ENTERED

Western Refining Gallup Sites

INFO FOR RCRA PERMIT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
ALLIED BANK TOWER AT FOUNTAIN PLACE
1445 ROSS AVENUE
DALLAS, TEXAS 75202

APR 2 2 1988

MEMORANDUM

SUBJECT: Transmittal of RCRA Facility Assessment Evaluation

FROM: Erlece P. Allen, Chief
Technical Section (6H-CT) Erlece P. Allen

TO: William K. Honker, Chief
Permit Section (6H-CP)

Attached please find a copy of the following RCRA Facility Assessment Evaluation:

- Facility Name: ~~Giant Ciniza~~ Refinery
- EPA ID Number: NMD000333211

Please advise us if more information is required and/or if you need further assistance.

Attachment

cc: Sam Becker (6H-C)

RCRA FACILITY ASSESSMENT SUMMARY

PRELIMINARY REVIEW, VISUAL SITE INSPECTION AND SAMPLING VISIT

Region VI, Technical Compliance Section

FACILITY'S NAME(S): Giant Ciniza Refinery

EPA ID NUMBER: NMD000333211

ADDRESS: Route 3, Box 7, Gallup, New Mexico 87301

LOCATION: 17 miles East of Gallup, New Mexico, North of I-40

DATE OF INSPECTION: November 19 and 20, 1986

DATE OF SAMPLING VISIT: May 27, 1987 SV CONDUCTED BY: REM IV - Black & Veatch

SITE DESCRIPTION: This site produces gasoline, diesel, jet fuel, propane, kerosene, and naptha.

PREPARED BY: Black & Veatch (REM IV) DATE PREPARED: August 26, 1986

REVIEWED BY: Williams - EPA DATE REVIEWED: 4/17/88 / 4/21/88

ANTICIPATED DRAFT PERMIT DATE: 3rd Qtr, 1988

FACILITY STATUS: Active

ANY ON-GOING STATE/FED 264, 265, or 270 CORRECTIVE ACTION OR CERCLA ACTION: No

DOES FACILITY HAVE A CERCLA FILE? YES ____ NO X

When was the CERCLA PA/SI performed at this facility:

DOES FACILITY HAVE UIC WELL? YES ____ NO X

TYPE: N/A

TYPE OF DRINKING WATER SUPPLY WITHIN A 3-MILE RADIUS: Sonsela Sandstone is used for domestic, agricultural and industrial purposes.

TARGET POPULATION WITHIN A 3-MILE RADIUS: Seven residences for refinery employees are located on the southeast corner of the property.

RECOMMENDATIONS: ____ S.V. X R.F.I. ____ I.M. ____ No Further Action under RFA

(Indicate only one unless I.M. is marked)

X 3004(u) ____ 3007

Possible Enforcement Action: ____ 3008(a) X 3008(h)

Form Rev. 10/6/87

I. EVALUATION

A. NUMBER OF SWMU(s)/AOC(s) INVESTIGATED DURING THE PR/VSI: 49

1. NUMBER OF SWMU INVESTIGATED DURING THE PR/VSI: 39

LIST OF SWMU	REGULATED BY RCRA* (SUBTITLE C)	STATUS**
1-4) Landfills (SWMUs 1-4)	N	I
5) Landfill 5 (SWMU 5)	N	A
6) Tank Farm (SWMU 6)	N	I
7) Burn Pit (SWMU 7)	N	I
8-14) APIS Evaporation Ponds (7) (SWMUs 8-14)	N	A
15-23) NT Evaporation Ponds (9)(SWMUs 15-23)	N	A
24) Conveyance Ditch (SWMU 24)	N	I
25-28) Sewage Lagoons (4)(SWMUs 25-28)	N	A
29) Railroad Rack Lagoon (SWMU 29)	N	A
30-31) Two Sludge Pits (SWMUs 30-31)	N	I
32) Asphalt Pit (SWMU 32)	N	I
33) Inactive Land Treatment (SWMU 33)	N	I
34) Active Land Treatment (SWMU 34)	Y	A
35) Container Storage (SWMU 35)	N	I
36) Container Storage (SWMU 36)	N	A
37) API Separator (SWMU 37)	N	A
38) Neutralization Tank (SWMU 38)	N	A
39) Secondary Oil Skimmer (SWMU 39)	N	A

2. AREA(s) OF CONCERN: 10

LIST OF AOC

1) Drainage Ditch from the Secondary Oil Skinner (AOC 1)
2) Contact Wastewater Collection System (AOC 2)
3) Underground Storage Tanks (AOC 3)
4) Drainage Ditch between the APIS and NT Evaporation Ponds (AOC 4)
5) Drainage Ditch from Process Area along the Railroad Spur (AOC 5)
6) Drainage Ditch near the Inactive Land Treatment Area (AOC 6)
7) Fire Training Area (AOC 7)
8) Empty Container Storage Area (AOC 8)
9) Drainage Ponds North of Unit 9 (AOC 9)
10) Drainage Ditch Northeast of Unit 9 (AOC 10)

*Y-Yes, N-No, U-Unknown
**Active, Inactive, or Closed (A, I, or C)

B. SAMPLING VISIT

SWMU OR AOC SAMPLING LOCATION	SAMPLE/MEDIA SAMPLE TYPE (GRAB.COMPOSITE)	PARAMETERS	RESULTS
1) ~~SWMU 38~~ API ~~Separator~~ Pond 2 Samples collected from the northwest corner, northeast corner, east side and southwest corner.	Sediment Composite	Acid and Base Neutral Volatile Organics Total Metals, Cyanide	Benzene 3,600 ug/kg 4-Methyl-2-Pentanone 55,000 ug/kg Toluene 30,000 ug/kg Ethylbenzene 14,000 ug/kg Total xylenes 83,000 ug/kg Naphthalene 40,000 ug/kg 2-Methylnaphthalene 320,000 ug/kg Phenanthrene 200,000 ug/kg Chrysene 43,000 ug/kg Unknown hydrocarbon (30 compounds) 180,000 ug/kg** Cyclohexane 34,000 ug/kg Cyclopentane, Methyl 39,000 ug/kg Cyclohexane, Methyl 150,000 ug/kg Alkycyclopentane 110,000 ug/kg Cyclohexane, Trimethyl 62,000 ug/kg Unknown Ketone 67,000 ug/kg Naphthalene, Dimethyl 55,000 ug/kg Naphthalene, Trimethyl 62,000 ug/kg Phenanthrene, Dimethyl 92,000 ug/kg Arsenic 17,000 ug/kg ** The value reported is the single highest concentration of an unknown hydrocarbon compound.

B. SAMPLING VISIT

SWMU OR AOC SAMPLING LOCATION	SAMPLE/MEDIA SAMPLE TYPE (GRAB.COMPOSITE)	PARAMETERS	RESULTS
			Barium 643,000 ug/kg Chromium 507,000 ug/kg Copper 307,000 ug/kg Lead 64,000 ug/kg*R Mercury 1,200 ug/kg R Nickel 45,000 ug/kg Selenium 12,000 ug/kg R Zinc 1,330,000 ug/kg Cyanide 12,000 ug/kg R
2) SWMU 17 NT Evaporation Pond 3 Samples collected from the northeast corner, northwest corner, west side and southeast corner.	Sediment Composite	Acid and Base Neutral, Volatile Organics, Total Metals, Cyanide	Unknown hydrocarbon (17 compounds) 84,000 ug/kg** Sulfur 14,000 ug/kg Arsenic 27,000 ug/kg Barium 339,000 ug/kg Chromium 163,000 ug/kg Lead 12,000 ug/kg*R Mercury 330 ug/kg R Zinc 110,000 ug/kg* * Duplicate analysis not within control limits. ** The value reported is the single highest concentration of an unknown hydrocarbon compound. R Spike sample recovery not within control limits.

C. NUMBER SWMU TO BE INCLUDED IN THE RFI: 36
(Except RCRA units subject to Subpart F refer to Section E)

1. NUMBER OF SWMU AT WHICH RELEASES HAVE BEEN IDENTIFIED: 16

LIST OF SWMUs	RELEASE TO	NOTED DOCUMENTATION OF RELEASE
1-7) APIS Evaporation Ponds (7) (SWMUs 8-14)	Soil/GW Air	The in-ground impoundments are lined with natural clays and shales from the area. Berms around the ponds are constructed of natural clays and shales. There was a strong hydrocarbon odor and yellow scum floating on the surface of Pond 2 which received effluent directly from the API Separator. Results of the SV confirm the presence of elevated levels of organics and metals in the APIS Evaporation Pond #2 (SWMU 9).
8-16) NT Evaporation Ponds (9) (SWMUs 15-23)	Soil/GW	The in-ground impoundments are lined with natural clays and shales from the area. Berms around the ponds are constructed of natural clays and shales. White and orange deposits were observed at the pipe outlet from the Neutralization Tank Pond 3. Results of the SV confirm the presence of elevated levels of organics and metals in Pond 3. According to the VSI, no clear separation of wastes were observed. Black, oily residues were found in both the contact and non-contact waste streams.

2. NUMBER OF SWMUs AT WHICH A RELEASE IS HIGHLY POSSIBLE: 3

LIST OF SWMUs	MEDIA	RATIONALE
1) Tank Farm (SWMU 6)	Soil/GW	Leaded tank bottoms were disposed of within the bermed area of the tank farm. Lead, chromium and other hazardous constituents may be in the tank bottoms.

LIST OF SWMUs	MEDIA	RATIONALE
2) Fire Training Area (AOC 7)	Soil/GW	The site consists of the bottom part of a partially buried liquid storage tank and a rectangular ground fire training unit. The tank is partially filled with water and oil. The soil around the tank is discolored and it appears that the tank contents are allowed to drain off-site.
3) Empty Container Storage Area (AOC 8)	Soil/~~Grab~~	The area's surface consists of soil and crushed rock. During the VSI, a yellow/green fluid was observed around some of the drums.

3. NUMBER OF SWMUs WHERE A DETERMINATION OF RELEASE CAN NOT BE MADE DUE TO LACK OF INFORMATION: 17

LIST OF SWMUs	RATIONALE
1-4) Landfills (4) (SWMUs 1-4)	In-ground unlined landfills contain unknown types of wastes. No information on closure procedures.
5) Burn Pit (SWMU 7)	The pit was unlined and the types of wastes burned at the unit are not documented.
6) Railroad Rack Lagoon (SWMU 29)	The unlined lagoon collects product spills, stormwater, and washdown from tank cars. Waste characteristics of the constituents are not documented.
7-8) Two Sludge Pits (SWMU 30-31)	The unlined pits managed hazardous wastes prior to closure. Waste characteristics, operation and closure procedures are not documented. The units were closed in 1980.
9) Inactive Land Treatment (SWMU 33)	The unit contained D007, K049, K050, K051, and K052 hazardous wastes. Closure procedures are not documented. The unit was closed in 1980.
10) Secondary Oil Skimmer (SWMU 39)	Stormwater not captured by the Contact Wastewater Collection System is collected in the secondary oil skimmer. NMOCD noted non-oil discharges from the Secondary Oil Skimmer.

11) Drainage Ditch from the Secondary Oil Skimmer (AOC 1)	Stormwater not captured by the Contact Wastewater Collection System, is collected by the ditch. The ditch flows into the Secondary Oil Skimmer (SWMU 39). NMOCD noted non-oil discharges from SWMU 39.
12) Contact Wastewater Collection System (AOC 2)	The system collects water that may contain hydrocarbons and discharges to the API Separator. The sumps and collection points are concrete or have steel pans except for one unlined trench.
13) Underground Tanks (AOC 3)	Two empty railroad tank cars were buried and used to store motor oil. They were later dug up and left standing southwest of the Railroad Rack Lagoon (SWMU 29). One of the tanks was reburied and used as a surge tank to enhance mixing for pH neutralization.
14) Drainage Ditch between the APIS and NT Evaporation Ponds (AOC 4)	Standing water observed during the VSI appeared discolored and foamy white substance was observed at a pipe outlet into the ditch.
15) Drainage Ditch near the Inactive Land Treatment Area (AOC 6)	The contents and source of the ditch is unknown. A hydrocarbon sheen and yellow material suspended in the water were observed during the VSI.
16) Drainage Ponds North of Unit 9 (AOC 9)	The ponds receive discharge from Unit 15. The second pond has overflow pipes that drain into a ditch leading to Unit 15.
17) Drainage Ditch Northeast of Unit 9 (AOC 10)	The source, contents, and destination of the ditch is unknown. The ditch leads off-site. White deposits and dead vegetation were observed in the ditch during the VSI.

D. NUMBER OF SWMUs FOR WHICH AN RFI IS NOT RECOMMENDED: 12

LIST OF SWMUs	RATIONALE
1) Landfill (SWMU 5)	Data indicate that wastes burned do not contain hazardous constituents.
2) Conveyance Ditch (SWMU 24)	The unlined ditch handled D002 type wastes (spent brine and HCl/c).

LIST OF SWMUs	RATIONALE
3-6) Sewage Lagoons (4) (SWMU 25-28)	These units have received only sanitary wastes.
7) Asphalt Pit (SWMU 32)	The wastewater discharged to the pit is unlikely to have contained hazardous constituents.
8) Container Storage (SWMU 35)	There is no evidence that hazardous materials were stored in this area.
9) Container Storage (SWMU 36)	Drums are temporarily stored on pallets over a large asphalt pad. The area is inspected regularly. There is no evidence of release in the area.
10) API Separator (SWMU 37)	The above-ground concrete tank manages all waste streams at the facility. It consists of 2 parallel compartments. There is no evidence of releases from the unit.
11) Neutralization Tank (SWMU 38)	The underground carbon steel tank contains condensate from boilers and low pH wastewater. There is no evidence of releases from the unit.
12) Drainage Ditch from Process Area along the Railroad Spur (AOC 5)	The ditch collects surface run-off from the process area and discharges off-site. The ditch appeared clean during the VSI.

E. SUPPLEMENTAL INFORMATION ON RCRA REGULATED UNITS: 1
(Describe any problems identified or suspected from regulated units including identified releases to groundwater)

LIST OF SWMUs	CONCERNS
1) Active Land Treatment (SWMU 34)	Samples from groundwater monitoring wells taken in November 1985 and February 1986 detected elevated levels of arsenic, barium, cadmium, lead, manganese, chromium, selenium, and mercury.

II. FINDINGS

A. RECOMMENDATIONS:

1) Contractor

a) RFI

1-4) Landfills 1-4 (SWMU 1-4)
5) Tank Farm (SWMU 6)
6) Burn Pit (SWMU 7)
7) Railroad Rack Lagoon (SWMU 29)
8-9) Two Sludge Pits (SWMU 30-31)
10) Inactive Land Treatment (SWMU 33)
11) Active Land Treatment (SWMU 34)
12) Secondary Oil Skimmer (SWMU 39)
13) Drainage Ditch from the Secondary Oil Skimmer (AOC 1)
14) Underground Tanks (AOC 3)
15) Drainage Ditch between the APIS and NT Evaporation Ponds (AOC 4)
16) Drainage Ditch from Process Area along the Railroad Spur (AOC 5)
17) Drainage Ditch near the Inactive Land Treatment Area (AOC 6)
18) Fire Training Area (AOC 7)
19) Drainage Ditch Northeast of Unit 9 (AOC 10)

2) EPA - Refer to Section C

a) RFI

1-4) Landfills (4) (SWMUs 1-4)
5) Tank Farm (SWMU 6)
6) Burn Pit (SWMU 7)
7-13) APIS Evaporation Ponds (7) (SWMUs 8-14)
14-22) NT Evaporation Ponds (9) (SWMUs 15-23)
23) Railroad Rack Lagoon (SWMU 29)
24-25) Two Sludge Pits (SWMU 30-31)
26) Inactive Land Treatment (SWMU 33)
27) Secondary Oil Skimmer (SWMU 39)
28) Drainage Ditch from the Secondary Oil Skimmer (AOC 1)
29) Contact Wastewater Collection System (AOC 2)
30) Underground Tanks (AOC 3)
31) Drainage Ditch between APIS and NT Evaporation Ponds (AOC 4)
32) Drainage Ditch near the Inactive Land Treatment Area (AOC 6)
33) Fire Training Area (AOC 7)
34) Empty Container Storage Area (AOC 8)
35) Drainage Ponds North of Unit 9 (AOC 9)
36) Drainage Ditch Northeast of Unit 9 (AOC 10)

A. ADDITIONAL COMMENTS:

AOC 9 and AOC 10 may be recently constructed surface impoundments and ditches. Construction details should be obtained and any hazardous wastes that they manage should be documented.

CONCUR: Lydia M. Boada Clista DATE: 4/21/88