUR | | $1,655.25 DECONTAMINATION |
| | WASTEWATER GENERATED | 300 GAL/HOUR | 11035 GALLONS WASTE WATER | |
| | AREA | 55,175 FT2 | | |
| SAMPLE AND ANALYZE RINSE WATER | LABOR | $20.00 PER HOUR | | $400.00 SAMPLING |
| | TIME | 1 HOUR/SAMPLE | | |
| | EQUIPMENT | $1,500.00 PER SAMPLE | | $30,000.00 ANALYTICAL |
| | # OF SAMPLES | 20 SAMPLES | | |
| CONTRACTED HEALTH RISK ASSESSMENT | | | | $75,000.00 |
| SECTION II SUBTOTAL | | | | $145,430.25 |

NOTE
**********
ASSUME A 6 INCH CONCRETE SLAB
TRANSPORTATION AND DISPOSAL OF RESIDUE GENERATED IS CALCULATED IN LATER SECTIONS
**********

III. EQUIPMENT DECONTAMINATION

| ACTIVITY | PARAMETER | UNIT VALUES | RESIDUE GENERATED | COST |
|---|---|---|---|---|
| STEAM CLEAN EQUIPMENT (I.E., BOBCAT, FORKLIFT) | LABOR | $8.65 PER HOUR | | |
| | TIME | 3 HOURS/LOADER | | |
| | EQUIPMENT | 5 LOADERS | | |
| | WASTE WATER GENERATED | 100 GAL/HOUR | 1,500 GALLONS WASTE WATER | $129.75 LABOR STEAMING |
| STEAM CLEAN MISCELLANEOUS UNITS | LABOR | $8.65 PER HOUR | | |
| | DISASSEMBLE UNITS | 40 HOURS/UNIT | | $8,304.00 LABOR STEAMING |
| | DECONTAMINATE UNITS | 40 HOURS/UNIT | | $8,304.00 LABOR DISSASSBLING |
| | NO. OF UNITS | 6 UNITS | | |
| | CREW SIZE | 4 MEN | | |
| | WASTE WATER GENERATED | 300 GAL/UNIT | 1,800 GALLONS WASTE WATER | |
| | INCINERATION GENERATED | 0.5 DRUMS/UNIT | 3 DRUMS INCINERATION | |
| STEAM CLEAN DRUM HANDLING EQUIPMENT | LABOR | $8.65 PER HOUR | | $3,114.00 LABOR STEAMING |
| | DISASSEMBLE UNITS | 2 HOURS/UNIT | | |
| | DECONTAMINATE UNITS | 10 HOURS/UNIT | | |
| | NO. OF UNITS | 15 UNITS (OR LESS) | | |
| | CREW SIZE | 2 MEN | | |
| | WASTE WATER GENERATED | 100 GAL/UNIT | 1,500 GALLONS WASTE WATER | |
| | INCINERATION GENERATED | 2 DRUMS | 30 DRUMS INCINERATION | |

NOTE
**********
TRANSPORTATION AND DISPOSAL OF RESIDUE GENERATED IS CALCULATED IN LATER SECTIONS
**********

SECTION III SUBTOTAL $19,851.75

IV. MANAGEMENT OF AQUEOUS DECONTAMINATION RESIDUE

| ACTIVITY | PARAMETER | UNIT VALUES | RESIDUE GENERATED | COST |
|---|---|---|---|---|
| PUMP RESIDUE FROM THE PLANT | VOLUME OF WASTEWATER | 20,125 GALLONS | | |
| | LABOR | $8.65 PER HOUR | | $158.26 LABOR LOADING |
| | TIME | 1100 GALLONS/HOUR | | |
| DISPOSAL | TRANSPORTATION | $3.50 PER MILE | | |
| | DISTANCE TO DALLAS | 364 MILES | | $5,096.00 TRANSPORTATION |
| | DISPOSAL FEE | $1.00 PER GALLON | | $20,125.00 DISPOSAL |
| | LOAD SIZE | 6,000 GAL/LOAD | | |
| | NUMBER OF LOADS | 4 LOADS | | |
| SECTION IV SUBTOTAL | | | | $25,379.26 |

V. MANAGEMENT OF KILN FUEL DECONTAMINATION RESIDUE

| ACTIVITY | PARAMETER | UNIT VALUES | RESIDUE GENERATED | COST |
|---|---|---|---|---|
| TOTAL KILN FUEL GENERATED | | 5,564 GALLONS | | |
| LOADING KILN FUEL ON TRUCKS | LABOR | $8.65 PER HOUR | | |
| | TIME | 1,100 GAL/HOUR | | $43.75 LABOR LOADING |
| DISPOSAL AND TRANSPORTATION | TRANSPORTATION | $3.50 PER MILE | | |
| | DISTANCE TO FREDONIA | 100 MILES | | $350.00 TRANSPORTATION |
| | DISPOSAL FEE | $0.21 PER GALLON | | $1,168.44 DISPOSAL |
| | LOAD SIZE | 6000 GALLONS/LOAD | | |
| | NUMBER OF LOADS | 1 LOADS | | |
| SECTION V SUBTOTAL | | | | $1,562.19 |

VI. MANAGEMENT OF INCINERABLE DECONTAMINATION RESIDUE

| ACTIVITY | PARAMETER | UNIT VALUES | RESIDUE GENERATED | COST |
|---|---|---|---|---|
| INCINERABLE WASTES GENERATED | | 5 DRUMS | | |
| LOADING ON TRUCKS | LABOR | $8.65 PER HOUR | | |
| | TIME | 75 DRUMS/HOUR | | $0.58 LABOR LOADING |
| TRANSPORTATION AND DISPOSAL | TRANSPORTATION | $3.50 PER MILE | | $525.00 TRANSPORTATION |
| | DISTANCE TO COFFEYVILLE | 150 MILES | | $825.00 DISPOSAL |
| | DISPOSAL FEE | $3.00 PER GALLON | | |
| | LOAD SIZE | 6000 GALLONS/LOAD | | |
| | NUMBER OF LOADS | 1 LOADS | | |
| SECTION VI SUBTOTAL | | | | $1,350.58 |

VII. CLOSURE CERTIFICATION

| ACTIVITY | PARAMETER | UNIT VALUES | RESIDUE GENERATED | COST |
|---|---|---|---|---|
| A. PROFESSIONAL ENGINEERING SERVICES | | | | |
| CLOSURE CERTIFICATION | ENGINEER'S FEE | $45.50 PER HOUR | | |
| | TIME | 80 HOURS | | $3,640.00 |

NOTE

2 SITE INSPECTIONS/WEEK, 4 HOURS/INSPECTION, 8 WEEKS, 8 HOURS OF OF CLOSURE PLAN REVIEW, 8 HOURS FOR CERTIFICATION PREPARATION

SECTION VII SUBTOTAL $3,640.00

VIII. CONTINGENCY AND TOTALS

| ACTIVITY | PARAMETER | UNIT VALUES | RESIDUE GENERATED | COST |
|---|---|---|---|---|
| TOTAL OF SECTION I–V | | | | $1,025,504.80 |
| CONTINGENCY | | 15.00% | | $153,825.72 |
| TOTAL CLOSURE COST ESTIMATE | | | | $1,179,330.52 |

CLOSURE COST ESTIMATIONS INCORPORATE THE FOLLOWING REFERENCES

THE RICHARDSON RAPID SYSTEM
PRICESS PLANT CONSTRUCTION
ESTIMATING STANDARDS VOLUME 1
SITE WORK, PILING, CONCRETE
RICHARDSON ENGINEERING, INC
OCTOBER, 1988

EPA GUIDANCE MANUAL: COST
ESTIMATES FOR CLOSURE AND POST-
CLOSURE PLANS (SUBPARTS G AND H)
OSWER POLICY DIRECTIVE #9476.00-6

HYDROCARBON RECYCLERS, INC.
PAST EXPERIENCE

DISPOSAL FACILITIES UTILIZED FOR DISPOSAL AND TRANSPORTATION COSTS

APTUS ENVIRONMENTAL SERVICES
HWY. 169 N. INDUSTRIAL PARK
COFFEYVILLE, KANSAS

GIBRALTER WASTEWATERS
DALLAS, TEXAS FACILITY
INJECTION WELL DISPOSAL

SYSTEC
FREDONIA, KANSAS CEMENT
KILN FACILITY
DISPOSAL AS WASTE DERIVED FUEL

U.S. POLLUTION CONTROL, INC
LONE MOUNTAIN, OKLAHOMA FACILITY
LANDFILL DISPOSAL

# APPENDIX J-B

## COMPLIANCE SCHEDULE
## CLOSURE OF V-29, V-30, V-31, V-32

Tanks V-29, V-30, V-31, and V-32 were used under Interim Status at the facility as sparge (aeration) tanks. These tanks are no longer necessary to the operation of the facility. HRIW plans to close these tanks in accordance with the procedures discussed in Section J-9(b) of the Closure Plan. KDHE has requested that HRIW submit a compliance schedule for closure of these four tanks as part of the revisions to the Part B permit application, rather than preparing a separate request for approval to close these tanks. This Attachment to the Closure Plan constitutes the compliance schedule.

Tanks V-29 and V-30 are each 90 gallon tanks. Tanks V-31 and V-32 hold 115 gallons each. All four of the tanks are located in Area D300, in a secondary containment area shared with other process units and container storage. At this time, the tanks have been emptied and are out of service. HRIW does not intend to put these tanks back into hazardous waste service at the site.

HRIW plans to close these tanks following the partial closure procedures outlined in Sections J-4 and J-9(b) of the RCRA Part B permit application. The steps to be taken are listed below.

1. Surfaces will be scraped, sandblasted, brushed, or swept to remove all loose or caked residue. Surfaces will then be triple rinsed. The first wash/rinse will be performed with a high-pressure stream of steam or water with suitable detergents or other cleaning additives. The second wash/rinse will be performed using clean water with cleaning additives. Accumulated liquids from the two first washes will be collected and handled in accordance with Section J-4b of this closure plan. The third wash/rinse will be performed with clean (potable) water.

2. The equipment will be visually inspected after the triple wash/rinse to assess the presence of visible residue. If necessary, the facility will repeat all, or part, of the above procedures.

3. A representative sample will be taken of the rinse water from the final rinse of each hazardous waste management unit. These samples will be analyzed according to the Toxic Characteristic Leaching Procedure (TCLP) (40 CFR 261.24 as amended June 29, 1990).

4. A unit will be considered decontaminated when the rinsate sample analysis results are lower than the values/levels listed in Table J.2, Decontamination Rinsate Analysis, and when no visible residues remain on the unit.

5. If the unit is not decontaminated after performing Steps 1 through 4, the facility will either repeat the above procedures or dismantle the unit for further management and/or disposal at an off-site permitted TSDF as a hazardous waste. Equipment disposed of in a landfill will meet the applicable Land Disposal Restriction (LDR) standards of 40 CFR 268.

Because the secondary containment system in which Tanks V-29, V-30, V-31, and V-32 are located serves as containment for other units that remain active, it will not be decontaminated during this partial closure. Similarly, ancillary equipment (e.g., pumps, piping) that is associated with other active units in the area will not be closed during this partial closure.

HRIW is prepared to initiate partial closure of Tanks V-29, V-30, V-31, and V-32 upon receipt of approval from the KDHE. Partial closure will be performed in accordance with the schedule presented in Table J.7.

Table J.7

Schedule for Partial Closure
Tanks V-29, V-30, V-31, V-32

| Partial Closure Activity | Days to Complete (from date authorized to proceed) |
|---|---|
| Decontaminate each tank according to the procedures in the Closure Plan. | 30 |
| Decontaminate ancillary equipment unique to the tanks addressed in this partial closure. | 30 |
| Analytical work complete. | 60 |
| Receive engineer's certification of closure. | 90 |

## J-9c Miscellaneous Unit Closure

Partial facility closure, closure of an individual hazardous waste management unit, may be necessary during the active life of the facility. If a miscellaneous unit must be closed during the active life of the facility, it will be closed in accordance with this section. At closure of a miscellaneous unit, all hazardous waste and, to the extent possible, hazardous waste residues will be removed from the unit. Furthermore, the miscellaneous unit, associated ancillary equipment, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues will be either decontaminated or removed.

### J-9c(1) Process and Unit Description

"Miscellaneous Unit" is defined under 40 CFR 260.10 (as of July 1, 1990) as:

> A hazardous waste management unit where hazardous waste is treated, stored, or disposed of, and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well with appropriate technical standards under 40 CFR Part 146, or unit eligible for a research, development, and demonstration permit under 40 CFR 270.65.

The HRIW facility has miscellaneous units as defined above. Table J.1 and Figure J.3, Miscellaneous Unit Locations (Drawing 50-57-10-001, Miscellaneous Unit Locations presented in Section Y) identify these units and their location at the Wichita facility. A brief description of each unit follows.

1. Shredder Unit - A toothed wheel shredder which reduces bulk objects into shreds.

2. Granulator Unit - A fixed knife shredder which reduces the size of solid objects.

3. Drier Unit - A unit which evaporates liquids from sludges and solids, and then recondenses the vapor.

4. Dispersing Unit - A unit which uses agitation to dissolve viscous liquids and solids removed from containers prior to transferring these materials into tanks or containers.

Figure J.3. Miscellaneous Unit Locations

5. Drum Washing Unit - A unit which mechanically removes waste residue from emptied drums.

6. Drum Scraper Unit - A device which loosens solid and viscous material inside a container so the material may be removed from the container for further management (e.g., treatment, storage).

~~7. Treatment in Containers and Container Management Activities - The facility will treat hazardous waste in containers. These activities will be conducted in the container management areas. One treatment activity involves using portable filtration units to remove particulates from liquid streams. These filtration units will be closed in accordance with this section (J-9c) as a miscellaneous unit. All container management areas in which treatment in containers occurs will be closed in accordance with Section J-9a of this closure plan.~~

## J-9c(2) Unit Closure Procedures

For the purposes of this closure plan, each miscellaneous unit includes the following structures/equipment:

- The unit and associated hazardous wastes, waste residues and constituents;
- Ancillary equipment including, but not limited to, piping, fittings, flanges, valves, and pumps; and
- Associated secondary containment structures (concrete pads, curbs, ramps, etc.). ~~; and~~
- ~~Underlying soil.~~

The buildings which contain miscellaneous units and which do not come into direct contact with hazardous waste or the unit are not part of the miscellaneous unit. Therefore, the buildings associated with the miscellaneous unit, including floors which are not part of the miscellaneous unit system, will not be subject to the decontamination procedures of this closure plan

and may be left in place. However, these walls and floors will be visually inspected and, if evidence of contamination exists, these structures will be cleaned.

The miscellaneous units at the HRIW facility may undergo periodic changes, upgrades, or partial closure in order to accommodate required regulatory and capacity changes and improvements in technology. Also, HRIW will periodically replace miscellaneous units if they become unfit for use and repair. Since some of the secondary containment systems contain miscellaneous units in addition to tanks and/or CMUs, the facility could potentially close or replace a single miscellaneous unit without closing the associated secondary containment system. However, upon final facility closure all miscellaneous units, including secondary containment, will be closed in accordance with this section.

HRIW will close all miscellaneous units at the Wichita facility as follows.

1. If modifications to the closure plan are desired and have not been previously approved in accordance with 40 CFR 270.42 and 264.112, the modified portions of the plan will not be implemented until approval by KDHE or other authorized agencies has been received.

2. HRIW will close the miscellaneous unit(s) in accordance with the schedule outlined in Table J.6, Closure Activity Schedule - Miscellaneous Units and discussed in Section J-9c(3) of this closure plan.

3. Within ninety days after receiving the final volume of hazardous wastes into the miscellaneous unit(s), HRIW will remove all waste inventory from the unit(s) unless an extension has been requested and approved in accordance with 40 CFR 264.113(a). All waste inventories will be either treated on-site in accordance with the facility's RCRA/HSWA permit or transported to a permitted TSDF for off-site management~~treatment or disposal~~.

4. The unit(s), ancillary equipment, structures, and secondary containment systems (when applicable) will be:

   A. Dismantled and disposed of as hazardous waste at a RCRA/HSWA permitted off-site disposal facility, or

   B. Decontaminated in accordance with Section J-4a and disposed of at a solid waste landfill, or

C. Decontaminated in accordance with Section J-4a and either salvaged for future use or left in place.

D. Successfully decontaminated equipment may be transferred to another TSDF for use.

5. This step applies only when closing an entire miscellaneous unit system, including its secondary containment. If only closing a miscellaneous unit, go to Step 6 below. When closing the miscellaneous unit(s) and its associated secondary containment, HRIW will visually inspect the surface soils around the unit's containment area. Any visible evidence of contamination will be evaluated for hazardous constituents and (if contamination is present) subsequently removed for proper disposal or other off-site management in accordance with Section J-4a of this closure plan.

At final closure, t~~T~~he soil beneath the ~~miscellaneous unit systems' individually contained~~ secondary containment systems will be ~~clean~~ closed in accordance with Section J-4a of this closure plan.

6. All wastes generated on-site from closure activities will be handled in accordance with Section J-4b of this closure plan.

7. HRIW will complete closure activities within 180 days after receiving either the final volume of hazardous wastes into the miscellaneous unit(s) or closure plan approval by the agency (whichever is later), unless an extension has been requested and approved in accordance with 40 CFR 264.113(b).

8. The miscellaneous units are not disposal units. Also, all hazardous wastes and hazardous waste constituents will be removed from the miscellaneous units during closure and all structures will be decontaminated in accordance with this closure plan. Therefore, the miscellaneous units are not subject to the post-closure care requirements of 40 CFR 264.116 through 264.120.

## J-9c(3) Unit Closure Schedule

Table J.6 outlines the anticipated schedule for the individual closure of a miscellaneous unit at the HRIW facility. During final closure of the facility, all HWMUs may be closed either sequentially or simultaneously and in accordance with the schedule presented in Table J.3.

## J-10 Financial Requirements

Closure costs are estimated in Appendix J-B, Closure Cost Estimate.

Financial requirements for hazardous waste TSDFs are addressed in Section K, Financial Requirements of this document.

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Appendix K-A, ~~Financial Guarantee Bond~~Financial Assurance Information
Appendix K-B, ~~Surety Rider for Financial Guarantee Bond~~Irrevocable Standby Letter of Credit
Appendix K-C, Hazardous Waste Certificate of Insurance
Appendix K-D, Notice in Deed

## List of Acronyms

Hydrocarbon Recyclers, Inc. of Wichita (HRIW)
Letter of Credit (LOC)
Treatment, Storage, and Disposal (TSD)
Kansas Administrative Regulations (KAR)

**K-1 <u>Financial Assurance:</u>** 40 CFR 264.143

Hydrocarbon Recyclers, Inc. of Wichita (HRIW) has chosen to use ~~a standby trust to be funded by a bond~~an irrevocable standby Letter of Credit (LOC) to meet facility closure financial assurance requirements. ~~This trust agreement is currently with Founders Bank and Trust Company in Oklahoma City.~~ The LOC is currently issued by the New York Branch of Banque Nationale de Paris.

~~The funding instrument is a financial guarantee bond (Surety Bond~~ [redacted] ~~dated September 1, 1988; a copy of this bond is provided as~~ Appendix K-A, ~~Financial Guarantee Bond~~Financial Assurance Information, summarizes facility information, funds assured for closure, and details regarding the LOC. Th~~is~~e ~~bond was~~LOC is amended annually for inflation as required by 40 CFR 265.142(b) for hazardous waste Treatment, Storage, and Disposal (TSD) facilities operating under interim status. The facility closure cost estimate and corresponding funding instrument will be adjusted on an annual basis for: 1) inflation; and 2) whenever facility changes affecting closure costs occur. A copy of the LOC ~~surety rider changing the penal sum of the bond~~ is presented in Appendix K-B, ~~Surety Rider for Financial Guarantee Bond~~Irrevocable Standby Letter of Credit.

Ex. 4

# Appendix K-A

## ~~Financial Guarantee Bond~~Financial Assurance Information

USPCI
A Subsidiary of
Union Pacific Corporation

**Hydrocarbon Recyclers Inc. d/b/a USPCI**
**2549 North New York**
**Wichita, Kansas 67219**
**316/268-9490 (Office)**
**316/268-9418 (Fax)**

August 14, 1992

Kansas Department of Health and Environment
Hazardous Waste Section
Forbes Field, Building 740
Topeka, Kansas 66620-0002

Re: Hydrocarbon Recyclers, Inc. of Wichita d/b/a USPCI (HRIW)
EPA ID No. KSD007246846
Financial Assurance Information

Dear Sir or Madam:

The following information is provided in response to correspondence dated 7/13/92 providing comments from your department regarding the Part B permit application submitted 2/18/92 for Hydrocarbon Recyclers, Inc. of Wichita d/b/a USPCI (HRIW).

Comment number 89 requests a letter summarizing facility information, funds assured for closure, and details regarding the funding instrument.

**Facility Information**

| | |
|---|---|
| EPA ID NO: | KSD007246846 |
| Facility Name: | Hydrocarbon Recyclers, Inc. of Wichita d/b/a USPCI |
| Facility Location: | 2549 North New York, Wichita, Kansas 67219 |

**Letter of Credit (LOC)**

Ex. 4

| | |
|---|---|
| LOC Number: | [redacted] |
| Issuing Institution: | Banque Nationale de Paris, New York Branch |
| Execution Date: | March 9, 1992 |
| Funds Assured: | $ 1,216,856.00 |

Sincerely,

HYDROCARBON RECYCLERS, INC. OF WICHITA

# Appendix K-B

~~Surety Rider for Financial Guarantee Bond~~Irrevocable Standby Letter of Credit

- Description of Wastes:

  The HRIW facility stores, treats, and recovers for recycling hazardous and nonhazardous wastes. The types of wastes managed in the RCRA regulated SWMUs are identified in Sections A (Part A Application) and C (Waste Characterization). The sampling and analysis provisions for managing these waste types are provided in Appendix C-A (Waste Analysis Plan) of Section C.

**L-1b SWMU - Area West of Building B 40 CFR 270.14(d)**

Excavation of a roof drainage system resulted in the discovery of an additional SWMU, apparently consisting of buried paint cans, located west of Building B. Other wastes may be present as well; the SWMU has not been fully investigated. This SWMU did not result from any HRIW activity at the site. Available information, as required by 40 CFR 270.14(d) is provided in this section.

## L-1b(1) General Description of SWMU - Area West of Building B

A SWMU located in an area west of Building B and apparently consisting of buried paint cans was discovered during excavation for site improvements during the spring of 1992; a full investigation of this SWMU has not been completed. The SWMU, located approximately twenty feet west of the southwest corner of Building B, covers an area of approximately twenty square feet. Figure L.1, Location of SWMU - Area West of Building B, shows the location of this disposal area. The waste was tentatively identified as paint-related wastes.

Historical use of the SWMU located west of Building B is not definitively known. The property presently occupied by HRIW was used for paint manufacturing from the mid 1940's to the mid 1970's. Reid Supply acquired the site in 1979, and HRI purchased the HRIW facility in 1987. The on-site burial of these drums reportedly occurred prior to acquisition of the site by Reid Supply. HRIW has not buried any waste in this SWMU, nor at any other location on the property.

## L-1b(2) Releases from SWMU - Area West of Building B

HRIW is not aware of any releases of waste from this SWMU. Therefore, the information required under 40 CFR 270.14(d)(2) is not applicable. The SWMU area west of Building B will be evaluated for potential releases as part of a corrective action program administered under the RCRA/HSWA permit.

## L-1b(3) Sample and Analytical Data

Analytical data identified several hazardous constituents in wastes present in the SWMU area west of Building B. The contents of some paint cans and associated soil samples were analyzed. Analytical results are presented in Appendix L-A.

## M-1 Introduction

This section describes several waste management units at Hydrocarbon Recyclers, Inc. of Wichita (HRIW) which have not been classified by state or federal regulatory agencies as tanks or containers for the purpose of regulation under Title 40 of the Code of Federal Regulations (40 CFR) Part 264. These units are the Dryer Unit, the Dispersing Unit, the Shredder Unit, the Granulator Unit, the Drum Scraper Unit, and the Drum Washing Unit. All of these units have been classified as miscellaneous units regulated under 40 CFR 264 Subpart X by Region 7 of the U.S. Environmental Protection Agency. Each of these units may be used to physically or chemically alter hazardous wastes managed at HRIW. Their specific locations are shown on Figure M.1, Miscellaneous Unit Locations (Drawing 50-57-10-001, Miscellaneous Unit Locations). This section will address the regulations for miscellaneous units as they apply to each unit listed above.

## M-1a Wastes Managed in Miscellaneous Units

Miscellaneous units on site are utilized for regulated and non-regulated waste management. Any regulated RCRA wastes identified on the facility Part A application (presented in Section A of this application) may be managed in any miscellaneous unit on site so long as the waste is compatible with equipment or concurrently managed wastes.

Facility waste management practices have been developed to prevent the perpetuation of waste code(s) managed in tank systems and miscellaneous units. The waste code(s) applicable to a given wastestream processed in a unit is(are) retained for a specified processing time interval or processing volume; the waste code(s) associated with a given waste is(are) dropped from documentation after that specified time interval or process volume is elapsed. Specific practices for tanks, miscellaneous units, and piping are outlined below.

- Tanks - After removal of a listed or characteristic waste, tanks will be cleaned by rinsing, scaping, brushing, or other physical method until deemed visually clean. Waste codes of previously managed wastes will not be carried on subsequent waste streams managed.

- Miscellaneous Units - The three unit volumes processed through the unit after completion of management of a listed or characteristic waste will be cosidered as carrying the same listed codes, or characteristic codes (unless tested and shown otherwise). Waste codes will be dropped from waste streams managed subsequent to these three unit volumes.

- Piping - The one unit volume processed through piping after completion of management of a listed or characteristic waste will be cosidered as carrying the same listed codes, or characteristic codes (unless tested and shown otherwise). Waste codes will be dropped from waste streams managed subsequent to this one unit volume.

Figure M.1. Miscellaneous Unit Locations

## M-2 Unit Descriptions

### M-2a Shredder and Granulator Units

#### M-2a(1) Purpose

The Shredder and Granulator Units can be operated as stand alone units or as a connected, two stage unit. In either configuration, these units share a common vapor control system. Airborne contaminants generated during pneumatic and screw conveyor operations are captured inside the units and exhausted through the cyclone, baghouse and carbon filter. When these two units are operated together, waste is normally fed first to the Shredder Unit, then it passes directly into the Granulator Unit.

The Shredder and Granulator Units reduce the size of various kinds of hazardous and nonhazardous waste materials. Waste processed through these units may include such items as paint filters, dry cleaning cartridges, wooden pallets, plastic containers, and used personal protective equipment. The materials fed to the Shredder Unit are shred into small pieces or strips by two counter-rotating shafts with teeth driven at low speed and high torque. The Granulator Unit cuts materials into

smaller pieces with knives attached to a rotor blade until the pieces are small enough to fall through a screen in the bottom of the cutting chamber. The solids from these units are then pneumatically moved through a duct system to a cyclone separator

## M-2b Drum Scraper Unit

### M-2b(1) Purpose

The Drum Scraper Unit is used to enhance the removal of solid, viscous, and/or sticky materials from containers such as 55 gallon drums. Before a container is placed in the Drum Scraper Unit, the top of the container is removed, and any free liquid standing on top of the drummed waste may be pumped out. When the container containing waste is placed in the unit, a cylinder extends down from the unit into the container. A rotating metal blade then extends down inside the cylinder and into the waste, where it cuts up the waste so it can be dumped out. Once the cutting is finished the cylinder and blade assembly is raised from the container, the container is immediately put into the dumper, and the contents are dumped into the Dispersing Unit; alternatively, the top is placed back on the container and the container is moved by conveyor to the Dispersing Unit or to another processing area.

The Drum Scraping Unit is constructed primarily of carbon steel and is located in the Process Area at HRIW as shown in Figure M.1. ~~Motor Location and Specification presented in Appendix M-~~

~~A.~~ Figure M.5, 55 Gallon Drum Scraper (Drawing D-35-52-800, 55 Gallon Drum Scraper) and Figure M.6, Motor Location and Specification Drawing D-43-10-6-100, Motor Location and Specification) shows the dimensions and configuration of the unit.

The regulations in 40 CFR 264 Subparts I through O do not apply specifically to the Drum Scraping Unit; however, this unit is located in a container management area and has secondary containment which meets the requirements of 40 CFR 264 Subpart I, Use and Management of Containers.

**M-2b(2)** **Drum Scraper Unit compliance with standards for emissions or releases: 264.601 and 264.602**

**M-2b(2)(a)** **Prevention of releases to the subsurface environment or groundwater: 264.601 (a)**

Releases of waste from the Drum Scraper Unit to the subsurface or groundwater are extremely unlikely for these reasons.

(1) The waste processed by the Drum Scraper Unit is predominantly solid, and has had most free liquids removed.

(2) The Drum Scraper Unit is located in a secondary containment area which meets the requirements of 40 CFR 264 Subparts I and J. The containment has sufficient volume to contain a

## M-6 Special Requirements for Handling Ignitable, Reactive and Incompatible Wastes

HRIW has developed special provisions for ignitable, reactive, or incompatible wastes applicable to management of waste in containers and tanks. These provisions will be followed during processing of the waste in other regulated units as required under 40 CFR 264.17(c). These procedures are addressed in Section D, Container Management (Sections D-3f and D-3g), Section E, Tank Systems (Section E-3c), and in Section G, Procedures to Prevent Hazards (Section G-6). Additional information regarding precautions, equipment, and safety features used to prevent accidental ignition or explosion is presented in Section G, Procedures to Prevent Hazards.

# APPENDIX M-A

## SECTION M FIGURES M.2 Through M.12

| Figure Description | Corresponding Drawing Number |
|---|---|
| M.2. P&ID New Process/Condensate Separator | Drawing 665300-4-W404A (FD) |
| M.3. Shredder/Granulator | Drawing (As built) |
| M.4. Shredder/Granulator | Drawing 50-57-03-001 |
| M.5. 55 Gallon Drum Scraper | Drawing D-35-52-800 |
| M.6. Motor Location and Specifications | Drawing D-43-10-6-100 (HRI, Inc.) |
| M.7. Model-FKM-3000-D-Mixer | Drawing 2106-P (Littleford) |
| M.8. 1129 Gallon Dispersing Tank | Drawing PD 12/3/91 |
| M.9. 40/50/60 VSM 18 Disperser | Drawing DL34055 (FCF-Bowers) |
| M.10. Barrel Dump Assembly | Drawing PD 1/25/91 |
| M.11. P&ID Process Areas | Drawing 665300-4-W404F (FD) |
| M.12. Triple Rinse, HRI | Drawing D990043 (BRI, Inc.) |

# APPENDIX M-C

## USPCI AIR MONITORING DATA

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associated piping operate under vacuum; however, HRIW does not elect to exempt them from monitoring requirements at this time.

**N-2b <u>Pumps in Light Liquid Service</u>**

All pumps at the HRIW facility are assumed to be in light liquid service at some time due to the varied nature of the wastes managed at the facility. Because the exact composition of the waste stream varies, a heavy liquid service designation is difficult to sustain during actual operations. Therefore, all pumps at the facility are potentially subject to light liquid service standards and will be monitored monthly to detect leaks using the method specified in 264.1063 (b) unless exempted by a classification of no detectable emissions.

All pumps at the facility are subject to regular RCRA inspections, as described in Section F, Inspection Plan. These will occur at a minimum of once per week to locate indications of liquids dripping from pump seals. If there are indications that liquids are dripping from the pump seal (e.g., staining of surrounding substrate, visible liquids), a leak is considered to be detected.

When a leak is detected, a first attempt at repair shall be made within five (5) calendar days and a permanent repair attempted

within fifteen (15) calendar days of detection unless the standards of 264.1059 are met.

There are currently no pumps in operation at the HRIW facility with a dual mechanical seal that includes a barrier fluid. When these types of pumps are installed, HRIW will comply with the requirements of 40 CFR 264.1052 (d) if these pumps are to be exempted from monitoring requirements.

There are several pumps at the HRIW facility which are eligible for the "no detectable emissions" exemption from 264.1052 (a), (b), and (d) with an instrument reading of 500 ppm or less above background. These pumps have no externally actuated shaft which penetrates the pump housing, and operate with no detectable emissions (i.e., less than 500 ppm measured by the method specified in 264.1063 (c)) and have been initially tested for compliance with this standard and will be tested annually for leaks above 500 ppm. Pumps which are eligible for the "no detectable emissions" exemption will be tested when requested by the Regional Administrator, as specified in 40 CFR 264.1052(e)(3).

**N-2c <u>Compressors</u>**

There are no compressor units subject to air emission standards at the HRIW facility.

**N-2d <u>Pressure Relief Devices</u>**

There are no pressure relief devices installed on equipment subject to the 40 CFR Subpart BB regulations currently being operated in hazardous waste gas/vapor or liquid service at HRI Wichita.

**N-2e <u>Sampling Connection Systems</u>**

All sampling systems at the HRIW facility are of the *in situ* type, are used in-line, and are not subject to subparagraphs (a) and (b) ~~and (c)~~ of 264.1055. These systems typically consist of a valve with an open ended line. This equipment is subject to the leak emissions standards and is included in the monitoring plan as required by 264.1056 or 264.1057. This system is operated in method consistent with the basis for the standards contained in 264.1055 (a) and (b) in that any purged waste prior to sampling is returned to the process.

**N-2f <u>Open-ended Valves or Lines</u>**

All open-ended valves and lines at the HRIW facility are equipped with caps or plugs intended to seal the open end when the line or valve is not in service. All double block lines at the facility (i.e., lines with two valves) are operated such that the valve on

When a leak is detected, a first attempt at repair shall be made within five (5) days and a permanent repair attempted within fifteen (15) calendar days of detection unless the standards of 264.1059 are met. First attempts at repair shall include tightening of bonnet bolts, replacement of bonnet bolts, tightening of packing gland nuts, and/or injection of lubricant into lubricated packings.

There are no valves in use at the HRIW facility eligible for the no detectable emission exemption. Similarly, there are no valves designated as unsafe-to-monitor.

There are numerous valves designated as difficult-to-monitor pursuant to this paragraph on the existing units which were in operation prior to June 21, 1990. These valves have been determined to be difficult to monitor due to their location or elevation as ~~required by~~specified in 264.1064 (h) (2). All valves currently designated as difficult-to-monitor are so designated in the log because of their location at or above two meters above a supported surface. Valves that have been identified as difficult-to-monitor are identified in the tables in Appendix N-D by the identification number P-XXXU/PXXXU~~PUXXX~~ or M-XXXU/MXXXU~~MUXXX~~. These valves will be monitored according to ~~a~~ this written plan for obtaining access to these valves for monitoring at a minimum of once per year.

**N-2h <u>Pumps & Valves in Heavy Liquid Service; Flanges, and Other Connectors</u>**

There are no pumps or valves designated in heavy liquid service at the HRIW facility. Flanges and other connectors shall be monitored within five (5) calendar days by the method specified in 264.1063 (b) if evidence of a potential leak is found by visual, audible, olfactory, or other method. These potential leaks will normally be initially identified by observation of dripping or accumulated liquids or of stained substrate during scheduled inspections of the tank system and associated piping.

When a leak is detected, a first attempt at repair shall be made within five (5) calendar days and a permanent repair attempted within fifteen (15) calendar days of detection unless the standards of 264.1059 are met.

The practices specified in paragraph 264.1057 (e) shall constitute a first attempt at repair.

## N-3 Delay of Repair

In the event that any repair of a connection, pump, or valve associated with a process unit must be delayed beyond fifteen (15) calendar days because it requires the shutdown of the hazardous waste management unit, that repair shall be completed during the next unit shutdown.

A delay of any other repair of a connection, pump, or valve will extend beyond the (15) days only if the equipment for which a leak has been detected can be isolated from the system and no longer contacts hazardous waste liquid or gas/vapor in concentrations exceeding ten (10) percent by weight.

### N-3a Valves:

In delaying a repair of a valve beyond fifteen (15) calendar days, HRIW will follow procedures as specified by 40 CFR 1059. HRIW will determine whether or not the emissions from an immediate repair would exceed those likely to result from the procedures that would be used if repair could be delayed. Delay of repair will only occur when the emissions would be reduced by the delay, when the equipment is isolated from the hazardous

waste management unit, or when the repair is technically infeasible without a hazardous waste management unit shutdown (in this case, the repair shall occur before the end of the next hazardous waste management unit shutdown). Delay of repair of a valve beyond the next hazardous waste management unit shutdown will only occur if valve assembly replacement is necessary during the shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before supplies were depleted. Delay of repair beyond the next hazardous waste management unit shutdown will only occur if the next hazardous waste management unit shutdown occurs sooner than six months after the first hazardous waste management unit shutdown.

HRIW will comply with 40 CFR 264.1059 when ~~assure that when a delayed~~ repair of a valve is ~~performed,~~ delayed. If delay of repair is performed in accordance with 40 CFR 264.1059(c)(2), the purged material collected during the repair ~~is~~ will be destroyed or recovered in a control~~led~~ device complying with 40 CFR 264.1060, and to 40 CFR 1033.(h), 1033(i), and/or 1033(j). ~~Since HRIW does not have processes regulated by 40 CFR 264 Subpart AA, purged material collected from delayed repairs shall be returned to the process in accordance with 264.1032 (a) (1).~~

Repairs of valves may be delayed at HRIW beyond the first unit shutdown in the event that the repair requires spare parts which were well stocked prior to the shutdown but were depleted and unavailable at the time of shutdown. Additional delays beyond the second unit shutdown will only occur if the second shutdown occurs within six (6) months after the first.

**N-3b <u>Pumps:</u>**

Repairs of pumps will be delayed by HRIW beyond fifteen (15) calendar days if the repair requires the use of a dual mechanical seal and barrier fluid system. Such delayed repairs of pumps will be completed as soon as practicable but no later than six (6) months from the time the leak was detected.

## N-5 Test Methods and Procedures

The test methods used by HRIW comply with 264.1063. Relevant instrument and method information is included in this document as Appendix N-C.

Monitoring performed at HRIW is done in accordance with Method 21 as set forth in 40 CFR Part 60.

The instrument currently being used for ~~modeling~~ monitoring is a Foxboro OVA Model 108; other instruments may be utilized depending on performance and instrument availability. The performance criteria for this instrument against Method 21 requirements are well documented and are included in Appendix N-C. The instrument is calibrated according to Method 21 requirements and the results documented as part of the monitoring. Examples of calibration forms for documenting this information appear in Appendix N-C. Calibration gases conform to Method 21 requirements and are documented with each calibration (see Appendix N-C). Future monitoring procedures, monitoring equipment, and calibration of that equipment shall comply with 40 CFR 264.1063.

## N-5a Testing for No Detectable Emissions

The only equipment at HRIW designated as meeting the "no

subject to these standards and their identification numbers. The exact location of each piece of equipment is identified for monitoring and repair tracking from this information.

The tables in Appendix N-D include equipment descriptions, types, models, serial numbers, and operating characteristics where available.

~~All h~~Hazardous waste streams handled at the HRIW facility have been assumed to exceed the ten (10) percent organic content limit and a majority are liquids. The gas/vapor service equipment is identified by type of associated process. This service is limited to equipment on condensers and vent lines, and ~~are~~is identified in the tables included in Appendix N-D. All pipelines subject to these standards are identified as being in either vapor or liquid service in the pipe line lists in Appendix N-D. Light liquid services are identified by the identification number for the pipeline in which the equipment is installed. K-XXX represents a kiln fuel service, N-XXX represents a non-chlorinated organics service, C-XXX represents a chlorinated organics service, W-XXX represents an aqueous organics service, and O-XXX represents waste oil service.

Each piece of equipment subject to 40 CFR Subpart BB standards is marked in such a manner that it can be distinguished readily from other pieces of equipment. Markings include identification tags and/or color coding as appropriate.

to this requirement. The dryer and the two tanks which accumulate liquids evaporated in the dryer operate under vacuum; however, HRIW is not at this time seeking an exemption for these units from monitoring requirements.

**N-6h <u>Difficult to Monitor Valves</u>**

Valves that have been identified as difficult to monitor are identified in the tables in Appendix N-D by the identification number P-XXXU/PXXXU~~PUXXX~~ or M-XXXU/MXXXU~~MUXXX~~. HRIW does not elect to identify any equipment as unsafe-to-monitor at this time. The difficult-to-monitor valves identified pursuant to 264.1057 (h) listed in the tables in Appendix N-D are all located ~~in difficult to reach or are~~ at or above two (2) meters above a supported surface. The valves will be monitored annually when a portable structure capable of safely supporting monitoring personnel can be scheduled.~~, but in no case later than one year from the date which all accessible equipment is monitored.~~

**N-6i <u>Process Information for Exemptions</u>**

Information is available in the facility records which indicates the design capacity of the hazardous waste management units.

# Appendix N-A - Facility and Process Drawings

August 27, 1992
Revision No. 1

# Appendix N-D - Equipment Lists

August 27, 1992
Revision No. 1

# Appendix N-F - Monitoring Results and Repair Reports

August 27, 1992
Revision No. 1

## Appendix Y-1. Site Drawings

| Drawing Number | Drawing Title | Corresponding Figure Number | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Drawing 50-01-01-001 | Site Location Map | B.1 | | | | | | |
| Drawing 50-01-11-001 | Facility Map | B.2 | | | | | | |
| Drawing 50-01-01-002 | Facility Layout | B.3 | | | G.1 | | | |
| Drawing 50-01-10-001 | Hazardous Waste Management Areas | B.4 | D.1 | E.1 | | | | |
| Drawing 50-00-01-001 | Annual Surface Wind Rose | B.5 | | | | | | |
| Drawing 50-01-10-002 | Material Containment Areas | | D.2 | | | J.1 | | |
| Drawing 50-01-03-002 | Emergency Equipment/Evacuation Routes | | | | H.1 | | | |
| Drawing 50-55-10-002 | Tank Locations | | | E.2 | | J.2 | | |
| Drawing 50-01-10-003 | Solid Waste Management Unit - Area West of Building B | | | | | | L.1 | |
| Drawing 50-57-10-001 | Miscellaneous Unit Locations | | | | | J.3 | | M.1 |

USPCI
A Subsidiary of
Union Pacific Corporation

ırocarbon Recovery Services

September 23, 1992

RECEIVED
BUREAU OF
SEP 2 5 1992
WASTE MANAGEMENT

Siew Kour
Kansas Department of Health and Environment
Hazardous Waste Section
Forbes Field, Building 740
Topeka, Kansas 66620-0002

RECEIVED
AUG 9 1993
TOXICS AND PESTICIDES BRANCH
TOXICS SUBSTANCE CONTROL SECTION

Re: Hydrocarbon Recyclers, Inc. of Wichita d/b/a USPCI (HRIW)
EPA ID No. KSD007246846
RCRA Permit Application - Replacement Pages

Dear Ms. Kour:

Enclosed you will find two copies of HRIW's responses to your comments provided to my staff on September 8, 1992 regarding the RCRA permit application submitted February 18, 1992. Each of your comments has been addressed individually, and each response reiterates the comment, discusses our response, and provides revised text. Within this document, added text is identified by redline and deleted text is identified by ~~strikeout~~. Also enclosed are replacement pages for the permit application reflecting these revisions as well as two pages which have been revised to correct typographical errors. Please replace pages as indicated in Attachment A and place this cover letter with attachment in Section Z - Correspondence of the application.

If you have any questions regarding these matters, please contact Catherine Orban at telephone number 918-446-7434 or Liane Hetherington-Ward at telephone number 708-672-3640. Thank you for your assistance.

Sincerely,

Robert Apple
Vice President - Operations
Hydrocarbon Recyclers, Inc.

RECEIVED
AUG 1 1 1993
PRMT SECTION

cc: L. Harrington, U.S. EPA
S. Keiter, HRIW
D. Hensch, USPCI
L. Hetherington-Ward, USPCI
C. Orban, USPCI

2549 North New York • Wichita, Kansas 67219 • 316/268-9490 • Fax 316/268-9418

Re: September 23, 1992 Response to Comments
Replacement Directions for Revised Pages
Hydrocarbon Recyclers Inc. of Wichita, d/b/a USPCI

# Attachment A

## RCRA Permit Application - Replacement Pages

| Remove | Add |
|---|---|
| **Section A** | |
| Addendum A | Addendum A |
| **Section C, Appendix C-A** | |
| Page 45 | Page 45 |
| Page 48 | Page 48 |
| Page 64 | Page 64 |
| Page 68-A | Page 68-A |
| Page 71-A | Page 71-A |
| Attachment C-C, Page C.1 | Attachment C-C, Page C.1 |
| Attachment C-C, Page C.6 | Attachment C-C, Page C.6 |
| Attachment C-C, Page C.7 | Attachment C-C, Page C.7 |
| **Section D, Appendix D-8** | |
| Attachment 6, Page 3 | Attachment 6, Page 3 |
| **Section E** | |
| Page 13/13-A | Page 13/13-A |
| **Section F, Appendix F-A** | |
| Page 3 of 10 | Page 3 of 10 |
| Page 6 of 10 | Page 6 of 10 |

Re: September 23, 1992 Response to Comments
Replacement Directions for Revised Pages
Hydrocarbon Recyclers Inc. of Wichita, d/b/a USPCI

# Attachment A

## RCRA Permit Application - Replacement Pages

| Remove | Add |
|---|---|
| **Section J** | |
| Page 4 | Page 4/4-A |
| Page 15/15-A | Page 15/15-A |
| **Section J, Appendix J-C** | |
| Cover Page | Cover Page |
| Page J-C-4 | Page J-C-4 |

## Section C, Appendix C-A - Waste Analysis Plan

1. Page 45 Please indicate where HRI stores the 10 day transfer waste.

**HRIW COMMENTARY:**

Loads of 10-day transfer wastes generally remain on the truck or on the loading docks at the facility. However, on occasion the facility may choose to place the 10-day transfer wastes into CMUs temporarily, without receiving the waste. At no time will the total permitted storage capacity of a CMU be exceeded.

**HRIW NEW/REVISED NARRATIVE (Appendix C-A, Page 45):**

The procedures described in this section apply to hazardous waste generated off-site which will ultimately be managed at HRIW. Facility generated wastes are not subject to the incoming load procedures described in this Section. Wastes received at HRIW only for the purpose of transfer to another facility in accordance with 40 CFR 263.12 and 264.1(g)(9) are also not subject to the incoming load procedures. These 10-day transfer wastes may remain at the site for a period not to exceed ten (10) days prior to continuing the journey to the designated treatment, storage, or disposal site. 10-day transfer loads remain "in transit" during the entire stay at the site. These wastes may be off-loaded and transferred to another vehicle. Because these 10-day transfer loads are never accepted into the HRIW waste management system, no analyses are performed on the loads. However, 10-day transfer wastes are

tracked using the Waste Tracking System. 10-day transfer loads generally remain on the truck or in the loading dock areas, although the wastes may occasionally be placed in a CMU temporarily prior to reshipment off-site. At no time will the total waste volume in any CMU exceed the permitted storage capacity.

**Section C, Appendix C-A - Waste Analysis Plan**

2. Page 48 — It is stated in the revised pages that the decision to reject a waste load is made by the facility manager or his designee. Please further clarify where the waste goes if rejected.

**HRIW COMMENTARY:**

Waste that is rejected will usually be returned to the generator. In some situations, HRIW and the generator may jointly decide to reject to the waste to an alternative TSDF. The text on page 48 has been revised to clarify this information.

**HRIW NEW/REVISED NARRATIVE (Appendix C-A, Page 48):**

If a significant discrepancy in waste type cannot be resolved, the affected wastes will be rejected. Causes for rejection can include, but are not limited to, variance from expected constituents and constituent concentrations and variance from expected physical characteristics. If a significant discrepancy in piece count or volume cannot be resolved, the load may be accepted or rejected. If the load is accepted, HRIW will notify the Kansas Department of Health and Environment in accordance with 40 CFR 264.72(b), and will submit an exception report. The decision to reject a waste load is made by the Facility Manager or his designee. If a waste is rejected, it will be returned to the generator or sent to an alternative facility agreed to by HRIW and the generator.

**Section C, Appendix C-A - Waste Analysis Plan**

3. Page 64 "The heating value of supplemental fuels sent to BIFs that have not received a RCRA permit will comply with the requirements of 40 CFR 266 or applicable state law, whichever is more stringent" should be revised. The "RCRA permit" should be replaced by "RCRA permit for the BIF unit or obtained certification of compliance."

**HRIW COMMENTARY:**

The text on page 64 has been revised according to the KDHE comment. The revised text is presented below.

**HRIW NEW/REVISED NARRATIVE (Appendix C-A, Page 64):**

**7.2.1 Blending:**

The process of blending waste is performed to produce a mixture which can be used as a supplemental fuel for boilers, industrial furnaces, lime and cement kilns, or similar operations. The blended wastes may also be incinerated. In this process, wastes containing sufficient heating values will be blended with other suitable wastes. Pre-acceptance analyses are used to determine the acceptability of each waste stream for the blending process. Additional analysis for heating value will be performed during pre-acceptance procedures for all hazardous wastes destined for supplemental fuels. The heating value of supplemental fuels sent to BIFs that have not received a RCRA permit for the BIF unit and

have not obtained certification of compliance with the BIF requirements will comply with the requirements of 40 CFR 266 or applicable state law, whichever is more stringent.

**Section C, Appendix C-A - Waste Analysis Plan**

4. Page 71-A Please clarify the cleaning procedure for the equipment.

**HRIW COMMENTARY:**

The cleaning procedures for equipment that has been in hazardous waste service but is intended for use in non-hazardous waste service have been added to the Waste Analysis Plan. The revised text is provided below.

**HRIW NEW/REVISED NARRATIVE (Appendix C-A, Page 71-A):**

For units that are not amenable to the cleaning described above, the facility will run three volumes ~~times the volumetric capacity~~ of waste or a cleaning agent through the unit prior to managing subsequent wastes as non-hazardous. For ancillary equipment, the facility will either triple rinse the equipment with a cleaning agent or non-hazardous waste, or will run three volumes of waste or cleaning agent through the equipment prior to managing the subsequent wastes as non-hazardous.

## Section D - Use and Management of Containers

5. Appendix D-B Please clarify the calculation for secondary containment for I100. The total capacity for building I is incorrect.

**HRIW COMMENTARY:**

The calculations on the last page of Attachment 6 to Appendix D-B have been corrected.

**HRIW NEW/REVISED NARRATIVE (Attachment 6 to Appendix D-B, Page 3):**

The calculation has been corrected and the revised page is included in the replacement package.

**Section E - Tank Systems**

6. Page 13 — The tank cleaning procedure indicated on this page should be identical to that specified in Section 7.4.3 which includes the triple rinsing process.

**HRIW COMMENTARY:**

The tank cleaning procedures in Section E have been revised to correspond to the procedures detailed in Section 7.4.3 of the Waste Analysis Plan.

**HRIW NEW/REVISED NARRATIVE (Section E, Page 13/13-A):**

~~Tanks that have been in hazardous waste service are cleaned prior to non-hazardous waste service. This cleaning procedure will consist of the following steps:~~

- ~~remove wastes from tank systems by draining and/or pumping;~~
- ~~flush hoses and piping by pumping an appropriate detergent or solvent in a volume roughly equivalent to the total volume of the pipe or hose; and~~
- ~~remove residuals by pumping, scraping, brushing, and/or washing, as necessary.~~

~~When visual inspection of the tank shows no evidence of contamination, the tank system is considered to be available for non-hazardous waste or product service. The above procedures, while not intended to close a tank, will make it available for non-hazardous waste management.~~

A change in tank service from hazardous waste to non-hazardous waste treatment or storage will involve the following cleaning procedures. The tank system will be emptied of waste and cleaned using whatever means necessary (e.g., brush, sweep, scrape, wash, rinse, etc.) to remove residuals. When the unit shows no visible evidence of contamination, the tank system will be determined to be cleaned sufficiently to enable non-hazardous waste use. As an extra precaution, the first three volumes of non-hazardous waste managed in the tank system following cleaning will be managed as hazardous waste carrying the codes that had been contained in the tank previously. Subsequent batches of non-hazardous waste will be managed as non-hazardous.

For tank systems that are not amenable to the cleaning described above, the facility will run three volumes of waste or a cleaning agent through the unit prior to managing subsequent wastes as non-hazardous. For equipment ancillary to a tank system, the facility will either triple rinse the ancillary equipment with a cleaning agent or non-hazardous waste, or will run three volumes of waste or cleaning agent through the equipment prior to managing the subsequent wastes as non-hazardous.

**Appendix F-A - Sample Inspection Log**

7. Pages 3 and 10 Please include the pressure relief hatch as an item in the daily inspection of tanks.

**HRIW COMMENTARY:**

The pressure relief hatch has been added to the daily inspection log where applicable.

**HRIW NEW/REVISED NARRATIVE (Appendix F-A, Pages 3 and 6 of 10):**

The Daily Inspection Log has been modified and the revised pages are included in the replacement package.

**Section J - Closure Plan**

8. Page 4 — Please indicate that any analysis performed during closure or partial closure should be done by a Kansas Certified Laboratory.

**HRIW COMMENTARY:**

The text has been revised to indicate that any analyses performed to verify that closure performance standards are met shall be performed at a Kansas certified laboratory.

**HRIW NEW/REVISED NARRATIVE (Section J, Page 4/4-A):**

3. They will be decontaminated in accordance with the procedures discussed in Section J-4a and maintained in place for future use.

All analyses performed to verify that closure performance standards are met shall be performed at a laboratory certified by the state of Kansas for the specific analytical procedures used.

## Section J - Closure Plan

9. Page 13-A — Analytical methods that are not approved by the EPA cannot be used during closure; however, they are acceptable for fingerprint analyses. Also, APHA testing methods should be those specified in the 17th edition and not the 16th edition.

**HRIW COMMENTARY:**

Page 4 of the Closure Plan has been revised to reflect that all analyses used to confirm that performance standards have been met will be performed at a Kansas certified laboratory; the Kansas laboratory certification program includes only EPA approved methods. HRIW reserves the right to use additional methods during closure, as at any other time, in order to provide additional information to facilitate safe and efficient management of materials at the site.

References in Attachment C-C to Appendix C-A of Section C to the 16th edition of "Standard Methods for the Examination of Water and Wastewater" have been revised to refer to the 17th edition.

**HRIW NEW/REVISED NARRATIVE:**

**Attachment C-C to Appendix C-A, Page C-C.1**

APHA — "Standard Methods for the Examination of Water and Waste Water", ~~16~~17th edition, American Public Health Association, ~~1985~~1989.

**Attachment C-C to Appendix C-A, Pages C-C.6 and C-C.7**

| Parameter | Method | Reference |
|---|---|---|
| **Miscellaneous Analytical Methods** | | |
| Acidity | ~~4022310~~ | APHA |
| Alkalinity | ~~4032320~~ | APHA |
| Percent Ash | D482 | ASTM |
| Bulk Density | D1429 | ASTM |
| Chlorine | D808 | ASTM |
| Compatibility Test for Wastes and Membrane Liners | 9090 | SW-846 |
| Corrosivity towards steel | 1110 | SW-846 |
| Releasable Cyanides | 7.3.3.2 | SW-846 |
| Releasable Sulfides | 7.3.4.2 | SW-846 |
| Flash Point (closed cup) | D93 | ASTM |
| Flash Point (open cup) | D92 | ASTM |
| Heat Release | D240 | ASTM |
| Ignitability (Pensky-Martens closed-cup method) | 1010 | SW-846 |
| Ignitability (Setaflash closed-cup method) | 1020 | SW-846 |
| $NH_3$-Nitrogen | 350.3 | EPA-600/ 4-79-020 |
| $NH_3$-Nitrogen | ~~4174500-$NH_3$~~ | APHA |
| Nitrate (Ion Chromatography) | 300.1 | EPA-600/ 4-79-020 |
| Nitrate (Colormetric) | 9200 | SW-846 |
| Nitrate-Nitrogen | ~~4184500$NO_3$~~ | APHA |
| Nitrate-Nitrogen | 352.1 | EPA-600/ 4-79-020 |
| Total Recoverable Oil & Grease | 9070 | SW-846 |
| Oil & Grease Extraction Method for Sludge Samples | 9071 | SW-846 |
| Oil & Grease | D4281 | ASTM |
| Oil & Grease | ~~5035520~~ | APHA |
| Total Organic Carbon (TOC) | 9060 | SW-846 |
| Total Organic Halides (TOX) | 9020 | SW-846 |
| Paint Filter Liquids Test (Free Liquids Test) | 9095 | SW-846 |
| Soil pH | 9045 | SW-846 |
| Phosphorous | 365.4 | EPA-600/ 4-79-020 |
| Phosphorous | ~~4244500-P~~ | APHA |

| Parameter | Method | Reference |
|---|---|---|
| Total Solids Dried at 103°C - 105°C | 160.3 | EPA-600/ 4-79-020 |
| Total Solids Dried at 103°C - 105°C | ~~209A~~2540 B | APHA |
| Total Suspended Solids (Filterable Residue) | ~~209C~~2540 D | APHA |
| Fixed & Volatile Solids (Non-filterable Residue) 2-209D | ~~209D~~2540 E | APHA |
| Specific Gravity | D1298 | ASTM |
| Total Sulfur | D129-64 | ASTM |
| Total Sulfides | 9030 | SW-846 |
| TCLP | Appendix I | 40 CFR 268 |
| EP Toxicity | Appendix II | 40 CFR 261 |
| Viscosity | D445 | ASTM |
| Water Content (Karl Fischer Method) | D1744 | ASTM |
| Water Content (Centrifuge Method) | D1796 | ASTM |
| Normality | USPCI-1 | HRIW WAP |
| Water Reactivity Screen | USPCI-2 | HRIW WAP |
| Solids Screen | USPCI-3 | HRIW WAP |
| Reactive Cyanides Screen | USPCI-4 | HRIW WAP |
| Reactive Sulfides Screen | USPCI-4 | HRIW WAP |
| Explosivity Screen | HRW-1 | HRIW WAP |
| Explosivity Meter Vapor Test | USPCI-5 | HRIW WAP |
| Oxidizer Screen | USPCI-6 | HRIW WAP |
| Radioactivity Screen | USPCI-7 | HRIW WAP |
| Fixation Requirement | USPCI-8 | HRIW WAP |
| Reducer Screen | USPCI-10 | HRIW WAP |
| Extraction for Solids | USPCI-11 | HRIW WAP |
| Radiant Heat Ignition Test | USPCI-21 | HRIW WAP |
| Ignitability of Solids | HRIW-3 | HRIW WAP |
| Compatability Evaluation | USPCI-25 | HRIW WAP |
| HOC Screen | HRIW-2 | HRIW WAP |

**Section J - Closure Plan**

10. Page 15 "Concrete corings will not be taken" only if the facility can indicate that there is no major release during the operating period. Soil borings should be taken for the pit area in Building I during closure.

**HRIW COMMENTARY:**

The text on Page 15 and 15-A of Section J has been revised in accordance with the above comment.

**HRIW NEW/REVISED NARRATIVE (Section J, Page 15/15-A):**

1. A visual inspection for evidence of release (i.e., staining or discoloration of soil, or damage to containment system) will be performed to determine selected sites for soil or concrete sampling. At the time of closure, if cracks or gaps which may have resulted in contaminant migration are observed in the hazardous waste management unit, a sample site will be located on or near the crack location. ~~Otherwise,~~ eConcrete corings will not be taken in any unit for which the facility can document that there has not been a major release during the operating period. Concrete corings will be taken in Building I, and in units in which major releases have been documented during the operating period.

**Section J - Compliance Schedule**

11. Table J.7 — Please include a time frame for completion of closure activities and submittal of closure certification to KDHE.

**HRIW COMMENTARY:**

Table J.7 has been revised to reflect the schedule for completion of closure activities and submittal of closure certification to KDHE.

**HRIW NEW/REVISED NARRATIVE (Appendix J-C to Section J, Page J-C-4):**

**Table J.7**

**Schedule for Partial Closure**
**Tanks V-29, V-30, V-31, V-32**

| Partial Closure Activity | Days to Complete (from date authorized to proceed) |
|---|---|
| Decontaminate each tank according to the procedures in the Closure Plan. | 30 |
| Decontaminate ancillary equipment unique to the tanks addressed in this partial closure. | 30 |
| Analytical work complete. | 60 |
| Receive engineer's certification of closure. | 90 |
| Provide certification of closure to agency; closure complete. | 105 |

**No Section Specified**

12. Please specify the performance standard for: 1) treatment in tanks, 2) treatment in containers, and 3) filtration units.

**HRIW COMMENTARY:**

Most of the treatment in tanks and containers performed at HRIW will be conducted to facilitate handling of the waste (e.g., to change physical form, to blend materials, etc.) or to prepare a waste for subsequent treatment at another facility. There are no regulatory performance standards for this type of treatment.

On occasion, the facility may need to treat a waste to meet a specific performance standard set by regulations. When the facility is treating to meet specific regulatory criteria (e.g., land disposal ban treatment standards), those criteria and verification that they are met will be documented in the operating record.

Filtration units are considered ancillary equipment to waste transfer operations. The units are not subject to container, tank, or miscellaneous units standards. Filtration units are used on occasion to filter waste during loading and unloading operations, to remove foreign objects or other solids that might damage equipment. Filtration also reduces settling of small solids within the tanker during transport. Filtration units are equipped with disposable filter bags that are removed and disposed after each use. Spent filter bags are disposed of in accordance with regulatory requirements associated with waste managed in the unit.

**HRIW NEW/REVISED NARRATIVE (Appendix C-A, Page 68-A):**

When the facility is treating to meet specific regulatory criteria (e.g., land disposal ban treatment standards), those criteria and verification that they are met will be documented in the operating record.

**USPCI**

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Hydrocarbon Recyclers, Inc. d/b/a USPCI
5324 West 46th Street South
Tulsa, Oklahoma 74107
Telephone 918/446-7434

# LETTER OF TRANSMITTAL

RECEIVED

OCT 05 1992

PRMT SECTION

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| DATE 9/30/92 | JOB NO. |
| ATTENTION Siew Kour | |
| RE: HRIW-RCRA Permit Applic. | |

TO KDHE-Haz/Waste Sec
Forbes Field, Bldg 740
Topeka, KS 66620-0002

WE ARE SENDING YOU [X] Attached [] Under separate cover via _____ the following items:

[] Shop Drawings [] Prints [] Plans [] Samples [] Specifications

[] Copy of letter [] Change order [] _____

| COPIES | DATE | NO. | DESCRIPTION |
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| 2 | 9/29/92 | | Pt. A., Addendum A, page 1 |
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THESE ARE TRANSMITTED as checked below:

[] For approval [] Approved as submitted [] Resubmit _____ copies for approval

[] For your use [] Approved as noted [] Submit ____ copies for distribution

[X] As requested [] Returned for corrections [] Return ____ corrected prints

[] For review and comment [] _____

[] FOR BIDS DUE _____ 19_____ [] PRINTS RETURNED AFTER LOAN TO US

REMARKS

COPY TO L. Harrington, U.S. EPA

SIGNED: C. R. Olson

## Section 1 Treatment in Containers and Container Management Activities

As specified in correspondence with Kansas Department of Health and Environment (KDHE) and in KDHE's 7 November 1991 meeting with Hydrocarbon Recyclers, Inc. of Wichita (HRIW), the following activities are included under the treatment description "treatment in containers and container management activities," as shown in Line 7 of Items XII and XIII of this Part A application:

- lab pack container repackaging, in which laboratory scale quantities of chemicals are compatibly combined for recycling, incineration, kiln fuel use, or other disposal;
- filtration, using portable filtration units to remove particulates from liquid streams; and
- absorption or solidification of small quantities of liquid or sludge in drums of solids. Occasionally HRI of Wichita receives such liquids and/or sludge as a result of a temperature dependent phase change, or of incomplete mixing by the generator. To make the material more amenable to proper transportation or to satisfy the need of the disposal facility for a uniform material, HRI of Wichita may choose to absorb or solidify incidental liquids with fly ash, cement, or an alternative non-reactive absorbent material. This activity is not intended to change the treatment and/or disposal option for the waste stream.

NOTE: The Process Total Number of Units shown for this line in Item XIII corresponds to the number of storage buildings specified for permitting in Addendum B of this application.

## Section 2 Use and Status of Sparging Units

The sparging units addressed in this section will be closed under a compliance schedule defined in the RCRA permit.

Zip

USPCI
A Subsidiary of
Union Pacific Corporation

Hydrocarbon Recovery Services

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FEB 17 1993

PRMT SECTION

February 5, 1993

Steve Broslavick, P.E.
Kansas Department of Health and Environment
Hazardous Waste Section
Forbes Field, Building 740
Topeka, Kansas 66620-0002

Re: Hydrocarbon Recyclers, Inc. of Wichita d/b/a USPCI (HRIW)
EPA ID No. KSD007246846
RCRA Part A Modification and
RCRA Part B Permit Application - Replacement Pages

Dear Mr. Broslavick:

Enclosed are two copies of revised pages for the HRIW RCRA permit application. The permitted waste code list identified on pages A-6 of 7 through P-6 of 7 of Section A (Part A Permit Application), pages WL.1 through WL.32 of Attachment C-B to Appendix C-A of Section C (Waste Characterization), and pages WL.1 through WL.32 of Appendix H-A to Section H (Contingency/Emergency Plan) has been revised. Changes have been made for the following reasons: 1) to delete waste codes removed from regulation (U139 and P107); 2) to reflect new regulations effective February 18, 1993 (addition of newly listed wastes K141, K142, K143, K144, K145, K147, and K148); 3) to reflect new regulations effective April 15, 1993 (addition of newly listed wastes K149, K150, and K151; and 4) to add one waste code inadvertently omitted (K065).

The addition of these waste codes to the Part A and the permit application will not result in changes to facility management practices. The newly listed waste streams will be evaluated for treatment in existing on-site treatment processes, and if not amenable to treatment on-site, will be stored prior to trans-shipment off-site for further management, as is our current practice.

Please make note of this change under interim status in accordance with 40 CFR 270.72(a)(1). Instructions regarding replacement of revised pages into the permit application are presented in Attachment A. Please replace these pages as instructed and place this cover letter in Section Z (Correspondence) of the application.

2549 North New York • Wichita, Kansas 67219 • 316/268-9490 • Fax 316/268-9418

If you have any questions regarding these matters, please contact Catherine Orban at telephone number 918/446-7434 or Liane Hetherington-Ward at telephone number 708/672-3640. Thank you for your assistance.

Sincerely,

Robert Apple
Vice President - Operations
Hydrocarbon Recyclers, Inc.

cc: L. Harrington, U.S. EPA Region VII
S. Keiter, HRIW
L. Hetherington-Ward, USPCI
C. Orban, USPCI

**Re: February 5, 1993**
**Replacement Directions for Revised Pages**
**Hydrocarbon Recyclers Inc. of Wichita, d/b/a USPCI**

# Attachment A
## RCRA Permit Application - Replacement Pages

| Remove | Add |
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| **Section A, Part A Permit Application** | |
| EPA Form 8700-23 (1-90)<br>Page A-6 of 7- to P-6 of 7- | Page A-6 of 7- to R-6 of 7- |
| **Section C, Appendix C-A** | |
| Attachment C-B, Cover Page<br>Page WL.1 to Page WL.32 | Attachment C-B, Cover Page<br>Page WL.1 to Page WL.34 |
| **Section H, Appendix H-A** | |
| Cover Page<br>Page WL.1 to Page WL.32 | Cover Page<br>Page WL.1 to Page WL.34 |

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| 1 | 1 | K | 1 | 4 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 1 | K | 1 | 4 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 1 | K | 1 | 4 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 1 | K | 1 | 4 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 1 | K | 1 | 4 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 1 | K | 1 | 4 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 1 | K | 1 | 4 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 1 | K | 1 | 4 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 1 | K | 1 | 5 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 1 | K | 1 | 5 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | U | 0 | 0 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 0 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 0 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 0 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 0 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 0 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 0 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 0 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 0 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 1 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 1 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 1 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 1 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 1 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 1 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 1 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 1 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 1 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 2 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 2 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 2 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 2 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 2 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 2 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 2 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 2 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 2 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 2 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 3 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 3 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 3 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 3 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 0 | 3 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

Form Approved. OMB No. 2060-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

| EPA I.D. | | | | | | | | | | | | Secondary ID Number (enter from page 1) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | |

XIII. Description of Hazardous Wastes

| Line Number | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | U | 0 | 3 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 2 | U | 0 | 3 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 3 | U | 0 | 3 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 4 | U | 0 | 3 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 5 | U | 0 | 3 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 6 | U | 0 | 4 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 7 | U | 0 | 4 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 8 | U | 0 | 4 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 9 | U | 0 | 4 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 10 | U | 0 | 4 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 11 | U | 0 | 4 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 12 | U | 0 | 4 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 13 | U | 0 | 4 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 14 | U | 0 | 4 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 15 | U | 0 | 5 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 16 | U | 0 | 5 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 17 | U | 0 | 5 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 18 | U | 0 | 5 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 19 | U | 0 | 5 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 20 | U | 0 | 5 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 21 | U | 0 | 5 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 22 | U | 0 | 5 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 23 | U | 0 | 5 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 24 | U | 0 | 6 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 25 | U | 0 | 6 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 26 | U | 0 | 6 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 27 | U | 0 | 6 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 28 | U | 0 | 6 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 29 | U | 0 | 6 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 30 | U | 0 | 6 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 31 | U | 0 | 6 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 32 | U | 0 | 6 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 33 | U | 0 | 7 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

Form Approved. OMB No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

| EPA I.D. Number | Secondary ID Number (enter from page 1) |
|---|---|
| K S D 0 0 7 2 4 6 8 4 6 | |

| Line Number | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 1 | U | 0 | 7 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 2 | U | 0 | 7 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 3 | U | 0 | 7 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 4 | U | 0 | 7 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 5 | U | 0 | 7 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 6 | U | 0 | 7 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 7 | U | 0 | 7 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 8 | U | 0 | 7 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 9 | U | 0 | 7 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 10 | U | 0 | 8 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 11 | U | 0 | 8 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 12 | U | 0 | 8 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 13 | U | 0 | 8 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 14 | U | 0 | 8 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 15 | U | 0 | 8 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 16 | U | 0 | 8 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 17 | U | 0 | 8 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 18 | U | 0 | 8 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 19 | U | 0 | 8 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 20 | U | 0 | 9 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 21 | U | 0 | 9 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 22 | U | 0 | 9 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 23 | U | 0 | 9 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 24 | U | 0 | 9 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 25 | U | 0 | 9 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 26 | U | 0 | 9 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 27 | U | 0 | 9 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 28 | U | 0 | 9 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 29 | U | 0 | 9 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 30 | U | 1 | 0 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 31 | U | 1 | 0 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 32 | U | 1 | 0 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 33 | U | 1 | 0 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

EPA I.D. Number: K S D 0 0 7 2 4 6 8 4 6

Secondary ID Number (enter from page 1)

XIV. Description of Hazardous Waste

| Line Number | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | U | 1 | 0 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 2 | U | 1 | 0 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 3 | U | 1 | 0 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 4 | 4 | U | 1 | 0 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 5 | 5 | U | 1 | 1 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 6 | 6 | U | 1 | 1 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 7 | 7 | U | 1 | 1 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 8 | 8 | U | 1 | 1 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 9 | 9 | U | 1 | 1 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 10 | 10 | U | 1 | 1 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 11 | 11 | U | 1 | 1 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 12 | 12 | U | 1 | 1 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 13 | 13 | U | 1 | 1 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 14 | 14 | U | 1 | 1 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 15 | 15 | U | 1 | 2 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 16 | 16 | U | 1 | 2 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 17 | 17 | U | 1 | 2 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 18 | 18 | U | 1 | 2 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 19 | 19 | U | 1 | 2 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 20 | 20 | U | 1 | 2 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 21 | 21 | U | 1 | 2 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 22 | 22 | U | 1 | 2 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 23 | 23 | U | 1 | 2 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 24 | 24 | U | 1 | 2 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 25 | 25 | U | 1 | 3 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 26 | 26 | U | 1 | 3 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 27 | 27 | U | 1 | 3 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 28 | 28 | U | 1 | 3 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 29 | 29 | U | 1 | 3 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 30 | 30 | U | 1 | 3 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 31 | 31 | U | 1 | 3 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 32 | 32 | U | 1 | 3 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 33 | 33 | U | 1 | 3 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

| EPA ID | Secondary ID Number (enter from page 1) |
|---|---|
| K S D 0 0 7 2 4 6 8 4 6 | |

| Line Number | Process Code | Quantity | Process Code | Process Code | Process Code | Process Code | Process Code | Process Code | Process Code | Process Code | Process Code | Process Code | Process Code | Process Code | Process Code | Process Code | (2) Process Description (Enter Process Code if NONE) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | U | 1 4 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 2 | U | 1 4 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 3 | U | 1 4 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 4 | U | 1 4 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 5 | U | 1 4 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 6 | U | 1 4 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 7 | U | 1 4 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 8 | U | 1 4 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 9 | U | 1 4 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 10 | U | 1 4 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 11 | U | 1 5 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 12 | U | 1 5 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 13 | U | 1 5 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 14 | U | 1 5 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 15 | U | 1 5 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 16 | U | 1 5 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 17 | U | 1 5 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 18 | U | 1 5 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 19 | U | 1 5 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 20 | U | 1 5 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 21 | U | 1 6 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 22 | U | 1 6 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 23 | U | 1 6 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 24 | U | 1 6 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 25 | U | 1 6 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 26 | U | 1 6 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 27 | U | 1 6 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 28 | U | 1 6 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 29 | U | 1 6 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 30 | U | 1 6 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 31 | U | 1 7 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 32 | U | 1 7 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |
| 33 | U | 1 7 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | |

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Form Approved. OMB No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

EPA ID Number: K S D 0 0 7 2 4 6 8 4 6

Secondary ID Number (enter from page 1)

| Line Number | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | U | 1 | 7 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 2 | U | 1 | 7 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 3 | U | 1 | 7 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 4 | U | 1 | 7 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 5 | U | 1 | 7 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 6 | U | 1 | 7 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 7 | U | 1 | 8 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 8 | U | 1 | 8 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 9 | U | 1 | 8 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 10 | U | 1 | 8 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 11 | U | 1 | 8 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 12 | U | 1 | 8 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 13 | U | 1 | 8 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 14 | U | 1 | 8 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 15 | U | 1 | 8 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 16 | U | 1 | 8 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 17 | U | 1 | 9 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 18 | U | 1 | 9 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 19 | U | 1 | 9 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 0 | U | 1 | 9 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 1 | U | 1 | 9 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 2 | U | 1 | 9 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 3 | U | 1 | 9 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 4 | U | 2 | 0 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 5 | U | 2 | 0 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 6 | U | 2 | 0 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 7 | U | 2 | 0 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 8 | U | 2 | 0 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 9 | U | 2 | 0 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 0 | U | 2 | 0 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 1 | U | 2 | 0 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 2 | U | 2 | 0 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 3 | U | 2 | 0 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

| EPA ID Number | | | | | | | | | | | | Secondary ID Number (enter from page 1) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | |

| Line Number | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | U | 2 | 1 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 2 | U | 2 | 1 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 3 | U | 2 | 1 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 4 | U | 2 | 1 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 5 | U | 2 | 1 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 6 | U | 2 | 1 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 7 | U | 2 | 1 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 8 | U | 2 | 1 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 9 | U | 2 | 1 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 0 | U | 2 | 2 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 1 | U | 2 | 2 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 2 | U | 2 | 2 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 3 | U | 2 | 2 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 5 | U | 2 | 2 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 6 | U | 2 | 2 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 7 | U | 2 | 2 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 8 | U | 2 | 2 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 9 | U | 2 | 3 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 0 | U | 2 | 3 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 1 | U | 2 | 3 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 2 | U | 2 | 3 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 3 | U | 2 | 3 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 4 | U | 2 | 3 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 5 | U | 2 | 4 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 6 | U | 2 | 4 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 7 | U | 2 | 4 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 8 | U | 2 | 4 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 9 | U | 2 | 4 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 0 | U | 2 | 4 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 1 | U | 2 | 4 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 2 | U | 3 | 2 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 3 | U | 3 | 5 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 4 | U | 3 | 5 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |

Form Approved. OMB No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

| EPA I.D. Number | | | | | | | | | | | | Secondary ID Number (enter from page 1) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | |

| Line Number | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | P | 0 | 0 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 2 | P | 0 | 0 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 3 | P | 0 | 0 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 4 | P | 0 | 0 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 5 | P | 0 | 0 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 6 | P | 0 | 0 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 7 | P | 0 | 0 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 8 | P | 0 | 0 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 9 | P | 0 | 0 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 0 | P | 0 | 1 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 1 | P | 0 | 1 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 2 | P | 0 | 1 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 3 | P | 0 | 1 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 4 | P | 0 | 1 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 5 | P | 0 | 1 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 6 | P | 0 | 1 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 7 | P | 0 | 1 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 8 | P | 0 | 1 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 9 | P | 0 | 2 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 0 | P | 0 | 2 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 1 | P | 0 | 2 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 2 | P | 0 | 2 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 3 | P | 0 | 2 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 4 | P | 0 | 2 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 5 | P | 0 | 2 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 6 | P | 0 | 2 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 7 | P | 0 | 2 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 8 | P | 0 | 3 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 9 | P | 0 | 3 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 0 | P | 0 | 3 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 1 | P | 0 | 3 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 2 | P | 0 | 3 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 3 | P | 0 | 3 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

| EPA ID Number | Secondary ID Number (enter from page 1) |
|---|---|
| K S D 0 0 7 2 4 6 8 4 6 | |

| Line Number | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | P | 0 | 3 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 2 | P | 0 | 3 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 3 | P | 0 | 4 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 4 | P | 0 | 4 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 5 | P | 0 | 4 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 6 | P | 0 | 4 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 7 | P | 0 | 4 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 8 | P | 0 | 4 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 9 | P | 0 | 4 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 10 | P | 0 | 4 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 11 | P | 0 | 4 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 12 | P | 0 | 4 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 13 | P | 0 | 5 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 14 | P | 0 | 5 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 15 | P | 0 | 5 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 16 | P | 0 | 5 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 17 | P | 0 | 5 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 18 | P | 0 | 5 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 19 | P | 0 | 5 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 0 | P | 0 | 6 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 1 | P | 0 | 6 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 2 | P | 0 | 6 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 3 | P | 0 | 6 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 4 | P | 0 | 6 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 5 | P | 0 | 6 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 6 | P | 0 | 6 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 7 | P | 0 | 6 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 8 | P | 0 | 6 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 9 | P | 0 | 7 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 0 | P | 0 | 7 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 1 | P | 0 | 7 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 2 | P | 0 | 7 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 3 | P | 0 | 7 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |

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Form Approved. OMB No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

EPA I.D. Number: K S D 0 0 7 2 4 6 8 4 6

Secondary ID Number (enter from page 1)

| Line Number | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | P | 0 | 7 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | P | 0 | 7 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | P | 0 | 7 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 4 | P | 0 | 7 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 5 | P | 0 | 8 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 6 | P | 0 | 8 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 7 | P | 0 | 8 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 8 | P | 0 | 8 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 9 | P | 0 | 8 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 10 | P | 0 | 8 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 11 | P | 0 | 8 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 12 | P | 0 | 9 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 13 | P | 0 | 9 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 14 | P | 0 | 9 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 15 | P | 0 | 9 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 16 | P | 0 | 9 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 17 | P | 0 | 9 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 18 | P | 0 | 9 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 19 | P | 0 | 9 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 20 | P | 1 | 0 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 21 | P | 1 | 0 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 22 | P | 1 | 0 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 23 | P | 1 | 0 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 24 | P | 1 | 0 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 25 | P | 1 | 0 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 26 | P | 1 | 0 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 27 | P | 1 | 0 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 28 | P | 1 | 1 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 29 | P | 1 | 1 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 30 | P | 1 | 1 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 31 | P | 1 | 1 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 32 | P | 1 | 1 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 33 | P | 1 | 1 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

EPA I.D. Number: K S D 0 0 7 2 4 6 8 4 6

Secondary ID Number (enter from page 1):

| Line | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21 | 1 | P | 1 | 1 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 22 | 2 | P | 1 | 1 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 23 | 3 | P | 1 | 1 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 24 | 4 | P | 1 | 2 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 25 | 5 | P | 1 | 2 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 26 | 6 | P | 1 | 2 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 27 | 7 | P | 1 | 2 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 28 | 8 | | | | | | | | | | | | | | | |
| 29 | 9 | | | | | | | | | | | | | | | |
| 30 | 0 | | | | | | | | | | | | | | | |
| 31 | 1 | | | | | | | | | | | | | | | |
| 32 | 2 | | | | | | | | | | | | | | | |
| 33 | 3 | | | | | | | | | | | | | | | |
| 34 | 4 | | | | | | | | | | | | | | | |
| 35 | 5 | | | | | | | | | | | | | | | |
| 36 | 6 | | | | | | | | | | | | | | | |
| 37 | 7 | | | | | | | | | | | | | | | |
| 38 | 8 | | | | | | | | | | | | | | | |
| 39 | 9 | | | | | | | | | | | | | | | |
| 40 | 0 | | | | | | | | | | | | | | | |
| 41 | 1 | | | | | | | | | | | | | | | |
| 42 | 2 | | | | | | | | | | | | | | | |
| 43 | 3 | | | | | | | | | | | | | | | |
| 44 | 4 | | | | | | | | | | | | | | | |
| 45 | 5 | | | | | | | | | | | | | | | |
| 46 | 6 | | | | | | | | | | | | | | | |
| 47 | 7 | | | | | | | | | | | | | | | |
| 48 | 8 | | | | | | | | | | | | | | | |
| 49 | 9 | | | | | | | | | | | | | | | |
| 50 | 0 | | | | | | | | | | | | | | | |
| 51 | 1 | | | | | | | | | | | | | | | |
| 52 | 2 | | | | | | | | | | | | | | | |
| 53 | 3 | | | | | | | | | | | | | | | |

# Attachment C-B

# Waste List

February 5, 1993
Revision No. 4

**Hydrocarbon Recyclers, Inc. of Wichita d/b/a USPCI**
**Waste List**

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|

**Hazardous Waste by Characteristic:**

| | |
|---|---|
| D001 (I) | Ignitability |
| D002 (C) | Corrosivity |
| D003 (R) | Reactivity |
| D004 (E) | Arsenic |
| D005 (E) | Barium |
| D006 (E) | Cadmium |
| D007 (E) | Chromium |
| D008 (E) | Lead |
| D009 (E) | Mercury |
| D010 (E) | Selenium |
| D011 (E) | Silver |
| D012 (E) | Endrin (1,2,3,4,10,10-hexachloro-1,7 epoxy-1,4,4a,5,6,;7,8,8a-octahydro-1,4 endo,endo-5,8-dimeth-ano-naphthalene) |
| DO13 (E) | Lindane (1,2,3,4,5,6, hexa-chloro-cyclohexane, gamma isomer |
| D014 (E) | Methoxychlor (1,1,1-Trichloro- 2,2-bis [p-methoxyphenyl]ethane |
| D015 (E) | Toxaphene ($C_{10}H_{10}Cl_8$, technical chlorinated camphene, 67-69 percent chlorine) |
| D016 (E) | 2,4-D (2,4 dichlorophenoxyacetic acid) |
| D017 (E) | 2,4,5-TP Silvex (2,4,5-trichloro-phenoxypropionic acid) |
| D018 (E) | Benzene |
| D019 (E) | Carbon tetrachloride |
| D020 (E) | Chlordane |
| D021 (E) | Chlorobenzene |
| D022 (E) | Choroform |
| D023 (E) | o-Cresol |
| D024 (E) | m-Cresol |
| D025 (E) | p-Cresol |
| D026 (E) | Cresol |

Basis for listing or class of hazardous waste:

| | | |
|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste (E) |
| (C) | Corrosive | Acute Hazardous Waste (H) |
| (R) | Reactive | Toxic Waste (T) |

**Hydrocarbon Recyclers, Inc. of Wichita d/b/a USPCI**
**Waste List**

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| D027 (E) | 1,4-Dichlorobenzene |
| D028 (E) | 1,2-Dichloroethane |
| D029 (E) | 1,1-Dichloroethylene |
| D030 (E) | 2,4-Dinitrotoluene |
| D031 (E) | Heptachlor (and its hydroxide) |
| D032 (E) | Hexachlorobenzene |
| D033 (E) | Hexachloro-1,3-butadiene |
| D034 (E) | Hexachloroethane |
| D035 (E) | Methyl ethyl ketone |
| D036 (E) | Nitrobenzene |
| D037 (E) | Pentachlorophenol |
| D038 (E) | Pyridine |
| D039 (E) | Tetrachloroethylene |
| D040 (E) | Trichloroethylene |
| D041 (E) | 2,4,5-Trichlorophenol |
| D042 (E) | 2,4,6-Trichlorophenol |
| D043 (E) | Vinyl Chloride |

Basis for listing or class of hazardous waste:

(I) Ignitable
(C) Corrosive
(R) Reactive

Toxicity Characteristic Waste (E)
Acute Hazardous Waste (H)
Toxic Waste (T)

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|

**Hazardous Wastes from Non-specific Sources:**

| | |
|---|---|
| F001 (T) | The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004 and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. |
| F002 (T) | The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-triflouroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001,F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. |
| F003 (I) | The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non- |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| | halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. |
| F004 (T) | The following spent non-halogenated solvents: Cresols and cresylic acid, nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. |
| F005 (I,T) | The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, and pyridine; benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. |
| F006 (T) | Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on |

Basis for listing or class of hazardous waste:

(I) Ignitable
(C) Corrosive
(R) Reactive
Toxicity Characteristic Waste (E)
Acute Hazardous Waste (H)
Toxic Waste (T)

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| | carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum. |
| F007 (R,T) | Spent cyanide plating bath solutions from electroplating operations |
| F008 (R,T) | Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process. |
| F009 (R,T) | Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process. |
| F010 (R,T) | Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process. |
| F011 (R,T) | Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations |
| F012 (T) | Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process. |
| F019 (T) | Wastewater treatment sludges from the chemical conversion coating of aluminum. |
| F024 (T) | Process wastes, including but not limited to distillation residues, heavy ends, tars, and reactor clean-out wastes from the production |

Basis for listing or class of hazardous waste:

(I) Ignitable
(C) Corrosive
(R) Reactive
Toxicity Characteristic Waste (E)
Acute Hazardous Waste (H)
Toxic Waste (T)

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| | of chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in 261.31 or 261.32). |
| F025 (T) | Condensed light ends, spent filters and filter aids and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five with varying amounts and positions of chlorine substitution. |
| F032 (T) | Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with § 261.35 of this chapter and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediments sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. |

Basis for listing or class of hazardous waste:

(I) Ignitable
(C) Corrosive
(R) Reactive
Toxicity Characteristic Waste (E)
Acute Hazardous Waste (H)
Toxic Waste (T)

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| F034 (T) | Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. |
| F035 (T) | Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. |
| F037 (T) | Petroleum refinery primary oil/water/solids separation sludge--Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| | waters, sludges generated in aggressive biological treatment units as defined in § 261.31(b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing. |
| F038 (T) | Petroleum refinery secondary (emulsified) oil/water/solids separation sludge--Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in § 261.31(b)(2) (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| F039 [1] | Leachate resulting from the treatment, storage, or disposal of wastes classified by more than one waste code under Subpart D, or from a mixture of wastes classified under Subparts C and D of this part. (Leachate resulting from the management of one or more of the following EPA Hazardous Wastes and no other hazardous wastes retains its hazardous waste code(s): F020, F021, F022, F023, F026, F027, and/or F028). |

[1]All constituents for which treatment standards are specified for multi-source leachate (wastewaters and non-wastewaters) under 40 CFR 268.43(a), Table CCW.

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|

**Hazardous Wastes from Specific Sources:**

| | |
|---|---|
| K001 (T) | Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol. |
| K002 (T) | Wastewater treatment sludge from the production of chrome yellow and orange pigments. |
| K003 (T) | Wastewater treatment sludge from the production of molybdate orange pigments. |
| K004 (T) | Wastewater treatment sludge from the production of zinc yellow pigments. |
| K005 (T) | Wastewater treatment sludge from the production of chrome green pigments. |
| K006 (T) | Wastewater treatment sludge from the production of chrome oxide green pigments. |
| K007 (T) | Wastewater treatment sludge from the production of iron blue pigments. |
| K008 (T) | Oven residue from the production of chrome oxide green pigments. |
| K009 (T) | Distillation bottoms from the production of acetaldehyde from ethylene. |
| K010 (T) | Distillation side cuts from the production of acetaldehyde from ethylene. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K011 (R,T) | Bottom stream from the wastewater stripper in the production of acrylonitrile. |
| K013 (R,T) | Bottom stream from the acetonitrile column in the production of acrylonitrile. |
| K014 (T) | Bottoms from the acetonitrile purification column in the production of acrylonitrile. |
| K015 (T) | Still bottoms from the distillation of benzyl chloride. |
| K016 (T) | Heavy ends or distillation residues from the production of carbon tetrachloride. |
| K017 (T) | Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin. |
| K018 (T) | Heavy ends from the fractionation column in ethyl chloride production. |
| K019 (T) | Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production. |
| K020 (T) | Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production. |
| K021 (T) | Aqueous spent antimony catalyst waste from fluoromethanes production. |
| K022 (T) | Distillation bottom tars from the production of phenol/acetone from cumene. |

Basis for listing or class of hazardous waste:

(I) Ignitable
(C) Corrosive
(R) Reactive

Toxicity Characteristic Waste (E)
Acute Hazardous Waste (H)
Toxic Waste (T)

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K023 (T) | Distillation light ends from the production of phthalic anhydride from naphthalene. |
| K024 (T) | Distillation bottoms from the production of phthalic anhydride from naphthalene. |
| K025 (T) | Distillation bottoms from the production of nitrobenzene by the nitration of benzene. |
| K026 (T) | Stripping still tails from the production of methy ethyl pyridines. |
| K027 (R,T) | Centrifuge and distillation residues from toluene diisocyanate production. |
| K028 (T) | Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane. |
| K029 (T) | Waste from the product steam stripper in the production of 1,1,1-trichloroethane. |
| K030 (T) | Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene. |
| K031 (T) | By-product salts generated in the production of MSMA and cacodylic acid. |
| K032 (T) | Wastewater treatment sludge from the production of chlordane. |
| K033 (T) | Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane. |

Basis for listing or class of hazardous waste:

(I) Ignitable
(C) Corrosive
(R) Reactive
Toxicity Characteristic Waste (E)
Acute Hazardous Waste (H)
Toxic Waste (T)

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K034 (T) | Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane. |
| K035 (T) | Wastewater treatment sludges generated in the production of creosote. |
| K036 (T) | Still bottoms from toluene reclamation distillation in the production of disulfoton. |
| K037 (T) | Wastewater treatment sludges from the production of disulfoton. |
| K038 (T) | Wastewater from the washing and stripping of phorate production. |
| K039 (T) | Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate. |
| K040 (T) | Wastewater treatment sludge from the production of phorate. |
| K041 (T) | Wastewater treatment sludge from the production of toxaphene. |
| K042 (T) | Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T. |
| K043 (T) | 2,6-Dichlorophenol waste from the production of 2,4-D. |
| K044 (R) | Wastewater treatment sludges from the manufacturing and processing of explosives. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K045 (R) | Spent carbon from the treatment of wastewater containing explosives. |
| K046 (T) | Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds. |
| K047 (R) | Pink/red water from TNT operations. |
| K048 (T) | Dissolved air flotation (DAF) float from the petroleum refining industry. |
| K049 (T) | Slop oil emulsion solids from the petroleum refining industry. |
| K050 (T) | Heat exchanger bundle cleaning sludge from the petroleum refining industry. |
| K051 (T) | API separator sludge from the petroleum refining industry. |
| K052 (T) | Tank bottoms (leaded) from the petroleum refining industry. |
| K060 (T) | Ammonia still lime sludge from coking operations. |
| K061 (T) | Emission control dust/sludge from the primary production of steel in electric furnaces. |
| K062 (C,T) | Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332). |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K064 (T) | Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production. |
| K065 (T) | Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities |
| K066 (T) | Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production. |
| K069 (T) | Emission control dust/sludge from secondary lead smelting. (Note: This listing is stayed administratively for sludge generated from secondary acid scrubber systems. The stay will remain in effect until further administrative action is taken. If EPA takes further action effecting this stay, EPA will publish a notice of the action in the Federal Register.) |
| K071 (T) | Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used. |
| K073 (T) | Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production. |
| K083 (T) | Distillation bottoms from aniline production. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K084 (T) | Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. |
| K085 (T) | Distillation or fractionation column bottoms from the production of chlorobenzenes. |
| K086 (T) | Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead. |
| K087 (T) | Decanter tank tar sludge from coking operations. |
| K088 (T) | Spent potliners from primary aluminum reduction. |
| K090 (T) | Emission control dust or sludge from ferrochromiumsilicon production. |
| K091 (T) | Emission control dust or sludge from ferrochromium production. |
| K093 (T) | Distillation light ends from the production of phthalic anhydride from ortho-xylene. |
| K094 (T) | Distillation bottoms from the production of phthalic anhydride from ortho-xylene. |
| K095 (T) | Distillation bottoms from the production of 1,1,1-trichloroethane. |

Basis for listing or class of hazardous waste:

(I) Ignitable
(C) Corrosive
(R) Reactive
Toxicity Characteristic Waste (E)
Acute Hazardous Waste (H)
Toxic Waste (T)

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K096 (T) | Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane. |
| K097 (T) | Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane. |
| K098 (T) | Untreated process wastewater from the production of toxaphene. |
| K099 (T) | Untreated wastewater from the production of 2,4-D. |
| K100 (T) | Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting. |
| K101 (T) | Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. |
| K102 (T) | Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. |
| K103 (T) | Process residues from aniline extraction from the production of aniline. |
| K104 (T) | Combined wastewater streams generated from nitrobenzene/aniline production. |
| K105 (T) | Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes. |

Basis for listing or class of hazardous waste:

(I) Ignitable
(C) Corrosive
(R) Reactive
Toxicity Characteristic Waste (E)
Acute Hazardous Waste (H)
Toxic Waste (T)

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K106 (T) | Wastewater treatment sludge from the mercury cell process in chlorine production. |
| K107 (C,T) | Column bottoms from product seperation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazines. |
| K108 (I,T) | Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides. |
| K109 (T) | Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides. |
| K110 (T) | Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides. |
| K111 (C,T) | Product washwaters from the production of dinitrotoluene via nitration of toluene. |
| K112 (T) | Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene. |
| K113 (T) | Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation dinitrotoluene. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K114 (T) | Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene. |
| K115 (T) | Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene. |
| K116 (T) | Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine. |
| K117 (T) | Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene. |
| K118 (T) | Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene. |
| K123 (T) | Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salt. |
| K124 (T,C) | Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts. |
| K125 (T,C) | Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K126 (T) | Baghouse dust and floor sweepings in milling and packaging operations from production or formulation of ethylenebisdithiocarbamic acid and its salts. |
| K131 (C,T) | Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide. |
| K132 (T) | Spent absorbent and wastewater separator solids from the production of methyl bromide. |
| K136 (T) | Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene. |
| K141 (T) | Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludges from coking operations). |
| K142 (T) | Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal. |
| K143 (T) | Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K144 (T) | Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal. |
| K145 (T) | Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal. |
| K147 (T) | Tar storage tank residues from coal tar refining. |
| K148 (T) | Residues from coal tar distillation, including, but not limited to, still bottoms. |
| K149 (T) | Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillation of benzyl chloride). |
| K150 (T) | Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K151 (T) | Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|

**Discarded Commercial Chemical Products, Off-Specification Species, Container Residues, and Spill Residues Thereof:**

| | | |
|---|---|---|
| P001 | (H) | Warfarin, & salts, when present at concentrations greater than 0.3%. |
| P002 | (H) | 1-Acetyl-2-thiourea |
| P003 | (H) | Acrolein |
| P004 | (H) | Aldrin |
| P005 | (H) | Allyl alcohol |
| P006 | (R,T) | Aluminum phosphide |
| P007 | (H) | 5-(Aminomethyl)-3-isoxazolol |
| P008 | (H) | 4-Aminopyridine |
| P009 | (R) | Ammonium picrate |
| P010 | (T) | Arsenic acid $H_3AsO_4$ |
| P011 | (T) | Arsenic pentoxide |
| P012 | (T) | Arsenic trioxide |
| P013 | (H) | Barium cyanide |
| P014 | (T) | Benzenethiol |
| P015 | (H) | Beryllium |
| P016 | (H) | Methane, oxybis[chloro- |
| P017 | (T) | Bromoacetone |
| P018 | (H) | Brucine |
| P020 | (H) | Dinoseb |
| P021 | (H) | Calcium cyanide |
| P022 | (T) | Carbon disulfide |
| P023 | (H) | Chloroacetaldehyde |
| P024 | (H) | p-Chloroaniline |
| P026 | (H) | 1-(o-Chlorophenyl)thiourea |
| P027 | (H) | 3-Chloropropionitrile |
| P028 | (H) | Benzyl chloride |
| P029 | (H) | Copper cyanide |
| P030 | (T) | Cyanides (soluble cyanide salts) not otherwise specified. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|
| P031 | (H) | Cyanogen |
| P033 | (H) | Cyanaogen chloride |
| P034 | (T) | 2-Cyclohexyl-4,6-dinitrophenol |
| P036 | (H) | Dichlorophenylarsine |
| P037 | (H) | Dieldrin |
| P038 | (T) | Diethylarsine |
| P039 | (T) | Disulfoton |
| P040 | (H) | O,O-Diethyl O-pyrazinyl phosphorothioate. |
| P041 | (H) | Diethyl-p-nitrophenyl phosphate |
| P042 | (H) | Epinephrine |
| P043 | (H) | Diisopropylfluorophosphate (DFP) |
| P044 | (T) | Dimethoate |
| P045 | (H) | Thiofanox |
| P046 | (T) | Benzeneethanamine, alpha,alpha-dimethyl- |
| P047 | (H) | 4,6-Dinitro-o-cresol, and salts |
| P048 | (H) | 2,4-Dinitrophenol |
| P049 | (H) | Dithiobiuret |
| P050 | (H) | Endosulfan |
| P051 | (H) | Endrin |
| P054 | (H) | Aziridine |
| P056 | (H) | Fluorine |
| P057 | (H) | Fluoroacetamide |
| P058 | (H) | Fluoroacetic acid, sodium salt |
| P059 | (H) | Heptachlor |
| P060 | (H) | Isodrin |
| P062 | (H) | Hexaethyl tetraphosphate |
| P063 | (H) | Hydrogen cyanide |
| P064 | (H) | Methyl isocyanate |
| P065 | (R,T) | Mercury fulminate |
| P066 | (H) | Methomyl |
| P067 | (H) | 1,2-Propylenimine |
| P068 | (H) | Methyl hydrazine |
| P069 | (H) | 2-Methyllactonitrile |
| P070 | (H) | Aldicarb |
| P071 | (H) | Methyl parathion |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|
| P072 | (H) | alpha-Naphthylthiourea |
| P073 | (H) | Nickel carbonyl |
| P074 | (H) | Nickel cyanide |
| P075 | (T) | Nicotine, and salts |
| P076 | (T) | Nitric oxide |
| P077 | (T) | p-Nitroaniline |
| P078 | (H) | Nitrogen dioxide |
| P081 | (R,T) | Nitroglycerine (R) |
| P082 | (H) | N-Nitrosodimethylamine |
| P084 | (H) | N-Nitrosomethylvinylamine |
| P085 | (H) | Octamethylpyrophosphoramide |
| P087 | (H) | Osmium tetroxide |
| P088 | (H) | Endothall |
| P089 | (T) | Parathion |
| P092 | (H) | Phenylmercury acetate |
| P093 | (H) | Phenylthiourea |
| P094 | (T) | Phorate |
| P095 | (T) | Phosgene |
| P096 | (H) | Phosphine |
| P097 | (H) | Famphur |
| P098 | (H) | Potassium cyanide |
| P099 | (H) | Potassium silver cyanide |
| P101 | (H) | Propanenitrile |
| P102 | (H) | Propargyl alcohol |
| P103 | (H) | Selenourea |
| P104 | (H) | Silver cyanide |
| P105 | (H) | Sodium azide |
| P106 | (H) | Sodium cyanide |
| P108 | (T) | Strychnine and salts |
| P109 | (H) | Tetraethyldithiopyrophosphate |
| P110 | (H) | Tetraethyl lead |
| P111 | (H) | Tetraethyl pyrophosphate |
| P112 | (R) | Tetranitromethane |
| P113 | (H) | Thallic oxide |
| P114 | (H) | Thallium(I) selenite |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| P115 (H) | Thallium(I) sulfate |
| P116 (H) | Thiosemicarbazide |
| P118 (H) | Trichloromethanethiol |
| P119 (H) | Vanadic acid, ammonium salt |
| P120 (H) | Vanadium pentoxide |
| P121 (H) | Zinc cyanide |
| P122 (R,T) | Zinc phosphide $Zn_3P_2$ when present at concentrations greater than 10% |
| P123 (H) | Toxaphene |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|

**Commercial Chemical Products, Manufacturing Chemical Intermediates, or Off-Specification Commercial Chemical Products:**

| | | |
|---|---|---|
| U001 | (I) | Ethanal |
| U002 | (I) | Acetone |
| U003 | (I,T) | Acetonitrile |
| U004 | (T) | Acetophenone |
| U005 | (T) | 2-Acetylaminofluorene |
| U006 | (C,R,T) | Acetyl chloride |
| U007 | (T) | Acrylamide |
| U008 | (I) | Acrylic acid |
| U009 | (T) | Acrylonitrile |
| U010 | (T) | Mitomycin C |
| U011 | (T) | Amitrole |
| U012 | (I,T) | Aniline |
| U014 | (T) | Auramine |
| U015 | (T) | Azaserine |
| U016 | (T) | Benz[c]acridine |
| U017 | (T) | Benzal chloride |
| U018 | (T) | Benz[a]anthracene |
| U019 | (I,T) | Benzene |
| U020 | (C,R) | Benzenesulfonyl chloride |
| U021 | (T) | Benzidine |
| U022 | (T) | Benzo[a]pyrene |
| U023 | (C,R,T) | Benzotrichloride |
| U024 | (T) | Dichloromethoxy ethane |
| U025 | (T) | Dichloroethyl ether |
| U026 | (T) | Chlornaphazin |
| U027 | (T) | Dichloroisopropyl ether |
| U028 | (T) | Diethylhexyl phthalate |
| U029 | (T) | Methyl bromide |
| U030 | (T) | Benzene, 1-bromo-4-phenoxy- |
| U031 | (I) | n-Butyl alcohol |
| U032 | (T) | Calcium chromate |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|
| U033 | (R,T) | Carbon oxyfluoride |
| U034 | (T) | Chloral |
| U035 | (T) | Chlorambucil |
| U036 | (T) | Chlordane, alpha & gamma isomers |
| U037 | (T) | Chlorobenzene |
| U038 | (T) | Chlorobenzilate |
| U039 | (T) | p-Chloro-m-cresol |
| U041 | (T) | Epichlorohydrin |
| U042 | (T) | 2-Chloroethyl vinyl ether |
| U043 | (T) | Vinyl chloride |
| U044 | (T) | Chloroform |
| U045 | (I,T) | Methyl chloride |
| U046 | (T) | Chloromethyl methyl ether |
| U047 | (T) | beta-Chloronaphthalene |
| U048 | (T) | o-Chlorophenol |
| U049 | (T) | Benzenamine, 4-chloro-2-methyl-, hydrochloride |
| U050 | (T) | Chrysene |
| U051 | (T) | Creosote |
| U052 | (T) | Cresol (Cresylic Acid) |
| U053 | (T) | Crotonaldehyde |
| U055 | (I) | Cumene |
| U056 | (I) | Cyclohexane |
| U057 | (I) | Cyclohexanone |
| U058 | (T) | Chclophosphamide |
| U059 | (T) | Daunomycin |
| U060 | (T) | DDD |
| U061 | (T) | DDT |
| U062 | (T) | Diallate |
| U063 | (T) | Dibenz[a,h]anthracene |
| U064 | (T) | Dibenzo[a,i]pyrene |
| U066 | (T) | 1,2-Dibromo-3-chloropropane |
| U067 | (T) | Ethylene dibromide |
| U068 | (T) | Methylene bromide |
| U069 | (T) | Dibutyl phthalate |
| U070 | (T) | o-Dichlorobenzene |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|
| U071 | (T) | m-Dichlorobenzene |
| U072 | (T) | p-Dichlorobenzene |
| U073 | (T) | 3,3'Dichlorobenzidine |
| U074 | (I,T) | 1,4-Dichloro-2-butene |
| U075 | (T) | Dichlorodifluoromethane |
| U076 | (T) | Ethylidene dichloride |
| U077 | (T) | Ethylene dichloride |
| U078 | (T) | 1,1-Dichloroethylene |
| U079 | (T) | 1,2-Dichloroethylene |
| U080 | (T) | Methylene chloride |
| U081 | (T) | 2,4-Dichlorophenol |
| U082 | (T) | 2,6-Dichlorophenol |
| U083 | (T) | Propylene dichloride |
| U084 | (T) | 1,3-Dichloropropene |
| U085 | (I,T) | 1,2:3,4-Diepoxybutane |
| U086 | (T) | N,N-Diethylhydrazine |
| U087 | (T) | O,O-Diethyl S-methyl dithiophosphate |
| U088 | (T) | Diethyl phthalate |
| U089 | (T) | Diethylstilbesterol |
| U090 | (T) | Dihydrosafrole |
| U091 | (T) | 3,3'-Dimethoxybenzidine |
| U092 | (I) | Dimethylamine |
| U093 | (T) | p-Dimethylaminoazobenzene |
| U094 | (T) | 7,12-Dimethylbenz[a]anthracene |
| U095 | (T) | 3,3'-Dimethylbenzidine |
| U096 | (R) | alpha,alpha-Dimethylbenzylhydroperoxide |
| U097 | (T) | Dimethylcarbamoyl chloride |
| U098 | (T) | 1,1-Dimethylhydrazine |
| U099 | (T) | 1,2-Dimethylhydrazine |
| U101 | (T) | 2,4-Dimethylphenol |
| U102 | (T) | Dimethyl phthalate |
| U103 | (T) | Dimethyl sulfate |
| U105 | (T) | 2,4-Dinitrotoluene |
| U106 | (T) | 2,6-Dinitrotoluene |
| U107 | (T) | Di-n-octyl phthalate |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|
| U108 | (T) | 1,4-Dioxane |
| U109 | (T) | 1,2-Diphenylhydrazine |
| U110 | (I) | Dipropylamine |
| U111 | (T) | Di-n-propylnitrosamine |
| U112 | (I) | Ethyl acetate |
| U113 | (I) | Ethyl acrylate |
| U114 | (T) | Ethylenebisdithiocarbamic acid, salts & esters |
| U115 | (I,T) | Ethylene oxide |
| U116 | (T) | Ethylenethiourea |
| U117 | (I) | Ethyl ether |
| U118 | (T) | Ethyl methacrylate |
| U119 | (T) | Ethyl methanseulfonate |
| U120 | (T) | Fluoranthene |
| U121 | (T) | Methane, trichlorofluoro- |
| U122 | (T) | Formaldehyde |
| U123 | (C,T) | Formic acid |
| U124 | (I) | Furan |
| U125 | (I) | Furfural |
| U126 | (T) | Glycidylaldehyde |
| U127 | (T) | Hexachlorobenzene |
| U128 | (T) | Hexachlorobutadiene |
| U129 | (T) | Lindane |
| U130 | (T) | Hexachlorocyclopentadiene |
| U131 | (T) | Hexachloroethane |
| U132 | (T) | Hexachlorophene |
| U133 | (R,T) | Hydrazine |
| U134 | (C,T) | Hydrogen fluoride |
| U135 | (T) | Hydrogen sulfide |
| U136 | (T) | Cacodylic acid |
| U137 | (T) | Indeno[1,2,3-cd]pyrene |
| U138 | (T) | Methyl iodide |
| U140 | (I,T) | Isobutyl alcohol |
| U141 | (T) | Isosafrole |
| U142 | (T) | Kepone |
| U143 | (T) | Lasiocarpine |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|
| U144 | (T) | Lead acetate |
| U145 | (T) | Lead phosphate |
| U146 | (T) | Lead subacetate |
| U147 | (T) | Maleic anhydride |
| U148 | (T) | Maleic hydrazide |
| U149 | (T) | Malononitrile |
| U150 | (T) | Melphalan |
| U151 | (T) | Mercury |
| U152 | (I,T) | Methacrylonitrile |
| U153 | (I,T) | Methanethiol |
| U154 | (I) | Methanol |
| U155 | (T) | Methapyrilene |
| U156 | (I,T) | Methyl chlorocarbonate |
| U157 | (T) | 3-Methylcholanthrene |
| U158 | (T) | 4,4'-Methylenebis(2-chloroaniline) |
| U159 | (I,T) | Methyl ethyl ketone (MEK) |
| U160 | (R,T) | Methyl ethyl ketone peroxide |
| U161 | (I) | Methyl isobutyl ketone |
| U162 | (I,T) | Methyl methacrylate |
| U163 | (T) | MNNG |
| U164 | (T) | Methylthiouracil |
| U165 | (T) | Naphthalene |
| U166 | (T) | 1,4-Naphthoquinone |
| U167 | (T) | 1-Naphthalenamine |
| U168 | (T) | 2-Naphthalenamine |
| U169 | (I,T) | Nitrobenzene |
| U170 | (T) | p-Nitrophenol |
| U171 | (I,T) | 2-Nitropropane |
| U172 | (T) | N-Nitrosodi-n-butylamine |
| U173 | (T) | N-Nitrosodiethanolamine |
| U174 | (T) | N-Nitrosodiethylamine |
| U176 | (T) | N-Nitroso-N-ethylurea |
| U177 | (T) | N-Nitroso-N-methylurea |
| U178 | (T) | N-Nitroso-N-methylurethane |
| U179 | (T) | N-Nitrosopiperidine |

Basis for listing or class of hazardous waste:

| | | |
|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste (E) |
| (C) | Corrosive | Acute Hazardous Waste (H) |
| (R) | Reactive | Toxic Waste (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|
| U180 | (T) | N-Nitrosopyrrolidine |
| U181 | (T) | 5-Nitro-o-toluidine |
| U182 | (T) | Paraldehyde |
| U183 | (T) | Pentachlorobenzene |
| U184 | (T) | Pentachloroethane |
| U185 | (T) | Pentachloronitrobenzene (PCNB) |
| U186 | (I) | 1,3-Pentadiene |
| U187 | (T) | Phenacetin |
| U188 | (T) | Phenol |
| U189 | (R) | Phosphorous sulfide |
| U190 | (T) | Phthalic anhydride |
| U191 | (T) | Pyridine, 2-methyl- |
| U192 | (T) | Pronamide |
| U193 | (T) | 1,3-Propane sultone |
| U194 | (I,T) | 1-Propanamine |
| U196 | (T) | Pyridine |
| U197 | (T) | p-Benzoquinone |
| U200 | (T) | Reserpine |
| U201 | (T) | Resorcinol |
| U202 | (T) | Saccharin, and salts |
| U203 | (T) | Safrole |
| U204 | (T) | Selenium dioxide |
| U205 | (R,T) | Selenium sulfide |
| U206 | (T) | Streptozotocin |
| U207 | (T) | 1,2,4,5-Tetrachlorobenzene |
| U208 | (T) | 1,1,1,2-Tetrachloroethane |
| U209 | (T) | 1,1,2,2-Tetrachloroethane |
| U210 | (T) | Tetrachloroethylene |
| U211 | (T) | Carbon tetrachloride |
| U213 | (I) | Tetrahydrofuran |
| U214 | (T) | Thallium(I) acetate |
| U215 | (T) | Thallium(I) carbonate |
| U216 | (T) | Thallium(I) chloride |
| U217 | (T) | Thallium(I) nitrate |
| U218 | (T) | Thioacetamide |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|
| U219 | (T) | Thiourea |
| U220 | (T) | Toluene |
| U221 | (T) | Toluenediamine |
| U222 | (T) | o-Toluidine hydrochloride |
| U223 | (R,T) | Toluene diisocyanate |
| U225 | (T) | Bromoform |
| U226 | (T) | Methyl chloroform |
| U227 | (T) | 1,1,2-Trichloroethane |
| U228 | (T) | Trichloroethylene |
| U234 | (R,T) | 1,3,5-Trinitrobenzene |
| U235 | (T) | Tris(2,3-dibromopropyl) phosphate |
| U236 | (T) | Trypan blue |
| U237 | (T) | Uracil mustard |
| U238 | (T) | Ethyl carbamate (urethane) |
| U239 | (I) | Xylene |
| U240 | (T) | 2,4-D, salts and esters |
| U243 | (T) | Hexachloropropene |
| U244 | (T) | Thiram |
| U246 | (T) | Cyanogen bromide (CN)Br |
| U247 | (T) | Methoxychlor |
| U248 | (T) | Warfarin, and salts, when present at concentrations of 0.3% or less. |
| U249 | (T) | Zinc phosphide, $Zn_3P_2$ when present at concentrations of 10% or less. |
| U328 | (T) | o-Toluidine |
| U353 | (T) | p-Toluidine |
| U359 | (T) | Ethanol, 2-ethoxy- |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

**Other Wastes**

- Solid wastes as defined by 40 CFR 261.2
- Waste from a Hazardous Waste Facility or Site, or waste resulting from activities under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) including but not limited to personnel protective equipment, discarded containers of laboratory chemicals (lab packs), lab equipment, clothing, debris from spills or cleanup and floor sweepings.

# Appendix H-A

## List of EPA Waste Codes

**Hydrocarbon Recyclers, Inc. of Wichita d/b/a USPCI**
**Waste List**

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|

**Hazardous Waste by Characteristic:**

| | |
|---|---|
| D001 (I) | Ignitability |
| D002 (C) | Corrosivity |
| D003 (R) | Reactivity |
| D004 (E) | Arsenic |
| D005 (E) | Barium |
| D006 (E) | Cadmium |
| D007 (E) | Chromium |
| D008 (E) | Lead |
| D009 (E) | Mercury |
| D010 (E) | Selenium |
| D011 (E) | Silver |
| D012 (E) | Endrin (1,2,3,4,10,10-hexachloro-1,7 epoxy-1,4,4a,5,6,;7,8,8a-octahydro-1,4 endo,endo-5,8-dimeth-ano-naphthalene) |
| DO13 (E) | Lindane (1,2,3,4,5,6, hexa-chloro-cyclohexane, gamma isomer |
| D014 (E) | Methoxychlor (1,1,1-Trichloro- 2,2-bis [p-methoxyphenyl]ethane |
| D015 (E) | Toxaphene ($C_{10}H_{10}Cl_8$, technical chlorinated camphene, 67-69 percent chlorine) |
| D016 (E) | 2,4-D (2,4 dichlorophenoxyacetic acid) |
| D017 (E) | 2,4,5-TP Silvex (2,4,5-trichloro-phenoxypropionic acid) |
| D018 (E) | Benzene |
| D019 (E) | Carbon tetrachloride |
| D020 (E) | Chlordane |
| D021 (E) | Chlorobenzene |
| D022 (E) | Choroform |
| D023 (E) | o-Cresol |
| D024 (E) | m-Cresol |
| D025 (E) | p-Cresol |
| D026 (E) | Cresol |

Basis for listing or class of hazardous waste:

| | | |
|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste (E) |
| (C) | Corrosive | Acute Hazardous Waste (H) |
| (R) | Reactive | Toxic Waste (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| D027 (E) | 1,4-Dichlorobenzene |
| D028 (E) | 1,2-Dichloroethane |
| D029 (E) | 1,1-Dichloroethylene |
| D030 (E) | 2,4-Dinitrotoluene |
| D031 (E) | Heptachlor (and its hydroxide) |
| D032 (E) | Hexachlorobenzene |
| D033 (E) | Hexachloro-1,3-butadiene |
| D034 (E) | Hexachloroethane |
| D035 (E) | Methyl ethyl ketone |
| D036 (E) | Nitrobenzene |
| D037 (E) | Pentachlorophenol |
| D038 (E) | Pyridine |
| D039 (E) | Tetrachloroethylene |
| D040 (E) | Trichloroethylene |
| D041 (E) | 2,4,5-Trichlorophenol |
| D042 (E) | 2,4,6-Trichlorophenol |
| D043 (E) | Vinyl Chloride |

Basis for listing or class of hazardous waste:

| | | |
|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste (E) |
| (C) | Corrosive | Acute Hazardous Waste (H) |
| (R) | Reactive | Toxic Waste (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|

**Hazardous Wastes from Non-specific Sources:**

| | |
|---|---|
| F001 (T) | The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004 and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. |
| F002 (T) | The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-triflouroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001,F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. |
| F003 (I) | The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non- |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| | halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. |
| F004 (T) | The following spent non-halogenated solvents: Cresols and cresylic acid, nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. |
| F005 (I,T) | The following spent non-halogenated solvents: Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, and pyridine; benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures. |
| F006 (T) | Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| | carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum. |
| F007 (R,T) | Spent cyanide plating bath solutions from electroplating operations |
| F008 (R,T) | Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process. |
| F009 (R,T) | Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process. |
| F010 (R,T) | Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process. |
| F011 (R,T) | Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations |
| F012 (T) | Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process. |
| F019 (T) | Wastewater treatment sludges from the chemical conversion coating of aluminum. |
| F024 (T) | Process wastes, including but not limited to distillation residues, heavy ends, tars, and reactor clean-out wastes from the production |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| | of chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in 261.31 or 261.32). |
| F025 (T) | Condensed light ends, spent filters and filter aids and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five with varying amounts and positions of chlorine substitution. |
| F032 (T) | Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with § 261.35 of this chapter and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediments sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| F034 (T) | Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. |
| F035 (T) | Wastewaters, process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol. |
| F037 (T) | Petroleum refinery primary oil/water/solids separation sludge--Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| | waters, sludges generated in aggressive biological treatment units as defined in § 261.31(b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing. |
| F038 (T) | Petroleum refinery secondary (emulsified) oil/water/solids separation sludge--Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in § 261.31(b)(2) (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes are not included in this listing. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| F039 [1] | Leachate resulting from the treatment, storage, or disposal of wastes classified by more than one waste code under Subpart D, or from a mixture of wastes classified under Subparts C and D of this part. (Leachate resulting from the management of one or more of the following EPA Hazardous Wastes and no other hazardous wastes retains its hazardous waste code(s): F020, F021, F022, F023, F026, F027, and/or F028). |

[1]All constituents for which treatment standards are specified for multi-source leachate (wastewaters and non-wastewaters) under 40 CFR 268.43(a), Table CCW.

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|

**Hazardous Wastes from Specific Sources:**

| | |
|---|---|
| K001 (T) | Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol. |
| K002 (T) | Wastewater treatment sludge from the production of chrome yellow and orange pigments. |
| K003 (T) | Wastewater treatment sludge from the production of molybdate orange pigments. |
| K004 (T) | Wastewater treatment sludge from the production of zinc yellow pigments. |
| K005 (T) | Wastewater treatment sludge from the production of chrome green pigments. |
| K006 (T) | Wastewater treatment sludge from the production of chrome oxide green pigments. |
| K007 (T) | Wastewater treatment sludge from the production of iron blue pigments. |
| K008 (T) | Oven residue from the production of chrome oxide green pigments. |
| K009 (T) | Distillation bottoms from the production of acetaldehyde from ethylene. |
| K010 (T) | Distillation side cuts from the production of acetaldehyde from ethylene. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K011 (R,T) | Bottom stream from the wastewater stripper in the production of acrylonitrile. |
| K013 (R,T) | Bottom stream from the acetonitrile column in the production of acrylonitrile. |
| K014 (T) | Bottoms from the acetonitrile purification column in the production of acrylonitrile. |
| K015 (T) | Still bottoms from the distillation of benzyl chloride. |
| K016 (T) | Heavy ends or distillation residues from the production of carbon tetrachloride. |
| K017 (T) | Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin. |
| K018 (T) | Heavy ends from the fractionation column in ethyl chloride production. |
| K019 (T) | Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production. |
| K020 (T) | Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production. |
| K021 (T) | Aqueous spent antimony catalyst waste from fluoromethanes production. |
| K022 (T) | Distillation bottom tars from the production of phenol/acetone from cumene. |

Basis for listing or class of hazardous waste:

(I) Ignitable
(C) Corrosive
(R) Reactive
Toxicity Characteristic Waste (E)
Acute Hazardous Waste (H)
Toxic Waste (T)

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K023 (T) | Distillation light ends from the production of phthalic anhydride from naphthalene. |
| K024 (T) | Distillation bottoms from the production of phthalic anhydride from naphthalene. |
| K025 (T) | Distillation bottoms from the production of nitrobenzene by the nitration of benzene. |
| K026 (T) | Stripping still tails from the production of methy ethyl pyridines. |
| K027 (R,T) | Centrifuge and distillation residues from toluene diisocyanate production. |
| K028 (T) | Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane. |
| K029 (T) | Waste from the product steam stripper in the production of 1,1,1-trichloroethane. |
| K030 (T) | Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene. |
| K031 (T) | By-product salts generated in the production of MSMA and cacodylic acid. |
| K032 (T) | Wastewater treatment sludge from the production of chlordane. |
| K033 (T) | Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K034 (T) | Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane. |
| K035 (T) | Wastewater treatment sludges generated in the production of creosote. |
| K036 (T) | Still bottoms from toluene reclamation distillation in the production of disulfoton. |
| K037 (T) | Wastewater treatment sludges from the production of disulfoton. |
| K038 (T) | Wastewater from the washing and stripping of phorate production. |
| K039 (T) | Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate. |
| K040 (T) | Wastewater treatment sludge from the production of phorate. |
| K041 (T) | Wastewater treatment sludge from the production of toxaphene. |
| K042 (T) | Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T. |
| K043 (T) | 2,6-Dichlorophenol waste from the production of 2,4-D. |
| K044 (R) | Wastewater treatment sludges from the manufacturing and processing of explosives. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K045 (R) | Spent carbon from the treatment of wastewater containing explosives. |
| K046 (T) | Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds. |
| K047 (R) | Pink/red water from TNT operations. |
| K048 (T) | Dissolved air flotation (DAF) float from the petroleum refining industry. |
| K049 (T) | Slop oil emulsion solids from the petroleum refining industry. |
| K050 (T) | Heat exchanger bundle cleaning sludge from the petroleum refining industry. |
| K051 (T) | API separator sludge from the petroleum refining industry. |
| K052 (T) | Tank bottoms (leaded) from the petroleum refining industry. |
| K060 (T) | Ammonia still lime sludge from coking operations. |
| K061 (T) | Emission control dust/sludge from the primary production of steel in electric furnaces. |
| K062 (C,T) | Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332). |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K064 (T) | Acid plant blowdown slurry/sludge resulting from the thickening of blowdown slurry from primary copper production. |
| K065 (T) | Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities |
| K066 (T) | Sludge from treatment of process wastewater and/or acid plant blowdown from primary zinc production. |
| K069 (T) | Emission control dust/sludge from secondary lead smelting. (Note: This listing is stayed administratively for sludge generated from secondary acid scrubber systems. The stay will remain in effect until further administrative action is taken. If EPA takes further action effecting this stay, EPA will publish a notice of the action in the Federal Register.) |
| K071 (T) | Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used. |
| K073 (T) | Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production. |
| K083 (T) | Distillation bottoms from aniline production. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K084 (T) | Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. |
| K085 (T) | Distillation or fractionation column bottoms from the production of chlorobenzenes. |
| K086 (T) | Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead. |
| K087 (T) | Decanter tank tar sludge from coking operations. |
| K088 (T) | Spent potliners from primary aluminum reduction. |
| K090 (T) | Emission control dust or sludge from ferrochromiumsilicon production. |
| K091 (T) | Emission control dust or sludge from ferrochromium production. |
| K093 (T) | Distillation light ends from the production of phthalic anhydride from ortho-xylene. |
| K094 (T) | Distillation bottoms from the production of phthalic anhydride from ortho-xylene. |
| K095 (T) | Distillation bottoms from the production of 1,1,1-trichloroethane. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K096 (T) | Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane. |
| K097 (T) | Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane. |
| K098 (T) | Untreated process wastewater from the production of toxaphene. |
| K099 (T) | Untreated wastewater from the production of 2,4-D. |
| K100 (T) | Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting. |
| K101 (T) | Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. |
| K102 (T) | Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds. |
| K103 (T) | Process residues from aniline extraction from the production of aniline. |
| K104 (T) | Combined wastewater streams generated from nitrobenzene/aniline production. |
| K105 (T) | Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K106 (T) | Wastewater treatment sludge from the mercury cell process in chlorine production. |
| K107 (C,T) | Column bottoms from product seperation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazines. |
| K108 (I,T) | Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides. |
| K109 (T) | Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides. |
| K110 (T) | Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides. |
| K111 (C,T) | Product washwaters from the production of dinitrotoluene via nitration of toluene. |
| K112 (T) | Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene. |
| K113 (T) | Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation dinitrotoluene. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K114 (T) | Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene. |
| K115 (T) | Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene. |
| K116 (T) | Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine. |
| K117 (T) | Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene. |
| K118 (T) | Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene. |
| K123 (T) | Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salt. |
| K124 (T,C) | Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts. |
| K125 (T,C) | Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K126 (T) | Baghouse dust and floor sweepings in milling and packaging operations from production or formulation of ethylenebisdithiocarbamic acid and its salts. |
| K131 (C,T) | Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide. |
| K132 (T) | Spent absorbent and wastewater separator solids from the production of methyl bromide. |
| K136 (T) | Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene. |
| K141 (T) | Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludges from coking operations). |
| K142 (T) | Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal. |
| K143 (T) | Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K144 (T) | Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal. |
| K145 (T) | Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal. |
| K147 (T) | Tar storage tank residues from coal tar refining. |
| K148 (T) | Residues from coal tar distillation, including, but not limited to, still bottoms. |
| K149 (T) | Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillation of benzyl chloride). |
| K150 (T) | Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| K151 (T) | Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|
| **Discarded Commercial Chemical Products, Off-Specification Species, Container Residues, and Spill Residues Thereof:** | | |
| P001 | (H) | Warfarin, & salts, when present at concentrations greater than 0.3%. |
| P002 | (H) | 1-Acetyl-2-thiourea |
| P003 | (H) | Acrolein |
| P004 | (H) | Aldrin |
| P005 | (H) | Allyl alcohol |
| P006 | (R,T) | Aluminum phosphide |
| P007 | (H) | 5-(Aminomethyl)-3-isoxazolol |
| P008 | (H) | 4-Aminopyridine |
| P009 | (R) | Ammonium picrate |
| P010 | (T) | Arsenic acid $H_3AsO_4$ |
| P011 | (T) | Arsenic pentoxide |
| P012 | (T) | Arsenic trioxide |
| P013 | (H) | Barium cyanide |
| P014 | (T) | Benzenethiol |
| P015 | (H) | Beryllium |
| P016 | (H) | Methane, oxybis[chloro- |
| P017 | (T) | Bromoacetone |
| P018 | (H) | Brucine |
| P020 | (H) | Dinoseb |
| P021 | (H) | Calcium cyanide |
| P022 | (T) | Carbon disulfide |
| P023 | (H) | Chloroacetaldehyde |
| P024 | (H) | p-Chloroaniline |
| P026 | (H) | 1-(o-Chlorophenyl)thiourea |
| P027 | (H) | 3-Chloropropionitrile |
| P028 | (H) | Benzyl chloride |
| P029 | (H) | Copper cyanide |
| P030 | (T) | Cyanides (soluble cyanide salts) not otherwise specified. |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| P031 (H) | Cyanogen |
| P033 (H) | Cyanaogen chloride |
| P034 (T) | 2-Cyclohexyl-4,6-dinitrophenol |
| P036 (H) | Dichlorophenylarsine |
| P037 (H) | Dieldrin |
| P038 (T) | Diethylarsine |
| P039 (T) | Disulfoton |
| P040 (H) | O,O-Diethyl O-pyrazinyl phosphorothioate. |
| P041 (H) | Diethyl-p-nitrophenyl phosphate |
| P042 (H) | Epinephrine |
| P043 (H) | Diisopropylfluorophosphate (DFP) |
| P044 (T) | Dimethoate |
| P045 (H) | Thiofanox |
| P046 (T) | Benzeneethanamine, alpha,alpha-dimethyl- |
| P047 (H) | 4,6-Dinitro-o-cresol, and salts |
| P048 (H) | 2,4-Dinitrophenol |
| P049 (H) | Dithiobiuret |
| P050 (H) | Endosulfan |
| P051 (H) | Endrin |
| P054 (H) | Aziridine |
| P056 (H) | Fluorine |
| P057 (H) | Fluoroacetamide |
| P058 (H) | Fluoroacetic acid, sodium salt |
| P059 (H) | Heptachlor |
| P060 (H) | Isodrin |
| P062 (H) | Hexaethyl tetraphosphate |
| P063 (H) | Hydrogen cyanide |
| P064 (H) | Methyl isocyanate |
| P065 (R,T) | Mercury fulminate |
| P066 (H) | Methomyl |
| P067 (H) | 1,2-Propylenimine |
| P068 (H) | Methyl hydrazine |
| P069 (H) | 2-Methyllactonitrile |
| P070 (H) | Aldicarb |
| P071 (H) | Methyl parathion |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|
| P072 | (H) | alpha-Naphthylthiourea |
| P073 | (H) | Nickel carbonyl |
| P074 | (H) | Nickel cyanide |
| P075 | (T) | Nicotine, and salts |
| P076 | (T) | Nitric oxide |
| P077 | (T) | p-Nitroaniline |
| P078 | (H) | Nitrogen dioxide |
| P081 | (R,T) | Nitroglycerine (R) |
| P082 | (H) | N-Nitrosodimethylamine |
| P084 | (H) | N-Nitrosomethylvinylamine |
| P085 | (H) | Octamethylpyrophosphoramide |
| P087 | (H) | Osmium tetroxide |
| P088 | (H) | Endothall |
| P089 | (T) | Parathion |
| P092 | (H) | Phenylmercury acetate |
| P093 | (H) | Phenylthiourea |
| P094 | (T) | Phorate |
| P095 | (T) | Phosgene |
| P096 | (H) | Phosphine |
| P097 | (H) | Famphur |
| P098 | (H) | Potassium cyanide |
| P099 | (H) | Potassium silver cyanide |
| P101 | (H) | Propanenitrile |
| P102 | (H) | Propargyl alcohol |
| P103 | (H) | Selenourea |
| P104 | (H) | Silver cyanide |
| P105 | (H) | Sodium azide |
| P106 | (H) | Sodium cyanide |
| P108 | (T) | Strychnine and salts |
| P109 | (H) | Tetraethyldithiopyrophosphate |
| P110 | (H) | Tetraethyl lead |
| P111 | (H) | Tetraethyl pyrophosphate |
| P112 | (R) | Tetranitromethane |
| P113 | (H) | Thallic oxide |
| P114 | (H) | Thallium(I) selenite |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | Hazardous Waste/Constituent: |
|---|---|
| P115 (H) | Thallium(I) sulfate |
| P116 (H) | Thiosemicarbazide |
| P118 (H) | Trichloromethanethiol |
| P119 (H) | Vanadic acid, ammonium salt |
| P120 (H) | Vanadium pentoxide |
| P121 (H) | Zinc cyanide |
| P122 (R,T) | Zinc phosphide $Zn_3P_2$ when present at concentrations greater than 10% |
| P123 (H) | Toxaphene |

Basis for listing or class of hazardous waste:

| | | |
|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste (E) |
| (C) | Corrosive | Acute Hazardous Waste (H) |
| (R) | Reactive | Toxic Waste (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|

**Commercial Chemical Products, Manufacturing Chemical Intermediates, or Off-Specification Commercial Chemical Products:**

| | | |
|---|---|---|
| U001 | (I) | Ethanal |
| U002 | (I) | Acetone |
| U003 | (I,T) | Acetonitrile |
| U004 | (T) | Acetophenone |
| U005 | (T) | 2-Acetylaminofluorene |
| U006 | (C,R,T) | Acetyl chloride |
| U007 | (T) | Acrylamide |
| U008 | (I) | Acrylic acid |
| U009 | (T) | Acrylonitrile |
| U010 | (T) | Mitomycin C |
| U011 | (T) | Amitrole |
| U012 | (I,T) | Aniline |
| U014 | (T) | Auramine |
| U015 | (T) | Azaserine |
| U016 | (T) | Benz[c]acridine |
| U017 | (T) | Benzal chloride |
| U018 | (T) | Benz[a]anthracene |
| U019 | (I,T) | Benzene |
| U020 | (C,R) | Benzenesulfonyl chloride |
| U021 | (T) | Benzidine |
| U022 | (T) | Benzo[a]pyrene |
| U023 | (C,R,T) | Benzotrichloride |
| U024 | (T) | Dichloromethoxy ethane |
| U025 | (T) | Dichloroethyl ether |
| U026 | (T) | Chlornaphazin |
| U027 | (T) | Dichloroisopropyl ether |
| U028 | (T) | Diethylhexyl phthalate |
| U029 | (T) | Methyl bromide |
| U030 | (T) | Benzene, 1-bromo-4-phenoxy- |
| U031 | (I) | n-Butyl alcohol |
| U032 | (T) | Calcium chromate |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|
| U033 | (R,T) | Carbon oxyfluoride |
| U034 | (T) | Chloral |
| U035 | (T) | Chlorambucil |
| U036 | (T) | Chlordane, alpha & gamma isomers |
| U037 | (T) | Chlorobenzene |
| U038 | (T) | Chlorobenzilate |
| U039 | (T) | p-Chloro-m-cresol |
| U041 | (T) | Epichlorohydrin |
| U042 | (T) | 2-Chloroethyl vinyl ether |
| U043 | (T) | Vinyl chloride |
| U044 | (T) | Chloroform |
| U045 | (I,T) | Methyl chloride |
| U046 | (T) | Chloromethyl methyl ether |
| U047 | (T) | beta-Chloronaphthalene |
| U048 | (T) | o-Chlorophenol |
| U049 | (T) | Benzenamine, 4-chloro-2-methyl-, hydrochloride |
| U050 | (T) | Chrysene |
| U051 | (T) | Creosote |
| U052 | (T) | Cresol (Cresylic Acid) |
| U053 | (T) | Crotonaldehyde |
| U055 | (I) | Cumene |
| U056 | (I) | Cyclohexane |
| U057 | (I) | Cyclohexanone |
| U058 | (T) | Chclophosphamide |
| U059 | (T) | Daunomycin |
| U060 | (T) | DDD |
| U061 | (T) | DDT |
| U062 | (T) | Diallate |
| U063 | (T) | Dibenz[a,h]anthracene |
| U064 | (T) | Dibenzo[a,i]pyrene |
| U066 | (T) | 1,2-Dibromo-3-chloropropane |
| U067 | (T) | Ethylene dibromide |
| U068 | (T) | Methylene bromide |
| U069 | (T) | Dibutyl phthalate |
| U070 | (T) | o-Dichlorobenzene |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|
| U071 | (T) | m-Dichlorobenzene |
| U072 | (T) | p-Dichlorobenzene |
| U073 | (T) | 3,3'Dichlorobenzidine |
| U074 | (I,T) | 1,4-Dichloro-2-butene |
| U075 | (T) | Dichlorodifluoromethane |
| U076 | (T) | Ethylidene dichloride |
| U077 | (T) | Ethylene dichloride |
| U078 | (T) | 1,1-Dichloroethylene |
| U079 | (T) | 1,2-Dichloroethylene |
| U080 | (T) | Methylene chloride |
| U081 | (T) | 2,4-Dichlorophenol |
| U082 | (T) | 2,6-Dichlorophenol |
| U083 | (T) | Propylene dichloride |
| U084 | (T) | 1,3-Dichloropropene |
| U085 | (I,T) | 1,2:3,4-Diepoxybutane |
| U086 | (T) | N,N-Diethylhydrazine |
| U087 | (T) | O,O-Diethyl S-methyl dithiophosphate |
| U088 | (T) | Diethyl phthalate |
| U089 | (T) | Diethylstilbesterol |
| U090 | (T) | Dihydrosafrole |
| U091 | (T) | 3,3'-Dimethoxybenzidine |
| U092 | (I) | Dimethylamine |
| U093 | (T) | p-Dimethylaminoazobenzene |
| U094 | (T) | 7,12-Dimethylbenz[a]anthracene |
| U095 | (T) | 3,3'-Dimethylbenzidine |
| U096 | (R) | alpha,alpha-Dimethylbenzylhydroperoxide |
| U097 | (T) | Dimethylcarbamoyl chloride |
| U098 | (T) | 1,1-Dimethylhydrazine |
| U099 | (T) | 1,2-Dimethylhydrazine |
| U101 | (T) | 2,4-Dimethylphenol |
| U102 | (T) | Dimethyl phthalate |
| U103 | (T) | Dimethyl sulfate |
| U105 | (T) | 2,4-Dinitrotoluene |
| U106 | (T) | 2,6-Dinitrotoluene |
| U107 | (T) | Di-n-octyl phthalate |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|
| U108 | (T) | 1,4-Dioxane |
| U109 | (T) | 1,2-Diphenylhydrazine |
| U110 | (I) | Dipropylamine |
| U111 | (T) | Di-n-propylnitrosamine |
| U112 | (I) | Ethyl acetate |
| U113 | (I) | Ethyl acrylate |
| U114 | (T) | Ethylenebisdithiocarbamic acid, salts & esters |
| U115 | (I,T) | Ethylene oxide |
| U116 | (T) | Ethylenethiourea |
| U117 | (I) | Ethyl ether |
| U118 | (T) | Ethyl methacrylate |
| U119 | (T) | Ethyl methanseulfonate |
| U120 | (T) | Fluoranthene |
| U121 | (T) | Methane, trichlorofluoro- |
| U122 | (T) | Formaldehyde |
| U123 | (C,T) | Formic acid |
| U124 | (I) | Furan |
| U125 | (I) | Furfural |
| U126 | (T) | Glycidylaldehyde |
| U127 | (T) | Hexachlorobenzene |
| U128 | (T) | Hexachlorobutadiene |
| U129 | (T) | Lindane |
| U130 | (T) | Hexachlorocyclopentadiene |
| U131 | (T) | Hexachloroethane |
| U132 | (T) | Hexachlorophene |
| U133 | (R,T) | Hydrazine |
| U134 | (C,T) | Hydrogen fluoride |
| U135 | (T) | Hydrogen sulfide |
| U136 | (T) | Cacodylic acid |
| U137 | (T) | Indeno[1,2,3-cd]pyrene |
| U138 | (T) | Methyl iodide |
| U140 | (I,T) | Isobutyl alcohol |
| U141 | (T) | Isosafrole |
| U142 | (T) | Kepone |
| U143 | (T) | Lasiocarpine |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|
| U144 | (T) | Lead acetate |
| U145 | (T) | Lead phosphate |
| U146 | (T) | Lead subacetate |
| U147 | (T) | Maleic anhydride |
| U148 | (T) | Maleic hydrazide |
| U149 | (T) | Malononitrile |
| U150 | (T) | Melphalan |
| U151 | (T) | Mercury |
| U152 | (I,T) | Methacrylonitrile |
| U153 | (I,T) | Methanethiol |
| U154 | (I) | Methanol |
| U155 | (T) | Methapyrilene |
| U156 | (I,T) | Methyl chlorocarbonate |
| U157 | (T) | 3-Methylcholanthrene |
| U158 | (T) | 4,4'-Methylenebis(2-chloroaniline) |
| U159 | (I,T) | Methyl ethyl ketone (MEK) |
| U160 | (R,T) | Methyl ethyl ketone peroxide |
| U161 | (I) | Methyl isobutyl ketone |
| U162 | (I,T) | Methyl methacrylate |
| U163 | (T) | MNNG |
| U164 | (T) | Methylthiouracil |
| U165 | (T) | Naphthalene |
| U166 | (T) | 1,4-Naphthoquinone |
| U167 | (T) | 1-Naphthalenamine |
| U168 | (T) | 2-Naphthalenamine |
| U169 | (I,T) | Nitrobenzene |
| U170 | (T) | p-Nitrophenol |
| U171 | (I,T) | 2-Nitropropane |
| U172 | (T) | N-Nitrosodi-n-butylamine |
| U173 | (T) | N-Nitrosodiethanolamine |
| U174 | (T) | N-Nitrosodiethylamine |
| U176 | (T) | N-Nitroso-N-ethylurea |
| U177 | (T) | N-Nitroso-N-methylurea |
| U178 | (T) | N-Nitroso-N-methylurethane |
| U179 | (T) | N-Nitrosopiperidine |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|
| U180 | (T) | N-Nitrosopyrrolidine |
| U181 | (T) | 5-Nitro-o-toluidine |
| U182 | (T) | Paraldehyde |
| U183 | (T) | Pentachlorobenzene |
| U184 | (T) | Pentachloroethane |
| U185 | (T) | Pentachloronitrobenzene (PCNB) |
| U186 | (I) | 1,3-Pentadiene |
| U187 | (T) | Phenacetin |
| U188 | (T) | Phenol |
| U189 | (R) | Phosphorous sulfide |
| U190 | (T) | Phthalic anhydride |
| U191 | (T) | Pyridine, 2-methyl- |
| U192 | (T) | Pronamide |
| U193 | (T) | 1,3-Propane sultone |
| U194 | (I,T) | 1-Propanamine |
| U196 | (T) | Pyridine |
| U197 | (T) | p-Benzoquinone |
| U200 | (T) | Reserpine |
| U201 | (T) | Resorcinol |
| U202 | (T) | Saccharin, and salts |
| U203 | (T) | Safrole |
| U204 | (T) | Selenium dioxide |
| U205 | (R,T) | Selenium sulfide |
| U206 | (T) | Streptozotocin |
| U207 | (T) | 1,2,4,5-Tetrachlorobenzene |
| U208 | (T) | 1,1,1,2-Tetrachloroethane |
| U209 | (T) | 1,1,2,2-Tetrachloroethane |
| U210 | (T) | Tetrachloroethylene |
| U211 | (T) | Carbon tetrachloride |
| U213 | (I) | Tetrahydrofuran |
| U214 | (T) | Thallium(I) acetate |
| U215 | (T) | Thallium(I) carbonate |
| U216 | (T) | Thallium(I) chloride |
| U217 | (T) | Thallium(I) nitrate |
| U218 | (T) | Thioacetamide |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

| EPA Hazardous Waste Number: | | Hazardous Waste/Constituent: |
|---|---|---|
| U219 | (T) | Thiourea |
| U220 | (T) | Toluene |
| U221 | (T) | Toluenediamine |
| U222 | (T) | o-Toluidine hydrochloride |
| U223 | (R,T) | Toluene diisocyanate |
| U225 | (T) | Bromoform |
| U226 | (T) | Methyl chloroform |
| U227 | (T) | 1,1,2-Trichloroethane |
| U228 | (T) | Trichloroethylene |
| U234 | (R,T) | 1,3,5-Trinitrobenzene |
| U235 | (T) | Tris(2,3-dibromopropyl) phosphate |
| U236 | (T) | Trypan blue |
| U237 | (T) | Uracil mustard |
| U238 | (T) | Ethyl carbamate (urethane) |
| U239 | (I) | Xylene |
| U240 | (T) | 2,4-D, salts and esters |
| U243 | (T) | Hexachloropropene |
| U244 | (T) | Thiram |
| U246 | (T) | Cyanogen bromide (CN)Br |
| U247 | (T) | Methoxychlor |
| U248 | (T) | Warfarin, and salts, when present at concentrations of 0.3% or less. |
| U249 | (T) | Zinc phosphide, $Zn_3P_2$ when present at concentrations of 10% or less. |
| U328 | (T) | o-Toluidine |
| U353 | (T) | p-Toluidine |
| U359 | (T) | Ethanol, 2-ethoxy- |

Basis for listing or class of hazardous waste:

| | | | |
|---|---|---|---|
| (I) | Ignitable | Toxicity Characteristic Waste | (E) |
| (C) | Corrosive | Acute Hazardous Waste | (H) |
| (R) | Reactive | Toxic Waste | (T) |

**Other Wastes**

- Solid wastes as defined by 40 CFR 261.2
- Waste from a Hazardous Waste Facility or Site, or waste resulting from activities under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) including but not limited to personnel protective equipment, discarded containers of laboratory chemicals (lab packs), lab equipment, clothing, debris from spills or cleanup and floor sweepings.

Mark

USPCI
A Subsidiary of
Union Pacific Corporation

Hydrocarbon Recovery Services

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PRMT SECTION

May 18, 1993

Lyndell L. Harrington
Chief RCRA Permit Section
US Environmental Protection Agency
Region VII
726 Minnesota Avenue
Kansas City, Kansas 66101

Steve Broslavick, P.E.
Kansas Department of Health and Environment
Hazardous Waste Section
Forbes Field, Building 740
Topeka, Kansas 66620-0002

Re: Hydrocarbon Recyclers, Inc. of Wichita d/b/a USPCI (HRIW)
EPA ID No. KSD007246846
RCRA Part B Permit Application - Replacement Pages (Rev. 5)

Dear Sirs:

Enclosed are revised pages for the HRIW RCRA permit application; two copies of this package are being sent to KDHE, one copy to U.S.EPA Region VII. Three drawings in Appendix A (Facility and Process Drawings) of Section N (Air Emissions) and corresponding equipment lists have been revised. Changes have been made to reflect the addition of a valve to enhance waste flow control. In addition, several portable pumps have been added to the equipment list. These changes do not affect waste management practices. Corresponding monitoring data will be maintained in the operating record.

Instructions regarding replacement of revised pages into the permit application are presented in Attachment A. Please replace these pages as instructed and place this cover letter in Section Z (Correspondence) of the application. If you have any questions regarding these matters, please contact Catherine Orban at telephone number 918/446-7434 or Liane Hetherington-Ward at telephone number 708/672-3640. Thank you for your assistance.

Sincerely,

Robert Apple
Vice President - Operations
Hydrocarbon Recyclers, Inc.

cc: S. Keiter, HRIW
L. Hetherington-Ward, USPCI
C. Orban, USPCI

2549 North New York • Wichita, Kansas 67219 • 316/268-9490 • Fax 316/268-9418

**Re:** **May 18, 1993**
**Replacement Directions for Revised Pages**
**Hydrocarbon Recyclers Inc. of Wichita, d/b/a USPCI**

# Attachment A
## RCRA Permit Application - Replacement Pages

| Remove | Add |
|---|---|
| **Section N, Appendix N-A** | |
| Cover Page | Cover Page |
| DWG. 665300-4-W404F (7 of 9) | DWG. 665300-4-W404F (7 of 9) |
| DWG. 665300-4-W510-1 (1 of 2) | DWG. 665300-4-W510-1 (1 of 2) |
| DWG. 665300-4-W511-1 (1 of 2) | DWG. 665300-4-W511-1 (1 of 2) |
| **Section N, Appendix N-D** | |
| Appendix N-D | Appendix N-D |
| **Section N, Appendix N-E** | |
| Appendix N-E | Appendix N-E |

USPCI
A Subsidiary of
Union Pacific Corporation

Hydrocarbon Recovery Services

May 18, 1993

Lyndell L. Harrington
Chief RCRA Permit Section
US Environmental Protection Agency
Region VII
726 Minnesota Avenue
Kansas City, Kansas 66101

Steve Broslavick, P.E.
Kansas Department of Health and Environment
Hazardous Waste Section
Forbes Field, Building 740
Topeka, Kansas 66620-0002

Re: Hydrocarbon Recyclers, Inc. of Wichita d/b/a USPCI (HRIW)
EPA ID No. KSD007246846
RCRA Part B Permit Application - Replacement Pages (Rev. 5)

Dear Sirs:

Enclosed are revised pages for the HRIW RCRA permit application; two copies of this package are being sent to KDHE, one copy to U.S.EPA Region VII. Three drawings in Appendix A (Facility and Process Drawings) of Section N (Air Emissions) and corresponding equipment lists have been revised. Changes have been made to reflect the addition of a valve to enhance waste flow control. In addition, several portable pumps have been added to the equipment list. These changes do not affect waste management practices. Corresponding monitoring data will be maintained in the operating record.

Instructions regarding replacement of revised pages into the permit application are presented in Attachment A. Please replace these pages as instructed and place this cover letter in Section Z (Correspondence) of the application. If you have any questions regarding these matters, please contact Catherine Orban at telephone number 918/446-7434 or Liane Hetherington-Ward at telephone number 708/672-3640. Thank you for your assistance.

Sincerely,

Robert Apple
Vice President - Operations
Hydrocarbon Recyclers, Inc.

cc: S. Keiter, HRIW
L. Hetherington-Ward, USPCI
C. Orban, USPCI

2549 North New York • Wichita, Kansas 67219 • 316/268-9490 • Fax 316/268-9418

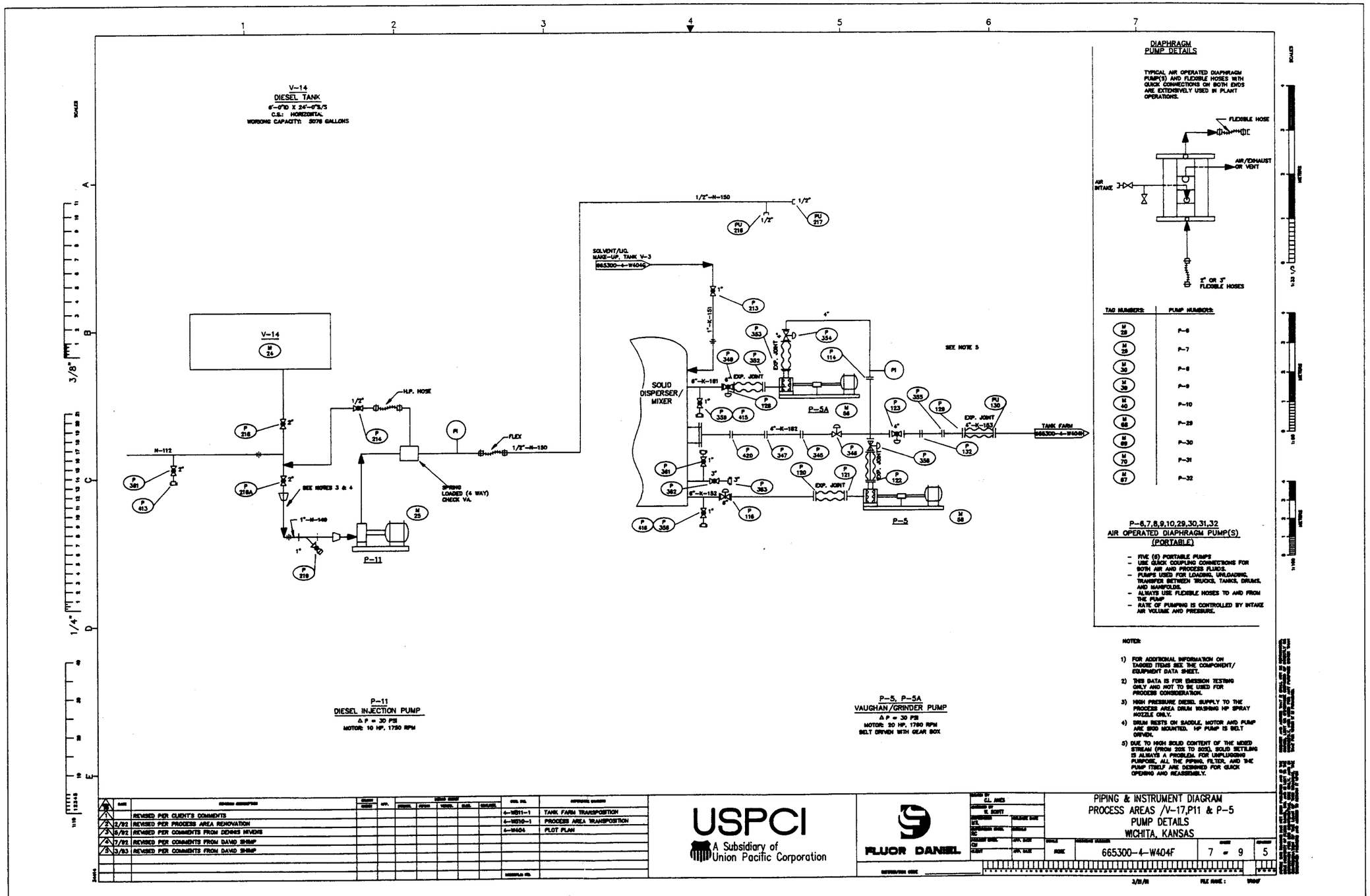
**Re:** **May 18, 1993**
**Replacement Directions for Revised Pages**
**Hydrocarbon Recyclers Inc. of Wichita, d/b/a USPCI**

# Attachment A
## RCRA Permit Application - Replacement Pages

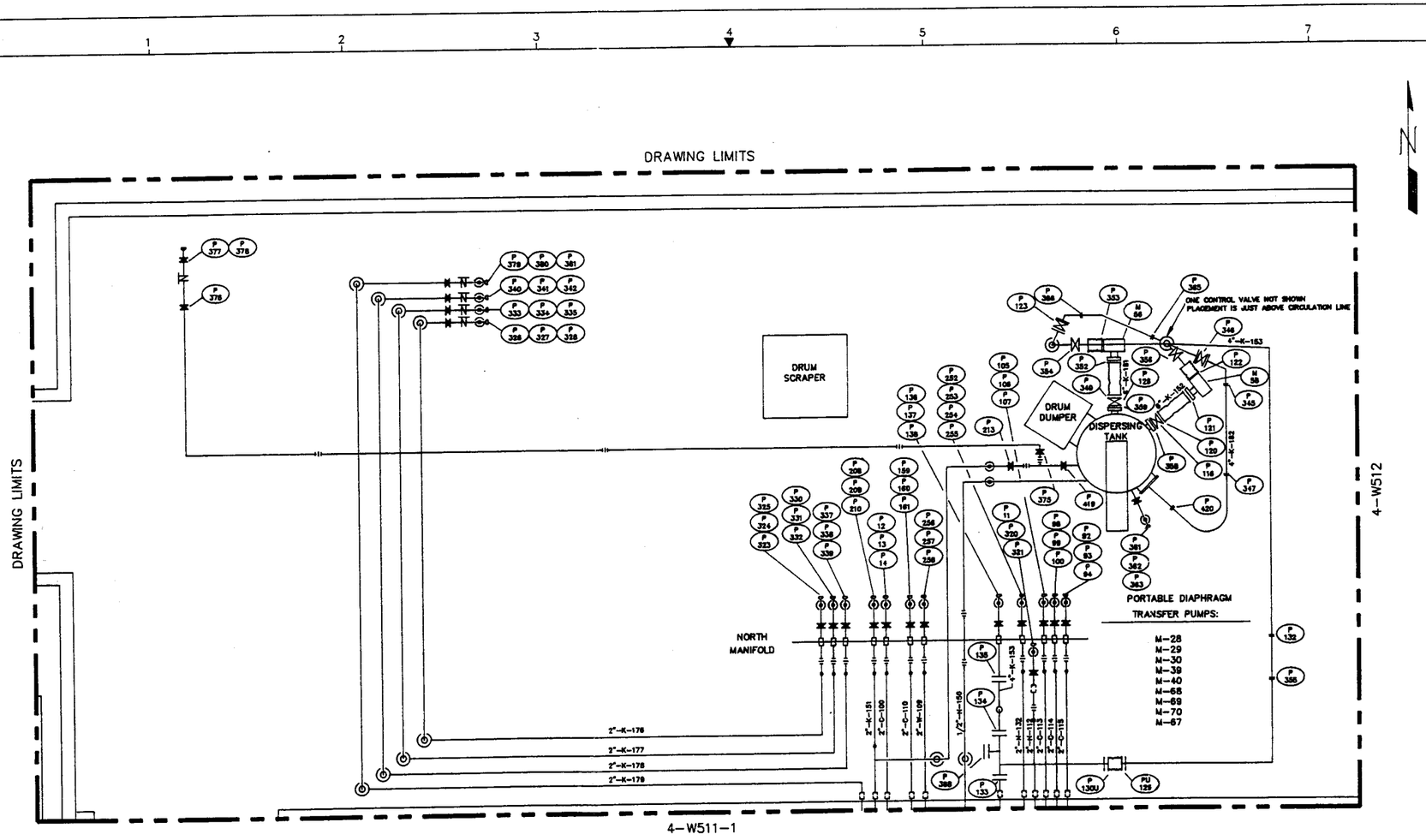
| Remove | Add |
|---|---|
| **Section N, Appendix N-A** | |
| Cover Page | Cover Page |
| DWG. 665300-4-W404F (7 of 9) | DWG. 665300-4-W404F (7 of 9) |
| DWG. 665300-4-W510-1 (1 of 2) | DWG. 665300-4-W510-1 (1 of 2) |
| DWG. 665300-4-W511-1 (1 of 2) | DWG. 665300-4-W511-1 (1 of 2) |
| **Section N, Appendix N-D** | |
| Appendix N-D | Appendix N-D |
| **Section N, Appendix N-E** | |
| Appendix N-E | Appendix N-E |

## Appendix N-A - Facility and Process Drawings

| Drawing Number | Sheet | Subject |
|---|---|---|
| 665300-4-W401 | 1 of 9 | Legend & Symbology |
| 665300-4-W404A | 2 of 9 | New Process/Condensate Separator & Pump |
| 665300-4-W404B | 3 of 9 | Sparging Room I - Round Spargers System |
| 665300-4-W404C | 4 of 9 | Sparging Room II - Rectang. Spargers System |
| 665300-4-W404D | 5 of 9 | Storage Tank Room I/V-9 Thru V-14 |
| 665300-4-W404E | 6 of 9 | Storage Tank Room II/V-15 A-D & V-16 |
| 665300-4-W404F | 7 of 9 | Process Areas /V-17, P11 & P-5 Pump Details |
| 665300-4-W404G | 8 of 9 | Tank Farm I/V-1, V-2, V-3 & V-4 |
| 665300-4-W404H | 9 of 9 | Tank Farm II/V-5 Thru V-8/N & S Manifolds |
| 665300-4-W050 | 1 of 1 | Piping Plot Plan |
| 665300-4-W510-1 | 1 of 2 | Piping Transposition - Process Area |
| 665300-4-W510-2 | 2 of 2 | Piping Transposition - Process Area |
| 665300-4-W511-1 | 1 of 2 | Piping Transposition - Tank Farm |
| 665300-4-W511-2 | 2 of 2 | Piping Transposition - Tank Farm |
| 665300-4-W512 | 1 of 1 | Piping Transpositon - Storage Tank Room |
| 665300-4-W513 | 1 of 1 | Piping Transpositon - Sparger Room |
| 665300-4-W514 | 1 of 1 | Piping Transpositon - Solids Process Area |



V-14
DIESEL TANK
6'-0"ID X 24'-0"S/S
C.S.: HORIZONTAL
WORKING CAPACITY: 5076 GALLONS
V-14
M 24
H.P. HOSE
FLEX
1/2"-N-150
SPRING LOADED (4 WAY) CHECK VA.
SEE NOTES 3 & 4
N-112
P-11
P-11
DIESEL INJECTION PUMP
Δ P = 30 PSI
MOTOR: 10 HP, 1750 RPM
SOLVENT/LIQ. MAKE-UP, TANK V-3
665300-4-W404G
SOLID DISPERSER/ MIXER
P-5A
P-5
SEE NOTE 5
TANK FARM
665300-4-W404H
P-5, P-5A
VAUGHAN/GRINDER PUMP
Δ P = 30 PSI
MOTOR: 20 HP, 1780 RPM
BELT DRIVEN WITH GEAR BOX
DIAPHRAGM PUMP DETAILS
TYPICAL AIR OPERATED DIAPHRAGM PUMP(S) AND FLEXIBLE HOSES WITH QUICK CONNECTIONS ON BOTH ENDS ARE EXTENSIVELY USED IN PLANT OPERATIONS.
FLEXIBLE HOSE
AIR/EXHAUST OR VENT
AIR INTAKE
2" OR 3" FLEXIBLE HOSES
TAG NUMBERS:
PUMP NUMBERS:
P-6
P-7
P-8
P-9
P-10
P-29
P-30
P-31
P-32
P-6,7,8,9,10,29,30,31,32
AIR OPERATED DIAPHRAGM PUMP(S)
(PORTABLE)
- FIVE (5) PORTABLE PUMPS
- USE QUICK COUPLING CONNECTIONS FOR BOTH AIR AND PROCESS FLUIDS.
- PUMPS USED FOR LOADING, UNLOADING, TRANSFER BETWEEN TRUCKS, TANKS, DRUMS, AND MANIFOLDS.
- ALWAYS USE FLEXIBLE HOSES TO AND FROM THE PUMP
- RATE OF PUMPING IS CONTROLLED BY INTAKE AIR VOLUME AND PRESSURE.
NOTES:
1) FOR ADDITIONAL INFORMATION ON TAGGED ITEMS SEE THE COMPONENT/ EQUIPMENT DATA SHEET.
2) THIS DATA IS FOR EMISSION TESTING ONLY AND NOT TO BE USED FOR PROCESS CONSIDERATION.
3) HIGH PRESSURE DIESEL SUPPLY TO THE PROCESS AREA DRUM WASHING HP SPRAY NOZZLE ONLY.
4) DRUM RESTS ON SADDLE, MOTOR AND PUMP ARE SKID MOUNTED. HP PUMP IS BELT DRIVEN.
5) DUE TO HIGH SOLID CONTENT OF THE MIXED STREAM (FROM 20% TO 50%), SOLID SETTLING IS ALWAYS A PROBLEM. FOR UNPLUGGING PURPOSE, ALL THE PIPING, FILTER, AND THE PUMP ITSELF ARE DESIGNED FOR QUICK OPENING AND REASSEMBLY.
REVISED PER CLIENT'S COMMENTS
2/2/92 REVISED PER PROCESS AREA RENOVATION
5/92 REVISED PER COMMENTS FROM DENNIS NIVENS
7/92 REVISED PER COMMENTS FROM DAVID SHIMP
3/93 REVISED PER COMMENTS FROM DAVID SHIMP
4-W511-1 TANK FARM TRANSPOSITION
4-W510-1 PROCESS AREA TRANSPOSITION
4-W404 PLOT PLAN
USPCI
A Subsidiary of Union Pacific Corporation
FLUOR DANIEL
PIPING & INSTRUMENT DIAGRAM
PROCESS AREAS /V-17,P11 & P-5
PUMP DETAILS
WICHITA, KANSAS
665300-4-W404F
7 of 9
5




NOTES:

1) FOR ADDITIONAL INFORMATION ON TAGGED ITEMS SEE THE COMPONENT/ EQUIPMENT DATA SHEET.
2) THIS DATA IS FOR EMISSION TESTING ONLY AND NOT TO BE USED FOR PROCESS CONSIDERATION.

| REV | DATE | REVISION DESCRIPTION |
|---|---|---|
| 1 | | REVISED PER CLIENT COMMENTS |
| 2 | | REVISED PER PROCESS ARE RENOVATION |
| 3 | 8/92 | REVISED PER CLIENT COMMENT FROM DAVID SHIMP |
| 4 | 7/92 | REVISED PER CLIENT COMMENT FROM DAVID SHIMP |
| 5 | 3/93 | REVISED PER CLIENT COMMENT FROM DAVID SHIMP |

| DWG. NO. | REFERENCE DRAWING |
|---|---|
| 4-W404F | PROCESS AREA / P & ID |
| 4-W404H | TANK FARM ROOM 3 / P & ID |
| 4-W050 | PLOT PLAN |
| 4-W510-2 | TRANS. PROCESS AREA |

USPCI
A Subsidiary of Union Pacific Corporation

FLUOR DANIEL

DRAWN BY: C.L. AMES
CHECKED BY: W. SCOTT

PIPING TRANSPOSITION
PROCESS AREA
WICHITA, KANSAS

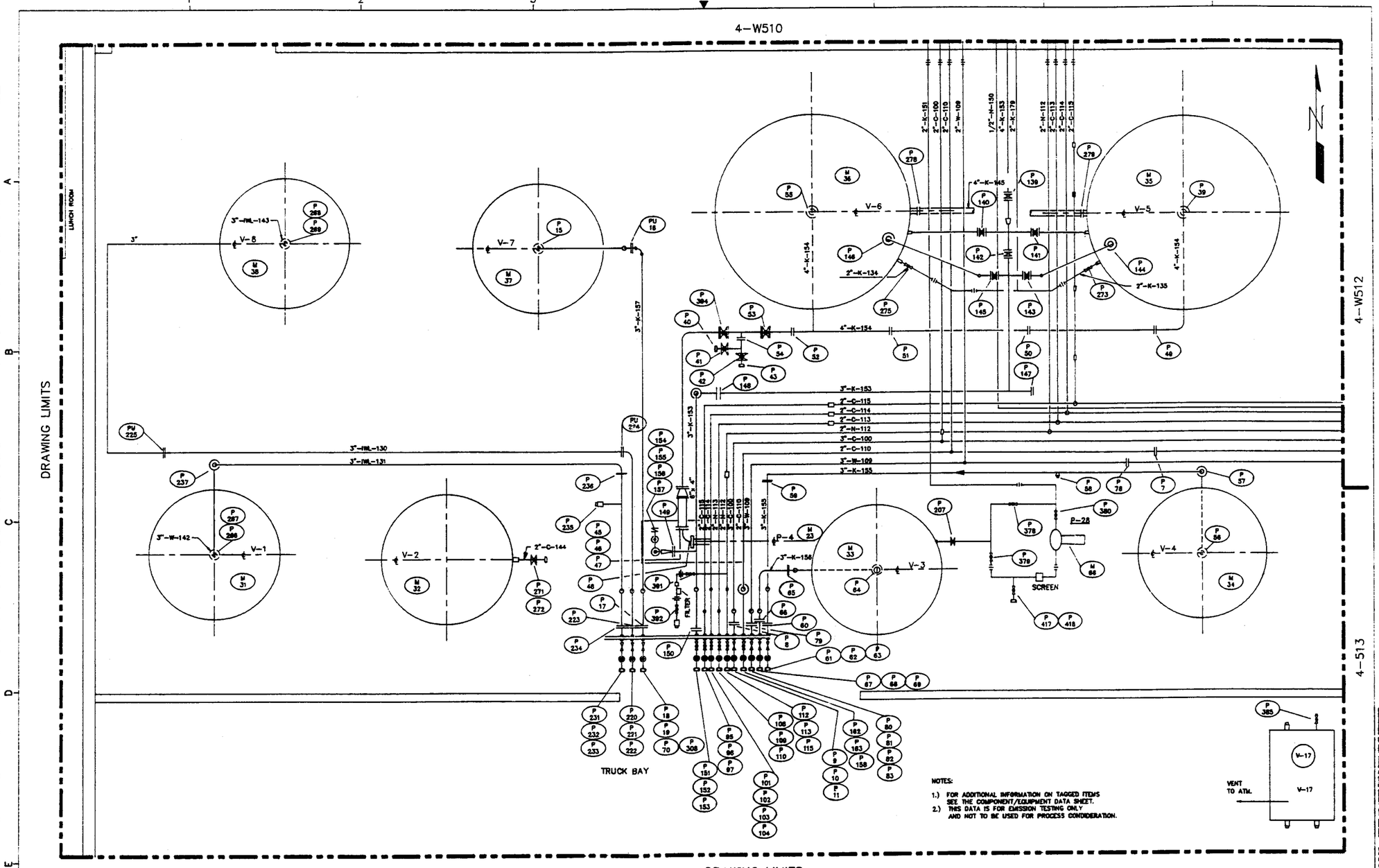
665300-4-W510-1

SHEET 1 of 2

REVISION 5

3/21/91

FILE NAME: W510-1




NOTES:

1.) FOR ADDITIONAL INFORMATION ON TAGGED ITEMS SEE THE COMPONENT/EQUIPMENT DATA SHEET.
2.) THIS DATA IS FOR EMISSION TESTING ONLY AND NOT TO BE USED FOR PROCESS CONSIDERATION.

| NO. | DATE | REVISION DESCRIPTION | DRAWN | CHECK | APP. | STRUCT. | PIPING | VESSEL | ELEC. | CONTROL | DWG. NO. | REFERENCE DRAWING |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | REVISED PER CLIENT COMMENTS | | | | | | | | | 4-W050 | PLOT PLAN |
| 2 | 12/91 | REVISED PER WICHITA RENOVATIONS | | | | | | | | | 4-W511-2 | TANK FARM TRANSPOSITION |
| 3 | 6/92 | REVISED PER WICHITA RENOVATIONS | | | | | | | | | 4-W404G | TANK FARM I TRANSPOSITION |
| 4 | 7/92 | REVISED PER WICHITA RENOVATIONS | | | | | | | | | 4-W404H | TANK FARM II TRANSPOSITION |
| 5 | 3/93 | REVISED PER WICHITA RENOVATIONS | | | | | | | | | | |

USPCI
A Subsidiary of Union Pacific Corporation

FLUOR DANIEL

DESIGNED BY G.L. AMES
CHECKED BY D.C.
SUPERVISOR M.T.L.
SUPERVISOR ENGR. R.C.
PROJECT ENGR. C.M.
CLIENT
RELEASE DATE
SCALE
DRAWING NUMBER 665300-4-W511-1
SHEET 1 of 2
REVISION 5

PIPING TRANSPOSITION
TANK FARM
WICHITA, KANSAS

02/13/91 FILE NAME : W511-1

# Appendix N-D - Equipment Lists

Appendix N-D.1 - Piping Component Data Sheets

Appendix N-D.2 - Piping Line List

Appendix N-D.3 - Equipment Data Sheets

Appendix N-D.4 - Location of Equipment Monitoring Points

# Appendix N-D.1 - Piping Component Data Sheets

# PIPING COMPONENT DATA SHEETS

For purposes of this project, piping components are identified as any device in a pipe line, where a potential "break" could occur, which would cause harmful fluids or vapors to leak into the environment. Examples of piping components are: valves, flanges, in-line instruments, fittings, nozzles, drains, etc.

## BACK GROUND TO FORM DEVELOPMENT

The "component/Equipment Data Sheet" form was developed especially for this project in response to USPCI's request for specific data as detailed in different sections of their "Request for Proposal". The primary purpose of this form is to identify, catalog and document those components which require emission test monitoring, per USPCI's interpretation of EPA regulations.

This form was submitted for review and approval with Flour Daniels's official proposal. The form was modified slightly and approved for use in its present format on 12 Nov 1990, by Mr. Dave Coker, USPCI project manager.

This set of "Piping Component Data Sheets" is arranged in "P-xxx" tag number sequence.

The form itself, which is a Lotus 1-2-3 spread sheet, was created to record data for both mechanical equipment and piping components. The form contains 5 columns. These five columns are:

1. Tag Number: This is the number of the aluminum write-on tag that is attached to a particular component. For the purpose of distinguishing pipe tags from mechanical tags, it was agreed that piping component tags would be assigned a "P" prefix and mechanical equipment tags would be given an "M" prefix. It should be noted that some tag numbers are identical except for having a different alpha character suffix. Usually the situation applies to valves where the valve stem and both flanges require testing. In this case the valve would be numbered P-001, one flange would be P-001a and the other flange would be P-001b. It is also important to note that their were some cases - for reasons of safety - when Flour Daniels personnel could not safely reach a particular component that required a tag. These cases are identified by a "U" suffix to the tag number (i.e. P-xxx U). This suffix indicates that Flour Daniel personnel were unable to attach a tag.

2. Location: The location column is used to identify the most prominent land mark or area in or near which the tagged component can be found. In most cases, the closest piece of equipment is listed.

3. Component/Equipment Name: This column will record the diameter dimension - in inches - and the name of the piping device being listed. In order to be able to group and sort on this column, the devices are listed in a standardized order, first by primary category, then by type and then by method of attachment.

4. Line/Equipment Identification Number: This column is used to identify the number of the pipe line in which the component is installed. The "Pipe Line Number" is assigned in accordance with the procedure described earlier in this manual.

5. Product or service: This column identifies the most common product that flows through a pipe line or the most common utility service the line is supporting. The only products this project is focusing on are Kiln Fuels, Chlorinated Solvents, Non-chlorinated Solvents, Waste Oil, Waste Water, and Incineration Waste Liquids.

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UNITED STATES POLLUTION CONTROL INC. USPCI P. O. No. 90
HYDROCARBON RECYCLERS INC. - PROJECT FD CONTRACT No. 66
PLANT LOCATION: WICHITA

| TAG No. | LOCATION | LINE SIZE INCH | COMPONENT / EQUIPMENT NAME | COMP. SHTEQUIP. No.ID No. | PRODUCT or SERVICE |
|---|---|---|---|---|---|
| P-001U | SOLV.ROOM | 2" | VALVE (BALL SCREWED) | C-100 | CHLORIDE |
| P-002U | SOLV.ROOM | 2" | VALVE (BALL SCREWED) | C-100 | CHLORIDE |
| P-003U | SOLV.ROOM | 2" | VALVE (BALL SCREWED) | C-100 | CHLORIDE |
| P-004U | SOLV.ROOM | 2" | VALVE (BALL SCREWED) | C-100 | CHLORIDE |
| P-005U | SOLV.ROOM | 2" | VALVE (BALL SCREWED) | C-100 | CHLORIDE |
| P-006U | SOLV.ROOM | 3" | FLANGE (150 #, R.F.) | C-100 | CHLORIDE |
| P-007 | TANK FARM | 3" | FLANGE (150 #, R.F.) | C-100 | CHLORIDE |
| P-008 | TANK FARM | 3" | FLANGE (150 #, R.F.) | C-100 | CHLORIDE |
| P-009 | TANK FARM | 3" | VALVE (GATE - SCREWED) | C-100 | CHLORIDE |
| P-010 | TANK FARM | 3" | HOSE CONNECTION | C-100 | CHLORIDE |
| P-011 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | C-100 | CHLORIDE |
| P-012 | TANK FARM | 2" | VALVE (BALL SCREWED) | C-100 | CHLORIDE |
| P-013 | TANK FARM | 2" | HOSE CONNECTION | C-100 | CHLORIDE |
| P-014 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | C-100 | CHLORIDE |
| P-015 | TANK FARM | 3" | VALVE (GATE) | K-157 | KLN FUEL |
| P-015A | TANK FARM | 3" | FLANGE (150 #) | K-157 | KLN FUEL |
| P-015B | TANK FARM | 3" | FLANGE (150 #) | K-157 | KLN FUEL |
| PU-016 | TANK FARM | 3" | FLANGE (150 #, SLIP ON) | K-157 | KLN FUEL |
| P-017 | TANK FARM | 3" | FLANGE (150 #, SLIP ON) | K-157 | KLN FUEL |
| P-018 | TANK FARM | 3" | VALVE (GATE - SCREWED) | K-157 | KLN FUEL |
| P-019 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | K-157 | KLN FUEL |
| P-020 | COND. RM | 3" | VALVE (GATE - SCREWED) | C-101 | CHLORIDE |
| P-021 | COND. RM | 1" | VALVE (GATE - SCREWED) | C-101 | CHLORIDE |
| P-022 | COND. RM | 2" | FLANGE (300 # SCREWED) | C-101 | CHLORIDE |
| P-023 | COND. RM | 2" | FLANGE (300 # SCREWED) | C-101 | CHLORIDE |
| P-024 | COND. RM | 2" | VALVE (GATE - SCREWED) | C-101 | CHLORIDE |
| P-025 | COND. RM | 1" | VALVE (GATE - SCREWED) | C-101 | CHLORIDE |
| P-026 | COND. RM | 2" | VALVE (GATE - SCREWED) | C-101 | CHLORIDE |
| P-027 | COND. RM | 3" | HOSE CONNECTION | C-101 | CHLORIDE |
| P-028 | COND. RM | 3" | HOSE CONNECTION | C-101 | CHLORIDE |
| P-029 | COND. RM | 1" | HOSE CONNECTION | C-101 | CHLORIDE |
| P-030 | COND. RM | 1" | VALVE (GATE - SCREWED) | C-102 | CHLORIDE |
| P-031 | COND. RM | 1" | ELBOW (OPEN) | C-102 | CHLORIDE |
| P-032 | COND. RM | 1" | VALVE (BALL SCREWED) | C-102 | CHLORIDE |
| P-033 | COND. RM | 1" | VALVE (BALL SCREWED) | C-102 | CHLORIDE |
| P-034 | COND. RM | 1" | OPEN PIPE | C-102 | CHLORIDE |
| P-035 | COND. RM | 2" | VALVE (GATE - SCREWED) | C-102 | CHLORIDE |
| P-036 | COND. RM | 2" | HOSE CONNECTION | C-102 | CHLORIDE |
| P-039 | TANK FARM | 4" | VALVE (BALL - FLANGED) | K-154 | KLN FUEL |
| P-039A | TANK FARM | 4" | FLANGE (150 #) | K-154 | KLN FUEL |
| P-039B | TANK FARM | 4" | FLANGE (150 #) | K-154 | KLN FUEL |
| P-040U | TANK FARM | 4" | FLANGE (150 #) & BLIND | K-154 | KLN FUEL |
| P-041 | TANK FARM | 4" | VALVE (GATE - 150 #) | K-154 | KLN FUEL |
| P-041A | TANK FARM | 4" | FLANGE (150 #) | K-154 | KLN FUEL |
| P-041B | TANK FARM | 4" | FLANGE (150 #) | K-154 | KLN FUEL |

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UNITED STATES POLLUTION CONTROL INC. USPCI P. O. No. 90
HYDROCARBON RECYCLERS INC. - PROJECT FD CONTRACT No. 66
PLANT LOCATION: WICHITA

| TAG No. | LOCATION | LINE SIZE INCH | COMPONENT / EQUIPMENT NAME | COMP. SHTEQUIP. No. ID No. | PRODUCT or SERVICE |
|---|---|---|---|---|---|
| P-042 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | K-154 | KLN FUEL |
| P-043 | TANK FARM | 4" | FLANGE (150 #) & BLIND | K-154 | KLN FUEL |
| P-044 | TANK FARM | 4" | VALVE (BALL 150#) | K-154 | KLN FUEL |
| P-044A | TANK FARM | 4" | FLANGE (150 # - SLIP ON) | K-154 | KLN FUEL |
| P-044B | TANK FARM | 4" | FLANGE (150 # - SLIP ON) | K-154 | KLN FUEL |
| P-045 | TANK FARM | 4" | FLANGE (150 #) | K-154 | KLN FUEL |
| P-046 | TANK FARM | 6" | FLANGE (150 #) | K-154 | KLN FUEL |
| P-047 | TANK FARM | 6" | FLANGE (150 #) | K-154 | KLN FUEL |
| P-048 | TANK FARM | 6" | FLANGE (150 #) | K-154 | KLN FUEL |
| P-049 | TANK FARM | 4" | FLANGE (150 #) | K-154 | KLN FUEL |

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UNITED STATES POLLUTION CONTROL INC. USPCI P. O. No. 90
HYDROCARBON RECYCLERS INC. - PROJECT FD CONTRACT No. 66
PLANT LOCATION: WICHITA

| TAG No. | LOCATION | LINE SIZE INCH | COMPONENT / EQUIPMENT NAME | COMP. SHTEQUIP. No.ID No. | PRODUCT or SERVICE |
|---|---|---|---|---|---|
| P-050 | TANK FARM | 4" | HOSE COUPLING | K-154 | KLN FUEL |
| P-051 | TANK FARM | 4" | FLANGE (150 #) & BLIND | K-154 | KLN FUEL |
| P-052 | TANK FARM | 4" | VALVE (BALL 150#) | K-154 | KLN FUEL |
| P-052A | TANK FARM | 4" | FLANGE (150 # - SLIP ON) | K-154 | KLN FUEL |
| P-052B | TANK FARM | 4" | FLANGE (150 # - SLIP ON) | K-154 | KLN FUEL |
| P-053 | TANK FARM | 4" | FLANGE (150 # - SLIP ON) | K-154 | KLN FUEL |
| P-054 | TANK FARM | 4" | FLANGE (150 #) & BLIND | K-154 | KLN FUEL |
| P-055 | TANK FARM | 4" | VALVE (BALL - 150 #) | K-154 | KLN FUEL |
| P-055A | TANK FARM | 4" | FLANGE (150 #) | K-154 | KLN FUEL |
| P-055B | TANK FARM | 4" | FLANGE (150 #) | K-154 | KLN FUEL |
| P-056 | TANK FARM | 3" | VALVE (GATE - 150 #) | K-155 | KLN FUEL |
| P-056A | TANK FARM | 3" | FLANGE (150 #) | K-155 | KLN FUEL |
| P-056B | TANK FARM | 3" | FLANGE (150 #) | K-155 | KLN FUEL |
| P-057 | TANK FARM | 3" | FLANGE (150 #) | K-155 | KLN FUEL |
| P-058 | TANK FARM | 2" | PLUG (SCREWED) | K-155 | KLN FUEL |
| P-059 | TANK FARM | 3" | FLANGE (150 #) | K-155 | KLN FUEL |
| P-060 | TANK FARM | 3" | FLANGE (150 #) | K-155 | KLN FUEL |
| P-061 | TANK FARM | 3" | VALVE (GATE-150 # SCRWD) | K-155 | KLN FUEL |
| P-062 | TANK FARM | 3" | HOSE CONNECTION | K-155 | KLN FUEL |
| P-063 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | K-155 | KLN FUEL |
| P-064 | TANK FARM | 3" | VALVE (BALL-150 # FLNGD) | K-156 | KLN FUEL |
| P-064A | TANK FARM | 3" | FLANGE (150 #) | K-156 | KLN FUEL |
| P-064B | TANK FARM | 3" | FLANGE (150 #) | K-156 | KLN FUEL |
| P-065 | TANK FARM | 3" | FLANGE (150 #) | K-156 | KLN FUEL |
| P-066 | TANK FARM | 3" | FLANGE (150 #) | K-156 | KLN FUEL |
| P-067 | TANK FARM | 3" | VALVE (GATE - SCREWED) | K-156 | KLN FUEL |
| P-068 | TANK FARM | 3" | HOSE CONNECTION | K-156 | KLN FUEL |
| P-069 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | K-156 | KLN FUEL |
| P-070 | TANK FARM | 3" | HOSE CONNECTION | K-157 | KLN FUEL |
| P-072 | COND. RM | 2" | VALVE (GATE - SCREWED) | C-104 | CHLORIDE |
| P-073U | COND. RM | 2" | VALVE (CHECK - SCREWED) | C-104 | CHLORIDE |
| P-074U | SOLV.ROOM | 3" | VALVE (GATE - SCREWED) | W-109 | WATER |
| P-075U | SOLV.ROOM | 3" | FLANGE (SCREWED) | W-109 | WATER |
| P-076U | SOLV.ROOM | 3" | FLANGE (RAISED FACE) | W-109 | WATER |
| P-077U | SOLV.ROOM | 3" | FLANGE (RAISED FACE) | W-109 | WATER |
| P-079 | TANK FARM | 3" | FLANGE (RAISED FACE) | W-109 | WATER |
| P-080 | TANK FARM | 3" | VALVE (GATE - SCREWED) | W-109 | WATER |
| P-081 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | W-109 | WATER |
| P-082 | TANK FARM | 1/2" | OPEN PIPE | W-109 | WATER |
| P-083 | TANK FARM | 3" | HOSE CONNECTION | W-109 | WATER |
| P-085U | SOLV.ROOM | 2" | VALVE (BALL SCREWED) | C-111 | CHLORIDE |
| P-086U | SOLV.ROOM | 2" | VALVE (BALL SCREWED) | C-110 | CHLORIDE |
| P-087U | SOLV.ROOM | 2" | VALVE (BALL SCREWED) | C-110 | CHLORIDE |
| P-088U | SOLV.ROOM | 2" | VALVE (BALL SCREWED) | C-115 | CHLORIDE |
| P-089U | SOLV.ROOM | 2" | VALVE (BALL SCREWED) | C-114 | CHLORIDE |

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UNITED STATES POLLUTION CONTROL INC. USPCI P. O. No. 90
HYDROCARBON RECYCLERS INC. - PROJECT FD CONTRACT No. 66
PLANT LOCATION: WICHITA

| TAG No. | LOCATION | LINE SIZE INCH | COMPONENT / EQUIPMENT NAME | COMP. SHTEQUIP. No. ID No. | PRODUCT or SERVICE |
|---|---|---|---|---|---|
| P-090U | SOLV.ROOM | 2" | VALVE (BALL SCREWED) | C-113 | CHLORIDE |
| P-091U | SOLV.ROOM | 2" | VALVE (BALL SCREWED) | N-112 | NON-CHLOR |
| P-092 | PROC AREA | 2" | VALVE (BALL SCREWED) | C-115 | CHLORIDE |
| P-093 | PROC AREA | 1/2" | VALVE (BALL SCREWED) | C-115 | CHLORIDE |
| P-094 | PROC AREA | 2" | HOSE CONNECTION | C-115 | CHLORIDE |
| P-095 | TANK FARM | 2" | VALVE (BALL SCREWED) | C-115 | CHLORIDE |
| P-096 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | C-115 | CHLORIDE |
| P-097 | TANK FARM | 2" | HOSE CONNECTION | C-115 | CHLORIDE |
| P-098 | PROC AREA | 2" | VALVE (BALL SCREWED) | C-114 | CHLORIDE |
| P-099 | PROC AREA | 1/2" | VALVE (BALL SCREWED) | C-114 | CHLORIDE |
| P-100 | PROC AREA | 2" | HOSE CONNECTION | C-114 | CHLORIDE |
| P-101 | TANK FARM | 2" | VALVE (BALL SCREWED) | C-114 | CHLORIDE |
| P-102 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | C-114 | CHLORIDE |
| P-103 | TANK FARM | 1/2" | DRAIN (OPEN) | C-114 | CHLORIDE |
| P-104 | TANK FARM | 2" | HOSE CONNECTION | C-114 | CHLORIDE |
| P-105 | PROC AREA | 2" | VALVE (BALL SCREWED) | C-113 | CHLORIDE |
| P-106 | PROC AREA | 1/2" | VALVE (BALL SCREWED) | C-113 | CHLORIDE |
| P-107 | PROC AREA | 2" | HOSE CONNECTION | C-113 | CHLORIDE |
| P-108 | TANK FARM | 2" | VALVE (BALL SCREWED) | C-113 | CHLORIDE |
| P-109 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | C-113 | CHLORIDE |

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UNITED STATES POLLUTION CONTROL INC. USPCI P. O. No. 90
HYDROCARBON RECYCLERS INC. - PROJECT FD CONTRACT No. 66
PLANT LOCATION: WICHITA

| TAG No. | LOCATION | LINE SIZE INCH | COMPONENT / EQUIPMENT NAME | COMP. SHTEQUIP. No. ID No. | PRODUCT or SERVICE |
|---|---|---|---|---|---|
| P-110 | TANK FARM | 2" | HOSE CONNECTION | C-113 | CHLORIDE |
| P-111 | PROC AREA | 2" | PLUG | N-112 | NON-CHLOR |
| P-112 | TANK FARM | 2" | VALVE (BALL SCREWED) | N-112 | NON-CHLOR |
| P-113 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | N-112 | NON-CHLOR |
| P-114 | PROC AREA | 3&2" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-115 | TANK FARM | 2" | HOSE CONNECTION | N-112 | NON-CHLOR |
| P-116 | PROC AREA | 4" | VALVE (PLUG - 150 #) | K-152 | KLN FUEL |
| P-116A | PROC AREA | 4" | FLANGE NOZZLE (150 #) | K-152 | KLN FUEL |
| P-116B | PROC AREA | 4" | FLANGE (150 # - SLIP ON) | K-152 | KLN FUEL |
| P-120 | PROC AREA | 4" | FLANGE (150 # STRAINER) | K-152 | KLN FUEL |
| P-120A | PROC AREA | 4" | FLANGE (150 # STRAINER) | K-152 | KLN FUEL |
| P-121 | PROC AREA | 4" | FLANGE (150 #) PUMP NOZZ | K-152 | KLN FUEL |
| P-122 | PROC AREA | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-123 | PROC AREA | 3" | VALVE (GATE 150# FLANGED | K-153 | KLN FUEL |
| P-123A | PROC AREA | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-123B | PROC AREA | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-128 | PROC AREA | 3" | VALVE (PLUG - 150 #) | K-153 | KLN FUEL |
| P-128A | PROC AREA | 3" | NOZZLE (150 #) VAT | K-153 | KLN FUEL |
| P-128B | PROC AREA | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-129 | PROC AREA | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-130U | PROC AREA | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-132 | PROC AREA | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-133 | PROC AREA | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-134 | PROC AREA | 4" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-135 | PROC AREA | 4" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-136 | PROC AREA | 4" | VALVE (BALL SCREWED) | K-153 | KLN FUEL |
| P-137 | PROC AREA | 1/2" | VALVE (BALL SCREWED) | K-153 | KLN FUEL |
| P-138 | PROC AREA | 4" | HOSE CONNECTION | K-153 | KLN FUEL |
| P-139 | TANK FARM | 4" | VALVE (GATE - 150 #) | K-153 | KLN FUEL |
| P-139A | TANK FARM | 4" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-139B | TANK FARM | 4" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-140 | TANK FARM | 3" | VALVE (GATE - 150 #) | K-153 | KLN FUEL |
| P-140A | TANK FARM | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-140B | TANK FARM | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-141 | TANK FARM | 3" | VALVE (GATE - 150 #) | K-153 | KLN FUEL |
| P-141A | TANK FARM | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-141B | TANK FARM | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-142 | TANK FARM | 3" | VALVE (GATE - 150 #) | K-153 | KLN FUEL |
| P-142A | TANK FARM | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-142B | TANK FARM | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-143 | TANK FARM | 3" | VALVE (GATE - 150 #) | K-153 | KLN FUEL |
| P-143A | TANK FARM | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-143B | TANK FARM | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-144 | TANK FARM | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-145 | TANK FARM | 3" | VALVE (GATE - 150 #) | K-153 | KLN FUEL |

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UNITED STATES POLLUTION CONTROL INC. USPCI P. O. No. 90
HYDROCARBON RECYCLERS INC. - PROJECT FD CONTRACT No. 66
PLANT LOCATION: WICHITA

| TAG No. | LOCATION | LINE SIZE INCH | COMPONENT / EQUIPMENT NAME | COMP. SHTEQUIP. No.ID No. | PRODUCT or SERVICE |
|---|---|---|---|---|---|
| P-145A | TANK FARM | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-145B | TANK FARM | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-146 | TANK FARM | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-147 | TANK FARM | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-148 | TANK FARM | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-149 | TANK FARM | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-150 | TANK FARM | 3" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-151 | TANK FARM | 3" | VALVE (BALL SCREWED) | K-153 | KLN FUEL |
| P-152 | TANK FARM | 1" | VALVE (BALL SCREWED) | K-153 | KLN FUEL |
| P-153 | TANK FARM | 3" | HOSE CONNECTION | K-153 | KLN FUEL |
| P-154 | TANK FARM | 1" | VALVE (CHECK - SCREWED) | K-153 | KLN FUEL |
| P-155 | TANK FARM | 1" | VALVE (BALL SCREWED) | K-153 | KLN FUEL |
| P-156 | TANK FARM | 4" | VALVE (BALL 150#) | K-153 | KLN FUEL |
| P-156A | TANK FARM | 4" | FLANGE (150 #) | K-153 | KLN FUEL |
| P-156B | TANK FARM | 4" | FLANGE (150 #)@ EXP.JNT. | K-153 | KLN FUEL |
| P-157 | TANK FARM | 4" | FLANGE (150 #)@ PUMP | K-153 | KLN FUEL |
| P-158 | TANK FARM | 2" | HOSE CONNECTION | C-110 | CHLORIDE |
| P-159 | TANK FARM | 2" | VALVE (BALL SCREWED) | C-110 | CHLORIDE |
| P-160 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | C-110 | CHLORIDE |
| P-161 | TANK FARM | 2" | HOSE CONNECTION | C-110 | CHLORIDE |

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UNITED STATES POLLUTION CONTROL INC. USPCI P. O. No. 90
HYDROCARBON RECYCLERS INC. - PROJECT FD CONTRACT No. 66
PLANT LOCATION: WICHITA

| TAG No. | LOCATION | LINE SIZE INCH | COMPONENT / EQUIPMENT NAME | COMP. SHTEQUIP. No.ID No. | PRODUCT or SERVICE |
|---|---|---|---|---|---|
| P-162 | TANK FARM | 2" | VALVE (BALL SCREWED) | C-110 | CHLORIDE |
| P-163 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | C-110 | CHLORIDE |
| P-207 | TANK FARM | 2" | VALVE (BALL SCREWED) | K-151 | KLN FUEL |
| P-208 | TANK FARM | 2" | VALVE (BALL SCREWED) | K-151 | KLN FUEL |
| P-209 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | K-151 | KLN FUEL |
| P-210 | TANK FARM | 2" | HOSE CONNECTION | K-151 | KLN FUEL |
| P-213 | PROC AREA | 1" | VALVE (BALL SCREWED) | K-151 | KLN FUEL |
| P-214 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | N-150 | NON-CHLOR |
| P-216U | PROC AREA | 1/2" | HOSE CONNECTION | N-150 | NON-CHLOR |
| P-217U | PROC AREA | 1/2" | HOSE CONNECTION | N-150 | NON-CHLOR |
| P-218 | TANK FARM | 2" | VALVE (GATE - SCREWED) | N-149 | NON-CHLOR |
| P-218A | V-14 | 2" | BALL VALVE | N-149 | NON-CHLOR |
| P-219 | TANK FARM | 2" | BALL VALVE | N-149 | NON-CHLOR |
| P-220 | TANK FARM | 3" | HOSE CONNECTION | I-130 | NON-CHLOR * |
| P-221 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | I-130 | OIL WTR |
| P-222 | TANK FARM | 3" | VALVE (GATE - SCREWED) | I-130 | OIL WTR |
| P-223 | TANK FARM | 3" | FLANGE (RAISED FACE) | I-130 | OIL WTR |
| P-224U | TANK FARM | 3" | FLANGE (RAISED FACE) | I-130 | OIL WTR |
| P-225U | TANK FARM | 3" | FLANGE (RAISED FACE) | I-130 | OIL WTR |
| P-226 | TANK FARM | 2" | VALVE (BALL SCREWED) | K-148 | KLN FUEL |
| P-227U | TANK FARM | 2" | CAP (SCREWED) | K-148 | KLN FUEL |
| P-228 | TANK FARM | 2" | VALVE (BALL SCREWED) | K-148 | KLN FUEL |
| P-229 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | K-148 | KLN FUEL |
| P-230 | TANK FARM | 2" | HOSE CONNECTION | K-148 | KLN FUEL |
| P-231 | TANK FARM | 3" | VALVE (GATE - SCREWED) | I-131 | OIL WTR |
| P-232 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | I-131 | OIL WTR |
| P-233 | TANK FARM | 3" | HOSE CONNECTION | I-131 | OIL WTR |
| P-234 | TANK FARM | 3" | FLANGE (RAISED FACE) | I-131 | OIL WTR |
| P-235 | TANK FARM | 2" | COUPLING | I-131 | OIL WTR |
| P-236 | TANK FARM | 3" | FLANGE (RAISED FACE) | I-131 | OIL WTR |
| P-237 | TANK FARM | 3" | FLANGE (RAISED FACE) | I-131 | OIL WTR |
| P-238 | TANK FARM | 2" | VALVE (BALL SCREWED) | K-146 | KLN FUEL |
| P-239 | TANK FARM | 2" | VALVE (BALL SCREWED) | I-147 | OIL WTR |
| P-240U | TANK FARM | 2" | CAP (SCREWED) | I-147 | OIL WTR |
| P-241 | TANK FARM | 2" | VALVE (BALL SCREWED) | I-147 | OIL WTR |
| P-242 | TANK FARM | 2" | HOSE CONNECTION | I-147 | OIL WTR |
| P-243 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | I-147 | OIL WTR |
| P-244 | TANK FARM | 1/2" | DRAIN LINE (OPEN) | I-147 | OIL WTR |
| P-246 | TANK FARM | 2" | HOSE CONNECTION | I-147 | OIL WTR |
| P-247 | TANK FARM | 1" | VALVE (BALL SCREWED) | K-146 | KLN FUEL |
| P-248 | TANK FARM | 1" | DRAIN (OPEN) | K-146 | KLN FUEL |
| P-249 | TANK FARM | 2" | VALVE (BALL SCREWED) | K-146 | KLN FUEL |
| P-250 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | K-146 | KLN FUEL |
| P-251 | TANK FARM | 2" | HOSE CONNECTION | K-146 | KLN FUEL |
| P-252 | TANK FARM | 2" | UNION (OPEN) | -132 | -- |

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UNITED STATES POLLUTION CONTROL INC. USPCI P. O. No. 90
HYDROCARBON RECYCLERS INC. - PROJECT FD CONTRACT No. 66
PLANT LOCATION: WICHITA

| TAG No. | LOCATION | LINE SIZE INCH | COMPONENT / EQUIPMENT NAME | COMP. SHTEQUIP. No.ID No. | PRODUCT or SERVICE |
|---|---|---|---|---|---|
| P-253 | TANK FARM | 2" | VALVE (BALL SCREWED) | -132 | -- |
| P-254 | 8.00 | 1/2" | VALVE (BALL SCREWED) | -132 | -- |
| P-255 | TANK FARM | 2" | HOSE CONNECTION | -132 | -- |
| P-256 | TANK FARM | 2" | VALVE (BALL SCREWED) | W-109 | WATER |
| P-257 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | W-109 | WATER |
| P-258 | TANK FARM | 2" | HOSE CONNECTION | W-109 | WATER |
| P-259 | TANK FARM | 2" | VALVE (BALL SCREWED) | C-141 | WATER |
| P-260 | TANK FARM | 1/2" | DRAIN (PLUGGED) | C-141 | WATER |
| P-261 | TANK FARM | 2" | VALVE (BALL SCREWED) | C-141 | WATER |
| P-262 | TANK FARM | 2" | HOSE CONNECTION | C-141 | WATER |
| P-263 | TANK FARM | 2" | HOSE CONNECTION | W-133 | WATER |
| P-264 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | W-133 | WATER |
| P-265 | TANK FARM | 2" | VALVE (BALL SCREWED) | W-133 | WATER |
| P-266 | TANK FARM | 3" | VALVE (PLUG-150 # FLNGD) | W-142 | WATER |
| P-266A | TANK FARM | 3" | NOZZLE (150# FLANGED) | W-142 | WATER |
| P-267 | TANK FARM | 3" | VALVE (BALL 150#) & H.C. | W-142 | WATER |
| P-268 | TANK FARM | 3" | VALVE (BALL-150 # FLNGD) | I-143 | OIL WTR |
| P-268A | TANK FARM | 3" | FLANGE (150 #) | I-143 | OIL WTR |
| P-269 | TANK FARM | 3" | FLANGE (150 #) & H.C. | I-143 | OIL WTR |
| P-270 | TANK FARM | 2" | VALVE (BALL SCREWED) | W-133 | WATER |

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UNITED STATES POLLUTION CONTROL INC. USPCI P. O. No. 90
HYDROCARBON RECYCLERS INC. - PROJECT FD CONTRACT No. 66
PLANT LOCATION: WICHITA

| TAG No. | LOCATION | LINE SIZE INCH | COMPONENT / EQUIPMENT NAME | COMP. SHTEQUIP. No. ID No. | PRODUCT or SERVICE |
|---|---|---|---|---|---|
| P-271 | TANK FARM | 2" | VALVE (BALL SCREWED) | C-144 | CHLORIDE |
| P-272 | TANK FARM | 2" | HOSE CONNECTION | C-144 | CHLORIDE |
| P-273 | TANK FARM | 2" | VALVE (BALL SCREWED) | K-135 | KLN FUEL |
| P-275 | TANK FARM | 2" | VALVE (BALL SCREWED) | K-134 | KLN FUEL |
| P-277 | TANK FARM | - | FLANGE (150 #) | K-145 | KLN FUEL |
| P-278 | TANK FARM | - | FLANGE (150 #) | K-145 | KLN FUEL |
| P-279 | TANK FARM | 1" | VALVE (BALL SCREWED) | I-137 | OIL WTR |
| P-294U | TANK FARM | 2" | FLANGE (150 #) | V-165 | VENT |
| P-295U | TANK FARM | 2" | FLANGE (150 #) | V-165 | VENT |
| P-296U | TANK FARM | 2" | FLANGE (150 #) | V-165 | VENT |
| P-297U | TANK FARM | 2" | FLANGE (150 #) | V-165 | VENT |
| P-298U | TANK FARM | 2" | FLANGE (150 #) | V-165 | VENT |
| P-299U | TANK FARM | 2" | FLANGE (150 #) | V-165 | VENT |
| P-300U | TANK FARM | 2" | FLANGE (150 #) | V-165 | VENT |
| P-301U | TANK FARM | 2" | FLANGE (150 #) | V-165 | VENT |
| P-302U | TANK FARM | 4" | FLANGE (150 #) | V-165 | VENT |
| P-303U | TANK FARM | 2" | FLANGE (150 #) | V-165 | VENT |
| P-304U | TANK FARM | 4" | FLANGE (150 #) | V-165 | VENT |
| P-305U | TANK FARM | 6" | FLANGE (150 #) | V-165 | VENT |
| P-307U | SOLV.ROOM | 1" | VALVE (BALL SCREWED) | C-124 | CHLORIDE |
| P-308 | TANK FARM | 1/2" | ELL (OPEN) | K-157 | KLN FUEL |
| P-309U | GRIND RM | 2" | FLANGE | C-101 | CHLORIDE |
| P-313U | GRIND RM | 2" | VALVE (BALL) | C-166 | CHLORIDE |
| P-314U | GRIND RM | 2" | FLANGE | C-166 | CHLORIDE |
| P-315U | GRIND RM | 2" | VALVE (BALL) | C-167 | CHLORIDE |
| P-316U | GRIND RM | 2" | FLANGE | C-167 | CHLORIDE |
| PU-317 | V-19 | '2" | BALL VALVE | C-170 | SOLVENT |
| PU-318 | V-19 | '2" | BALL VALVE | C-170 | SOLVENT |
| PU-319 | V-19 | '2" | BALL VALVE | C-170 | SOLVENT |
| PU319A | V-19 | '2" | BALL VALVE | C-170 | SOLVENT |
| P-320 | TANK FARM | 2" | VALVE (BALL SCREWED) | N-112 | NON-CHL |
| P-321 | TANK FARM | 2" | HOSE CONNECTION | N-112 | NON-CHL |
| P-323 | TANK FARM | 2" | VALVE (BALL SCREWED) | K-176 | KLN FUEL |
| P-324 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | K-176 | KLN FUEL |
| P-325 | TANK FARM | 2" | HOSE CONNECTION | K-176 | KLN FUEL |
| P-326 | PROC AREA | 2" | VALVE (BALL SCREWED) | K-176 | KLN FUEL |
| P-327 | PROC AREA | 1/2" | VALVE (BALL SCREWED) | K-176 | KLN FUEL |
| P-328 | PROC AREA | 2" | HOSE CONNECTION | K-176 | KLN FUEL |
| P-330 | TANK FARM | 2" | VALVE (BALL SCREWED) | K-177 | KLN FUEL |
| P-331 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | K-177 | KLN FUEL |
| P-332 | TANK FARM | 2" | HOSE CONNECTION | K-177 | KLN FUEL |
| P-333 | PROC AREA | 2" | VALVE (BALL SCREWED) | K-177 | KLN FUEL |
| P-334 | PROC AREA | 1/2" | VALVE (BALL SCREWED) | K-177 | KLN FUEL |
| P-335 | PROC AREA | 2" | HOSE CONNECTION | K-177 | KLN FUEL |
| P-337 | TANK FARM | 2" | VALVE (BALL SCREWED) | K-178 | KLN FUEL |

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UNITED STATES POLLUTION CONTROL INC. USPCI P. O. No. 90
HYDROCARBON RECYCLERS INC. - PROJECT FD CONTRACT No. 66
PLANT LOCATION: WICHITA

| TAG No. | LOCATION | LINE SIZE INCH | COMPONENT / EQUIPMENT NAME | COMP. SHTEQUIP. No. ID No. | PRODUCT or SERVICE |
|---|---|---|---|---|---|
| P-338 | TANK FARM | 1/2" | VALVE (BALL SCREWED) | K-178 | KLN FUEL |
| P-339 | TANK FARM | 2" | HOSE CONNECTION | K-178 | KLN FUEL |
| P-340 | PROC AREA | 2" | VALVE (BALL SCREWED) | K-178 | KLN FUEL |
| P-341 | PROC AREA | 1/2" | VALVE (BALL SCREWED) | K-178 | KLN FUEL |
| P-342 | PROC AREA | 2" | HOSE CONNECTION | K-178 | KLN FUEL |
| P-345 | PROC AREA | 4" | FLANGE | K-182 | KLN FUEL |
| P-346 | PROC AREA | 4" | VALVE (GATE FLANGED) | K-182 | KLN FUEL |
| P-347 | PROC AREA | 4" | FLANGE | K-182 | KLN FUEL |
| P-348 | PROC AREA | 6" | VALVE (PLUG - 150 #) | K-181 | KLN FUEL |
| P-349 | PROC AREA | 6" | FLANGE (150 # - SLIP ON) | K-181 | KLN FUEL |
| P-352 | PROC AREA | 6" | FLANGE (150 # STRAINER) | K-181 | KLN FUEL |
| P-353 | PROC AREA | 4" | FLANGE (150 #) PUMP NOZZ | K-181 | KLN FUEL |
| P-354 | PROC AREA | 4" | VALVE (GATE SCREWED) | K-181 | KLN FUEL |
| P-355 | PROC AREA | 4" | FLANGE (150 #) PUMP NOZZ | K-153 | KLN FUEL |
| P-356 | PROC AREA | 4" | VALVE (GATE SCREWED) | K-152 | KLN FUEL |
| P-358 | PROC AREA | 1" | VALVE (BALL SCREWED) | K-152 | KLN FUEL |
| P-359 | PROC AREA | 1" | VALVE (BALL SCREWED) | K-181 | KLN FUEL |
| P-361 | DISPERSER | 1" | BALL VALVE | | KLN FUEL |
| P-362 | DISPERSER | 3" | BALL VALVE | | KLN FUEL |

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UNITED STATES POLLUTION CONTROL INC. USPCI P. O. No. 90
HYDROCARBON RECYCLERS INC. - PROJECT FD CONTRACT No. 66
PLANT LOCATION: WICHITA

| TAG No. | LOCATION | LINE SIZE INCH | COMPONENT / EQUIPMENT NAME | COMP. SHTEQUIP. No. ID No. | PRODUCT or SERVICE |
|---|---|---|---|---|---|
| P-363 | DISPERSER | 3" | HOSE COUPLING | | KLN FUEL NON-CHL |
| P-365 | DISPERSER | 4" | FLANGE | K-182 | KLN-FUEL |
| P-366 | DISPERSER | 4" | FLANGE | K-182 | KLN-FUEL |
| P-368 | V-24 | 2" | BALL VALVE | | SOLVENT |
| P-369 | V-24 | 2" | BALL VALVE | | SOLVENT |
| P-371 | V-10 | 2" | BALL VALVE | C-110 | CHLORINATED |
| P-373 | TANK FARM | 4" | FLANGE | C-165 | CHLORINATED |
| P-374 | TANK FARM | 4" | FLANGE | C-165 | CHLORINATED |
| P-375 | PROC AREA | 2" | BALL VALVE | K-151 | KLN-FUEL |
| P-376 | PROC AREA | 2" | BALL VALVE | K-151 | KLN-FUEL |
| P-377 | PROC AREA | 2" | BALL VALVE | K-151 | KLN-FUEL |
| -378 | PROC AREA | 2" | HOSE CONNECTION | K-151 | KLN-FUEL |
| -379 | PROC AREA | 2" | BALL VALVE | K-179 | KLN-FUEL |
| P-380 | PROC AREA | 1/2" | BALL VALVE | K-179 | KLN-FUEL |
| P-381 | PROC AREA | 2" | HOSE CONNECTION | K-179 | KLN-FUEL |
| P-383 | TANK FARM | 2" | BALL VALVE | K-151 | KLN-FUEL |
| P-385 | TANK FARM | 1" | BALL VALVE | V-17 | KLN-FUEL |
| P-387 | COND. RM | 8" | HAND CONTROL VALVE | C-172 | CHLORINATED |
| P-388 | COND. RM | 8" | HAND CONTROL VALVE | C-172 | CHLORINATED |
| P-389 | COND. RM | 6" | BUTTERFLY VALVE | C-172 | CHLORINATED |
| P-390 | COND. RM | 3" | HOSE CONNECTION | C-172 | CHLORINATED |
| P-394 | SOLV.ROOM | 2" | HOSE CONNECTION | N-112 | NON-CHL |
| P-397 | COND. RM | 3/4" | GATE VALVE | V-24 | CHLORINATED |
| P-398 | COND. RM | 3/4" | GATE VALVE | V-24 | CHLORINATED |
| P-399 | COND. RM | 1" | BALL VALVE | V-24 | CHLORINATED |
| P-400 | COND. RM | 1" | HOSE CONNECTION | V-24 | CHLORINATED |
| P-405 | SOLV.ROOM | 1" | BALL VALVE | V-11 | CHLORINATED |
| P-406 | SOLV.ROOM | 2" | BALL VALVE | V-12 | CHLORINATED |
| P-407 | SOLV.ROOM | 2" | GATE VALVE | V-13 | CHLORINATED |
| P-408 | TANK FARM | 3" | FLANGE | K-156 | KLN-FUEL |
| P-409 | TANK FARM | 3" | FLANGE | K-156 | KLN-FUEL |
| P-410 | COND. RM | 2" | FLANGE | C-101 | CHLORINATED |
| P-411 | COND. RM | 2" | BALL VALVE | V-18 | CHLORINATED |
| P-412 | COND. RM | 3/4" | GATE VALVE | V-18 | CHLORINATED |
| P-413 | COND. RM | 3/4" | GATE VALVE | V-18 | CHLORINATED |
| P-415 | PROC AREA | 1" | HOSE CONNECTION | K-181 | KLN-FUEL |
| -416 | PROC AREA | 1" | HOSE CONNECTION | K-181 | KLN-FUEL |
| -417 | TANK FARM | 1" | BALL VALVE | K-151 | KLN-FUEL |

**********

UNITED STATES POLLUTION CONTROL INC. USPCI P. O. No. 90
HYDROCARBON RECYCLERS INC. - PROJECT FD CONTRACT No. 66
PLANT LOCATION: WICHITA

| TAG No. | LOCATION | LINE SIZE INCH | COMPONENT / EQUIPMENT NAME | COMP. SHTEQUIP. No. | ID No. | PRODUCT or SERVICE |
|---|---|---|---|---|---|---|
| P-418 | TANK FARM | 1" | HOSE CONNECTION | | K-151 | KLN-FUEL |
| P-419 | TANK FARM | 2" | BALL VALVE | | K-151 | |
| P-420 | PROC AREA | 2" | BALL VALVE | | K-152 | |

# Appendix N-D.2 - Piping Line List

# PIPING LINE LIST

Piping line lists have been developed for each HRI plant. These lists are computer generated off of the Autocad P & ID drawings. The lists identify each of the pipe lines that were included in the scope of the work. "Write-On" aluminum tags were attached to each piping component (valves, flanges, in-line devices, fittings, etc) that were installed in the lines. Water, air, utility and other lines carrying non-harmful products are specifically omitted from these lists, even though they may support the process lines that are included in this listing.

The "Line List Form" contains five columns. The information contained in each is as follows:

1. Line Number: The number of the pipe is indicated in this column.

2. Line Size: The diameter of the pipe line - in inches - is shown in this column.

3. Line Service: The service of the line (i.e. product being transported) is indicated in this column. For purposes of this project, the line service is limited to those identified on the "Pipe Line Numbering System" page proceeding this one.

4. From: This column indicates the origin or departure point of the listed pipe line.

5. To: This column indicates the final or destination point of the listed pipe line.

PIPE LINE LIST
WICHITA

Date: 05/17/93 By: DAS

| LINE NO. | SIZE | SERVICE | FROM | TO |
|---|---|---|---|---|
| 100 | 3" 2" | C | TANKS 15A, 15B, 15C, & 15D | LOWER NORTH & SOUTH MANIFOLDS |
| 101 | 3" 2" | C | CONDENSATE/SEPARATOR | CONDENSATE/SEPARATOR PUMP;DRYER & COND. |
| 102 | 2" 1" 3/4" | C | CONDENSATE SEPARATOR TRIM | |
| 108 | 2" | C | FUTURE WATER LINE IN SOLVENT ROOM | TANK FARM |
| 109 | 4" 3" 2" | W | V-16 | LOWER NORTH & SOUTH MANIFOLDS |
| 110 | 2" | C | V-9 & V-10 | LOWER NORTH & SOUTH MANIFOLDS |
| 112 | 2" | W | V-14 | UPPER NORTH & SOUTH MANIFOLDS |
| 113 | 2" | C | V-13 | LOWER NORTH & SOUTH MANIFOLDS |
| 114 | 2" | C | V-12 | LOWER NORTH & SOUTH MANIFOLDS |
| 115 | 2" | C | V-11 | LOWER NORTH & SOUTH MANIFOLDS |
| 130 | 3" | IWL | SOUTH MANIFOLD | V-8 |
| 131 | 3" | IWL | SOUTH MANIFOLD | V-8 |
| 132 | 2" | N | LOWER NORTH MANIFOLD | |
| 134 | 2" | K | V-6 DRAIN | |
| 135 | 2" | K | V-5 DRAIN | |
| 137 | 1" | IWL | V-8 | VENT LINE |
| 138 | 1" | IWL | V-7 | VENT LINE |
| 141 | 2" | C | V-2 | LOWER NORTH MANIFOLD |
| 142 | 3" | | V-1 OUTLET | |
| 143 | 3" | IWL | V-8 OUTLET | |
| 144 | 2" | C | V-2 OUTLET | |
| 145 | | X | V-5 | V-6 |
| 146 | 2" | X | V-4 | LOWER NORTH MANIFOLD |
| 147 | 2" | IWL | V-8 | LOWER NORTH MANIFOLD |
| 148 | 2" | X | V-7 | LOWER NORTH MANIFOLD |
| 149 | 2" | N | DEISEL TANK | DEISEL PUMP |
| 150 | 1/2" | N | DEISEL PUMP & TANK | MIXING VAT AREA |
| 151 | 6" | K | V-26 | K-153 |
| 152 | 6" | K | V-26 | K-153 |
| 153 | 4" | K | V-26 | VAUGHAN PUMP |
| 155 | 3" 2" 1/2" | K | V-4 | SOUTH MANIFOLD |
| 156 | 3" | K | V-3 | SOUTH MANIFOLD |
| 157 | 3" | K | V-7 | SOUTH MANIFOLD |
| 169 | 2" | C | DRYER | PORTABLE FILTER |
| 170 | 2" | C | PORTABLE FILTER | EXCHANGER |

PIPE LINE LIST
WICHITA

Date: 05/17/93 By: DAS

| LINE NO. | SIZE | SERVICE | FROM | TO |
|---|---|---|---|---|
| 171 | 8" | C | PICK UP HOODS | BLOWER |
| 172 | 8" | C | GRANULATOR | BLOWER |
| 173 | 8" | C | BLOWER | CYCLONE |
| 176 | 2" | K | NORTH MANIFOLD | PROCESS AREA |
| 177 | 2" | K | NORTH MANIFOLD | PROCESS AREA |
| 178 | 2" | K | NORTH MANIFOLD | PROCESS AREA |
| 179 | 2" | K | PROCESS AREA | V-26 |
| 181 | 6" | K | V-26 | DISPERSER |
| 182 | 4" | K | V-26 | DISPERSER |

# Appendix N-D.3 - Equipment Data Sheets

# EQUIPMENT DATA SHEETS

The equipment Data Sheets are used to identify, catalog and document that equipment which requires emission test monitoring. This set of "Equipment Data Sheets" is arranged first by process area or unit, then by equipment type and finally in "M-xxx" Tag number sequence. Their are 7 data columns and their uses are as follows:

1. Tag Number: This is the number of the aluminum write-on tag that Flour Daniel personnel attached to each piece of equipment. As mentioned earlier mechanical tags are assigned an "M" prefix. It is also important to note that their were some cases - for reasons of safety - when Flour Daniel people could not safely reach an equipment trim device even though it was recognized it should be tagged and tested. In these cases, a "U" suffix has been assigned to the tag number (i.e. "M-xxxU"). This means that Flour Daniel personnel were Unable to attach a tag.

2. Location: The location column is used to identify the location the equipment tag can be found. Generally this will either be "Tank Top" or "Ground Level".

3. Component/Equipment Name: This column gives the name of the listed equipment item.

4. Component/Equipment number: This column gives the equipment number.

5. Unit Process System: Data in this column identifies the "Processing Unit" the component is servicing or is in associated with.

6. P & ID Drawing Reference Number: This column references the drawing number of the P & ID on which the specific equipment item is shown.

7. Vendor / Fabricator: This column identifies the name of the company that fabricated the item of equipment listed. In the case of storage tanks and vessels, Flour daniel personnel could not find equipment name tags attached to the tank or vessel and consequently the data appearing in this column is N/A or Not Available. Pumps and other rotating equipment were the few equipment items on which name plates could be found.

UNITED STATES POLLUTION CONTROL INC.
HYDROCARBON RECYCLERS INC. – PROJECT
EQUIPMENT DATA SHEET – WICHITA
PLANT LOCATION: WICHITA FD CONTRACT No. 665300

| TAG No. | LOCATION | COMPONENT / EQUIPMENT NAME | COMP. EQUIP. ID No. | UNIT PROCESS SYSTEM | P & ID REF. DWG. | VENDOR / FABRICATOR |
|---|---|---|---|---|---|---|
| M–01 | GRND LVL | CONDEN SEPARATOR PUMP | P–1 | GRIND RM | W404A | GRUNDFOSS |
| M–02 | GRND LVL | CONDEN SEPARATOR TANK | V–18 | GRIND RM | W404A | |
| M–16 | UPPER LVL | SOLV STORE TANK | V–9 | SOL STOR | W404D | |
| M–17 | UPPER LVL | SOLV STORE TANK | V–10 | SOL STOR | W404D | |
| M–18 | UPPER LVL | SOLV STORE TANK | V–11 | SOL STOR | W404D | |
| M–19 | UPPER LVL | SOLV STORE TANK | V–12 | SOL STOR | W404D | |
| M–20 | UPPER LVL | SOLV STORE TANK | V–13 | SOL STOR | W404D | |
| M–21 | UPPER LVL | SOLV STORE TANK | V–14 | SOL STOR | W404D | |
| M–22 | UPPER LVL | SOLV STORE TANK | V–15 A | SOL STOR | W404E | |
| M–23 | GRND LVL | MANIFOLD TXFER PUMP | P–4 | TNK FARM | W404H | VAUGHN |
| M–24 | GRND LVL | GASOLINE STORAGE TANK | V–17 | SOL STOR | W404F | |
| M–25 | GRND LVL | DIESEL INJECTION PUMP | P–11 | DRUM PROC | W404F | CAT |
| M–28 | GRND LVL | PORTBL DIAPHM TXR PUMP | P–6 | DRUM PROC | W404F | ROPER |
| M–29 | GRND LVL | PORTBL DIAPHM TXR PUMP | P–7 | DRUM PROC | W404F | ROPER |
| M–30 | GRND LVL | PORTBL DIAPHM TXR PUMP | P–8 | DRUM PROC | W404F | ROPER |
| M–31 | TANK TOP | WASTE WATER | V–1 | TNK FARM | W404G | STECO |
| M–32 | TANK TOP | CHLOR RECYCLE SOLVENT | V–2 | TNK FARM | W404G | STECO |
| M–33 | TANK TOP | KILN FUEL TANK | V–3 | TNK FARM | W404G | STECO |
| M–34 | TANK TOP | KILN FUEL TANK | V–4 | TNK FARM | W404G | STECO |
| M–35 | TANK TOP | KILN FUEL TANK | V–5 | TNK FARM | W404H | |
| M–36 | TANK TOP | KILN FUEL TANK | V–6 | TNK FARM | W404H | |
| M–37 | TANK TOP | KILN FUEL TANK | V–7 | TNK FARM | W404H | STECO |
| M–38 | TANK TOP | INCINERATION WASTE LIQUD | V–8 | TNK FARM | W404H | STECO |
| M–39 | GRND LVL | PORTBL DIAPHM TXR PUMP | P–9 | DRUM PROC | W404F | ROPER |
| M–40 | GRND LVL | PORTBL DIAPHM TXR PUMP | P–10 | DRUM PROC | W404F | ROPER |
| M–41 | UPPER LVL | SOLV STORE TANK | V–15 B | SOL STOR | W404E | |
| M–42 | UPPER LVL | SOLV STORE TANK | V–15 C | SOL STOR | W404E | |
| M–43 | UPPER LVL | SOLV STORE TANK | V–15 D | SOL STOR | W404E | |
| M–44 | UPPER LVL | SOLV STORE TANK | V–16 | SOL STOR | W404E | |
| M–45 | GRND LVL | STEAM DRYER | V–19 | GRIND RM | W404A | |
| M–46 | GRND LVL | SHREDDER | V–20 | GRIND RM | W404A | |
| M–47 | GRND LVL | GRANULATOR | V–21 | GRIND RM | W404A | |
| M–48 | GRND LVL | CYCLONE | V–23 | GRIND RM | W404A | |
| M–49 | GRND LVL | BAGHOUSE | V–22 | GRIND RM | W404A | |
| M–50 | GRND LVL | COLLECTION TANK | V–24 | GRIND RM | W404A | |
| M–51 | GRND LVL | EXHAUST FAN | P–12 | GRIND RM | W404A | |
| M–52 | GRND LVL | SCREW CONVEYOR | CV–1 | GRIND RM | W404A | |
| M–53 | GRND LVL | CONDEN SEP. (DUP.M–02) | V–18 | GRIND RM | W404A | |
| M–54 | GRND LVL | PUMP (DUP.M–01) | P–18 | GRIND RM | W404A | |
| M–55 | GRND LVL | EXCHANGER | E–1 | GRIND RM | W404A | |
| M–56 | GRND LVL | GRINDING PUMP | P–5A | DRUM PROC | W404F | VAUGHN |
| M–58 | GRND LVL | GRINDING PUMP | P–5 | DRUM PROC | W404F | VAUGHN |
| M–62 | GRND LVL | SCREW CONVEYOR | CV–2 | GRIND RM | W404A | |
| M–66 | GRND LVL | CENTRIFUGAL PUMP | P–28 | TNK FARM | W510.1 | ING RAND |
| M–67 | GRND LVL | PORTBL DIAPHM TXR PUMP | P–32 | DRUM PRO | W404F | SANDPIPER |
| M–68 | GRND LVL | PORTBL DIAPHM TXR PUMP | P–29 | DRUN PRO | W404F | WILDEN |
| M–69 | GRND LVL | PORTBL DIAPHM TXR PUMP | P–30 | DRUN PRO | W404F | WILDEN |
| M–70 | GRND LVL | PORTBL DIAPHM TXR PUMP | P–31 | DRUN PRO | W404F | ARO |



TAGS M02 & M53 ARE THE SAME PIECE OF EQUIPMENT. TAGS M01 & M54 ARE THE SAME PIECE OF EQUIPMENT

# Appendix N-D.4 - Location of Equipment Monitoring Points

LOCATION OF EQUIPMENT MONITORING POINTS
Wichita Plant Only

This "Equipment Monitoring Location List" was developed for use at HRI's Wichita plant. Its purpose is to identify by location potential leak or emission points for the listed tanks. This list is in leiu of attaching an aluminum "Write-On Tag" as was done at the San Antonio plant.

The form contains eleven columns which are used as follows:

1. Tank Number: The tank identification number is shown in this column.

2. Tank Location: The process area location of the tank is provided in this column.

3. Contents / Service: The contents that the tank is normally expected to hold are listed in this column.

4. thru 9. Location on Tank of Potential Leak Points: A number is listed in the applicable location column to indicate the number of potential leak points that exist for that particular location on the tank.

10. Total: This column contains the total sum of all potential leak points that exist for the listed tank.

11. Comments: Special remarks pertaining to the tank are listed in this column.

UNITED STATES POLLUTION CONTROL INC.
HYDROCARBON RECYCLERS INC. – PROJECT

EQUIPMENT MONITORING POINTS

PLANT LOCATION: WICHITA

| TANK No. | LOCATION | CONTENTS/ SERVICE | NUMBER OF MONITOR POINT TOP | BOTTOM | NORTH | EAST | SOUTH | WEST | TOTAL | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|
| V–01 | K.F. STORE | WASTE WATER | 6 | | | 1 | 1 | 1 | 9 | |
| V–02 | K.F. STORE | CHLOR RECYCLE SOLVENT | 6 | | | 1 | 1 | | 8 | |
| V–03 | K.F. STORE | KILN FUEL | 3 | | | 2 | 1 | 5 | 11 | |
| V–04 | K.F. STORE | KILN FUEL | 6 | 1 | | 1 | | 1 | 9 | |
| V–05 | K.F. STORE | KILN FUEL | 6 | | 1 | 1 | 1 | 1 | 10 | |
| V–06 | K.F. STORE | KILN FUEL | 6 | | | | 1 | 1 | 8 | |
| V–07 | K.F. STORE | KILN FUEL | 6 | | 1 | 1 | | 1 | 9 | |
| V–08 | K.F. STORE | INCINERTR WASTE LIQUIDS | 6 | 1 | 1 | 1 | | 1 | 10 | |
| V–09 | SOLV STORE | CHLORINATED SOLVENTS | 3 | 2 | | | | | 5 | |
| V–10 | SOLV STORE | CHLORINATED SOLVENTS | 3 | 3 | | | | | 6 | |
| V–11 | SOLV STORE | CHLORINATED SOLVENTS | 3 | 2 | | | | | 5 | |
| V–12 | SOLV STORE | CHLORINATED SOLVENTS | 3 | 3 | | | | | 6 | |
| V–13 | SOLV STORE | CHLORINATED SOLVENTS | 4 | 3 | | | | | 7 | |
| V–14 | SOLV STORE | NON–CHLORINATED SOLVENTS | 4 | 3 | | | | | 7 | |
| V–15 A | SOLV STORE | WASTE OIL | 3 | 1 | 2 | | | | 6 | |
| V–15 B | SOLV STORE | WASTE OIL | 2 | 1 | 2 | | | | 5 | |
| V–15 C | SOLV STORE | WASTE OIL | 2 | 1 | 2 | | | | 5 | |
| V–15 D | SOLV STORE | WASTE OIL | 2 | 1 | 2 | | | | 5 | |
| V–16 | SOLV STORE | WASTE WATER | | 3 | | | | | 3 | |
| V–17 | SOLV STORE | GASOLINE TANK | 2 | | | 2 | | 1 | 5 | |
| V–26 | PROCESS | KILN FUEL | | | | 3 | | 1 | 4 | |
| | | | | | | | | | 143 | |

UNITED STATES POLLUTION CONTROL INC.
HYDROCARBON RECYCLERS INC

DATE: 17 MAY 93

WICHITA EQUIPMENT TRIM

PLANT LOCATION: WICHITA

PREPARED BY: DAS

| EQUIP No. | EQUIPMENT NAME | AREA UNIT | ACCESS HOLES | | INSTRUMENTATION | | | | | | VALVES | | | | VENT | PLUG | BLND FLNG | NZLE | OTHR | TOTAL | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MAN | HAND | TEMP | PRES | LEVL | SGHT | FLOW | OTHR | SAFTY | DRAIN | CONV | OTHER | | | | | | | |
| V-19 | STEAM DRYER | GRIND RM | | | 2 | | | | | | 2 | 2 | | 2 | | | | 5 | | 13 | |
| V-20 | SHREDDER | GRIND RM | | | | | | | | | | | | | | | | | 1 | 1 | |
| V-21 | GRINDER | GRIND RM | | | | | | | | | | | | | | | | | 2 | 2 | |
| V-23 | CYCLONE | GRIND RM | | | | | | | | | | | | | | | | 2 | 1 | 3 | |
| V-22 | BAGHOUSE | GRIND RM | | | | | | | | | | | | | | | | 1 | | 1 | |
| V-24 | COLLECTION TANK | GRIND RM | | 1 | | | | | | | | | | | | 2 | | 2 | | 5 | |
| P-12 | BLOWER | GRIND RM | | | | | | | | | | | | | | | | 2 | | 2 | |
| V-25 | SCREW CONVEYOR | GRIND RM | | | | | | | | | | | | 1 | | | | | 2 | 3 | |
| V-18 | CONDENSATE SEPARATOR | GRIND RM | | 1 | 1 | 2 | 1 | | | | 1 | 3 | 1 | | 1 | | | 3 | | 14 | |
| P-13 | PUMP | | | | | | | | | | | | | | | | | 2 | | 2 | |
| E-1 | EXCHANGER | | | | 1 | | | | | | | | | | | | | 4 | | 5 | |

# Appendix N-E - Equipment Designated As No Detectable Emissions

Be it known that I, as the designated authorizing individual for USPCI Hydrocarbon Recovery Services, Inc. of Wichita, have designated the following pumps as meeting the criteria from 40 CFR Part 265.1052, paragraphs (e)(1) through (3). These pumps are eligible for the exemption from the monthly monitoring required of pumps in light liquid hazardous waste service and will be monitored on an annual basis and when leaks become visually apparent.

Stephen M. Keister — 5/12/93

Name — Date

| Pump Identification No. | Type and Description |
|---|---|
| M - 28 | Pneumatic #P-6 |
| M - 29 | Pneumatic #P-7 |
| M - 30 | Pneumatic #P-8 |
| M - 39 | Pneumatic #P-9 |
| M - 40 | Pneumatic #P-10 |
| M - 67 | Pneumatic #P-32 |
| M - 68 | Pneumatic #P-29 |
| M - 69 | Pneumatic #P-30 |
| M - 70 | Pneumatic #P-31 |

Mark

**USPCI**
A Subsidiary of
Union Pacific Corporation

Treatment & Recovery Services

RECEIVED
DEC 17 1993
PRMT-SECTION

December 10, 1993

Steve Broslavick, P.E.
Kansas Department of Health and Environment
Hazardous Waste Section
Forbes Field, Building 740
Topeka, Kansas 66620-0002

Re: Hydrocarbon Recyclers, Inc. of Wichita d/b/a USPCI (HRIW)
EPA ID No. KSD007246846
Revised Part A Permit Application

Dear Mr. Broslavick,

Enclosed you will find a revised Part A Permit Application for the HRIW facility. This Part A has been changed to reflect the new ownership of the facility and the facility's new telephone number, and to include an "as-built" drawing of Building J. Although the entire Part A is resubmitted, changes have been made only to Pages 2 and 7 of 7 in the Part A form, and Figure A.8.

If you have any questions regarding these matters, please contact Steve Keiter at (316) 268-7500, or Liane Hetherington-Ward at (708) 672-3640.

Sincerely,

Robert Apple
Vice President - Operations
Hydrocarbon Recyclers, Inc.

cc: Mark Matthews, USEPA
S. Keiter, HRIW
L. Hetherington-Ward, USPCI

Hydrocarbon Recyclers, Inc. of Wichita
2549 North New York • Wichita, Kansas 67219 • 316/268-9490 • Fax 316/268-9418

| For EPA Regional Use Only | EPA<br>United States Environmental Protection Agency<br>Washington, DC 20460 | For State Use Only |
|---|---|---|
| Date Received<br>Month Day Year | **Hazardous Waste Permit Application**<br>**Part A**<br>*(Read the Instructions before starting)* | |

**I. ID Number(s)**

| A. EPA ID Number | B. Secondary ID Number *(If applicable)* |
|---|---|
| KSD007246846 | |

**II. Name of Facility**

HYDROCARBON RECYCLERS INC OF WICHITA

**III. Facility Location** *(Physical address not P.O. Box or Route Number)*

| A. Street | | | |
|---|---|---|---|
| 2549 N NEW YORK | | | |
| Street *(continued)* | | | |
| | | | |
| City or Town | State | ZIP Code | |
| WICHITA | KS | 67219- | |
| County Code *(If known)* | County Name | | |
| | SEDGWICK | | |

| B. Land Type | C. Geographic Location | | D. Facility Existence Date |
|---|---|---|---|
| *(enter code)* | *LATITUDE (degrees, minutes, & seconds)* | *LONGITUDE (degrees, minutes, & seconds)* | Month Day Year |
| P | 374350N | 0971908W | 06011979 |

**IV. Facility Mailing Address**

| Street or P.O. Box | | |
|---|---|---|
| SAME | | |
| City or Town | State | ZIP Code |
| SAME | | - |

**V. Facility Contact** *(Person to be contacted regarding waste activities at facility)*

| Name *(last)* | *(first)* |
|---|---|
| KEITER | STEVE |
| Job Title | Phone Number *(area code and number)* |
| FACILITY MGR | 316-268-9490 |

**VI. Facility Contact Address** *(See instructions)*

| A. Contact Address Location | Mailing | B. Street or P.O. Box |
|---|---|---|
| X | | |
| City or Town | State | ZIP Code |
| | | - |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

| EPA I.D. Number (enter from page 1) | Secondary ID Number (enter from page 1) |
|---|---|
| KSD007246846 | |

**VII. Operator Information (see instructions)**

| Name of Operator | |
|---|---|
| HYDROCARBON RECYCLERS INC | |
| **Street or P.O. Box** | |
| 2549 N NEW YORK | |
| **City or Town** | **State** / **ZIP Code** |
| WICHITA | KS 67219- |

| Phone Number (area code and number) | B. Operator Type | C. Change of Operator Indicator | D. Date Changed Month Day Year |
|---|---|---|---|
| 316-268-7500 | P | Yes: No: X | |

**VIII. Facility Owner (see instructions)**

| A. Name of Facility's Legal Owner | |
|---|---|
| HYDROCARBON RECYCLERS INC | |
| **Street or P.O. Box** | |
| 515 W GREENS ROAD SUITE 500 | |
| **City or Town** | **State** / **ZIP Code** |
| HOUSTON | TX 77067- |

| Phone Number (area code and number) | B. Owner Type | C. Change of Owner Indicator | D. Date Changed Month Day Year |
|---|---|---|---|
| 713-775-7800 | P | Yes: X No: | 09 24 92 |

**IX. SIC Codes (4-digit, in order of significance)**

| Primary | | Secondary | |
|---|---|---|---|
| 7389 | (description) Solvents recovery | 4953 | (description) Refuse systems |
| **Secondary** | | **Secondary** | |
| 8734 | (description) Testing laboratory | | (description) |

**X. Other Environmental Permits (see instructions)**

| A. Permit Type (enter code) | B. Permit Number | C. Description |
|---|---|---|
| E | 33200161 | Kansas Department of Health & Environment Air Emission Permit |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| EPA I.D. Number (enter from page 1) | | | | | | | | | | | | Secondary ID Number (enter from page 1) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | | | | | | | | | | | | |

## XI. Nature of Business (provide a brief description)

HRI-Wichita blends solvents for beneficial use as cement kiln fuel and recovers dry cleaning solvents. HRI-Wichita also processes and/or channels waste solvents, solids, and water to other EPA-approved facilities for distillation, beneficial reuse, or disposal.

HRI-Wichita also stores waste solvent, hydrocarbons, paint-related waste streams, solids, corrosive waste streams, and water-based waste streams.

## XII. Process - Codes and Design Capacities

A. PROCESS CODE - *Enter the code from the list of process codes below that best describes each process to be used at the facility. Twelve lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided in Item XIII.*

B. PROCESS DESIGN CAPACITY - *For each code entered in column A, enter the capacity of the process.*

1. AMOUNT - *Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process unit.*
2. UNIT OF MEASURE - *For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.*

C. PROCESS TOTAL NUMBER OF UNITS - *Enter the total number of units used with the corresponding process code.*

| PROCESS CODE | PROCESS | APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY |
|---|---|---|
| | DISPOSAL: | |
| D79 | INJECTION WELL | GALLONS; LITERS; GALLONS PER DAY; OR LITERS PER DAY |
| D80 | LANDFILL | ACRE-FEET OR HECTARE-METER |
| D81 | LAND APPLICATION | ACRES OR HECTARES |
| D82 | OCEAN DISPOSAL | GALLONS PER DAY OR LITERS PER DAY |
| D83 | SURFACE IMPOUNDMENT | GALLONS OR LITERS |
| | STORAGE: | |
| S01 | CONTAINER (barrel, drum, etc.) | GALLONS OR LITERS |
| S02 | TANK | GALLONS OR LITERS |
| S03 | WASTE PILE | CUBIC YARDS OR CUBIC METERS |
| S04 | SURFACE IMPOUNDMENT | GALLONS OR LITERS |
| | TREATMENT: | |
| T01 | TANK | GALLONS PER DAY OR LITERS PER DAY |
| T02 | SURFACE IMPOUNDMENT | GALLONS PER DAY OR LITERS PER DAY |
| T03 | INCINERATOR | SHORT TONS PER HOUR; METRIC TONS PER HOUR; GALLONS PER HOUR; LITERS PER HOUR; OR BTU'S PER HOUR |
| T04 | OTHER TREATMENT (Use for physical, chemical, thermal or biolgical treatment processes not occurring in tanks, surface impoundment or incinerators. Describe the processes in the space provided in Item XIII.) | GALLONS PER DAY; LITERS PER DAY; POUNDS PER HOUR; SHORT TONS PER HOUR; KILOGRAMS PER HOUR; METRIC TONS PER DAY; METRIC TONS PER HOUR; OR SHORT TONS PER DAY |

| UNIT OF MEASURE | UNIT OF MEASURE CODE |
|---|---|
| GALLONS | G |
| GALLONS PER HOUR | E |
| GALLONS PER DAY | U |
| LITERS | L |
| LITERS PER HOUR | H |
| LITERS PER DAY | V |
| SHORT TONS PER HOUR | D |
| METRIC TONS PER HOUR | W |
| SHORT TONS PER DAY | N |
| METRIC TONS PER DAY | S |
| POUNDS PER HOUR | J |
| KILOGRAMS PER HOUR | R |
| CUBIC YARDS | Y |
| CUBIC METERS | C |
| ACRES | B |
| ACRE-FEET | A |
| HECTARES | Q |
| HECTARE-METER | F |
| BTU's PER HOUR | K |

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|---|---|
| K S D 0 0 7 2 4 6 8 4 6 | |

## XII. Process - Codes and Design Capacities (continued)

*EXAMPLE FOR COMPLETING ITEM XII (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.*

| Line Number | A. PROCESS CODE (from list above) | B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify) | B. 2. UNIT OF MEASURE (enter code) | C. PROCESS TOTAL NUMBER OF UNITS | FOR OFFICIAL USE ONLY |
|---|---|---|---|---|---|
| X 1 | S 0 2 | 600 | G | 0 0 2 | |
| X 2 | T 0 3 | 20 | E | 0 0 1 | |
| 1 | S 0 1 | 325490 | G | 0 0 7 | |
| 2 | S 0 2 | 137987 | G | 0 2 7 | |
| 3 | T 0 4 | 14400 | U | 0 0 1 | |
| 4 | T 0 4 | 20000 | U | 0 0 1 | |
| 5 | T 0 4 | 10000 | J | 0 0 1 | |
| 6 | T 0 4 | 10000 | J | 0 0 1 | |
| 7 | T 0 4 | 250 | N | 0 0 7 | |
| 8 | T 0 4 | 14400 | U | 0 0 1 | |
| 9 | T 0 4 | 20000 | U | 0 0 1 | |
| 1 0 | T 0 1 | 25000 | U | 0 2 1 | |
| 1 1 | | | | | |
| 1 2 | | | | | |

*NOTE: If you need to list more than 12 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for additional treatment processes in item XIII.*

## XIII. Additional Treatment Processes (follow instructions from Item XII)

| Line Number (enter numbers in sequence with item XII) | A. PROCESS CODE | B. TREATMENT PROCESS DESIGN CAPACITY 1. AMOUNT (specify) | B. 2. UNIT OF MEASURE (enter code) | C. PROCESS TOTAL NUMBER OF UNITS | D. DESCRIPTION OF PROCESS |
|---|---|---|---|---|---|
| 0 3 | T 0 4 | 14400 | U | 0 0 1 | Drier Unit evaporates liquids from sludges and solids, then recondenses vapor. |
| 0 4 | T 0 4 | 20000 | U | 0 0 1 | Drum Scraper Unit enhances removal of viscous liquids and solids from containers using a mechanical scraper and impeller. |
| 0 5 | T 0 4 | 10000 | J | 0 0 1 | Shredder Unit will break up dry cleaning cartridges to improve dry cleaning solvent removal and cartridge disposal. Will also do size reduction for other materials. Attached to carbon adsorption system. |
| 0 6 | T 0 4 | 10000 | J | 0 0 1 | Granulator Unit will break up dry cleaning cartridges to improve dry cleaning solvent removal and cartridge disposal. Will also do size reduction for other materials. Attached to carbon adsorption system. |

| EPA I.D. Number (enter from page 1) | | | | | | | | | | | | Secondary ID Number (enter from page 1) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | |

## XII. Process - Codes and Design Capacities (continued)

*EXAMPLE FOR COMPLETING ITEM XII (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.*

| Line Number | | A. PROCESS CODE (from list above) | | | B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify) | B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code) | C. PROCESS TOTAL NUMBER OF UNITS | | | FOR OFFICIAL USE ONLY |
|---|---|---|---|---|---|---|---|---|---|---|
| X | 1 | S | 0 | 2 | 600 | G | 0 | 0 | 2 | |
| X | 2 | T | 0 | 3 | 20 | E | 0 | 0 | 1 | |
| | 1 | | | | | | | | | |
| | 2 | | | | | | | | | |
| | 3 | | | | | | | | | |
| | 4 | | | | | | | | | |
| | 5 | | | | | | | | | |
| | 6 | | | | | | | | | |
| | 7 | | | | | | | | | |
| | 8 | | | | | | | | | |
| | 9 | | | | | | | | | |
| 1 | 0 | | | | | | | | | |
| 1 | 1 | | | | | | | | | |
| 1 | 2 | | | | | | | | | |

*NOTE: If you need to list more than 12 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for additional treatment processes in Item XIII.*

## XIII Additional Treatment Processes (follow instructions from Item XII)

| Line Number (enter numbers in sequence with Item XII) | | A. PROCESS CODE | | | B. TREATMENT PROCESS DESIGN CAPACITY 1. AMOUNT (specify) | B. TREATMENT PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code) | C. PROCESS TOTAL NUMBER OF UNITS | | | D. DESCRIPTION OF PROCESS |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 7 | T | 0 | 4 | 250 | N | 0 | 0 | 7 | Treatment in containers and container management activities as described in Addendum A. Process Total Number of Units corresponds to number of buildings in which these activities are conducted. |
| 0 | 8 | T | 0 | 4 | 14400 | U | 0 | 0 | 1 | Drum Washing Unit removes waste residue from emptied drums. |
| 0 | 9 | T | 0 | 4 | 20000 | U | 0 | 0 | 1 | Dispersing Unit uses agitation to dissolve viscous liquids and solids removed from containers prior to pumping these materials to tanks. |
| | | T | 0 | 4 | | | | | | |

| EPA I.D. Number (enter from page 1) | | | | | | | | | | | | Secondary ID Number (enter from page 1) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | | | | | | | | | | | | |

## XIV. Description of Hazardous Wastes

A. EPA HAZARDOUS WASTE NUMBER - *Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR, Part 261 Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.*

B. ESTIMATED ANNUAL QUANTITY - *For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.*

C. UNIT OF MEASURE - *For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:*

| ENGLISH UNIT OF MEASURE | CODE | METRIC UNIT OF MEASURE | CODE |
|---|---|---|---|
| POUNDS | P | KILOGRAMS | K |
| TONS | T | METRIC TONS | M |

*If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.*

D. PROCESSES

1. PROCESS CODES:

*For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item XII A. on page 3 to indicate how the waste will be stored, treated, and/or disposed of at the facility.*

*For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item XII A. on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that processes that characteristic or toxic contaminant.*

*NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:*

1. *Enter the first two as described above.*
2. *Enter "000" in the extreme right box of Item XIV-D(1).*
3. *Enter in the space provided on page 7, Item XIV-E, the line number and the additional code(s).*

2. PROCESS DESCRIPTION : *If a code is not listed for a process that will be used, describe the process in the space provided on the form (D.(2)).*

*NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER- Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:*

1. *Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.*
2. *In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.*
3. *Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.*

*EXAMPLE FOR COMPLETING ITEM XIV (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.*

| Line Number | | A. EPA HAZARD WASTE NO. (enter code) | | | | B. ESTIMATED ANNUAL QUANTITY OF WASTE | C. UNIT OF MEASURE (enter code) | D. PROCESS (1) PROCESS CODES (enter) | | | | | | | | | D. PROCESS (2) PROCESS DESCRIPTION (if a code is not entered in D(1)) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X | 1 | K | 0 | 5 | 4 | 900 | P | T | 0 | 3 | D | 8 | 0 | | | | |
| X | 2 | D | 0 | 0 | 2 | 400 | P | T | 0 | 3 | D | 8 | 0 | | | | |
| X | 3 | D | 0 | 0 | 1 | 100 | P | T | 0 | 3 | D | 8 | 0 | | | | |
| X | 4 | D | 0 | 0 | 2 | | | | | | | | | | | | Included With Above |

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GSA No. 6040-EPA-OT

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| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | 0 | 0 | 1 | 7000000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| F | 0 | 0 | 2 | 7000000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| F | 0 | 0 | 3 | 7000000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| F | 0 | 0 | 4 | 140000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| F | 0 | 0 | 5 | 7000000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| F | 0 | 0 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| F | 0 | 0 | 7 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 | |
| F | 0 | 0 | 8 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 | |
| F | 0 | 0 | 9 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 | |
| F | 0 | 1 | 0 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 | |
| F | 0 | 1 | 1 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 | |
| F | 0 | 1 | 2 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 | |
| F | 0 | 1 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| F | 0 | 2 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| F | 0 | 2 | 5 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| F | 0 | 3 | 2 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 | |
| F | 0 | 3 | 4 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 | |
| F | 0 | 3 | 5 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 | |
| F | 0 | 3 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| F | 0 | 3 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| F | 0 | 3 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

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| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D | 0 | 0 | 1 | 7000000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 0 | 2 | 275000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 0 | 3 | 400000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 0 | 4 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 0 | 5 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 0 | 6 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 0 | 7 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 0 | 8 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 0 | 9 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 1 | 0 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 1 | 1 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 1 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 1 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 1 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 1 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 1 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 1 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 1 | 8 | 600000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 1 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 2 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 2 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 2 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 2 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 2 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 2 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 2 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 2 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 2 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 2 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 3 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 3 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 3 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 3 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

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| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D | 0 | 3 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 3 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 3 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 3 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 3 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 3 | 9 | 600000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 4 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 4 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 4 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| D | 0 | 4 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

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| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 |
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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | 0 | 0 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 0 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 0 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 0 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 0 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 0 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 0 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 0 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 0 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 1 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 1 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 1 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 1 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 1 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 1 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 1 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 1 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 1 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 2 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 2 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 2 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 2 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 2 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 2 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 2 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 2 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 2 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 2 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 3 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 3 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 3 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 3 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 0 | 3 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0024 Expires 12-31-91
EPA No. 5910-GPA-OT

| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | K | 0 | 3 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 3 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 3 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 3 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 3 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 4 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 4 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 4 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 4 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 4 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 4 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 4 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 4 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 4 | 8 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 4 | 9 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 5 | 0 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 5 | 1 | 500000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 5 | 2 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 6 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 6 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 6 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 6 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 6 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 6 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 6 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 7 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 7 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 8 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 8 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 8 | 5 | 200000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 8 | 6 | 200000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 8 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| | | K | 0 | 8 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved: OMB No. [illegible] Expires 10-31-01
SSA No. 0960-0579-OT

| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [redacted] | | K | 0 | 9 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 0 | 9 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 0 | 9 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 0 | 9 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 0 | 9 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 0 | 9 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 0 | 9 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 0 | 9 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 0 | 9 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 0 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 0 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 0 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 0 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 0 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 0 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 0 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 0 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 0 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 0 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 1 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 1 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 1 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 1 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 1 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 1 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 1 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 1 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 1 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 2 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 2 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 2 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 2 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | K | 1 | 3 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved: OMB No. 2060-0234 Expires 12-31-91
GSA No. 6040-EPA-OT

| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | 1 | 3 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 1 | 3 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 1 | 4 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 1 | 4 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 1 | 4 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 1 | 4 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 1 | 4 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 1 | 4 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 1 | 4 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 1 | 4 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 1 | 5 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| K | 1 | 5 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2040-0024 Expires 12-31-97
DEA No. 0240-0PA-OT

| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [redacted] | | U | 0 | 0 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 0 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 0 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 0 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 0 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 0 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 0 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 0 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 0 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 1 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 1 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 1 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 1 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 1 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 1 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 1 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 1 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 1 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 2 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 2 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 2 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 2 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 2 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 2 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 2 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 2 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 2 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 2 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 3 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 3 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 3 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 3 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | | U | 0 | 3 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0034 Expires 12-31-91
GSA No. 0248-EPA-OT

EPA I.D. Number: K S D 0 0 7 2 4 6 8 4 6

Secondary ID Number (enter from page 1):

| Line Number | | Waste Code | | | | Estimated Annual Quantity | Unit of Measure | Process Codes | | | | | | | | | Process Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [illegible] | 1 | U | 0 | 3 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 3 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 3 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 3 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 3 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 4 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 4 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 4 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 4 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 4 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 4 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 4 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 4 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 4 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 5 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 5 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 5 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 5 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | [illegible] | U | 0 | 5 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | [illegible] | U | 0 | 5 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | [illegible] | U | 0 | 5 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 2 | U | 0 | 5 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 3 | U | 0 | 5 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 4 | U | 0 | 6 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 5 | U | 0 | 6 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 6 | U | 0 | 6 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 7 | U | 0 | 6 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | [illegible] | U | 0 | 6 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | [illegible] | U | 0 | 6 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 0 | U | 0 | 6 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | [illegible] | U | 0 | 6 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 2 | U | 0 | 6 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 3 | U | 0 | 7 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2060-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 1 | U | 0 | 7 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 4 | 2 | U | 0 | 7 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 4 | 3 | U | 0 | 7 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 4 | 4 | U | 0 | 7 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 4 | 5 | U | 0 | 7 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 4 | 6 | U | 0 | 7 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 4 | 7 | U | 0 | 7 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 4 | 8 | U | 0 | 7 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 4 | 9 | U | 0 | 7 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 5 | 0 | U | 0 | 8 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 5 | 1 | U | 0 | 8 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 5 | 2 | U | 0 | 8 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 5 | 3 | U | 0 | 8 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 5 | 4 | U | 0 | 8 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 5 | 5 | U | 0 | 8 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 5 | 6 | U | 0 | 8 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 5 | 7 | U | 0 | 8 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 5 | 8 | U | 0 | 8 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 5 | 9 | U | 0 | 8 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 6 | 0 | U | 0 | 9 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 6 | 1 | U | 0 | 9 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 6 | 2 | U | 0 | 9 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 6 | 3 | U | 0 | 9 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 6 | 4 | U | 0 | 9 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 6 | 5 | U | 0 | 9 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 6 | 6 | U | 0 | 9 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 6 | 7 | U | 0 | 9 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 6 | 8 | U | 0 | 9 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 6 | 9 | U | 0 | 9 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 7 | 0 | U | 1 | 0 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 7 | 1 | U | 1 | 0 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 7 | 2 | U | 1 | 0 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 7 | 3 | U | 1 | 0 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

GSA No. 6040-EPA-07

| EPA I.D. | | | | | | | | | | | | Secondary ID Number (enter from page 1) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | |

| Line Number | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | U | 1 | 0 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | U | 1 | 0 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | U | 1 | 0 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 4 | U | 1 | 0 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 5 | U | 1 | 1 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 6 | U | 1 | 1 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 7 | U | 1 | 1 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 8 | U | 1 | 1 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 9 | U | 1 | 1 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 10 | U | 1 | 1 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 11 | U | 1 | 1 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 12 | U | 1 | 1 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 13 | U | 1 | 1 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 14 | U | 1 | 1 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 15 | U | 1 | 2 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 16 | U | 1 | 2 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 17 | U | 1 | 2 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 18 | U | 1 | 2 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 19 | U | 1 | 2 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 20 | U | 1 | 2 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 21 | U | 1 | 2 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 22 | U | 1 | 2 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 23 | U | 1 | 2 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 24 | U | 1 | 2 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 25 | U | 1 | 3 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 26 | U | 1 | 3 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 27 | U | 1 | 3 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 28 | U | 1 | 3 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 29 | U | 1 | 3 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 30 | U | 1 | 3 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 31 | U | 1 | 3 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 32 | U | 1 | 3 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 33 | U | 1 | 3 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0034 Expires 12-31-9[illegible]
GSA No. 0246-EPA-O[illegible]

EPA [illegible] Secondary ID Number (enter from page 1)

K S D 0 0 7 2 4 6 8 4 6

| Line Number | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | U | 1 | 4 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | U | 1 | 4 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | U | 1 | 4 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 4 | U | 1 | 4 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 5 | U | 1 | 4 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 6 | U | 1 | 4 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 7 | U | 1 | 4 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 8 | U | 1 | 4 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 9 | U | 1 | 4 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 10 | U | 1 | 4 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 11 | U | 1 | 5 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 12 | U | 1 | 5 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 13 | U | 1 | 5 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 14 | U | 1 | 5 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 15 | U | 1 | 5 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 16 | U | 1 | 5 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 17 | U | 1 | 5 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 18 | U | 1 | 5 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 19 | U | 1 | 5 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 20 | U | 1 | 5 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 21 | U | 1 | 6 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 22 | U | 1 | 6 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 23 | U | 1 | 6 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 24 | U | 1 | 6 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 25 | U | 1 | 6 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 26 | U | 1 | 6 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 27 | U | 1 | 6 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 28 | U | 1 | 6 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 29 | U | 1 | 6 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 30 | U | 1 | 6 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 31 | U | 1 | 7 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 32 | U | 1 | 7 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 33 | U | 1 | 7 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

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Form Approved. OMB No. [illegible]
GSA No. 0246-EPA-OT

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 7 | 3 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 7 | 4 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 7 | 6 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 7 | 7 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 7 | 8 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 7 | 9 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 8 | 0 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 8 | 1 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 8 | 2 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 8 | 3 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 8 | 4 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 8 | 5 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 8 | 6 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 8 | 7 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 8 | 8 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 8 | 9 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 9 | 0 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 9 | 1 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 9 | 2 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 9 | 3 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 9 | 4 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 9 | 6 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 1 | 9 | 7 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 2 | 0 | 0 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 2 | 0 | 1 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 2 | 0 | 2 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 2 | 0 | 3 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 2 | 0 | 4 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 2 | 0 | 5 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 2 | 0 | 6 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 2 | 0 | 7 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 2 | 0 | 8 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |
| | | U | 2 | 0 | 9 | 60000 | | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | | | | | | | | |

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GSA No. 0249-EPA-OT

| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|

| Line Number | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | U | 2 | 1 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | U | 2 | 1 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | U | 2 | 1 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 4 | U | 2 | 1 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 5 | U | 2 | 1 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 6 | U | 2 | 1 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 7 | U | 2 | 1 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 8 | U | 2 | 1 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 9 | U | 2 | 1 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 10 | U | 2 | 2 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 11 | U | 2 | 2 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 12 | U | 2 | 2 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 13 | U | 2 | 2 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 14 | U | 2 | 2 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 15 | U | 2 | 2 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 16 | U | 2 | 2 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 17 | U | 2 | 2 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 18 | U | 2 | 3 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 19 | U | 2 | 3 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 20 | U | 2 | 3 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 21 | U | 2 | 3 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 22 | U | 2 | 3 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 23 | U | 2 | 3 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 24 | U | 2 | 4 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 25 | U | 2 | 4 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 26 | U | 2 | 4 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 27 | U | 2 | 4 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 28 | U | 2 | 4 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 29 | U | 2 | 4 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 30 | U | 2 | 4 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 31 | U | 3 | 2 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 32 | U | 3 | 5 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 33 | U | 3 | 5 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

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GSA No. 6840-GPA-OT

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| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|

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| Line Number | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [redacted] | [redacted] | P | 0 | 0 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 0 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 0 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 0 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 0 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 0 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 0 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 0 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 0 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 1 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 1 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 1 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 1 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 1 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 1 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 1 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 1 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 1 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 2 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 2 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 2 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 2 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 2 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 2 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 2 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 2 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 2 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 3 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 3 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 3 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 3 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 3 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [redacted] | [redacted] | P | 0 | 3 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

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GSA No. 0246-EPA-OT

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | | | | | | |

| Line Number | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | P | 0 | 3 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 2 | P | 0 | 3 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 3 | P | 0 | 4 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 4 | P | 0 | 4 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 5 | P | 0 | 4 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 6 | P | 0 | 4 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 7 | P | 0 | 4 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 8 | P | 0 | 4 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 1 | 9 | P | 0 | 4 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 0 | P | 0 | 4 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 1 | P | 0 | 4 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 2 | P | 0 | 4 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 3 | P | 0 | 5 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 4 | P | 0 | 5 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 5 | P | 0 | 5 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 6 | P | 0 | 5 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 7 | P | 0 | 5 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 8 | P | 0 | 5 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 9 | P | 0 | 5 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 0 | P | 0 | 6 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 1 | P | 0 | 6 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 2 | P | 0 | 6 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 3 | P | 0 | 6 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 4 | P | 0 | 6 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 5 | P | 0 | 6 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 6 | P | 0 | 6 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 7 | P | 0 | 6 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 8 | P | 0 | 6 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 9 | P | 0 | 7 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 0 | P | 0 | 7 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 1 | P | 0 | 7 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 2 | P | 0 | 7 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 4 | 3 | P | 0 | 7 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

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GSA No. 8246-EPA-OT

| EPA [illegible] | | | | | | | | | | | | Secondary 10 Number (enter from page 1) |
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| Line Number | | | | | | | | | | | | | | | | |
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| [illegible] | [illegible] | P | 0 | 8 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | P | 0 | 8 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | P | 0 | 8 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
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| [illegible] | [illegible] | P | 0 | 8 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
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| [illegible] | [illegible] | P | 0 | 9 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | P | 0 | 9 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | P | 0 | 9 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | P | 0 | 9 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | P | 0 | 9 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | P | 0 | 9 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
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| 2 | 0 | P | 1 | 0 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 1 | P | 1 | 0 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
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| 2 | 9 | P | 1 | 1 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
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| 3 | 1 | P | 1 | 1 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 2 | P | 1 | 1 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 3 | P | 1 | 1 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

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| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 |
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Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

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GSA No. 0246-EPA-OT

| EPA I.D. Number (enter from page 1) | Secondary ID Number (enter from page 1) |
|---|---|
| K S D 0 0 7 2 4 6 8 4 6 | |

## XIV. Description of Hazardous Waste (continued)

**E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 6.**

| Line Number | Additional Process Codes (enter) |
|---|---|
| | |
| | |
| | |
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## XV. Map

*Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.*

## XVI. Facility Drawing

*All existing facilities must include a scale drawing of the facility (see instructions for more detail).*

## XVII. Photographs

*All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).*

## XVIII. Certification(s)

*I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.*

| Owner Signature | Date Signed |
|---|---|
| | 12/9/93 |

Name and Official Title *(type or print)*
Robert M. Apple, Vice President-Operations, Hydrocarbon Recyclers, Inc.

| Operator Signature | Date Signed |
|---|---|
| | |

Name and Official Title *(type or print)*
Robert M. Apple, Vice President-Operations, Hydrocarbon Recyclers, Inc.

## XIX. Comments

This is a revised Part A Hazardous Waste Permit Application,
dated December 10, 1993.
Hydrocarbon Recyclers, Inc. does business as USPCI, Inc. and as
Hydrocarbon Recyclers, Inc. of Wichita

*Note: Mail completed form to the appropriate EPA Regional or State Office. (refer to instructions for more information)*

Item XV. Map

The only topographic map available for the area including HRI is the United States Department of the Interior Geological Survey Map of the Wichita East Quadrangle (Enlarged as Figure 2.1). Contours are shown on the map in five foot intervals, but since the actual relief around the facility is less than five feet the map provides no more detailed information.

Figure 2.1 extends one mile beyond the property boundaries of the facility, to satisfy the requirements 40 CFR 270.13(l). The facility boundaries are marked by solid lines, and the boundary of the area within 1/4 mile of the facility property boundary is marked by a long dashed line "____ ____".

Wells and drinking water wells listed in the public record, i.e. Kansas Department of Health and Environment Bureau of Water Records, Stafford Water District Records, and Sedgewick County Health Department Records, which are within the 1/4 mile boundary are indicated by a circle " o " on this map.

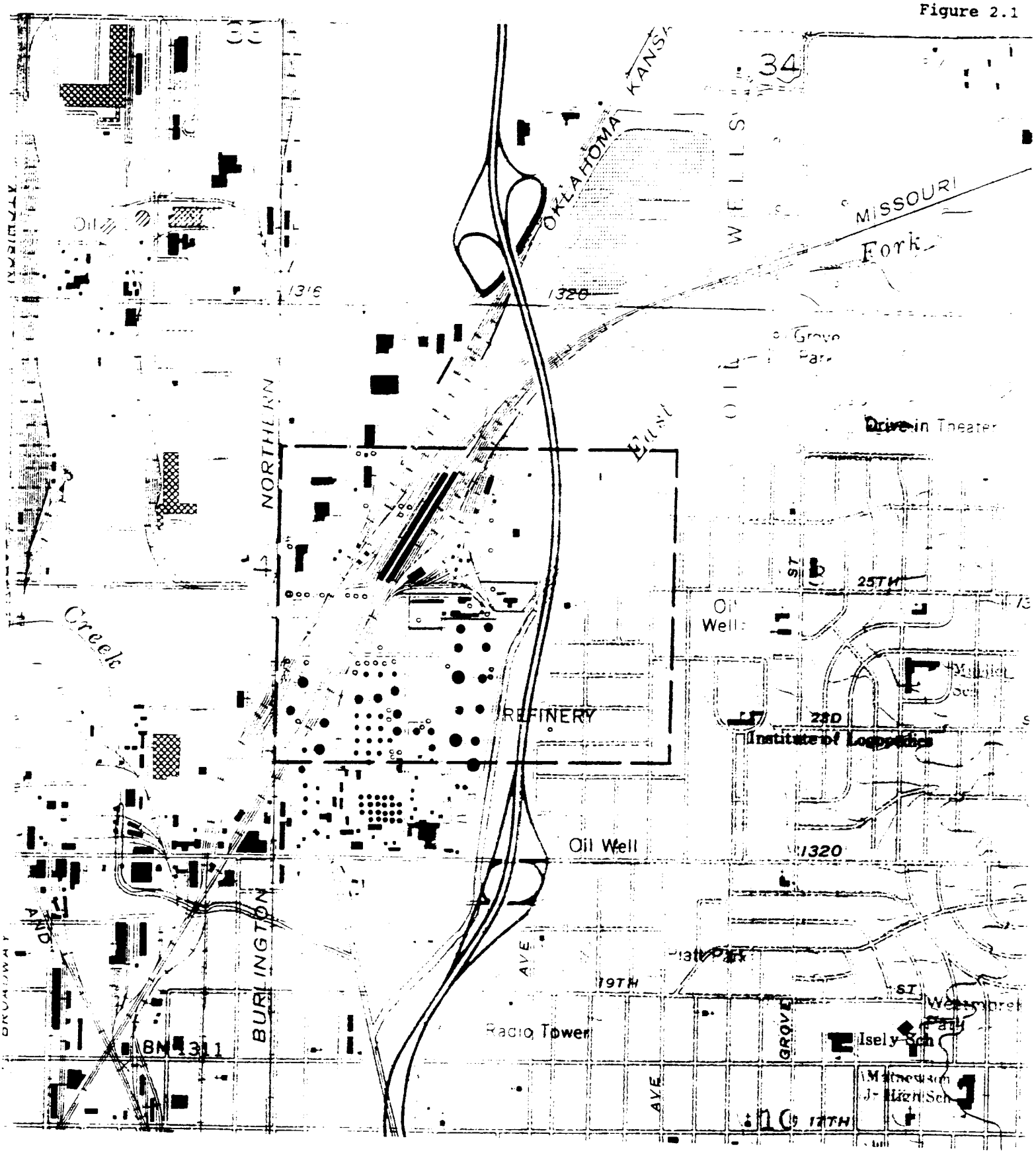
Per the US Geological Survey map, there are no springs within the 1/4 mile boundary. The only permanent body of water is the east branch of Chisholm Creek, directly east of New York street.

The Wichita City Department of Engineering does not have a topographic map with two foot contour intervals. However, in order to show how water flows away from the facility, a map of the area surrounding HRI has been provided (Figure 2.2). In addition, the map shows the surface waters, surrounding land uses, legal boundaries of the facility, and facility buildings.

The 1981 wind rose was taken from the Kansas Wind Energy Office. The facility has no injection wells. The wind rose, access control, buildings, storage areas, and operational areas, monitoring and withdrawal well, (the latter for non-contact cooling water purposes), are shown on the facility drawing submitted as Item XVI.

Figures 2.3 and 2.4 show that the facility does not lie within a 100 year floodplain.

Figure 2.1




Legend

———— Facility Boundary

—— —— 1/4 mile from facility boundary

∘ Water Wells

Scale: 4 inches=1 mile

Fig. 2.2

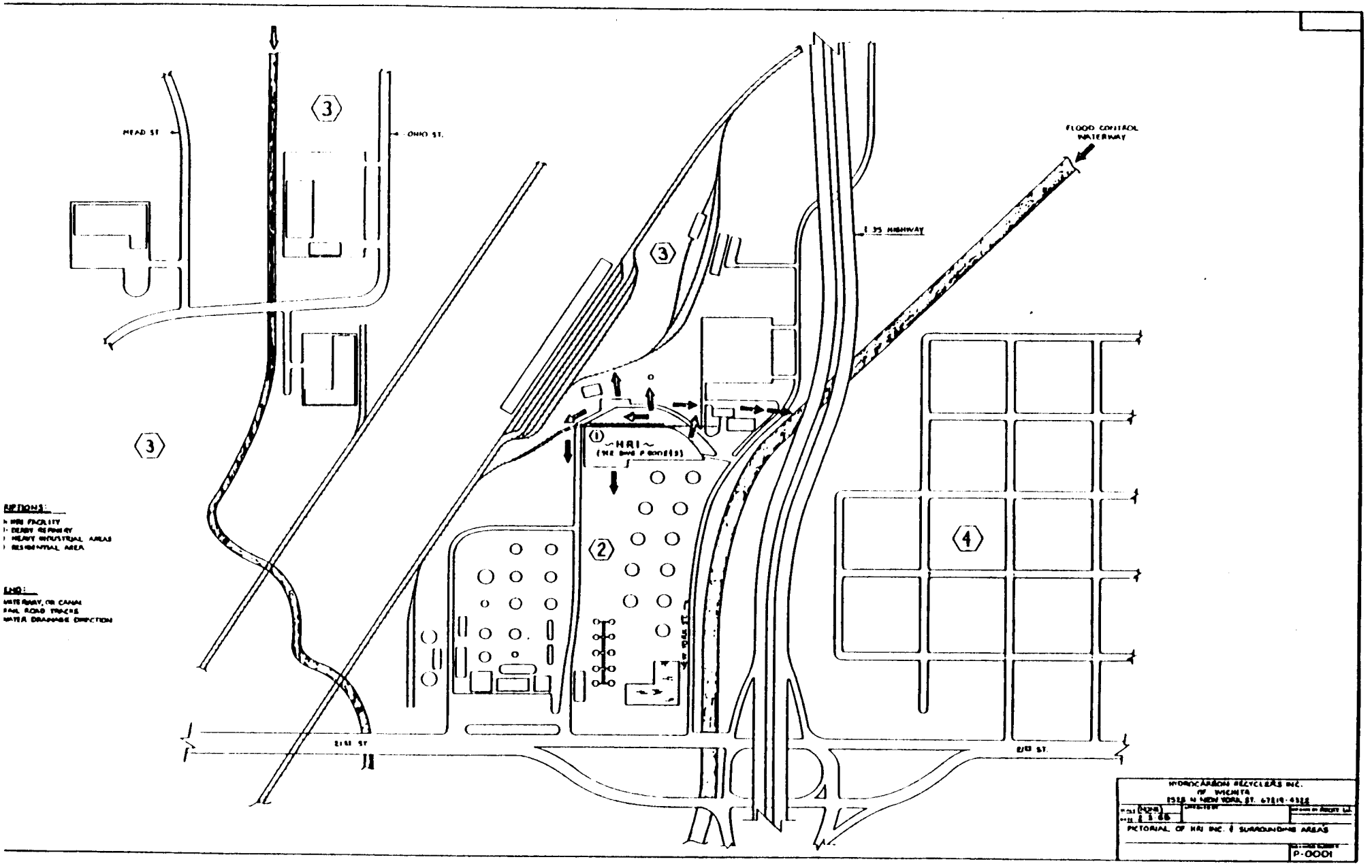

MEAD ST
OHIO ST.
FLOOD CONTROL WATERWAY
I 35 HIGHWAY
HRI
PICTORIAL OF HRI INC. & SURROUNDING AREAS
P-0001

Figure 2.3

# THE CITY OF WICHITA

DEPARTMENT OF ENGINEERING
CITY HALL — SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA KANSAS 67202
(316) 268-4501

March 4, 1983

Mr. David Trombold
The Reid Supply Company
Sales & Service
911 E. Indianapolis
Wichita, KS 67211

Dear Mr. Trombold:

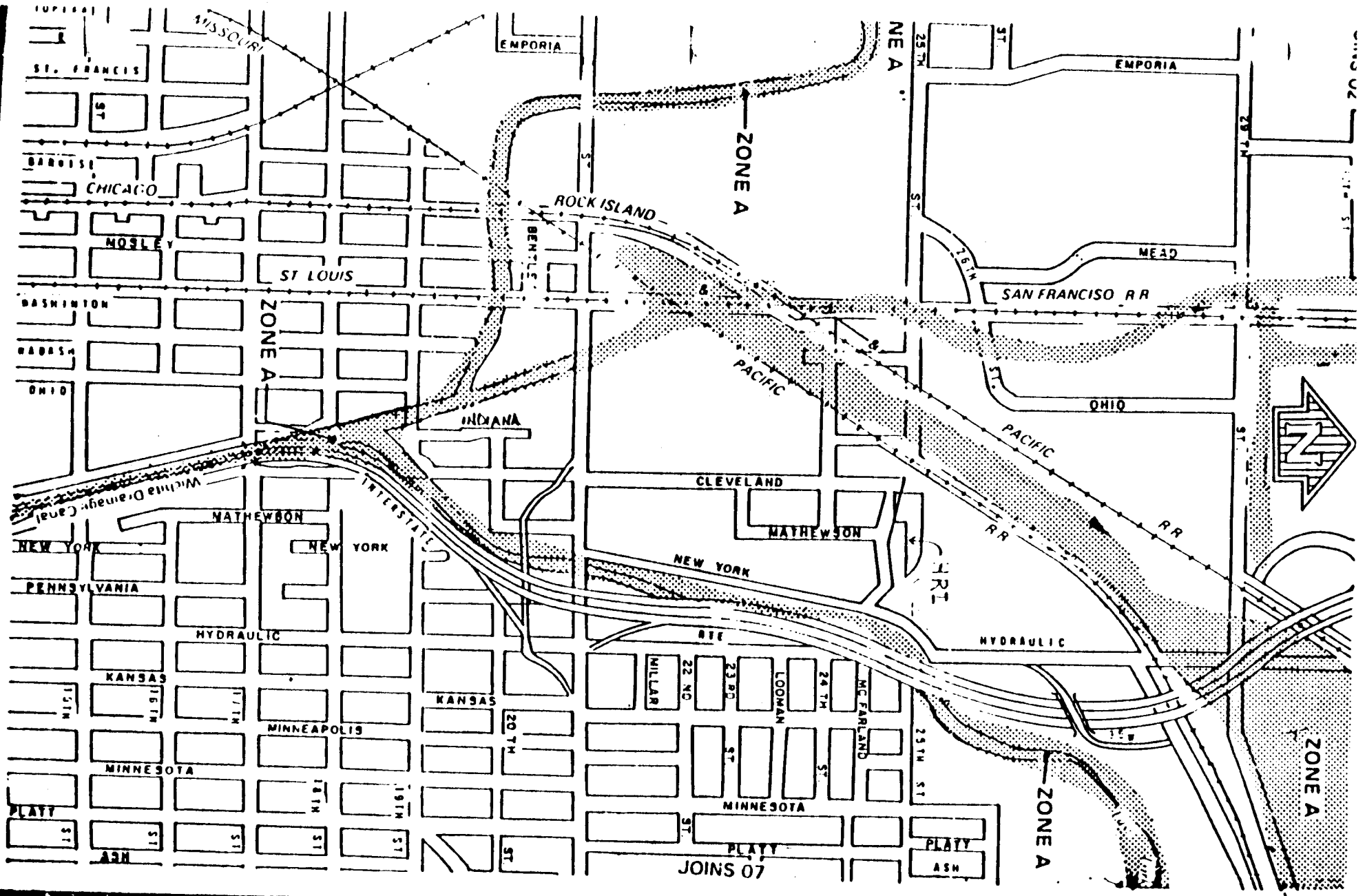
The property of 2549 New York is shown not to be within a special flood hazard area as indicated by Map Panel Number 06, Flood Hazard Boundary Map for Wichita, Kansas.

If you have any further questions, please don't hesitate to contact me at 268-4235.

Sincerely,

Chris J. Breitenstein, P.E.
Drainage & Flood Control Engineer

/ms




06

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
Federal Insurance Administration

# CITY OF WICHITA, KS
(SEDGWICK CO.)

APPROXIMATE SCALE
1000 0 1000 2000 3000 FEET

## FLOOD HAZARD BOUNDARY MAP

MAP REVISED
4/1/77

Item XVI. Facility Layout

A scale drawing (Figure A.1) of the facility is shown on page 17. The facility's ground water monitoring and non-potable water wells (the latter for non-contact cooling water purposes) are shown on Figure B.2 page 5 of Section B. (Reference drawing 50-01-11-001 in Appendix Y-1)

Storage and treatment operations and waste management activities are shown on the drawings of the individual buildings (Figures A.2 to A.8) showing the areas proposed for the storage or treatment processes or for the proposed process equipment. Each operation or process is located in the facility as described below, and as indicated on the drawings by their respective item and line numbers.

BUILDING D (Figure A.2)

XII 01 Refers to S01 container storage indicated by Item XII, Line 01. This symbol occurs in each room where container storage is proposed. Total container storage capacity in Building D is 46,640 gallons or 848 x 55 gallon drum equivalents. Waste materials stored in containers in Building D are ignitable, non-ignitable, or a combination of both.

XIII 07 Refers to treatment in containers and container management activities as described in Addendum A. This symbol occurs in each room where this process is proposed.

XII 10 Refers to treatment in tanks and tank management activities as described in Addendum A. This symbol occurs in each area where this process is proposed.

XII 02 Refers to hazardous waste tank storage (S02) service, indicated by Item XII, Line 02, and described in Addendum B. Tank storage in Building D is as follows:

V-9, V-10, V-11, V-12, V-13, V-14, V-15a, V-15b, V-15c, V-15d, and V-16, as described in Addendum B, are in the northwest room. Total working capacity for these vessels is 50,132 gallons. Materials stored in these vessels are non-ignitable, regulated and non-regulated, liquids.

V-18, as described in Addendum B, is on the west wall of the southeast room. Total working capacity for this vessel is 489 gallons. This vessel receives solvents and water recovered from the Drier Unit.

XII 03 Refers to the Drier Unit listed in Line 03 of Items XII and XIII.

XII 05 Refers to the Shredder Unit listed in Line 05 of Items XII and XIII.

XII 06 Refers to the Granulator Unit listed in Line 06 of Items XII and XIII. Please note that the Shredder Unit (XII 05) stands directly above the Granulator Unit (VII 06). An activated carbon bed is currently attached to the exhaust from the shredder and the granulator to adsorb contaminants.

Processing Area (Figure A.3)

XII 01 Refers to S01 container storage described by Item XII, Line 01. Total container storage capacity in the Processing Area is 9,900 gallons, or 180 x 55 gallon drum equivalents. Materials stored in containers in the Processing Area include liquids which will be pumped to bulk storage and solids which will be handled in the Drum Processing Area.

XIII 07 Refers to treatment in containers and container management activities as described in Addendum A.

XII 10 Refers to treatment in tanks and tank management activities as described in Addendum A.

XII 02 Refers to S02 tank storage indicated by Item XII, Line 02, tanks V-1, V-2, V-3, V-4, V-5, V-6, V-7, V-8, V-17, and V-26, as described in Addendum B. Total maximum capacity for these vessels is 87,366 gallons. Materials stored in these vessels are ignitable and non-ignitable, regulated and non-regulated, liquids.

XII 04 Refers to the Drum Scraper Unit indicated by Item XII, Line 04.

XII 08 Refers to the Drum Washing Unit indicated by Item XIII, Line 08.

XII 09 Refers to the Dispersing Unit indicated by Item XII, Line 09. This unit includes tank V-26, which is proposed as Tank Storage (S02) in Line 02 of Item XII and in Addendum B.

BUILDING C (Figure A.4)

XII 01 Refers to S01 container storage indicated by Item XII, Line 01. Total container storage capacity in Building C is 99,110 gallons or 1,802 x 55 gallon drum equivalents. Materials stored in Building C include ignitable and non-ignitable regulated and non-regulated wastes.

XIII 07 Refers to treatment in containers and container management activities as described in Addendum A.

LOADING DOCK (Figure A.5)

XII 01 Refers to S01 container storage indicated by Item XII, Line 01. Total container storage capacity on the Drum Dock is 14,960 gallons or 272 x 55 gallon drum equivalents. Newly received containerized materials are stored on the Drum Dock.

XIII 07 Refers to treatment in containers and container management activities as described in Addendum A.

BUILDING B (Figure A.6)

XII 01 Refers to S01 container storage indicated by Item XII, Line 01. Total container storage capacity in Building B is 55,000 gallons or 1,000 x 55 gallon drum equivalents. Materials stored in Building B include corrosives and other non-ignitable materials.

XIII 07 Refers to treatment in containers and container management activities as described in Addendum A.

BUILDING I (Figure A.7)

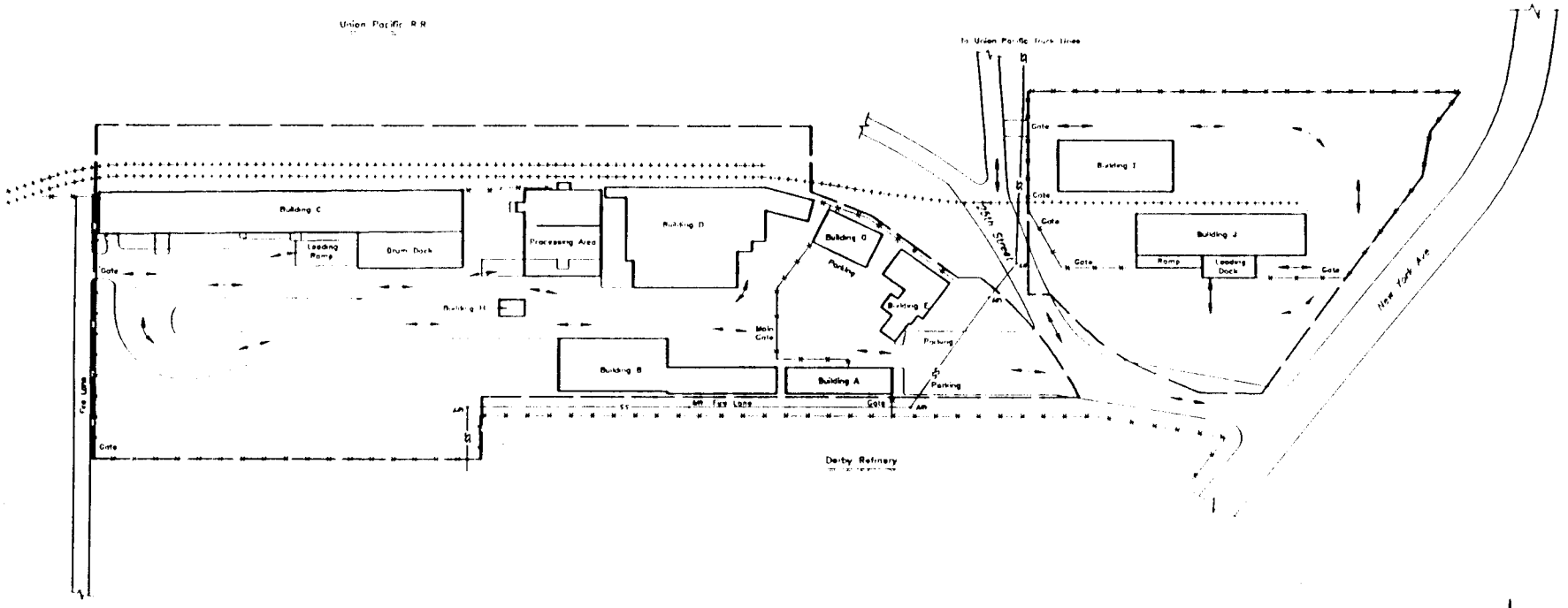
XII 01 Refers to S01 container storage indicated by Item XII, Line 01. Total container storage capacity in Building I is 50,600 gallons or 920 x 55 gallon drum equivalents. Materials stored in Building I may include any permitted regulated or non-regulated materials.

XIII 07 Refers to treatment in containers and container management activities as described in Addendum A.

BUILDING J (Figure A.8)

XII 01 Refers to S01 container storage indicated by Item XII, Line 01. Total container storage capacity in Building J is 49,280 gallons or 896 x 55 gallon drum equivalents. Materials stored in Building J may include any permitted regulated or non-regulated materials.

XIII 07 Refers to treatment in containers and container management activities as described in Addendum A.




## Building Legend

| | |
|---|---|
| Building A | Laboratory/Administration |
| Building B | Hazardous Waste Management Building |
| Building C | Hazardous Waste Management Building |
| Building D | Hazardous Waste Management Building |
| Building E | Administration |
| Building G | Personnel Decon/Break Room |
| Building H | Operations Office |
| Building I | Hazardous Waste Management Building |
| Building J | Hazardous Waste Management Building |
| Processing Area | Hazardous Waste Management Area |
| Drum Dock | Hazardous Waste Management Area |

## Legend

- Railroad Tracks
- Fence
- Property Line
- Traffic Flow Arrows
- SS — Sewer
- Manhole

FIGU[illegible] A 1

HYDROCARBON RECYCLERS, INC.
2540 N. NEW YORK AVE. WICHITA, KANSAS 67219

Scale 1" = 50'
Date 8-10-83

Drawn by PhilDraft

FACILITY LA[illegible]

50 01-01-002

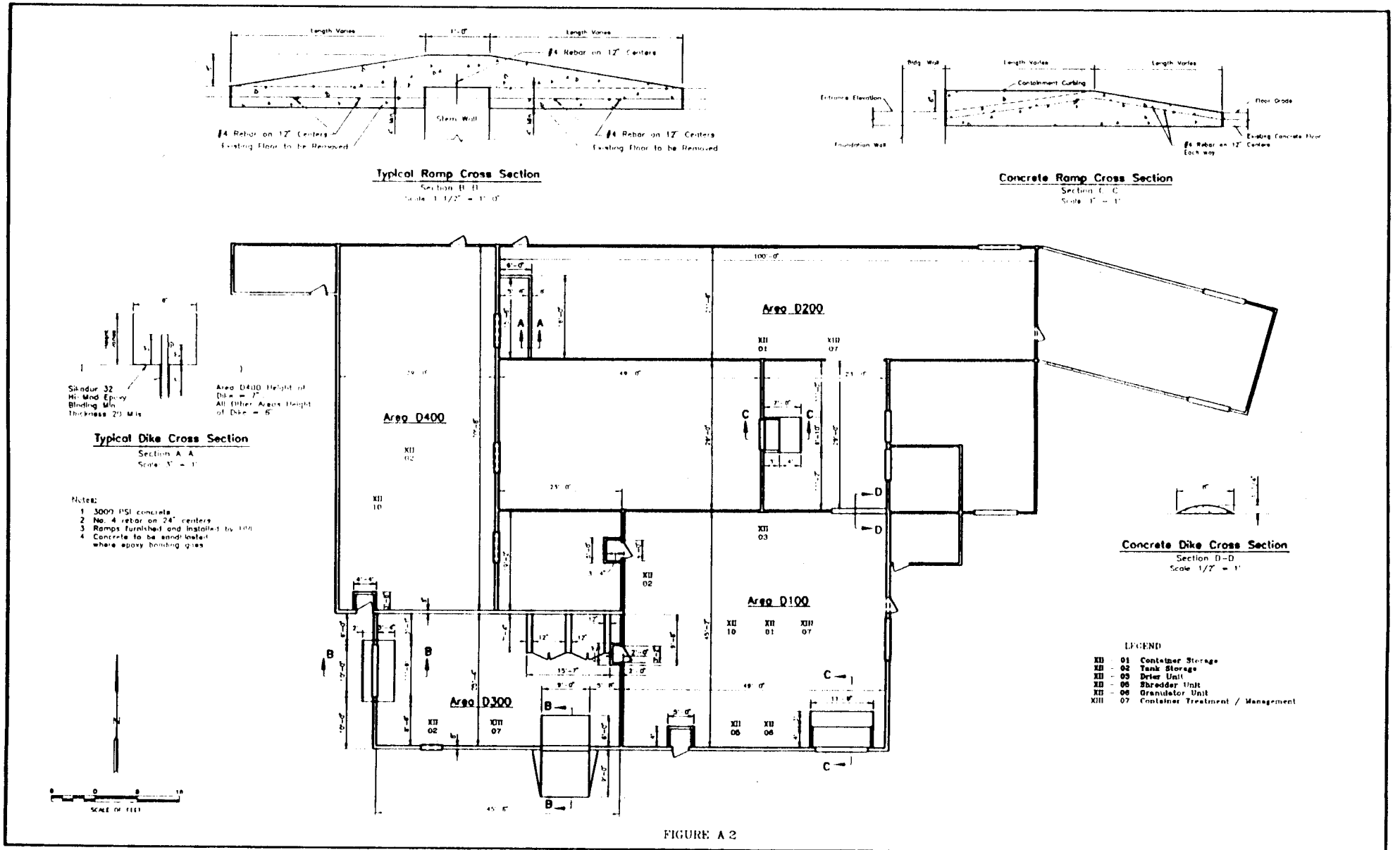

Typical Ramp Cross Section
Section B-B
Concrete Ramp Cross Section
Section C-C
Typical Dike Cross Section
Section A-A
Concrete Dike Cross Section
Section D-D
Area D100
Area D200
Area D300
Area D400
LEGEND
XII - 01 Container Storage
XII - 02 Tank Storage
XII - 03 Drier Unit
XII - 05 Shredder Unit
XII - 06 Granulator Unit
XIII 07 Container Treatment / Management
DIKING AND RAMPS - BLDG. D
HYDROCARBON RECYCLERS INC. WICHITA, KANSAS

FIGURE A 2

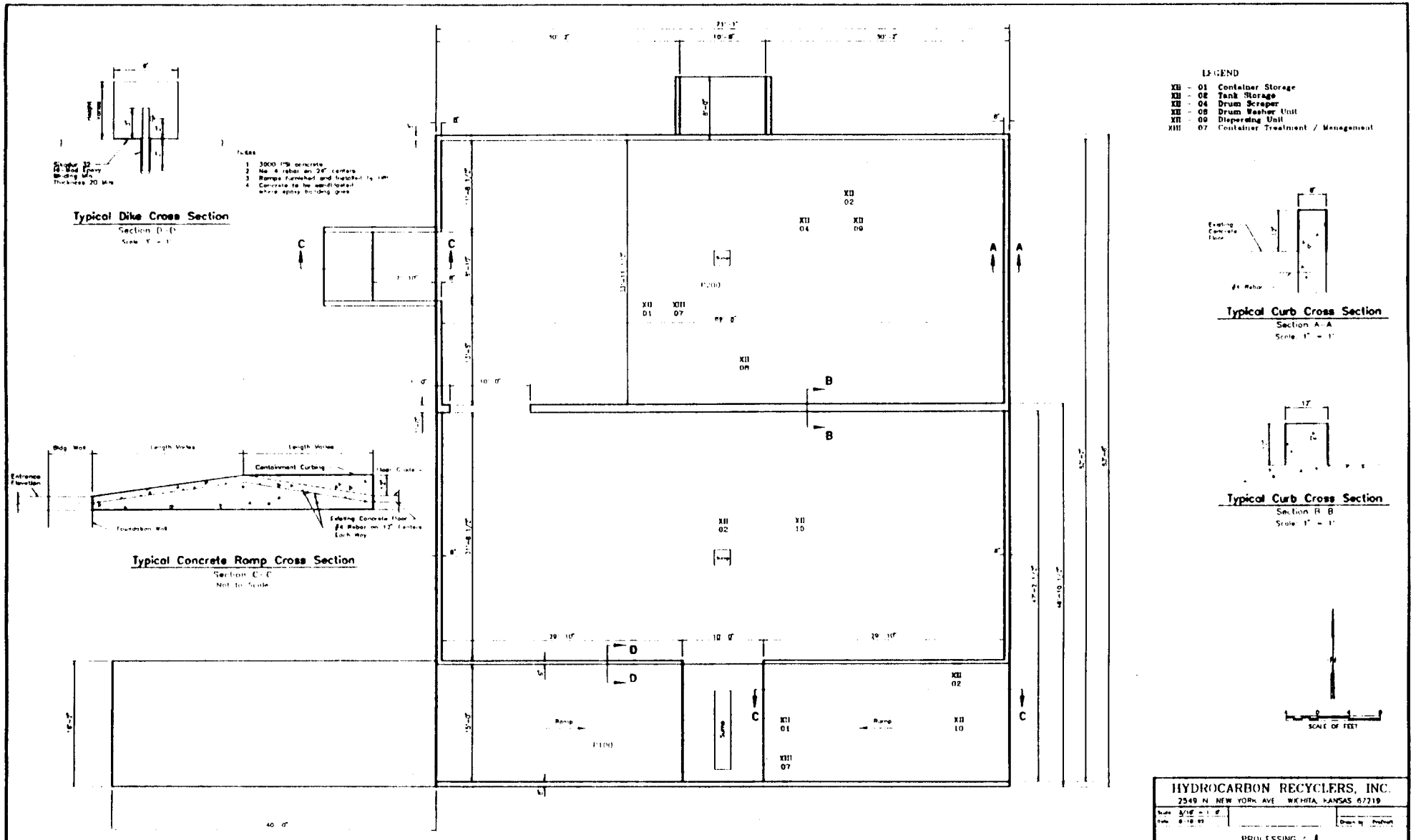

LEGEND
XII - 01 Container Storage
XII - 02 Tank Storage
XII - 04 Drum Scraper
XII - 08 Drum Washer Unit
XII - 09 Dispersing Unit
XIII 07 Container Treatment / Management
Typical Dike Cross Section
Section D-D
Typical Concrete Ramp Cross Section
Section C-C
Not to Scale
Containment Curbing
Typical Curb Cross Section
Section A-A
Typical Curb Cross Section
Section B-B
SCALE OF FEET
HYDROCARBON RECYCLERS, INC.
2549 N. NEW YORK AVE. WICHITA, KANSAS 67219
PROCESSING

FIG 3

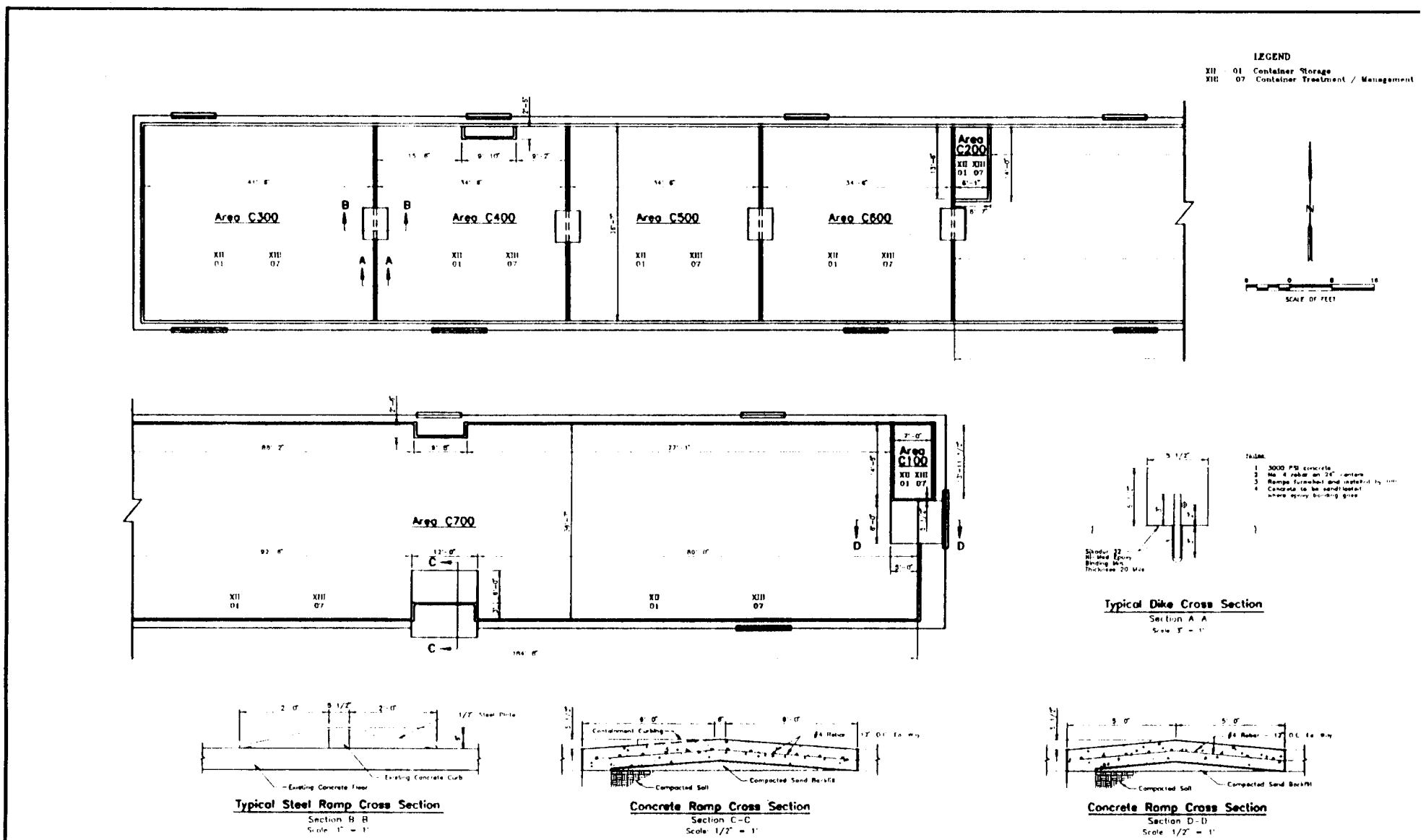



FIGURE A-4

DIKING AND RAMPS - BLDG. C

HYDROCARBON RECYCLERS INC. WICHITA, KANSAS

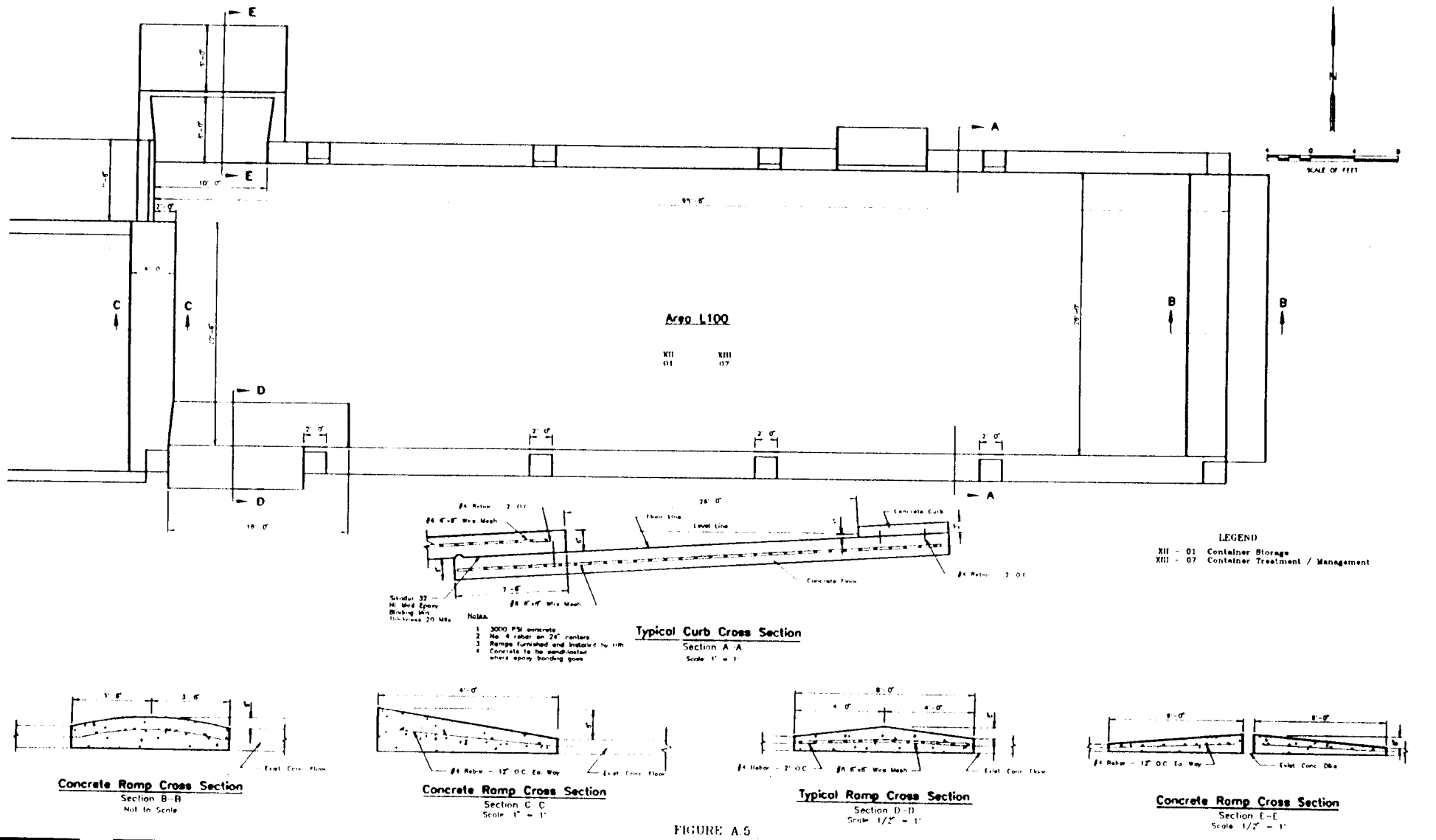



FIGURE A.5

DIKING AND RAMPS - DRUM DOCK

HYDROCARBON RECYCLERS INC. WICHITA, KANSAS

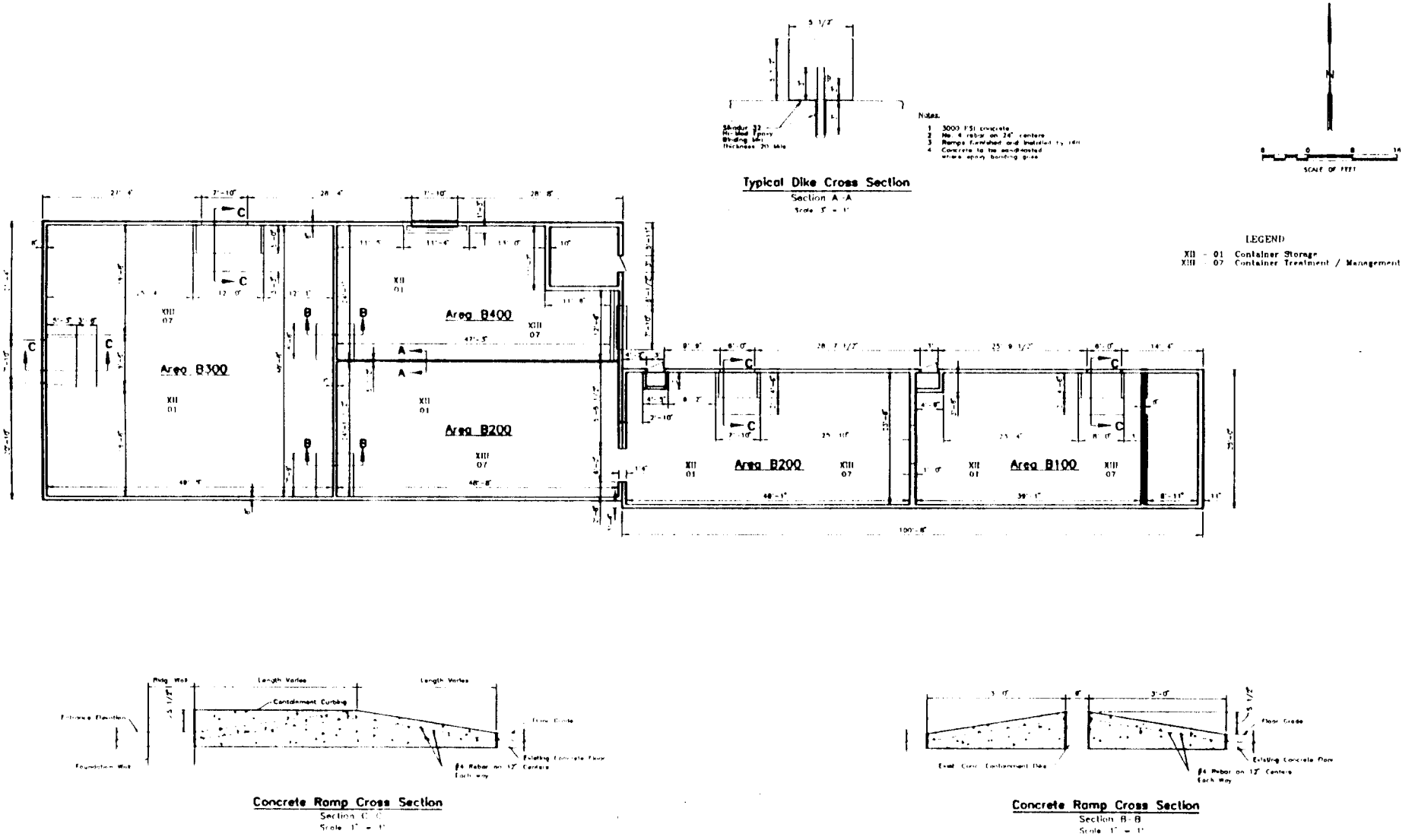



FIGURE A 6

DIKING AND RAMPS - BLDG. B

HYDROCARBON RECYCLERS INC. WICHITA, KANSAS

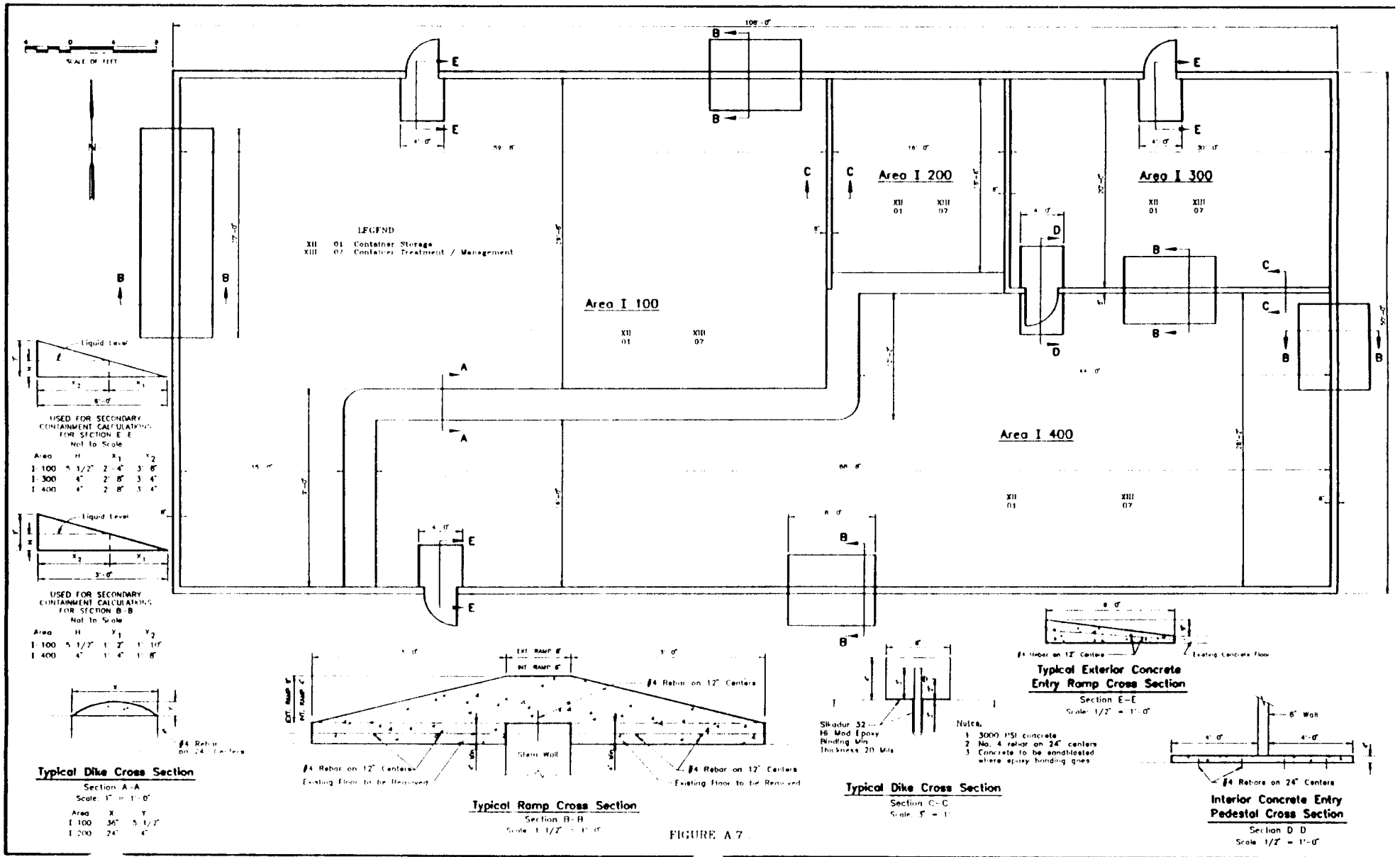
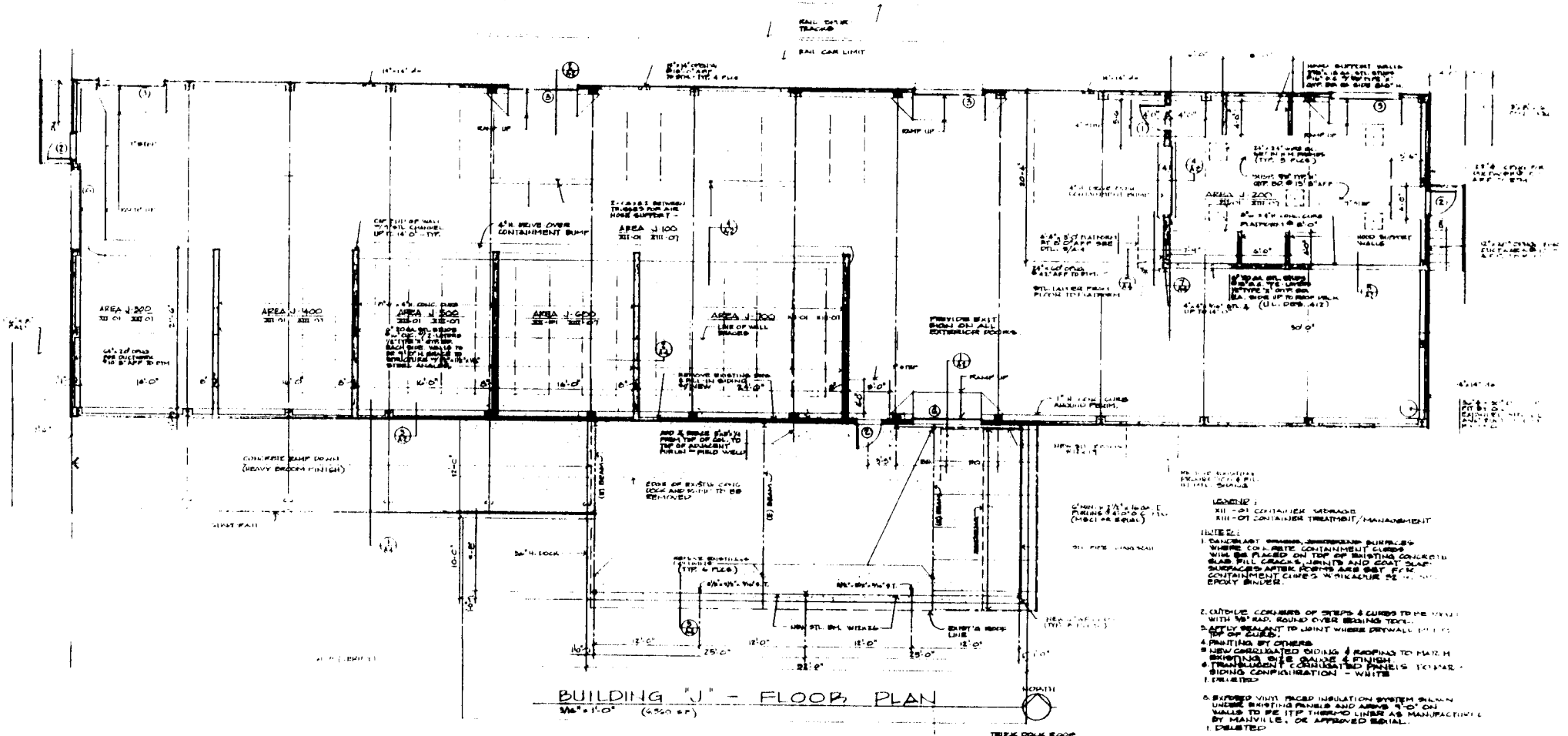



FIGURE A 7

DIKING AND RAMPS - BLDG. I

HYDROCARBON RECYCLERS INC. WICHITA, KANSAS


RAIL SPUR TRACKS
RAIL CAR LIMIT
AREA J-200
AREA J-400
AREA J-500
AREA J-600
AREA J-700
AREA J-100
AREA J-200
4" H. DRIVE OVER CONTAINMENT SUMP
PROVIDE EXIT SIGN ON ALL EXTERIOR DOORS
CONCRETE RAMP DOWN (HEAVY BROOM FINISH)
EDGE OF EXISTING CONC. DOCK AND RAMP TO BE REMOVED
NEW STL. BM. W12X26
EXIST'G ROOF LINE
NORTH
TRUCK DOCK ROOF
DESIGN LOADS
LIVE LOAD: 20 PSF
WIND LOAD: 60MPH EXPOSURE B
LEGEND:
XII-01 CONTAINER STORAGE
XIII-07 CONTAINER TREATMENT/MANAGEMENT
NOTES:
1. SANDBLAST ... SURFACES WHERE CONCRETE CONTAINMENT CURBS WILL BE PLACED ON TOP OF EXISTING CONCRETE SLAB. FILL CRACKS, JOINTS AND COAT SLAB SURFACES AFTER FORMS ARE SET FOR CONTAINMENT CURBS W/SIKADUR 32 ... EPOXY BINDER.
2. OUTSIDE CORNERS OF STEPS & CURBS TO BE ... WITH 3/8" RAD. ROUND OVER EDGING TOOL.
3. APPLY SEALANT TO JOINT WHERE DRYWALL ... TOP OF CURB.
4. PAINTING BY OTHERS.
5. NEW CORRUGATED SIDING & ROOFING TO MATCH EXISTING SIZE GAUGE & FINISH.
6. TRANSLUCENT CORRUGATED PANELS TO MATCH SIDING CONFIGURATION - WHITE
7. DELETED
8. EXPOSED VINYL FACED INSULATION SYSTEM SHOWN UNDER EXISTING PANELS AND ABOVE 9'-0" ON WALLS TO BE ITP THERMO LINER AS MANUFACTURED BY MANVILLE, OR APPROVED EQUAL.
9. DELETED
10. REPLACE EXISTING DAMAGED CORRUGATED WALL PANELS IN ADDITION TO AREAS INDICATED. REATTACH ANY LOOSE AREAS WITH NEW FASTENERS. SEE ...
BUILDING "J" - FLOOR PLAN
3/16" = 1'-0" (6,560 SF)
DETAIL 5/A-2
DETAIL 4/A-2
DETAIL 3/A-2
DETAIL 2/A-2
DETAIL 1/A-2
EXISTING FDN. WALLS
A-2
Hydrocarbon Recyclers, Inc.
a Division of USPCI
2549 N. New York Ave.
Wichita, Kansas 67219
11-18-92
REV. 2-1-93

Item XVII. Photographs

The photographs on the following pages were taken 24-25 April 1991, 11 October 1991 (as noted), and 12 November 1991 (as noted), and show the various buildings, storage areas, and current treatment operations equipment. The specific subject of each photograph is described below. The photographs are numbered in no particular order, but are arranged to follow the order of the descriptions below.

24: A Building houses facility laboratory. Front entrance to facility is through gate, and portion of office building is visible at right. B Building is behind A Building.

25: E Building houses offices.

45: B Building exterior view.

6: B Building acid storage area. Similar to caustic storage area through overhead doorway.

12: C Building storage areas showing berms, ramps, roof, and lighting.

13: C Building segregated containment for flammable corrosives.

30: South side of C Building showing adjacent Dock Area and, at far right, Processing Area.

44: Exterior view of D Building.

17: Sparging units in Building D.

20: Storage tanks in west side of D Building.

21: Storage area in north portion of D Building.

43: Dryer unit located in D building. At far left is V-18, a 489 gallon recovery tank, included as part of S02 capacity, which is connected to the dryer.

42: Shredder unit, above platform, and granulator unit, below platform, both located in Building D. These units are proposed for use together or separately.

Item XVII (continued)

28: Processing Building, includes Truck Bay, Tank Farm/Flammable Storage, Drum Processing, Drum Washing and container management activities. G Building is in left foreground.

16: Flammable Storage Tanks in Processing Building, which are included in S02 capacity.

46: Drum washing unit.

29: View from east side of H Building.

27: I Building (left) and J Building.

2: Lab packing area in J Building.

3: Typical berm around building doorway.

14: Typical filter unit to be used in areas where treatment in containers and container management activities are permitted.

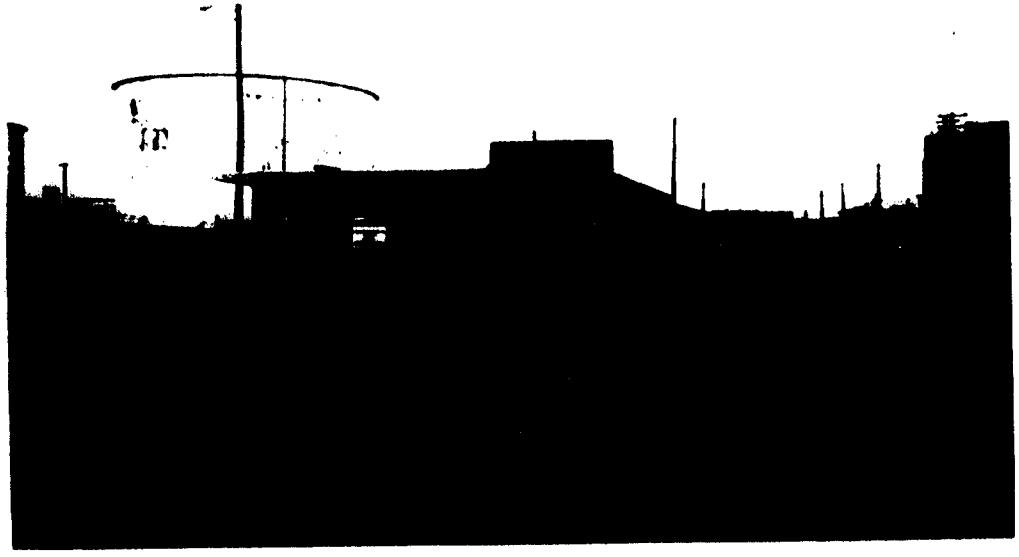
50: Drum scraper. Photograph taken 12 November 1991.

51: Dispersing unit. Photograph taken 12 November 1991.

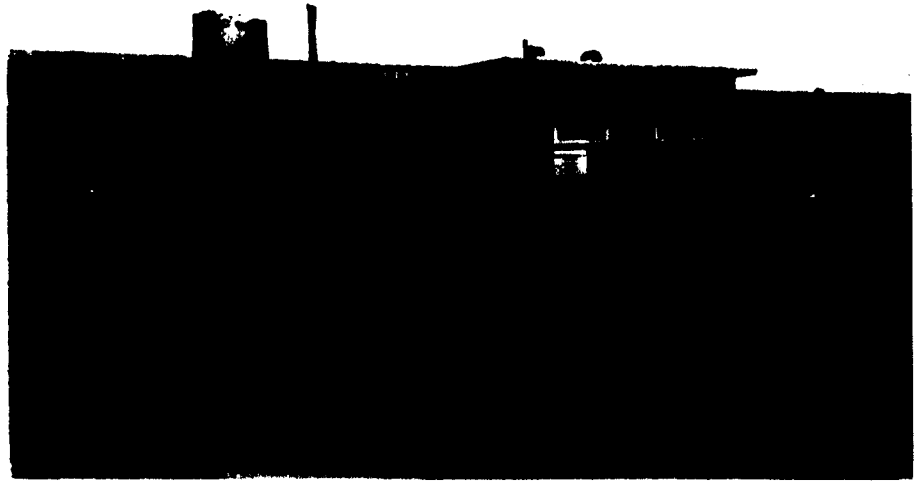
52: Drum dumper associated with dispersing unit. Photograph taken 11 October 1991.

53: Drum processing area, showing from left to right, Drum Scraper, Drum Dumper, Dispersing Unit, and Drum Washer. Photograph taken 12 November 1991.

24



25



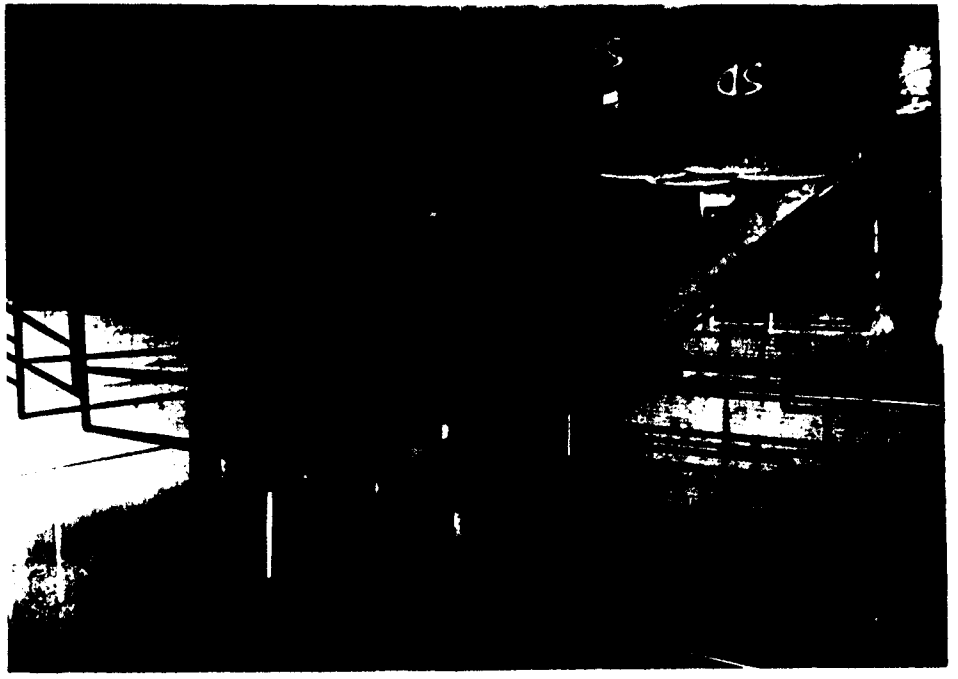
45

30



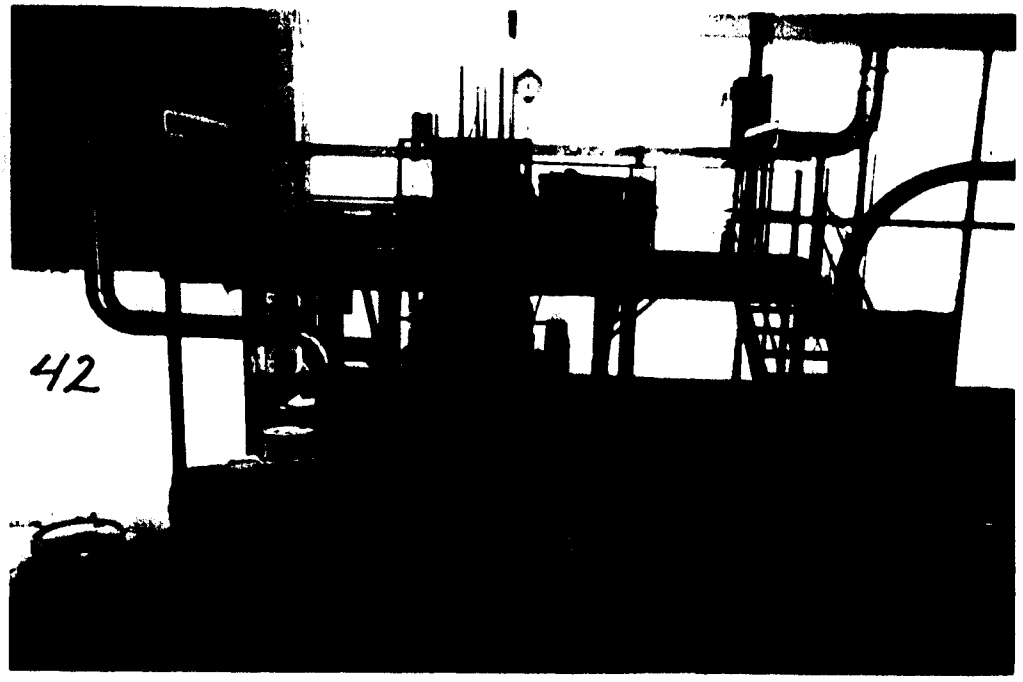


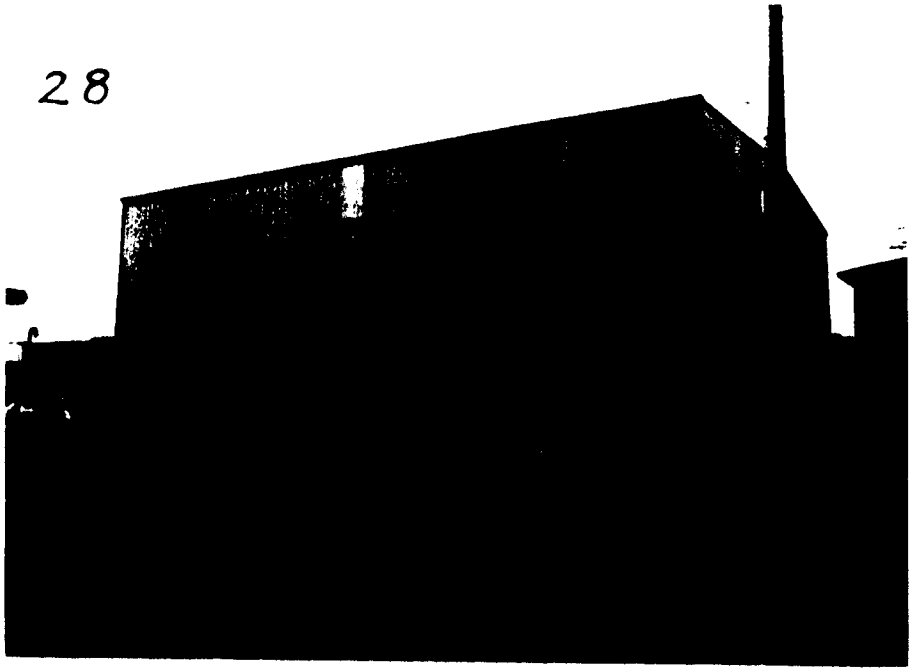

44



21

17


42


28

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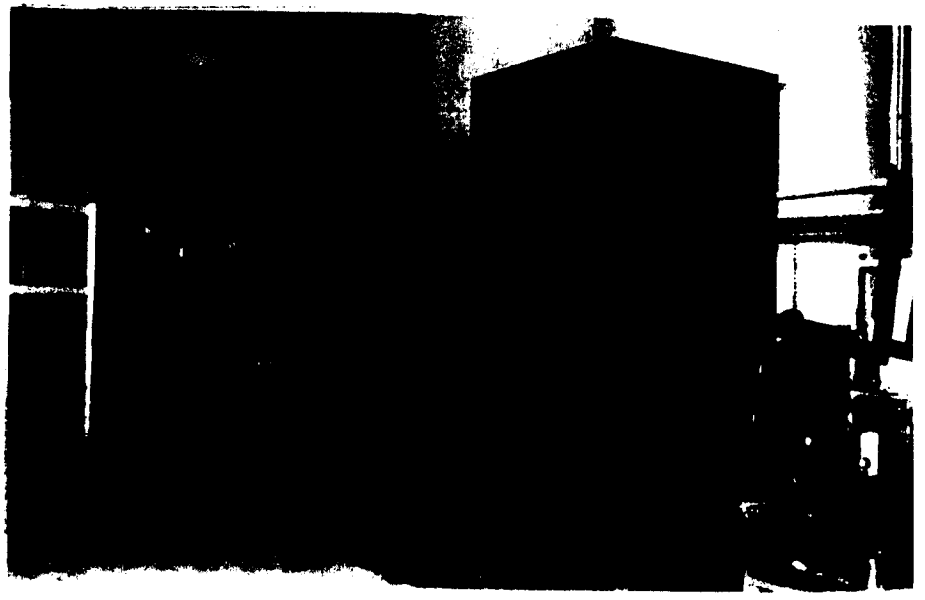
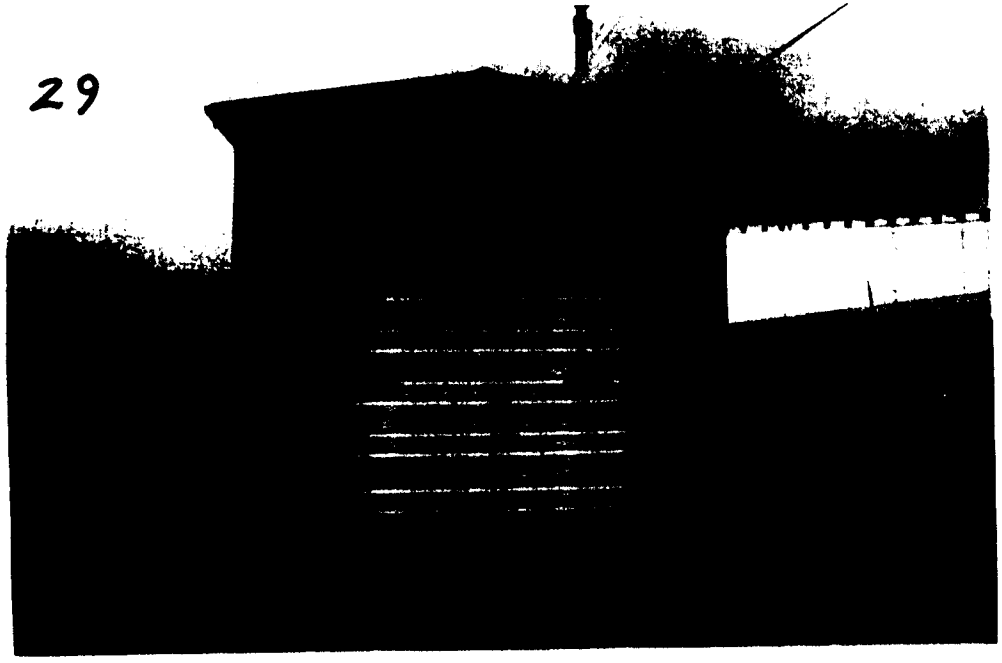
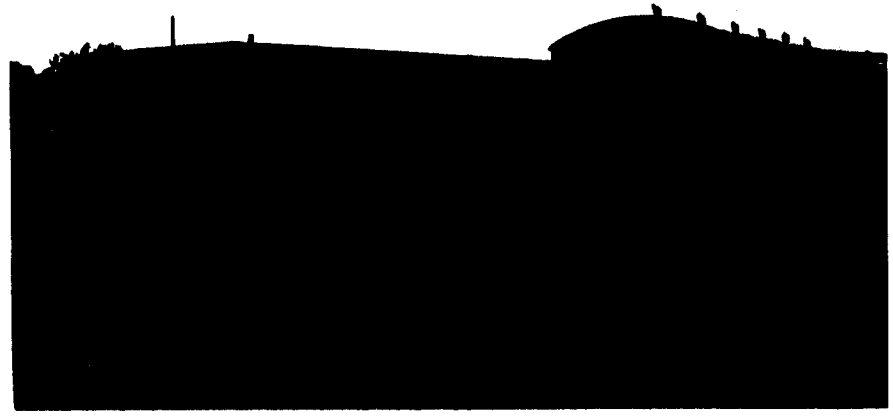


29



27



2

3

14


52

## Section 1 Treatment in Containers and Container Management Activities

As specified in correspondence with Kansas Department of Health and Environment (KDHE) and in KDHE's 7 November 1991 meeting with Hydrocarbon Recyclers, Inc. of Wichita (HRIW), the following activities are included under the treatment description "treatment in containers and container management activities," as shown in Line 7 of Items XII and XIII of this Part A application:

- lab pack container repackaging, in which laboratory scale quantities of chemicals are compatibly combined for recycling, incineration, kiln fuel use, or other disposal;
- filtration, using portable filtration units to remove particulates from liquid streams; and
- absorption or solidification of small quantities of liquid or sludge in drums of solids. Occasionally HRI of Wichita receives such liquids and/or sludge as a result of a temperature dependent phase change, or of incomplete mixing by the generator. To make the material more amenable to proper transportation or to satisfy the need of the disposal facility for a uniform material, HRI of Wichita may choose to absorb or solidify incidental liquids with fly ash, cement, or an alternative non-reactive absorbent material. This activity is not intended to change the treatment and/or disposal option for the waste stream.

NOTE: The Process Total Number of Units shown for this line in Item XIII corresponds to the number of storage buildings specified for permitting in Addendum B of this application.

## Section 2 Use and Status of Sparging Units

The sparging units addressed in this section will be closed under a compliance schedule defined in the RCRA permit.

## Section 3 Facility Owners and Operators

HRIW is a wholly owned subsidiary of Hydrocarbon Recyclers, Inc. (HRI), a company owned by USPCI, Inc. HRI purchased the property in September, 1992 from the former property owners, Charles P. and David G. Trombold. USPCI, HRI, and HRIW personnel manage and operate the site.

## Section 4 Miscellaneous (Subpart X) Units

In its 7 November meeting with HRIW, and amended in written comments from EPA dated 7/2/92, KDHE and EPA Region VII specified the following units as miscellaneous (Subpart X) units that currently fall under the jurisdiction of EPA Region VII for permitting and enforcement:

Drier unit,
Shredder unit,
Granulator unit,
Drum washer,
Drum scraper, and
Dispersing unit.

## Section 5 Treatment in Tanks and Tank Management Activities

- Blending;
- Phase Separation;
- Neutralization;
- Emulsification;
- Physical/Chemical Treatment.

# Hazardous Waste Tank Storage (S02) Service[1]

| VESSEL | CAPACITY - WORK (gal) | CAPACITY - MAX (gal) | LOCATION |
|---|---|---|---|
| V-1 | 7,181 | 7,363 | Process Area |
| V-2 | 7,084 | 7,084 | Process Area |
| V-3 | 7,181 | 7,363 | Process Area |
| V-4 | 7,181 | 7,363 | Process Area |
| V-5 | 20,895 | 20,895 | Process Area |
| V-6 | 20,895 | 20,895 | Process Area |
| V-7 | 7,181 | 7,363 | Process Area |
| V-8 | 7,181 | 7,363 | Process Area |
| V-9 | 5,078 | 5,078 | Building D |
| V-10 | 5,078 | 5,078 | Building D |
| V-11 | 5,078 | 5,078 | Building D |
| V-12 | 5,078 | 5,078 | Building D |
| V-13 | 5,078 | 5,078 | Building D |
| V-14 | 5,078 | 5,078 | Building D |
| V-15A | 2,659 | 2,659 | Building D |
| V-15B | 2,659 | 2,659 | Building D |
| V-15C | 2,659 | 2,659 | Building D |
| V-15D | 2,659 | 2,659 | Building D |
| V-16 | 9,028 | 9,028 | Building D |
| V-17 | 522 | 522 | Process Area |
| V-18 | 489 | 489 | Building D |
| V-26[2] | 1,129 | 1,155 | Process Area |
| **TOTAL** | **137,051** | **137,987** | **N/A** |

# Hazardous Waste Container Storage (S01) Buildings[3]

| STORAGE BUILDING | STORAGE CAPACITY (gal) | DRUM EQUIVALENTS (55 gal) |
|---|---|---|
| Building D | 46,640 | 848 |
| Processing Area | 9,900 | 180 |
| Building C | 99,110 | 1,802 |
| Drum Dock | 14,960 | 272 |
| Building B | 55,000 | 1,000 |
| Building I | 50,600 | 920 |
| Building J | 49,280 | 896 |
| **TOTAL** | **325,490** | **5,918** |

Footnote 1. Total Tank Capacity = Working capacity of hazardous waste storage tanks only; processing tanks and product tanks are not included in this table.

Footnote 2. Dispersing Unit tank.

Footnote 3. Total Container Storage Capacity = Maximum storage capacity calculated using "55 gallon drum equivalents"; greater numbers of approved containers may be stored in any building so long as total permitted capacity will not be exceeded; the total capacity shown for each building will provide for processing flexibility. Gondola storage will occur in Buildings C and I only, unless otherwise permitted later. One (1) twenty one cubic yard gondola may contain up to eighty three (83) fifty five gallon drum equivalents.

Zip

**USPCI**
A Subsidiary of
Union Pacific Corporation

20 December, 1993

Mr. Steve Broslavick
Hazardous Waste Section
Kansas Department of Health and Environment
Forbes Field, Building 740
Topeka, Kansas 66620-0002

RE: Hydrocarbon Recyclers, Inc. of Wichita, d/b/a USPCI (HRIW)
EPA ID No. KSD007246846
Revised Part A Permit Application

Dear Mr. Broslavick,

Enclosed your will find two copies of the revised HRIW Part A permit application forms. These forms differ from those dated December 10 only in that a telephone number on Page 1 of 7 has been revised, and the operator's name, on Page 2 of 7, has been corrected. The financial assurance letter of credit is issued to the facility operator, HRI of Wichita, and therefore is consistent with the requirements of 40 CFR 264.143. The signature page has been re-signed to reflect this most current submission.

Please discard the Part A forms from the December 10, 1993 submittal, replacing them with the forms included in this package. The attachments to the Part A do not change with this submission, and therefore are not included.

If you have any questions regarding this submittal, please contact Steve Keiter at (316) 268-7500.

Sincerely,

Robert Apple
Vice President - Operations

cc: Mark Matthews, U.S. EPA
Steve Keiter, HRIW
Liane Hetherington-Ward, USPCI

RECEIVED
DEC 2 1993
PRMT-SECTION

2549 N. New York • Wichita, Kansas 67219 • 316/268-7500

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved OMB No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

| For EPA Regional Use Only | EPA United States Environmental Protection Agency Washington, DC 20460 | For State Use Only |
|---|---|---|
| Date Received Month Day Year | **Hazardous Waste Permit Application Part A** *(Read the Instructions before starting)* | |

## I. ID Number(s)

| A. EPA ID Number | B. Secondary ID Number *(if applicable)* |
|---|---|
| KSD007246846 | |

## II. Name of Facility

HYDROCARBON RECYCLERS INC. OF WICHITA

## III. Facility Location *(Physical address not P.O. Box or Route Number)*

A. Street: 2549 N NEW YORK

Street *(continued)*:

| City or Town | State | ZIP Code |
|---|---|---|
| WICHITA | KS | 67219- |

| County Code *(if known)* | County Name |
|---|---|
| | SEDGWICK |

| B. Land Type *(enter code)* | C. Geographic Location LATITUDE *(degrees, minutes, & seconds)* | LONGITUDE *(degrees, minutes, & seconds)* | D. Facility Existence Date Month Day Year |
|---|---|---|---|
| P | 374350N | 0971908W | 06011979 |

## IV. Facility Mailing Address

Street or P.O. Box: SAME

| City or Town | State | ZIP Code |
|---|---|---|
| SAME | | - |

## V. Facility Contact *(Person to be contacted regarding waste activities at facility)*

| Name *(last)* | *(first)* |
|---|---|
| KEITER | STEVE |

| Job Title | Phone Number *(area code and number)* |
|---|---|
| FACILITY MGR | 316-268-7500 |

## VI. Facility Contact Address *(See instructions)*

| A. Contact Address Location | Mailing | B. Street or P.O. Box |
|---|---|---|
| X | | |

| City or Town | State | ZIP Code |
|---|---|---|
| | | - |

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Form Approved. OMB No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

| EPA I.D. Number (enter from page 1) | Secondary ID Number (enter from page 1) |
|---|---|
| KSD007246846 | |

## VII. Operator Information (see instructions)

| Name of Operator | | |
|---|---|---|
| HYDROCARBON RECYCLERS INC OF WICHITA | | |
| **Street or P.O. Box** | | |
| 2549 N NEW YORK | | |
| **City or Town** | **State** | **ZIP Code** |
| WICHITA | KS | 67219- |

| Phone Number (area code and number) | B. Operator Type | C. Change of Operator Indicator | Date Changed (Month Day Year) |
|---|---|---|---|
| 316-268-7500 | P | Yes: ; No: X | |

## VIII. Facility Owner (see instructions)

| A. Name of Facility's Legal Owner | | |
|---|---|---|
| HYDROCARBON RECYCLERS INC | | |
| **Street or P.O. Box** | | |
| 515 W GREENS ROAD SUITE 500 | | |
| **City or Town** | **State** | **ZIP Code** |
| HOUSTON | TX | 77067- |

| Phone Number (area code and number) | B. Owner Type | C. Change of Owner Indicator | Date Changed (Month Day Year) |
|---|---|---|---|
| 713-775-7800 | P | Yes: X; No: | 09 24 92 |

## IX. SIC Codes (4-digit, in order of significance)

| Primary | | Secondary | |
|---|---|---|---|
| 7389 | (description) Solvents Recovery | 4953 | (description) Refuse Systems |
| **Secondary** | | **Secondary** | |
| 8734 | (description) Testing Laboratory | | (description) |

## X. Other Environmental Permits (see instructions)

| A. Permit Type (enter code) | B. Permit Number | C. Description |
|---|---|---|
| E | 3320016 1 | Kansas Department of Health & Environment Air Emission Permit |

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Form Approved. OMB No. 2050-0034 Expires 12-31-9
GSA No. 0246-EPA-C

| EPA I.D. Number (enter from page 1) | | | | | | | | | | | | Secondary ID Number (enter from page 1) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | |

## XI. Nature of Business (provide a brief description)

HRI-Wichita blends solvents for beneficial use as cement kiln fuel and recovers dry cleaning solvents. HRI-Wichita also processes and/or channels waste solvents, solids, and water to other EPA-approved facilities for distillation, beneficial reuse, or disposal.

HRI-Wichita also stores waste solvent, hydrocarbons, paint-related waste streams, solids, corrosive waste streams, and water-based waste streams.

## XII. Process - Codes and Design Capacities

A. PROCESS CODE - *Enter the code from the list of process codes below that best describes each process to be used at the facility. Twelve lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided in Item XIII.*

B. PROCESS DESIGN CAPACITY - *For each code entered in column A, enter the capacity of the process.*

1. AMOUNT - *Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process unit.*
2. UNIT OF MEASURE - *For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.*

C. PROCESS TOTAL NUMBER OF UNITS - *Enter the total number of units used with the corresponding process code.*

| PROCESS CODE | PROCESS | APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY |
|---|---|---|
| | DISPOSAL: | |
| D79 | INJECTION WELL | GALLONS; LITERS; GALLONS PER DAY; OR LITERS PER DAY |
| D80 | LANDFILL | ACRE-FEET OR HECTARE-METER |
| D81 | LAND APPLICATION | ACRES OR HECTARES |
| D82 | OCEAN DISPOSAL | GALLONS PER DAY OR LITERS PER DAY |
| D83 | SURFACE IMPOUNDMENT | GALLONS OR LITERS |
| | STORAGE: | |
| S01 | CONTAINER (barrel, drum, etc.) | GALLONS OR LITERS |
| S02 | TANK | GALLONS OR LITERS |
| S03 | WASTE PILE | CUBIC YARDS OR CUBIC METERS |
| S04 | SURFACE IMPOUNDMENT | GALLONS OR LITERS |
| | TREATMENT: | |
| T01 | TANK | GALLONS PER DAY OR LITERS PER DAY |
| T02 | SURFACE IMPOUNDMENT | GALLONS PER DAY OR LITERS PER DAY |
| T03 | INCINERATOR | SHORT TONS PER HOUR; METRIC TONS PER HOUR; GALLONS PER HOUR; LITERS PER HOUR; OR BTU'S PER HOUR |
| T04 | OTHER TREATMENT (Use for physical, chemical, thermal or biolgical treatment processes not occurring in tanks, surface impoundment or incinerators. Describe the processes in the space provided in Item XIII.) | GALLONS PER DAY; LITERS PER DAY; POUNDS PER HOUR; SHORT TONS PER HOUR; KILOGRAMS PER HOUR; METRIC TONS PER DAY; METRIC TONS PER HOUR; OR SHORT TONS PER DAY |

| UNIT OF MEASURE | UNIT OF MEASURE CODE |
|---|---|
| GALLONS | G |
| GALLONS PER HOUR | E |
| GALLONS PER DAY | U |
| LITERS | L |
| LITERS PER HOUR | H |
| LITERS PER DAY | V |
| SHORT TONS PER HOUR | D |
| METRIC TONS PER HOUR | W |
| SHORT TONS PER DAY | N |
| METRIC TONS PER DAY | S |
| POUNDS PER HOUR | J |
| KILOGRAMS PER HOUR | R |
| CUBIC YARDS | Y |
| CUBIC METERS | C |
| ACRES | B |
| ACRE-FEET | A |
| HECTARES | Q |
| HECTARE-METER | F |
| BTU's PER HOUR | K |

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Form Approved. OMB No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

| EPA I.D. Number (enter from page 1) | Secondary ID Number (enter from page 1) |
|---|---|
| K S D 0 0 7 2 4 6 8 4 6 | |

## XII. Process - Codes and Design Capacities (continued)

*EXAMPLE FOR COMPLETING ITEM XII (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.*

| Line Number | A. PROCESS CODE (from list above) | B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify) | B. 2. UNIT OF MEASURE (enter code) | C. PROCESS TOTAL NUMBER OF UNITS | FOR OFFICIAL USE ONLY |
|---|---|---|---|---|---|
| X 1 | S 0 2 | 600 | G | 0 0 2 | |
| X 2 | T 0 3 | 20 | E | 0 0 1 | |
| 1 | S 0 1 | 325490 | G | 0 0 7 | |
| 2 | S 0 2 | 137987 | G | 0 2 7 | |
| 3 | T 0 4 | 14400 | U | 0 0 1 | |
| 4 | T 0 4 | 20000 | U | 0 0 1 | |
| 5 | T 0 4 | 10000 | J | 0 0 1 | |
| 6 | T 0 4 | 10000 | J | 0 0 1 | |
| 7 | T 0 4 | 250 | N | 0 0 7 | |
| 8 | T 0 4 | 14400 | U | 0 0 1 | |
| 9 | T 0 4 | 20000 | U | 0 0 1 | |
| 1 0 | T 0 1 | 25000 | U | 0 2 1 | |
| 1 1 | | | | | |
| 1 2 | | | | | |

*NOTE: If you need to list more than 12 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for additional treatment processes in Item XIII.*

## XIII. Additional Treatment Processes (follow instructions from Item XII)

| Line Number (enter numbers in sequence with Item XII) | A. PROCESS CODE | B. TREATMENT PROCESS DESIGN CAPACITY 1. AMOUNT (specify) | B. 2. UNIT OF MEASURE (enter code) | C. PROCESS TOTAL NUMBER OF UNITS | D. DESCRIPTION OF PROCESS |
|---|---|---|---|---|---|
| 0 3 | T 0 4 | 14400 | U | 0 0 1 | Drier Unit evaporates liquids from sludges and solids, then recondenses vapor |
| 0 4 | T 0 4 | 20000 | U | 0 0 1 | Drum Scraper unit enhances removal of viscous liquids and solids from containers using a mechanical scraper and impeller. |
| 0 5 | T 0 4 | 10000 | J | 0 0 1 | Shredder Unit will break up dry cleaning cartridges to improve dry cleaning solvent removal and cartridge disposal. Will also do size reduction for other materials. Attached to carbon adsorption system. |
| 0 6 | T 0 4 | 10000 | J | 0 0 1 | Granulator Unit will break up dry cleaning cartridges to improve dry cleaning solvent removal and cartridge disposal. Will also do size reduction for other materials. Attached to carbon adsorption system. |

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| EPA I.D. Number (enter from page 1) | Secondary ID Number (enter from page 1) |
|---|---|
| K S D 0 0 7 2 4 6 8 4 6 | |

## XII. Process - Codes and Design Capacities (continued)

*EXAMPLE FOR COMPLETING ITEM XII (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.*

| Line Number | A. PROCESS CODE (from list above) | B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify) | B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code) | C. PROCESS TOTAL NUMBER OF UNITS | FOR OFFICIAL USE ONLY |
|---|---|---|---|---|---|
| X 1 | S 0 2 | 600 | G | 0 0 2 | |
| X 2 | T 0 3 | 20 | E | 0 0 1 | |
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| 6 | | | | | |
| 7 | | | | | |
| 8 | | | | | |
| 9 | | | | | |
| 10 | | | | | |
| 11 | | | | | |
| 12 | | | | | |

*NOTE: If you need to list more than 12 process codes, attach an additional sheet(s) with the information in the same format as above. Number the lines sequentially, taking into account any lines that will be used for additional treatment processes in Item XIII.*

## XIII. Additional Treatment Processes (follow instructions from Item XII)

| Line Number (enter numbers in sequence with Item XII) | A. PROCESS CODE | B. TREATMENT PROCESS DESIGN CAPACITY 1. AMOUNT (specify) | B. TREATMENT PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code) | C. PROCESS TOTAL NUMBER OF UNITS | D. DESCRIPTION OF PROCESS |
|---|---|---|---|---|---|
| 07 | T 0 4 | 250 | N | 0 0 7 | Treatment in containers and container management activities as described in Addendum A. Process Total Number of Units corresponds to number of buildings in which these activities are conducted. |
| 08 | T 0 4 | 14400 | U | 0 0 1 | Drum Washing Unit removes waste residue from emptied drums. |
| 09 | T 0 4 | 20000 | U | 0 0 1 | Dispersing Unit uses agitation to dissolve viscous liquids and solids removed from containers prior to pumping these materials to tanks. |
| | T 0 4 | | | | |

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| EPA I.D. Number (enter from page 1) | Secondary ID Number (enter from page 1) |
|---|---|
| K S D 0 0 7 2 4 6 8 4 6 | |

## XIV. Description of Hazardous Wastes

A. EPA HAZARDOUS WASTE NUMBER - *Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR, Part 261 Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.*

B. ESTIMATED ANNUAL QUANTITY - *For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.*

C. UNIT OF MEASURE - *For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:*

| ENGLISH UNIT OF MEASURE | CODE | METRIC UNIT OF MEASURE | CODE |
|---|---|---|---|
| POUNDS | P | KILOGRAMS | K |
| TONS | T | METRIC TONS | M |

*If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.*

D. PROCESSES

1. PROCESS CODES:

*For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item XII A. on page 3 to indicate how the waste will be stored, treated, and/or disposed of at the facility.*

*For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item XII A. on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that processes that characteristic or toxic contaminant.*

*NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:*

1. *Enter the first two as described above.*
2. *Enter "000" in the extreme right box of Item XIV-D(1).*
3. *Enter in the space provided on page 7, Item XIV-E, the line number and the additional code(s).*

2. PROCESS DESCRIPTION: *If a code is not listed for a process that will be used, describe the process in the space provided on the form (D.(2)).*

*NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER- Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:*

1. *Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.*
2. *In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "Included with above" and make no other entries on that line.*
3. *Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.*

*EXAMPLE FOR COMPLETING ITEM XIV (shown in line numbers X-1, X-2, X-3, and X-4 below) - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.*

| Line Number | A. EPA HAZARD WASTE NO. (enter code) | B. ESTIMATED ANNUAL QUANTITY OF WASTE | C. UNIT OF MEASURE (enter code) | D. PROCESS (1) PROCESS CODES (enter) | D. PROCESS (2) PROCESS DESCRIPTION (If a code is not entered in D(1)) |
|---|---|---|---|---|---|
| X 1 | K 0 5 4 | 900 | P | T 0 3 D 8 0 | |
| X 2 | D 0 0 2 | 400 | P | T 0 3 D 8 0 | |
| X 3 | D 0 0 1 | 100 | P | T 0 3 D 8 0 | |
| X 4 | D 0 0 2 | | | | Included With Above |

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| [illegible] | [illegible] | F | 0 | 0 | 1 | 7000000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 0 | 2 | 7000000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 0 | 3 | 7000000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 0 | 4 | 140000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 0 | 5 | 7000000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 0 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 0 | 7 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 0 | 8 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 0 | 9 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 1 | 0 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 1 | 1 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 1 | 2 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 1 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 2 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 2 | 5 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 3 | 2 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 3 | 4 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 3 | 5 | 60000 | P | S | 0 | 1 | T | 0 | 4 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 3 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | F | 0 | 3 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
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| | | D | 0 | 0 | 6 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | D | 0 | 0 | 7 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | D | 0 | 0 | 8 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | D | 0 | 0 | 9 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | D | 0 | 1 | 0 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | D | 0 | 1 | 1 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
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| | | D | 0 | 1 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | D | 0 | 2 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | D | 0 | 2 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | D | 0 | 2 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | D | 0 | 2 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | D | 0 | 2 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | D | 0 | 2 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | D | 0 | 2 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | D | 0 | 2 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
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| | | D | 0 | 3 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

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| D | 0 | 4 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
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| [illegible] | K | 0 | 1 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | |
| [illegible] | K | 0 | 1 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | |
| [illegible] | K | 0 | 2 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | |
| [illegible] | K | 0 | 2 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | |
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| [illegible] | K | 0 | 3 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | |
| [illegible] | K | 0 | 3 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | |

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| [illegible] | K | 0 | 3 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
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| [illegible] | K | 0 | 3 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 3 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 4 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
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| [illegible] | K | 0 | 4 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 4 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
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| [illegible] | K | 0 | 4 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 4 | 8 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 4 | 9 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 5 | 0 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 5 | 1 | 500000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 5 | 2 | 100000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 6 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 6 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 6 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 6 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 6 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 6 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 5 | K | 0 | 6 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 7 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 7 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 8 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 8 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 8 | 5 | 200000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| [illegible] | K | 0 | 8 | 6 | 200000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 2 | K | 0 | 8 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 3 | K | 0 | 8 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0024 Expires 12-31-01
GSA No. 6240-GPA-OT

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | K | 0 | 9 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 0 | 9 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 0 | 9 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 0 | 9 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 0 | 9 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 0 | 9 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 0 | 9 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 0 | 9 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 0 | 9 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 0 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 0 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 0 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 0 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 0 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 0 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 0 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 0 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 0 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 0 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 1 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 1 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 1 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 1 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 1 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 1 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 1 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 1 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 1 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 2 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 2 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 2 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 2 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |
| | | K | 1 | 3 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | | | | | |

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Form Approved. OMB No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | K | 1 | 3 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 2 | K | 1 | 3 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 3 | K | 1 | 4 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 4 | K | 1 | 4 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 5 | K | 1 | 4 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 6 | K | 1 | 4 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 7 | K | 1 | 4 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 8 | K | 1 | 4 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 9 | K | 1 | 4 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 0 | K | 1 | 4 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 1 | K | 1 | 5 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 2 | K | 1 | 5 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 3 | | | | | | | | | | | | | | | | |
| 2 | 4 | | | | | | | | | | | | | | | | |
| 2 | 5 | | | | | | | | | | | | | | | | |
| 2 | 6 | | | | | | | | | | | | | | | | |
| 2 | 7 | | | | | | | | | | | | | | | | |
| 2 | 8 | | | | | | | | | | | | | | | | |
| 2 | 9 | | | | | | | | | | | | | | | | |
| 3 | 0 | | | | | | | | | | | | | | | | |
| 3 | 1 | | | | | | | | | | | | | | | | |
| 3 | 2 | | | | | | | | | | | | | | | | |
| 3 | 3 | | | | | | | | | | | | | | | | |

[redacted]

| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | [redacted] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

[redacted]

| [redacted] | | | | | | | |
|---|---|---|---|---|---|---|---|
| [redacted] | U001 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U002 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U003 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U004 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U005 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U006 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U007 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U008 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U009 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U010 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U011 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U012 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U014 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U015 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U016 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U017 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U018 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U019 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U020 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U021 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U022 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U023 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U024 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U025 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U026 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U027 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U028 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U029 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U030 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U031 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U032 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U033 | 60000 | P | S01 | S02 | T04 | |
| [redacted] | U034 | 60000 | P | S01 | S02 | T04 | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

GSA No. 0246-EPA-OT

EPA I.D. [illegible] Secondary ID Number (enter from page 1)

K S D 0 0 7 2 4 6 8 4 6

XIV. [illegible]

| Line Number | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | U | 0 | 3 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | 2 | U | 0 | 3 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | 3 | U | 0 | 3 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | 4 | U | 0 | 3 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | 5 | U | 0 | 3 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | 6 | U | 0 | 4 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | 7 | U | 0 | 4 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | U | 0 | 4 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | U | 0 | 4 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | U | 0 | 4 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | U | 0 | 4 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | U | 0 | 4 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | U | 0 | 4 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | U | 0 | 4 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | U | 0 | 5 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | U | 0 | 5 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | U | 0 | 5 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | U | 0 | 5 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| [illegible] | [illegible] | U | 0 | 5 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 0 | U | 0 | 5 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 1 | U | 0 | 5 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 2 | U | 0 | 5 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 3 | U | 0 | 5 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 4 | U | 0 | 6 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 5 | U | 0 | 6 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 6 | U | 0 | 6 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 7 | U | 0 | 6 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 8 | U | 0 | 6 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 2 | 9 | U | 0 | 6 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 0 | U | 0 | 6 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 1 | U | 0 | 6 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 2 | U | 0 | 6 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |
| 3 | 3 | U | 0 | 7 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

GSA No. 0246-EPA-OT

| EPA I.D. | | | | | | | | | | | | Secondary ID Number (enter from page 1) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | |

XI. [illegible]

| Line | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | U | 0 | 7 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 2 | U | 0 | 7 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 3 | U | 0 | 7 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 4 | U | 0 | 7 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 5 | U | 0 | 7 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 6 | U | 0 | 7 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 7 | U | 0 | 7 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 8 | U | 0 | 7 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 9 | U | 0 | 7 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 0 | U | 0 | 8 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 1 | U | 0 | 8 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 2 | U | 0 | 8 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 3 | U | 0 | 8 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 4 | U | 0 | 8 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 5 | U | 0 | 8 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 6 | U | 0 | 8 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 7 | U | 0 | 8 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 8 | U | 0 | 8 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 9 | U | 0 | 8 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 0 | U | 0 | 9 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 1 | U | 0 | 9 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 2 | U | 0 | 9 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 3 | U | 0 | 9 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 4 | U | 0 | 9 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 5 | U | 0 | 9 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 6 | U | 0 | 9 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 7 | U | 0 | 9 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 8 | U | 0 | 9 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 9 | U | 0 | 9 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 0 | U | 1 | 0 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 1 | U | 1 | 0 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 2 | U | 1 | 0 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 3 | U | 1 | 0 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

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Form Approved. OMB No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-07

| EPA I.D. Number | | | | | | | | | | | | Secondary ID Number (enter from page 1) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | | | | | | | | | | | | |

XIV. Description of Hazardous Waste Processes

| Line Number | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | U | 1 | 0 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 2 | U | 1 | 0 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 3 | U | 1 | 0 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 4 | U | 1 | 0 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 5 | U | 1 | 1 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 6 | U | 1 | 1 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 7 | U | 1 | 1 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 8 | U | 1 | 1 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 9 | U | 1 | 1 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 10 | U | 1 | 1 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 11 | U | 1 | 1 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 12 | U | 1 | 1 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 13 | U | 1 | 1 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 14 | U | 1 | 1 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 15 | U | 1 | 2 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 16 | U | 1 | 2 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 17 | U | 1 | 2 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 18 | U | 1 | 2 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 19 | U | 1 | 2 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 0 | U | 1 | 2 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 1 | U | 1 | 2 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 2 | U | 1 | 2 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 3 | U | 1 | 2 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 4 | U | 1 | 2 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 5 | U | 1 | 3 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 6 | U | 1 | 3 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 7 | U | 1 | 3 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 8 | U | 1 | 3 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 9 | U | 1 | 3 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 3 | 0 | U | 1 | 3 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 3 | 1 | U | 1 | 3 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 3 | 2 | U | 1 | 3 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 3 | 3 | U | 1 | 3 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0034 Expires 12-31-9
GSA No. 0248-EPA-O

| EPA ID | | | | | | | | | | | | Secondary ID Number (enter from page 1) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | |

XIV. Des

| Line Number | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | U | 1 | 4 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | 2 | U | 1 | 4 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | 3 | U | 1 | 4 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | 4 | U | 1 | 4 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | 5 | U | 1 | 4 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | 6 | U | 1 | 4 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | 7 | U | 1 | 4 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | 8 | U | 1 | 4 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | 9 | U | 1 | 4 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 1 | 4 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 1 | 5 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 1 | 5 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 1 | 5 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 1 | 5 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 1 | 5 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 1 | 5 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 1 | 5 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | | U | 1 | 5 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| | 9 | U | 1 | 5 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 0 | U | 1 | 5 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 1 | U | 1 | 6 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 2 | U | 1 | 6 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 3 | U | 1 | 6 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 4 | U | 1 | 6 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 5 | U | 1 | 6 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 6 | U | 1 | 6 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 7 | U | 1 | 6 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 8 | U | 1 | 6 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 9 | U | 1 | 6 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 0 | U | 1 | 6 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 1 | U | 1 | 7 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 2 | U | 1 | 7 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 3 | U | 1 | 7 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

GSA No. 0246-EPA-OT

| EPA ID Number | | | | | | | | | | | | Secondary ID Number (enter from page 1) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | | | | | | | | | | | | |

| Line Number | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | U | 1 | 7 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 2 | U | 1 | 7 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 3 | U | 1 | 7 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 4 | U | 1 | 7 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 5 | U | 1 | 7 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 6 | U | 1 | 7 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 7 | U | 1 | 8 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 8 | U | 1 | 8 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 9 | U | 1 | 8 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 10 | U | 1 | 8 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 11 | U | 1 | 8 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 12 | U | 1 | 8 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 13 | U | 1 | 8 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 14 | U | 1 | 8 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 15 | U | 1 | 8 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 16 | U | 1 | 8 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 17 | U | 1 | 9 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 18 | U | 1 | 9 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 19 | U | 1 | 9 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 0 | U | 1 | 9 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 1 | U | 1 | 9 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 2 | U | 1 | 9 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 3 | U | 1 | 9 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 4 | U | 2 | 0 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 5 | U | 2 | 0 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 6 | U | 2 | 0 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 7 | U | 2 | 0 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 8 | U | 2 | 0 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 9 | U | 2 | 0 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 0 | U | 2 | 0 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 1 | U | 2 | 0 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 2 | U | 2 | 0 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 3 | U | 2 | 0 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

GSA No. 0246-EPA-OT

| EPA ID | Secondary ID Number (enter from page 1) |
|---|---|
| K S D 0 0 7 2 4 6 8 4 6 | |

| Unit Number | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | U | 2 | 1 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 2 | U | 2 | 1 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 3 | U | 2 | 1 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 4 | U | 2 | 1 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 5 | U | 2 | 1 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 6 | U | 2 | 1 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 7 | U | 2 | 1 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 8 | U | 2 | 1 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 9 | U | 2 | 1 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 0 | U | 2 | 2 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 1 | U | 2 | 2 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 2 | U | 2 | 2 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 3 | U | 2 | 2 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 5 | U | 2 | 2 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 6 | U | 2 | 2 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 7 | U | 2 | 2 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 8 | U | 2 | 2 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 4 | U | 2 | 3 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 5 | U | 2 | 3 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 0 | U | 2 | 3 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 1 | U | 2 | 3 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 2 | U | 2 | 3 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 3 | U | 2 | 3 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 4 | U | 2 | 4 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 5 | U | 2 | 4 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 6 | U | 2 | 4 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 7 | U | 2 | 4 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 8 | U | 2 | 4 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | 9 | U | 2 | 4 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 0 | U | 2 | 4 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 1 | U | 3 | 2 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 2 | U | 3 | 5 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | 3 | U | 3 | 5 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

| EPA I.D. Number | Secondary ID Number (enter from page 1) |
|---|---|
| K S D 0 0 7 2 4 6 8 4 6 | |

XII. De[illegible]

| Line Number | EPA Hazardous Waste No. | Estimated Annual Quantity | Unit of Measure | Process Codes | | | Process Description |
|---|---|---|---|---|---|---|---|
| [illegible] | P001 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P002 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P003 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P004 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P005 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P006 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P007 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P008 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P009 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P010 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P011 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P012 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P013 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P014 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P015 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P016 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P017 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P018 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P020 | 60000 | P | S01 | S02 | T04 | |
| [illegible] | P021 | 60000 | P | S01 | S02 | T04 | |
| 21 | P022 | 60000 | P | S01 | S02 | T04 | |
| 22 | P023 | 60000 | P | S01 | S02 | T04 | |
| 23 | P024 | 60000 | P | S01 | S02 | T04 | |
| 24 | P026 | 60000 | P | S01 | S02 | T04 | |
| 25 | P027 | 60000 | P | S01 | S02 | T04 | |
| 26 | P028 | 60000 | P | S01 | S02 | T04 | |
| 27 | P029 | 60000 | P | S01 | S02 | T04 | |
| 28 | P030 | 60000 | P | S01 | S02 | T04 | |
| 29 | P031 | 60000 | P | S01 | S02 | T04 | |
| 30 | P033 | 60000 | P | S01 | S02 | T04 | |
| 31 | P034 | 60000 | P | S01 | S02 | T04 | |
| 32 | P036 | 60000 | P | S01 | S02 | T04 | |
| 33 | P037 | 60000 | P | S01 | S02 | T04 | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. Unit No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

| EPA Lib. Number | | | | | | | | | | | | Secondary ID Number (enter from page 1) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | | | | | | | | | | | | |

| Line Number | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | P | 0 | 3 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 2 | P | 0 | 3 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 3 | P | 0 | 4 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 4 | P | 0 | 4 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 5 | P | 0 | 4 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 6 | P | 0 | 4 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 7 | P | 0 | 4 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 8 | P | 0 | 4 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 9 | P | 0 | 4 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 10 | P | 0 | 4 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 11 | P | 0 | 4 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 12 | P | 0 | 4 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 13 | P | 0 | 5 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 14 | P | 0 | 5 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 15 | P | 0 | 5 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 16 | P | 0 | 5 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 17 | P | 0 | 5 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| | 18 | P | 0 | 5 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 1 | 9 | P | 0 | 5 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 0 | P | 0 | 6 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 1 | P | 0 | 6 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 2 | P | 0 | 6 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 3 | P | 0 | 6 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 4 | P | 0 | 6 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 5 | P | 0 | 6 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 6 | P | 0 | 6 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 7 | P | 0 | 6 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 8 | P | 0 | 6 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 2 | 9 | P | 0 | 7 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 3 | 0 | P | 0 | 7 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 3 | 1 | P | 0 | 7 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 3 | 2 | P | 0 | 7 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |
| 3 | 3 | P | 0 | 7 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | | | | | | | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0034 Expires 12-31-91
GSA No. 0246-EPA-OT

| EPA I.D. Number | Secondary ID Number (enter from page 1) |
|---|---|
| K S D 0 0 7 2 4 6 8 4 6 | |

| Line Number | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | P | 0 | 7 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 2 | P | 0 | 7 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 3 | P | 0 | 7 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 4 | P | 0 | 7 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 5 | P | 0 | 8 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 6 | P | 0 | 8 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 7 | P | 0 | 8 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 8 | P | 0 | 8 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 9 | P | 0 | 8 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 10 | P | 0 | 8 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 11 | P | 0 | 8 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 12 | P | 0 | 9 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 13 | P | 0 | 9 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 14 | P | 0 | 9 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 15 | P | 0 | 9 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 16 | P | 0 | 9 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 17 | P | 0 | 9 | 7 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 18 | P | 0 | 9 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 19 | P | 0 | 9 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 20 | P | 1 | 0 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 21 | P | 1 | 0 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 22 | P | 1 | 0 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 23 | P | 1 | 0 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 24 | P | 1 | 0 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 25 | P | 1 | 0 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 26 | P | 1 | 0 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 27 | P | 1 | 0 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 28 | P | 1 | 1 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 29 | P | 1 | 1 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 30 | P | 1 | 1 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 31 | P | 1 | 1 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 32 | P | 1 | 1 | 4 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 33 | P | 1 | 1 | 5 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0039 Expires 12-31-91
GSA No. 0246-EPA-OT

| EPA ID Number | | | | | | | | | | | | Secondary ID Number (enter from page 1) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K | S | D | 0 | 0 | 7 | 2 | 4 | 6 | 8 | 4 | 6 | |

| Line | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | P | 1 | 1 | 6 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 2 | P | 1 | 1 | 8 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 3 | P | 1 | 1 | 9 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 4 | P | 1 | 2 | 0 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 5 | P | 1 | 2 | 1 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 6 | P | 1 | 2 | 2 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 7 | P | 1 | 2 | 3 | 60000 | P | S | 0 | 1 | S | 0 | 2 | T | 0 | 4 | |
| 1 | 8 | | | | | | | | | | | | | | | | |
| 1 | 9 | | | | | | | | | | | | | | | | |
| 1 | 10 | | | | | | | | | | | | | | | | |
| 1 | 11 | | | | | | | | | | | | | | | | |
| 1 | 12 | | | | | | | | | | | | | | | | |
| 1 | 13 | | | | | | | | | | | | | | | | |
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| 1 | 33 | | | | | | | | | | | | | | | | |

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0034 Expires 12-31-
GSA No. 0246-EPA-C

EPA I.D. Number (enter from page 1): K S D 0 0 7 2 4 6 8 4 6

Secondary ID Number (enter from page 1):

## XIV. Description of Hazardous Waste (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 6.

| Line Number | Additional Process Codes (enter) |
|---|---|
| | |

## XV. Map

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.

## XVI. Facility Drawing

All existing facilities must include a scale drawing of the facility (see instructions for more detail).

## XVII. Photographs

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

## XVIII. Certification(s)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Owner Signature: [signature] Date Signed: 12/20/93

Name and Official Title (type or print): Robert M. Apple, Vice President-Operations, Hydrocarbon Recyclers, Inc. of Wichita

Operator Signature: [signature] Date Signed: 12/20/93

Name and Official Title (type or print): Robert M. Apple, Vice President-Operations, Hydrocarbon Recyclers, Inc.

## XIX. Comments

This is a revised Part A Hazardous Waste Permit Application, dated December 20, 1993.

Hydrocarbon Recyclers, Inc. does business as USPCI, Inc., as Hydrocarbon Recyclers, Inc. of Wichita, and as Treatment and Recovery Services.

Note: Mail completed form to the appropriate EPA Regional or State Office. (refer to instructions for more information)

Mark

**USPCI**
A Subsidiary of
Union Pacific Corporation

RECEIVED
APR 01 1994
PRMT. SECTION

**Treatment & Recovery Services**

March 30, 1994

Mark Matthews
U.S. Environmental Protection Agency, Region VII
726 Minnesota Avenue
Kansas City, Kansas 66101

Re: Hydrocarbon Recyclers, Inc. of Wichita d/b/a USPCI (HRIW)
EPA ID No. KSD007246846
RCRA Part B Permit Application - Replacement Pages

Dear Mr. Matthews,

Enclosed you will find a set of responses to your comments of September 28, 1993, together with revised pages for the HRIW RCRA permit application. We have organized the comment response package to repeat each of your comments, providing a rationale for our response and the revised text resulting from the comment, as appropriate. A set of revised pages with changes marked in redline/strikeout is provided.

If you have any questions regarding these matters, please contact Steve Keiter at (316) 268-7500.

Sincerely,

Stephen M Keiter

Stephen M. Keiter
General Manager
Hydrocarbon Recyclers, Inc. of Wichita

cc: B. Apple, HRI
L. Hetherington-Ward, USPCI

Hydrocarbon Recyclers, Inc. of Wichita
2549 North New York • Wichita, Kansas 67219 • 316/268-7500 • Fax 316/268-7555

**RESPONSE TO SEPTEMBER 28, 1993 COMMENTS**
**RCRA PART B PERMIT APPLICATION**
**HYDROCARBON RECYCLERS, INC., OF WICHITA D/B/A/ USPCI**

1. **In the response to comment 7.(c) of our comment letter dated July 1, 1992, HRI stated that three (3) standard deviations will be changed to two (2). The revised pages still reflect three (3) standard deviations.**

**HRIW Commentary**

The language on page 13-A of Section J (the Closure Plan) has been revised to indicate that two standard deviations will be used to define background concentrations for the closure performance standard.

**HRIW New/Revised Narrative (Section J, Page 13)**

... The facility "background" will be considered the mean plus two ~~three~~ standard deviations.

Visibly contaminated soil, either adjacent to or under containment systems of waste management units, will be removed. Excavated soil and debris will be analyzed according to standard laboratory procedures for the presence of hazardous constituents and managed in accordance with applicable regulations. Procedures for sampling and analysis of soil remaining after excavation (if applicable) are listed below.

1. For partial closure involving possible soil contamination, six representative background samples will be taken on-site but away from the visible contamination at depths of 0-18 inches and 18-36 inches at each of three sample points and analyzed using either USEPA SW-846 8260 and/or SW-846 8015, modified, or another equivalent, acceptable method. For all methods of record, deviations from SW-846 methods have either been included in the Waste Analysis Plan (Section C) for agency approval at this time, or will be submitted to the agency for approval prior to use. Background samples will be taken from the same soil type and at the same soil horizon as non-background samples. The facility "background" will be considered the mean plus two ~~three~~ standard deviations.

**(continued)**

2. **Section M has been revised to say that waste codes will be dropped after three (3) unit volumes have been processed through miscellaneous units. Section M should contain a table showing the unit volume for each miscellaneous unit.**

**HRIW Commentary**

A table has been added to Section M specifying the volumes of each of the miscellaneous units at HRIW. The disperser is the equipment used to mix materials in the disperser tank, which is addressed as a hazardous waste storage tank under Section E of the RCRA permit application. During closure, the disperser will be closed simultaneous to the disperser tank closure. For that reason, the disperser volume is accounted for with the hazardous waste storage tank volumes, but not in the miscellaneous units volumes.

**HRIW New/Revised Narrative (Section M, Page 1-B)**

- Miscellaneous Units - The three unit volumes processed through the unit after completion of management of a listed or characteristic waste will be considered as carrying the same listed codes, or characteristic codes (unless tested and shown otherwise). Waste codes will be dropped from waste streams managed subsequent to these three unit volumes. The volumes of each miscellaneous unit are listed below:

| | |
|---|---|
| Dryer | 487 gallons |
| Shredder | 103 gallons |
| Granulator | 209 gallons |
| Drum Scraper | 72 gallons |
| Drum Washer | 1173 gallons |
| Disperser | 0 gallons (accounted for with tank storage volumes). |

- Tanks - After removal of a listed or characteristic waste, tanks will be cleaned by rinsing, scaping, brushing, or other physical method until deemed visually clean. Waste codes of previously managed wastes will not be carried on subsequent waste streams managed.

- Miscellaneous Units - The three unit volumes processed through the unit after completion of management of a listed or characteristic waste will be considered as carrying the same listed codes, or characteristic codes (unless tested and shown otherwise). Waste codes will be dropped from waste streams managed subsequent to these three unit volumes. The volumes of each miscellaneous unit are listed below:

| | |
|---|---|
| Dryer | 487 gallons |
| Shredder | 103 gallons |
| Granulator | 209 gallons |
| Drum Scraper | 72 gallons |
| Drum Washer | 1173 gallons |
| Disperser | 0 gallons (accounted for with tank storage volumes). |

- Piping - The one unit volume processed through piping after completion of management of a listed or characteristic waste will be cosidered as carrying the same listed codes, or characteristic codes (unless tested and shown otherwise). Waste codes will be dropped from waste streams managed subsequent to this one unit volume.

**(continued)**

**3. HRI needs to reverse the footnoted asterisked values for Sample No. HT071991002 on page 1 of Appendix M-C.**

**HRIW Commentary**

The footnoted asterisked values for Sample No. HT071991002 on page 1 of Appendix M-C have been reversed.

**HRIW New/Revised Narrative ()**

... Methylene Chloride 500 ppm** ...

... Benzene 1 ppm* ...

# USPCI, INC
# HEALTH AND SAFETY
# MONITORING RESULTS
# HRS - WICHITA
# JULY 19, 1991

| SAMPLE NO. | JOB DESCRIPTION LOCATION | CONTAMINANT | EXPOSURE STANDARD | RESULT | COMMENTS |
|---|---|---|---|---|---|
| HT071991002 | Operator/Helper | Perchloreothylene | 25 ppm | 1.02 ppm | Exposure occurred in operations and drum processing area; the results include exposure that occurred during tank gauging. Sample time as 318 minutes. |
| | | Methylene Chloride | 500 ppm ** | 0.4 ppm | |
| | | Toluene | 100 ppm | 10.4 ppm | |
| | | Xylene | 100 ppm | 1.5 ppm | |
| | | Benzene | 1 ppm * | 0.06 ppm | |
| | | Acetone | 750 ppm | 9.2 ppm | |
| | | 1,1,1 Trichloroethane | 350 ppm | 0.84 ppm | |
| | | | * TLV=0.1 ppm<br>** TLV=50 ppm | | |
| HT071991004 | Operator/Helper<br>Granulator Area | Perchloroethylene | 25 ppm | 43.4 ppm | Operator worked primarily in the Granulator Area all day; normal operating conditions - granulator down for maintenance on a frequent basis. Sample time was 317 minutes. |
| HT071991005 | Operator/Helper | Perchloroethylene | 25 ppm | 11.1 ppm | Operator worked in Drum Processing area and conducted normal tasks for that area (i.e., moving and staging drums, pumping drums, dumping drums, etc.) Sample time was 308 minutes. |
| | | Xylene | 100 ppm | 9.3 ppm | |
| | Drum Processing | Toluene | 100 ppm | 1.1 ppm | |
| | | Benzene | 1 ppm * | 0.03 ppm | |
| | | Methylene Chloride | 500 ppm ** | 0.19 ppm | |
| | | | *TLV=0.1 ppm<br>**TLV=50 ppm | | |
| HT071991006 | Operator/Helper | Perchloroethylene | 25 ppm | 11.1 ppm | Exposure occurred while gauging tanks; 15 tanks gauged during sampling period. Total time for task and sampling time was 15 minutes. |
| | | Methylene Chloride | 500 ppm * | 9.3 ppm | |
| | Tank Storage Area | Toluene | 100 ppm | 1.1 ppm | |
| | | Xylene | 100 ppm | <0.16 ppm | |
| | | Benzene | 1 ppm ** | 0.04 ppm | |
| | | Acetone | 750 ppm | 0.86 ppm | |
| | | 1,1,1 Trichloroethane | 350 ppm | 10.2 ppm | |
| | | | *TLV=50 ppm<br>**TLV=0.1 ppm | | |
| HT071991008 | Operator/Helper<br>Granulator Area | Perchloroethylene | 25 ppm | 68.2 ppm | Exposure occurred while dumping drums of granulated material into augur leading to the Dryer. Sample time was 15 minutes. |
| HT071991009 | Operator/Helper<br>Granulator Area | Perchloroethylene | 25 ppm | 29.7 ppm | Operator was monitored while he was loading canisters into the granulator feed hopper. Sample time was 15 minutes. |