OxyChem

DATA FURNISHED BY SUPPLIER

V- 808-124-033

EQ# 6291032

Date: FEBRUARY 12, 1992

Project: 91-808-124 RESIDUE BURNER NAPL STORAGE

Attached for your use is the data indicated. This was requested from the SUPPLIER in connection with our

P.O.# 808-5275

Supplier OEHLER INDUSTRIES

TYPE OF DATA

_____ Certified Dimension Print
_____ Installation & Operating Instructions
_____ Maintenance Instructions
_____ Parts Lists
_____ Recommended Spare Parts Lists & Prices
_____ Specification Sheets
_____ Wiring Diagrams
_____ Piping Diagrams
_____ Pump Curves
_____ Certificate of Inspection
_____ Detail Drawings
_____ Drawings for APPROVAL
_____ Drawings - DIMENSIONAL
XX Other -See Below

DISTRIBUTION

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DESCRIPTION NAPL STORAGE TANK
WO# 50701-124

1. FABRICATED EQUIPMENT REPORT 11/18/91
2. FABRICATED EQUIPMENT REPORT 11/1/91
3. FABRICATED EQUIPMENT REPORT 10/3/91
4. FABRICATION TRAVELER
5. U-1A MANUFACTURER'S DATA REPORT
6. U-4 MANUFACTRUER'S DATA REPORT SUPPLEMENTAL SHEET

/lr

E 118

rec'd 2/7/92

REA 80511174-124

FABRICATED EQUIPMENT REPORT

Page 0:

ECTOR: Matthew J. Sisson

INSPECTION DATE (S): 11/18/91 REPORT NUMBER: N/A

PURCHASE ORDER NUMBER: ~~[illegible]~~ 808-5275 REFERENCE NUMBER: N/A

VENDOR & LOCATION: Skelin Coating

CONTACT & TITLE: George Skelin

PHONE: 716-284-4254 TYPE OF INSPECTION: Spark test & mils

This certifies that I have inspected the equipment identified below.

Tank # 62-1032 (NAPL) STORAGE (12'5" x 18'9")
Spark test performed using ETA
model # BD 50E utilizing 12,000 Volts, mils 125+
(29-1373)
all results acceptable.

Hold for final field touch-up

Note: This report in no way constitutes a waiver of any of the rights of OCC as defined in the purchase order nor does it release the vendor from full compliance with the term and specifications referred to therein.

onally Handed To:

G. Skelin
Name

Title

11-18-91
Date

Inspector:

M. J. Sisson
Occidental Chemical Corporation
Materials Engineering

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FROM

1. 7.1992 12:57

80~~8~~ 11174-124

FABRICATED EQUIPMENT REPORT

Page

INSPECTOR: Matthew S Sisson

INSPECTION DATE (S): 11/01/91 REPORT NUMBER: 1

PURCHASE ORDER NUMBER: ~~[illegible]~~ 0808~~[illegible]~~75 REFERENCE NUMBER: Tank # 629-032

VENDOR & LOCATION: Sylvin Coating 2961 Lockport Rd Niagara Falls

CONTACT & TITLE: George Skelin (PEO)

PHONE: 716-284-4251 TYPE OF INSPECTION: Sand Blast

This certifies that I have inspected the equipment identified below.

Tank No. 629-032 when inspected for Sandblast Blast meets specification requirements of Near White (interior) and Commercial (exterior).

- Vendor was directed to remove spatter around support Stand Welds, and manway welds.

Note: This report in no way constitutes a waiver of any of the rights of OCC as defined in the purchase order nor does it release the vendor from full compliance with the form and specifications referred to therein.

Personally Handed To:

G Skelin

Name

11-1-91

Title Date

Inspector:

M S Sisson

Occidental Chemical Corporation
Niagara Falls Engineering

E 120

808-11174-

REA 808-11174-124

FABRICATED EQUIPMENT REPORT

Page cl

INSPECTOR: Matthew S. Sisson

INSPECTION DATE (S): 10/3/91 REPORT NUMBER:

PURCHASE ORDER NUMBER: REFERENCE NUMBER: 6291032

VENDOR & LOCATION: Oehlen industries inc. 247 Elk St. Buffalo N.Y.

CONTACT & TITLE: Tim Minard

PHONE: (716) 823-5715 TYPE OF INSPECTION: Hydrostatic Test

This certifies that I have inspected the equipment identified below.

Tank on NAPL STORAGE 6291032 Was Hydrostatic tested.

Test pressure was 60 PSI

Test was held for two (2) hours

All results were satisfactory
Vendor approved to proceed to next phase

Note: This report in no way constitutes a waiver of any of the rights of OCC as defined in the purcha order nor does it release the vendor from full compliance with the term and specifications refer to therein.

ersonally Handed To:

Tim Minard
Name

Proj. Mgr. 10-3-91
Title Date

Inspector:

M. S. Sisson
Occidental Chemical Corporation
Materials Engineering

E 121

PROJECT: J.O. # 91-772A
DWG.#-TRAVELER # 1-51
REV. 000 PAGE 1 OF 1

FABRICATION TRAVELER

SCOPE OF WORK: OCCIDENTAL CHEM. CORP. PURCHASE ORDER # 808-5275
FABRICATION OF PARTS - ITEM #
(1) RESIDUE STORAGE TANK [91-772-1]

PREPARED BY: CJS DATE: 07/03/91

Q.C. MANAGER _____ DATE: _____

SEQ	OPERATION/EXAMINATION OR TEST	PROCEDURE/ INSTRUCTION	NCR	QV	DATE
1	MATERIAL REC'D/INSPECTED	Q.A. MANUAL		A.I	
1					X
1				Q.C	
1					X
1					
2	MATERIAL CUT	N/A			
2					
3	FIT-UP				
3	A) SHELL				
3	**********	**********	*****	***	*
3	(2) LONG SEAM	HOLD POINT		A.I	
3		CTS 8/20/91		8-20	X
3	**********	**********	*****	***	*
3					
3	**********	**********	*****	***	*
3	(3) GIRTH SEAM	HOLD POINT		A.I	
3		CTS 8/20/91		8-20	X
3	**********	**********	*****	***	*
3	B) NOZZLE TO HEAD				
3					
3	C) HEAD TO SHELL				
3	**********	**********	*****	***	*
3	(1) GIRTH SEAM	HOLD POINT		A.I	
3		CTS 9/20/91		9-20-91	X
3	**********	**********	*****	***	*
3					
4	WELDING				
4	WELD # 772-10	12-1			
4	WELD # 772-11	12-1			
4	WELD # 772-12	12-1			
4	WELD # 772-13	12-1			
4	WELD # 772-14	12-1			
4	WELD # 772-15	12-1			
4	WELD # 772-16 m.l.l.	12-1			
4	WELD # 772-17	12-1			
4	WELD # 772-18 m.l.l.	12-1			
4	WELD # 772-19	12-1			
4	WELD # 772-20	12-1			
4	WELD # 772-21 m.l.l.	6-1;3-1			

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5	RADIOGRAPH			
5	**********	**********	*****	***
5	SPOT X-RAY	HOLD POINT	A.I	*
5		CJS 9/10/91	9-20-91	
5	**********	**********	*****	*** X *
5				
6	HYDROSTATIC TEST			
6	**********	**********	*****	***
6	TEST @ 40 PSI	HOLD POINT	A.I	*
6		CJS 10/3/91		
6	**********	**********	*****	*** X *
6				
7	STAMPING			
7	**********	**********	*****	***
7	CHECK	HOLD POINT	A.I	*
7		CJS 10/3/91		
7	**********	**********	*****	*** X *
7				
8	**********	**********	*****	***
8	DATA REPORT CHECKED	HOLD POINT	A.I	*
8				
8		CJS 10/3/91	Q.C	X
8				
8	**********	**********	*****	*** X *
8				
9	**********	**********	*****	***
9	SANDBLASTING	HOLD POINT	QCO	*
9			M.D. Dixon	
9	**********	**********	*****	*** X *
9				
10	**********	**********	*****	***
10	PAINTING	HOLD POINT	QCO	*
10			M.D. Dixon	
10	**********	**********	*****	*** X *
10				
11	FINAL ACCEPTANCE		Q.C	
11				X

PROJECT: J.O. # 91-772A
DWG.#-TRAVELER # 1-51
REV. 000 PAGE 1 OF 1

FABRICATION TRAVELER

SCOPE OF WORK: OCCIDENTAL CHEM. CORP. PURCHASE ORDER # 808-5275
FABRICATION OF PARTS - ITEM #
(1) RESIDUE STORAGE TANK [91-772-1]

PREPARED BY: CJS DATE: 07/03/91

Q.C. MANAGER _____ DATE: _____

SEQ	OPERATION/EXAMINATION OR TEST	PROCEDURE/ INSTRUCTION	NCR	QV	DATE
1	MATERIAL REC'D/INSPECTED	Q.A. MANUAL		A.I	
1					X
1				Q.C	
1					X
2	MATERIAL CUT	N/A			
2					
3	FIT-UP				
3	A) SHELL				
3	**********	**********	*****	***	*
3	(2) LONG SEAM	HOLD POINT			
3		CTS 8/28/91		A.I 8-28	X
3	**********	**********	*****	***	*
3					
3	**********	**********	*****	***	*
3	(3) GIRTH SEAM	HOLD POINT			
3		CTS 8/28/91		A.I 8-28	X
3	**********	**********	*****	***	*
3	B) NOZZLE TO HEAD				
3					
3	C) HEAD TO SHELL				
3	**********	**********	*****	***	*
3	(1) GIRTH SEAM	HOLD POINT			
3		CTS 9/20/91		A.I 9-20-91	X
3	**********	**********	*****	***	*
3					
4	WELDING				
4	WELD # 772-10	12-1			
4	WELD # 772-11	12-1			
4	WELD # 772-12	12-1			
4	WELD # 772-13	12-1			
4	WELD # 772-14	12-1			
4	WELD # 772-15	12-1			
4	WELD # 772-16 m.l.l.	12-1			
4	WELD # 772-17	12-1			
4	WELD # 772-18 m.l.l.	12-1			
4	WELD # 772-19	12-1			
4	WELD # 772-20	12-1			
4	WELD # 772-21 m.l.l.	6-1;3-1			
4	WELD # 772-22 m.l.l.	6-1;3-1			

E124

808-11174-124

FORM U-1A MANUFACTURER'S DATA REPORT FOR PRESSURE VESSELS

(Alternative Form for Single Chamber, Completely Shop-Fabricated Vessels Only)

As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

1. Manufactured and certified by Oehler Industries, Inc., 242 Elk Street, Buffalo, N.Y. 142 (Name and address of manufacturer)

2. Manufactured for Occidental Chem. Corp. 360 Rainbow Blvd. Niagara Falls, N.Y. 14 (Name and address of purchaser)

3. Location of installation Occidental Chem. Corp. Buffalo Ave.& 53rd St.Nia.Falls,N.Y.14 (Name and address)

4. Type vertical (Horiz. or vert., cyl.) | 91-772-1 (Mfgr's serial no.) | ------ (CRN) | 91-772-1 (Drawing no.) | ---------- (Nat'l. Bd. no.) | 1991 (Year built)

5. The chemical and physical properties of all parts meet the requirements of material specifications of the ASME BOILER AND PRESSU VESSEL CODE. The design, construction, and workmanship conform to ASME Rules, Section VIII, Division 1 1989 (Year)

to Dec. 1990 (Addenda (Date)) | ---------- (Code Case nos.) | ---------- (Special Service per UG-120(a))

6. Shell: SA 516 GR 70 (Mat'l. (Spec. No., Grade)) | .500 (Nom. Thk. (in.)) | .125 (Corr. Allow. (in.)) | 12'5" (Diam. I.D. (ft. & in.)) | 18'9" (Length (seam to seam) (ft. & in.))

7. Seams: SINGLE (Long. (Welded, Dbl., Sgl., Lap, Butt)) | SPOT (R.T. (Spot or Full)) | 85 (E (%)) | ---- (R.T. Temp. (°F)) | ------ (Temp. Dev.) | SINGLE (Circ. (Welded, Dbl., Sgl., Lap, Butt)) | SPOT (R.T. (Spot, Partial, or Full)) | 2 (No. of Cou

8. Heads: (a) Mat'l. SA 516 GR 70 (Spec. No., Grade) (b) Mat'l. SA 516 GR 70 (Spec. No., Grade)

	Location (Top, Bottom, Ends)	Minimum Thickness	Corrosion Allowance	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave
(a)	TOP	.6875	.125	150"	9"	-----	----	-----	-----	CONCAV
(b)	BOTTOM	.6875	.125	150"	9"	-----	----	-----	-----	CONCAV

If removable, bolts used (describe other fastenings) ---------- (Mat'l., Spec. No., Gr., Size, No.)

9. MAWP 25 psi at max. temp. 650

Min. design metal temp. -20 °F at 25 psi. Hydro., pneu., or comb. test pressure 38 p

10. Nozzles, inspection and safety valve openings:

Purpose (Inlet, Outlet, Drain)	No.	Diam. or Size	Type	Mat'l.	Nom Thk	Reinforcement Mat'l.	How Attached	Location
OUTLET	A	3"	SOFF	SA 106 GR B	.438	----------	WELDED	B.HEA
RELIEF	B	4"	SOFF	SA 106 GR B	.674	----------	WELDED	T.HEA
SWITCH	C	3"	SOFF	SA 106 GR B	.438	----------	WELDED	T.HEA
THERM.	D	3"	SOFF	SA 106 GR B	.438	----------	WELDED	SHELL

11. Supports: Skirt YES (Yes or no) Lugs 3 (No.) Legs 8 (No.) Other ---------- (Description) Attached LUG-HEAD-LEG-SHE *W (Where and how)

12. Remarks: Manufacturer's Partial Data Reports properly identified and signed by Commissioned Inspectors have been furnished for the following items of the report: ---------- (Items of part, each number, Mfgr's name and identifying mark)

CERTIFICATE OF SHOP COMPLIANCE

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this vessel conform to the ASME Code for Pressure Vessels, Section VIII, Division 1. "U" Certificate of Authorization No. 15,608 expires Oct. 8, 19 9

Date 10/3/91 Co. name Oehler Industries, Inc. (Manufacturer) Signed [signature] (Representative)

CERTIFICATE OF SHOP INSPECTION

Vessel constructed by Oehler Industries, Inc. at 242 Elk St., Buffalo, N.Y. 1424

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State or Province of New York and employed by Hartford Steam Boiler Insp. & Ins. Company have inspected the component described in this Manufacturer's Data Report on 10-3-91, 19 ____, and state that, to the best of my knowledge and belief, the Manufacturer has constructed this pressure vessel in accordance with ASME Code, Section VIII, Division 1. By signing this certificate neither the inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this Manufacturer's Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 10-3-91 Signed [signature] (Authorized Inspector) Commissions NB11103 N4 6079 (Nat'l Board (incl. endorsements), State, Prov. and No.)

(12/87)

This form (S00117) may be obtained from the ASME Order Dept., 22 Law Drive, Box 2300, Fairfield, NJ 07007-23

E 125

REPRINT 5/89 (23)

FORM U-4 MANUFACTURER'S DATA REPORT SUPPLEMENTARY SHEET

As Required by the Provisions of the ASME Code Rules, Section VIII, Division 1

Manufactured and certified by Oehler Industries, Inc. 242 Elk St. Buffalo, N.Y. 14240 (Name and address of manufacturer)

2. Manufactured for Occidental Chem. Corp. 360 Rainbow Blvd. Niagara Falls, N.Y. 14302 (Name and address of purchaser)

3. Location of Installation Occidental Chem. Corp. Buffalo Ave. & 53rd St. Nia. Falls, N.Y. 14302 (Plant and address)

4. Type vertical (Horiz., vert., sph. etc.) | 91-772-1 (Mfr's. serial No.) | -------- (CRN) | 91-772-1 (Dwg.) | ---------- (Nat'l. Bd. No.) | 1990 (Year built)

Data Report Item Number

Remarks

10.

Purpose	No.	Dia. Size	Type	Material	Nom. Thck.	Reinf. Mat'l.	How Attached	Location
LEVEL	E	3"	SOFF	SA106GRB	.438	----	WELDED	SHELL
MANWAY	F	30"	SOFF	SA516GR70	1.00	----	WELDED	SHELL
FILL	G	6"	SOFF	SA106GRB	.719	----	WELDED	T.HEAD
VENT	H	3"	SOFF	SA106GRB	.600	----	WELDED	T.HEAD
AGIT.	J	10"	SOFF	SA106GRB	.500	SA516	WELDED	T.HEAD
----	--	--	----	--------	----	GR70	------	------
LEVEL	K	3"	SOFF	SA106GRB	.600	----	WELDED	T.HEAD
RETURN	L	6"	SOFF	SA106GRB	.719	----	WELDED	T.HEAD
MANWAY	M	18"	SOFF	SA106GRB	.938	----	WELDED	T.HEAD
SPARE	N	4"	SOFF	SA106GRB	.531	----	WELDED	T.HEAD

Date 10/3/91 Co. name Oehler Industries, Inc. Signed [signature] (Authorized representative)

Date 10-3-91 Signed [signature] (Authorized representative) Commission NB11103NY503 (Nat'l. Board Bdg. commission, State, Prov., and No.)

(12/82) This form (E00118) is available from the Order Dept., ASME, 345 E. 47 St., New York, N.Y. 10017

REPRINT 8/9

ATTACHMENT F-1

ENGINEERING DESCRIPTION OF THE LIQUIDS INCINERATOR

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APPENDIX

F1-I INCINERATOR ENGINEERING DRAWINGS LISTING

F 003

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F-1 ENGINEERING DESCRIPTION OF THE LIQUIDS INCINERATOR

The information provided in this section discusses the engineering details of the OCC liquid waste incinerator system.

F1-1 INCINERATOR PERFORMANCE

Based upon results of the trial burn, engineering assessment and design, and experience in operating the incinerator, OCC feels that the conditions specified in the permit are adequate to ensure compliance with all applicable guidance and regulations.

F1-2 DETAILED ENGINEERING DESCRIPTION

A plot plan of the liquid waste incinerator system is shown on Figure F1-1.

A block flow diagram of the OCC liquid waste incinerator system is shown on Figure F1-2. The block flow diagram begins where liquid waste feeds and auxiliary fuel are injected into the combustion chamber and then traces the flow of the combustion gases through the combustion and air pollution control systems.

Engineering drawings (piping and instrumentation diagrams, layouts, sections, etc.) for the incineration system are located in the Drawings Binder, Attachment I. A listing of the engineering drawings associated with the incineration system that are included in Attachment I are given in Appendix F1-I.

F1-2.1 Manufacturer's Name and Model Number

The OCC liquid waste incinerator was custom designed by Hooker Chemicals Corporation (the predecessor to OCC) to meet the requirements of this particular facility, and as such, has no model number.

The APC system is manufactured for OCC by Ceilcote, Air Pollution Control Division, a Division of Master Builders, Inc., for the liquid waste incinerator. The system is comprised of a number of standard components as well as several custom designed components, integrated to meet the needs of this installation. The model number of the standard Ceilcote components are:

- Absorber/Condenser - Ceilcote model SPT-84-120
- Ionizing Wet Scrubber - two-stage Ceilcote model 1000
- Induced draft fan - Ceilcote model CMHR-20

OCC is the designer of the overall incineration facility.

F1-2.2 Type of Incinerator

The OCC liquid waste incinerator system consists of a single chamber liquid injection combustion system; an adiabatic saturating quench; a packed bed absorber/condenser; a two-stage ionizing wet scrubber (IWS); and an induced draft fan and stack. Additional auxiliary systems include the liquid waste feed system; the auxiliary fuel system; the cooling water system; the neutralization system; and the process control, monitoring, and interlock system.

F1-2.3 Linear Dimensions of the Incinerator Unit Including the Internal Volume of the Combustion Chamber

The dimensions of the combustion chamber are 12 ft. 8 in. O.D. by 21 ft. tall. The chamber is constructed of 1 inch carbon steel with 15 inches total of an internal high temperature refractory lining. In addition there is a 6 ft. 4 in. I.D. by approximately 8 ft. high central internal chimney.

The internal volume of the combustion chamber is 1017 cubic feet.

F1-2.4 Description of Waste Feed System

The waste feed system includes the liquid waste feed pumps, nozzles and burners. Liquid wastes are transferred from the storage tanks (T-1 through T-6 and T-20) to the combustion chamber by gear pumps. Liquid wastes may also be transferred to the combustion chamber from containers by a gear pump. Each pump delivers liquid to a dedicated nozzle at the combustion chamber. The liquid feed rates are controlled with a variable speed drive associated with each pump. The pumps can be started or stopped locally or from the control panel. The pumps are interlocked to a distributed control system (DCS) such that certain conditions will prevent them from feeding waste to the incinerator.

Automatic waste feed cutoff interlocks are described in Section F1-2.9 below. A description of the nozzle and burner design is provided in Section F1-2.7.

F1-2.5 Description of the Auxiliary Fuel Systems

Natural gas is used to preheat the unit. In the event auxiliary fuel is required to maintain combustion temperature, #3 fuel oil is burned. Auxiliary fuel oil is stored at a tank farm in a 10,000 gallon carbon steel tank and is pumped to a nozzle in the combustion chamber where it is atomized by air prior to ignition.

F1-2.6 Capacity of Prime Mover

The OCC liquid waste incinerator system prime mover is a centrifugal fan that operates as an induced draft (ID) fan. The ID fan is capable of producing a negative pressure throughout the system. The ID fan is a Ceilcote model CMHR-20 rated at 8100 acfm at 9" static pressure. Additional details on the ID fan operation and specifications are presented in Section F1-2.10.

F1-2.7 Nozzle and Burner Design

Waste liquid, auxiliary fuel and steam are introduced into the combustion chamber through a total of six nozzles horizontally installed at the top of the combustion chamber. Two nozzles are used for steam injection, one nozzle is for the auxiliary fuel injection, and the remaining three nozzles are for injecting liquid waste. Compressed air is used at each liquid injection nozzle to atomize the liquid waste and fuel oil feed. The waste feed nozzles are identical and were developed and designed by Hooker Chemicals Corp. The steam nozzles are schedule 80 steel pipes.

The combustion chamber is equipped with two North American Mfg. Co. model 4514-8A natural gas fired burners mounted at the top of the combustion chamber. A centrifugal blower supplies combustion air to both burners. The gas burners are used at start up to preheat the combustion chamber prior to the delivery of fuel oil and waste liquids.

F1-2.8 Construction Materials

The construction materials for the major incinerator system components are shown in Table F1-1.

F1-2.9 Monitoring and Interlock Systems

Critical operating parameters are monitored to ensure that the liquid waste incinerator is operated in compliance with the incinerator permit. Some of the operating parameters are interlocked with the waste feed system to automatically cut off the waste feed if the parameters are outside the permit limits. During the start-up and shutdown of the incinerator or during process upsets, the interlock system automatically stops all hazardous waste feed systems and prevents their restart until the incinerator is at proper operating conditions and the interlock is cleared.

The process parameters identified in Table F1-2 are tied into an alarm system and also automatically cut off the liquid waste feeds in compliance with permit parameters. These automatic waste feed cutoff interlocks are based on the guidelines contained in the following documents:

- Guidance on Setting Permit Conditions and Reporting Trial Burn Results, U.S. EPA, EPA/625/6-89/019, January 1989

- Module V - Liquids Incineration.

The control system used for the liquid waste incinerator is a computer-based distributed control system (DCS) manufactured by Bailey (Model INFI 90). The DCS monitors and controls the process functions, including initiation of the automatic waste feed cutoff interlocks. The DCS is monitored by an operator who uses an operator interface station that contains interactive graphics to control and acquire data.

Certain interlocks will be initiated based on an instantaneous process value, while others will be initiated after a time delay, or based on rolling averages generated by the control system. Where rolling averages are used, the DCS accumulates the most recent 60 minutes of data for the desired process parameter and computes the arithmetic average of those values. Over time, as each additional one-minute of data for the process parameter is collected, the least recent one-minute of data is discarded, and a new average is computed. Thus a new rolling average data point is computed each minute. A discussion of the automatic waste feed cutoff parameters are discussed in the following subsections.

Combustion Chamber Exit Gas Temperature
The hazardous waste feed to the liquid waste incinerator will be instantaneously stopped if the combustion chamber exit gas temperature falls below a preset minimum permitted value or above a preset maximum permitted value.

Combustion Chamber Pressure
The pressure of the combustion chamber is monitored and maintained under negative pressure to control fugitive emissions. All hazardous waste feed will be automatically stopped if the combustion chamber pressure exceeds the maximum permitted value for ten seconds.

Liquid Waste Feed Rates
The feed rate of each liquid waste stream is continuously monitored and recorded. Waste feed will be instantaneously stopped if the maximum permitted waste feed rate is exceeded.

Steam Flow Rate
The steam flow rate is continuously monitored and recorded. Waste feed will be automatically stopped if the maximum flow rate is exceeded. A one-minute time delay will be incorporated into the waste feed cutoff interlock.

Fresh Water to Quench Tower
The flow rate of fresh water to the quench tower is continuously monitored and recorded. Waste feed will be automatically stopped if the flow rate drops below the minimum limit for one minute.