

Attachment 2 - Consent Order 15-056

**OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
LAND PROTECTION DIVISION**

IN THE MATTER OF:)
)
Wynnewood Refining Company, LLC)
)
Respondent,)

Case No. 15-056

OKLAHOMA
DEPT. OF ENVIRONMENTAL QUALITY

JUN 30 2015

CONSENT ORDER

FILED BY: *D. Gray*
HEARING CLERK

The Parties to this case, the Oklahoma Department of Environmental Quality ("DEQ") and Wynnewood Refining Company, LLC ("Respondent"), agree to this Consent Order to resolve certain allegations of environmental non-compliance. This Consent Order supersedes and closes all allegations of noncompliance, including those associated with the joint Compliance Evaluation Inspection ("CEI") conducted the week of March 11, 2013, by the U.S. Environmental Protection Agency ("EPA") and DEQ.

FINDINGS OF FACT

1. Respondent is a Delaware Limited Liability Company with its principal place of business at the Wynnewood Refinery located in Wynnewood, Oklahoma.
2. Respondent is permitted under the Resource Conservation Recovery Act ("RCRA") for the storage of hazardous waste (EPA ID # OKD000396549).
3. During the week of March 11, 2013, EPA and DEQ conducted a joint RCRA CEI at the Wynnewood Refinery. As a result of the CEI, the following Areas of Concern were identified by EPA in an Inspection Report, dated January 13, 2014, and attached hereto as Exhibit A:



- a. Operation of a hazardous waste storage unit without a permit in violation of 40 C.F.R. § 270.1;
- b. Failure to label containers used for the storage of hazardous waste with the words "hazardous waste" in violation of 40 C.F.R. § 262.34(a)(3);
- c. Failure to label containers used for the storage of hazardous waste with the date of accumulation of the waste in violation of 40 C.F.R. § 262.34(a)(2);
- d. Unpermitted storage of hazardous waste for a period of greater than ninety (90) days in violation of 40 C.F.R. § 262.34(a);
- e. Failure to close containers used for the storage of a hazardous waste in violation of 40 C.F.R. § 262.34(a)(1)(i) and 40 C.F.R. § 265.173(a);
- f. Failure to close containers used for the accumulation of hazardous waste in a satellite accumulation area in violation of 40 C.F.R. § 262.34(c)(1)(i) and 40 C.F.R. § 265.173(a);
- g. Operation of a hazardous waste disposal unit without a permit in violation and unpermitted disposal of a hazardous waste due to discharges from the V-ditch in violation of 40 C.F.R. § 270.1(b);
- h. Failure to report a leak or spill from the permitted hazardous waste storage tank (Tank 2007) in violation of RCRA Permit, Section III;
- i. Failure to maintain secondary containment free of cracks and gaps for permitted hazardous waste storage Tank 2007 in violation of RCRA Permit and 40 C.F.R. § 264.193(e)(1)(iii); and
- j. Unpermitted disposal of a hazardous waste from the Heat Exchanger Bundle Cleaning Pad in violation of 40 C.F.R. § 270.1(b).

4. On February 19, 2014, DEQ sent a letter to Respondent which stated that DEQ concurred with the Areas of Concern identified in the EPA Inspection Report, and requested



that Respondent schedule an enforcement conference with DEQ to discuss the Areas of Concern identified in the EPA Inspection Report.

5. On March 19, 2014, Respondent met with DEQ to discuss the Areas of Concern found in the EPA Inspection Report. During the meeting, Respondent expressed its interest in resolving all enforcement matters relating to the RCRA CEI through a global settlement.

6. Over the next several months, there were a series of meetings between Respondent and DEQ which discussed both the RCRA issues associated with the CEI, as well as several legacy Gary-Williams Energy Corp. and Kerr-McGee Corporation environmental issues ("Legacy Environmental Issues"), including measures to address soil and groundwater contamination.

7. Respondent and DEQ agree that (1) the preliminary remediation goal for the dissolved phase groundwater at the refinery is an interior concentration that will ensure that contaminants are at or below Maximum Contaminant Levels at the site boundary; and (2) the preliminary remediation goal for Light Non-Aqueous Phase Liquid ("LNAPL") extraction at the refinery is to achieve source removal.

8. Respondent and DEQ agree that it is beneficial to resolve this matter promptly and by agreement.

9. Respondent and DEQ waive the filing of a petition or other pleading, and Respondent waives the right to a hearing.

CONCLUSIONS OF LAW

10. DEQ has regulatory jurisdiction and authority in this matter, and Respondent is subject to the jurisdiction and authority of DEQ under Oklahoma law, 27A Okla. Stat. ("O.S") §§ 2-1-101, *et seq.* and the rules promulgated thereunder at Oklahoma Administrative Code ("OAC"), Title 252, Chapter 205.

11. Respondent and DEQ are authorized by 75 O.S. § 309(E) and 27A O.S. § 2-3-506(B) to resolve this matter by agreement.

ORDER

Based upon the Findings of Fact and the Conclusions of Law, Respondent and DEQ agree, and it is ordered by the Executive Director as follows:

A. RCRA Issues

12. On November 18, 2014, DEQ received a Compliance Plan from Respondent which addressed the alleged RCRA violations identified in the CEI. Based upon review of the Compliance Plan, DEQ has determined that with the implementation of Section D of this Consent Order, Respondent will have adequately addressed the issues identified in the CEI.

B. Comprehensive Remediation Plan

13. Within six (6) months of the effective date of this Consent Order, Respondent shall provide for DEQ approval a Comprehensive Remediation Plan ("Plan"), to address the Legacy Environmental Issues, that details the specific performance measures and final cleanup goals, including timelines for completion of the work schedules to implement the Plan. Respondent shall begin implementation of the Plan within sixty (60) days of DEQ approval. The Plan shall also include:

a. Groundwater Remediation - Existing System Enhancements

14. Product Loading Facility (PLF) System: The existing system was installed in response to a release discovered by Kerr-McGee Corporation in 1986. The system currently operates with five (5) recovery wells with electric submersible pumps plumbed to a common header. The Plan shall address the following system enhancements:

- a. Take measures to improve containment and capture of the dissolved-phase and LNAPL plumes by:



- i. Installing electric submersible pumps of sufficient horsepower to maximize yield from the recovery wells;
 - ii. Installing lateral lines to a common header of sufficient size to accommodate the maximum yield from the recovery wells;
 - b. Take measures to:
 - i. Improve LNAPL separation prior to dissolved phase treatment;
 - ii. Monitor recovery performance of the system;
 - c. Hydraulically contain dissolved phase hydrocarbons at the property boundary;
 - d. Recover LNAPL acting as a source of dissolved phase hydrocarbons; and
 - e. Manage, and treat if necessary, the recovered groundwater by an appropriate method. Options include but are not limited to reinjection, beneficial reuse, or discharge in accordance with an Oklahoma Pollution Discharge Elimination System ("OPDES") permit. Incorporate additional treatment processes, if necessary.

15. **North Process Area System:** The Light Oils System was installed in response to LNAPL discovered by Kerr-McGee Corporation in 1987. The system (now known as the North Process Area System) currently has seven (7) recovery wells with electric submersible pumps in all recovery wells. The Plan shall address the following system modifications:

- a. Take measures to improve containment and capture of the LNAPL plume by:
 - i. Installing pneumatic pumps of sufficient size to maximize yield from the recovery wells;



- ii. Installing air compressors and supply lines, as necessary, to operate the pneumatic pumps;
 - iii. Replacing lateral lines, if necessary, to accommodate the maximum yield from the recovery wells;
- b. Take measures to:
 - i. Improve LNAPL separation prior to dissolved phase treatment;
 - ii. Monitor recovery performance of the system;
- c. Recover LNAPL acting as a source of dissolved phase hydrocarbons; and
- d. Manage, and treat if necessary, recovered groundwater by an appropriate method. Options, include but are not limited to reinjection, beneficial reuse, or discharge in accordance with an OPDES permit. Incorporate additional treatment processes, if necessary.

b. Additional Remediation

16. The Plan shall address additional groundwater withdrawal for containment and treatment of the dissolved-phase plume and shall address the following changes, described in Paragraphs 17-23:

17. Northern Boundary Investigation: Determine if additional remediation technologies are feasible for the Northern Boundary:

- a. Evaluate feasibility of injection:
 - i. Conduct clean water (with tracer) pilot test;
 - ii. Conduct pilot test (if determined to be feasible);
- b. Conduct a full-scale injection program if determined feasible from the pilot injection test;
- c. Include measures to further characterize the risk from vapor intrusion, if necessary; and



d. Contemplate further upgradient groundwater monitoring in the residential area.

18. **South Boundary Remediation System:** Address additional groundwater withdrawal for containment and treatment of the dissolved-phase plume in the vicinity of wastewater surface impoundments F06, F07, and F08:

a. Install an active recovery system and monitoring program to prevent off-site migration of impacted groundwater. The active recovery system and monitoring program will include:

i. Installation of recovery technology, to be determined based on goals described in Paragraph 7 and 13 (preferred technology is at least one well pump and treat system);

ii. Installation of downgradient monitoring wells for performance monitoring, to include at least SMW-24 and SMW-25; and

iii. Pursuant to DEQ approval, Respondent may discontinue operation of the recovery technology described in 18.a.i above, if the results of performance monitoring indicate that groundwater concentrations are achieving the preliminary remediation goals. Respondent shall then only perform the monitoring described in 18.a.ii. If at any point performance monitoring indicates groundwater concentrations are not achieving the preliminary remediation goals, Respondent shall resume operation of the recovery technology in 18.a.i.

19. **Northern Process Area:** Address additional groundwater withdrawal for containment and treatment of the dissolved-phase plume:

- a. Install additional recovery well(s), as necessary, for hydraulic control (including but not limited to the vicinity of UMW-6) based on the results of the North Boundary injection test and interior delineation work;
- b. Evaluate the need for additional recovery wells west of Highway 77; and
- c. Modify remediation treatment system to incorporate additional recovery wells, as necessary.

20. **Product Loading Facility:** Address additional groundwater withdrawal for containment and treatment of the dissolved-phase plume:

- a. Evaluate the need for additional recovery wells based on delineation work;
- b. Install additional recovery wells to:
 - i. Improve LNAPL recovery within the known LNAPL plumes so as to achieve the goals stated in paragraph 14(d);
 - ii. Improve hydraulic containment at the property boundary so as to achieve goals in paragraph 14(c); and
- c. Modify remediation treatment system to incorporate additional recovery wells, as necessary.

21. **South Process Area:** The South Process Area is a combination of the South Alky Unit Area and the Process Area. The existing South Process Area system has one (1) remaining well in operation, LRW-3. Respondent shall address additional groundwater withdrawal for containment and treatment of the dissolved-phase plume:

- a. Maintain existing remediation treatment system and install additional remediation equipment, as necessary, to:
 - i. Improve LNAPL separation prior to dissolved phase treatment;
 - ii. Monitor recovery performance of the system; and

- b. Incorporate additional treatment processes as necessary to meet potential OPDES permit requirements or other groundwater management options, if necessary.

22. **Interior Delineation:** The Plan shall incorporate the following interior delineation work:

- a. Conduct a site-wide delineation groundwater sampling event (GRO, DRO, SVOCs, VOCs, and RCRA metals) using existing monitoring wells and through the installation of new monitoring wells, as follows:
 - i. Install two monitoring wells downgradient from storage tanks along Hwy 17A (SMW-24 and SMW-25);
 - ii. Install one monitoring well north of UMW-4;
- b. Conduct a focused direct-push sampling event to characterize geology and more thoroughly define plumes based on the site-wide sampling event (including any adjustments to the analyte list) and historical LNAPL trend data to achieve:
 - i. Geologic characterization of North Process Area to fill data gaps left by incomplete boring log data;
 - ii. LNAPL plume delineation in South Process Area, North Process Area, and Product Loading Facility;
 - iii. Dissolved-phase plumes in the process areas where well control is spotty;
- c. Install additional permanent monitoring wells at strategic points approved by DEQ based on the direct-push investigation results;
- d. Plug unneeded wells, piezometers, and sumps;

- e. Plug/rehabilitate wells that are improperly installed or are in poor condition; and
- f. Assess additional opportunities for LNAPL recovery as discussed in Paragraphs 19-21.

23. **Management of Recovered Groundwater:** Respondent shall manage the recovery of contaminated groundwater as the groundwater system is expanded, which may include treatment in the refinery wastewater treatment system or as appropriate to maintain remediation objectives. Respondent may enhance the capacity and/or effectiveness of the wastewater treatment system.

C. Performance Monitoring

24. Within one (1) year from the date DEQ approves the Plan, Respondent shall submit a long-term Performance Monitoring and Sampling Plan, based on historical data and data from the interior delineation, to document decreases in contaminant concentrations resulting from remedial techniques and to continue monitoring the plume perimeter for risk management purposes. Respondent shall conduct a comprehensive sampling event of the monitoring well network every five years (GRO, DRO, SVOCs, VOCs, RCRA Metals) beginning in the fifth year after completion of interior delineation sampling required in paragraph 22.

25. Respondent shall conduct semi-annual groundwater monitoring of the network (GRO, DRO, BTEX (standard semi-annual event)).

26. Respondent shall conduct monthly operation and maintenance of the remediation systems and quarterly fluid level measurements.

27. Respondent shall prepare and submit to DEQ one copy of a semi-annual groundwater remediation progress report due on March 1 and September 1 of each year.



D. V-Ditch

28. **V-Ditch Repairs:** The Respondent shall submit a plan within sixty (60) days of the effective date of this Consent Order to complete the repairs of surficial cracks in the concrete V-Ditch. The plan will require Respondent to address the following:

- a. Divert and manage the process wastewater from the V-Ditch to allow for clean-out and repair activities;
- b. Remove the accumulated solids in the V-Ditch;
- c. Dewater and dispose of the V-Ditch solids, which Respondent agrees to handle as listed hazardous waste (F037);
- d. Clean and prepare surface of the V-Ditch concrete;
- e. Repair and seal the surficial cracks through application of a reinforced, oil-resistant grout; and
- f. Conduct visual inspections on a semi-annual basis to monitor the integrity of the surficial repairs. These inspections will continue until the V-Ditch is replaced.

29. The V-Ditch will remain in service during the repairs above, as there is no other conveyance. The project will require segmenting and bypassing the wastewater flow using temporary conveyance, as Respondent deems appropriate. Work may need to be suspended during extreme weather conditions (e.g., rain events/higher flow scenarios) and resumed under normal flow conditions. The V-Ditch repairs shall be completed no later than one year after DEQ approval of the plan in paragraph 28.

30. **V-Ditch Evaluation and Replacement:** The V-Ditch is the final conveyance for refinery wastewater. The V-Ditch carries process wastewater to the wastewater treatment system and also conveys stormwater from the paved process areas. High stormwater flow



rates discharge from the V-Ditch into a collection basin via an overflow weir. From the collection basin the stormwater is pumped to a nearby holding tank.

31. Respondent will complete an engineering study to replace the V-Ditch. The replacement options to be considered will include, but may not be limited to:

- a. Replacing the V-Ditch with a pipe to convey process wastewater by gravity flow to the API separator, with provisions for process stormwater containment and management; and
- b. Replacing the V-Ditch with a lift station that will pump dry weather process wastewater to the API separator, reserving the V-Ditch to convey stormwater to the existing stormwater collection basin.

Respondent shall select a replacement option and begin detailed design no later than one (1) year after the effective date of this Consent Order. The selected option shall be submitted to DEQ for approval.

32. Timing of V-Ditch Replacement: The V-Ditch replacement shall be completed within three (3) years of DEQ approval of the selected replacement option required in paragraph 31 or within four (4) years of the effective date of this Consent Order, whichever comes later.

PENALTIES

33. The Oklahoma Hazardous Waste Management Act, 27A O.S. §§ 2-7-101, *et seq.* authorizes DEQ to seek penalties of up to Twenty Five Thousand Dollars (\$25,000.00) per day for violation of the Act and the associated rules. Based upon the RCRA Inspection and the issues of non-compliance identified, a penalty was assessed in the amount of Two Hundred Forty-Eight Thousand Dollars (\$248,000.00). DEQ agrees to defer the entire assessed penalty provided Respondent completes all of the tasks outlined in this Consent Order. If Respondent fails to comply with the tasks and/or fails to complete the tasks by the



scheduled due dates, the entirety of the deferred penalty becomes immediately due and payable.

34. If Respondent fails to comply with this Consent Order, Respondent is subject to an additional penalty of One Thousand Dollars (\$ 1,000.00) per day per each day of noncompliance with this Consent Order.

35. If Respondent fails to pay any penalty, DEQ may bring a separate action for collection of the penalty in District Court. An action by DEQ for the collection of a penalty does not affect Respondent's duty to complete the tasks required by this Consent Order.

36. Any penalty for which Respondent shall become liable under this Consent Order shall be paid by check or money order payable to and delivered to:

The Oklahoma Hazardous Waste Fund
Accounts Receivable
Financial & Human Resources Management
Department of Environmental Quality
P.O. Box 2036
Oklahoma City, Oklahoma 73101-2036

GENERAL PROVISIONS

37. Respondent agrees to perform the requirements of this Consent Order within the time frames specified unless performance is prevented or delayed by events which are a "force majeure." For purposes of this Consent Order, a force majeure event is defined as any event arising from causes beyond the reasonable control of Respondent or Respondent's contractors, subcontractors or laboratories which delays or prevents the performance of any obligation under this Consent Order. Examples are vandalism, fire, flood, labor disputes or strikes; weather conditions which prevent or seriously impair activities required by this Consent Order; civil disorder or unrest; and "acts of God". Force majeure events do not include increased costs of performance of the tasks agreed to in this Consent Order, or changed economic circumstances. Respondent must notify DEQ in writing within fifteen (15)



days after Respondent knows or should have known of a force majeure event that is expected to cause a delay in achieving compliance with any requirement of this Consent Order. Failure to submit notification within fifteen (15) days waives the right to claim force majeure.

38. Upon their approval by the DEQ, any final reports, plans, specifications, schedules and attachments required under this Consent Order are incorporated into it and enforceable under it. Failure of Respondent to respond within a reasonable time to any errors, deficiencies or other regulatory requirements identified by DEQ is a violation of this Consent Order.

39. No informal advice, guidance, suggestions or comments by employees of DEQ regarding reports, plans, specifications, schedules, and other writings affect Respondent's obligation to obtain written approval by DEQ, when required by this Consent Order.

40. Unless otherwise specified, any report, notice or other communication required under this Consent Order must be in writing and:

a. **For the Department of Environmental Quality:**

Stephen F. Baldridge
P.O. Box 1677
Oklahoma City, Oklahoma 73101
Phone: (405) 702-7180
Fax: (405) 702-7199
Email: stephen.baldridge@deq.ok.gov

Adrian Simmons
P.O. Box 1677
Oklahoma City, Oklahoma
Phone: (405) 702-5215
Fax: (405) 702-5101
Email: adrian.simmons@deq.ok.gov

b. **For Respondent:**

Sam McCormick
Coffeyville Resources, LLC
10 East Cambridge Circle Drive
Suite 250
Kansas City, KS 66103
samccormick@cvrenergy.com



Robert Morris
Wynnewood Refining Company, LLC
P.O. Box 305
906 South Powell
Wynnewood, OK 73098
Phone: (405) 665-6509
Email: rmorris@cwrenergy.com

LeAnn M. Johnson Koch, Esq.
Perkins Coie LLP
700 13th Street, NW
Washington, D.C. 20005-3960
Phone: (202) 654 -6209
Email: LeAnnJohnson@perkinscoie.com

41. This Consent Order is enforceable as a final order of the Executive Director of the DEQ. DEQ retains jurisdiction of this matter for the purposes of interpreting, implementing and enforcing the terms and conditions of this Consent Order and for the purpose of resolving disputes.

42. Nothing in this Consent Order limits DEQ's right to take enforcement action for violations discovered or occurring after the effective date of this Consent Order.

43. Nothing in this Consent Order excuses Respondent from its obligation to comply with all applicable federal, state and local statutes, rules and ordinances. Respondent and DEQ agree that the provisions of this Consent Order are considered severable, and if a court of competent jurisdiction finds any provisions to be unenforceable because they are inconsistent with state or federal law, the remaining provisions will remain in full effect.

44. The provisions of this Consent Order apply to and bind Respondent and DEQ and their officers, directors, employees, agents, successors and assigns. No change in the ownership or corporate status of Respondent will affect Respondent's responsibilities under this Consent Order.

45. Compliance with the terms and conditions of this Consent Order fully satisfies Respondent's liability to DEQ for all items of alleged noncompliance specifically set forth in this Consent Order, including Exhibit A. If Respondent satisfies the requirements of this



Consent Order, DEQ will not pursue any other remedy, sanction or relief that might otherwise be available to address the issues of alleged noncompliance specifically set forth in this Consent Order.

46. This Consent Order is for the purpose of settlement. Neither the fact that Respondent and DEQ have agreed to this Consent Order, nor the Findings of Fact and Conclusions of Law in it, shall be used for any purpose in any proceeding except the enforcement by Respondent and DEQ of this Consent Order and, if applicable, a future determination by DEQ of eligibility for licensing or permitting. As to others who are not parties to this Consent Order, nothing contained in this Consent Order is an admission by Respondent of the Findings of Fact or Conclusions of Law, and this Consent Order is not an admission by Respondent of liability for conditions at or near the facility and is not a waiver of any right, cause of action or defense Respondent otherwise has.

47. Respondent and DEQ agree that the venue of any action in district court for the purposes of interpreting, implementing, challenging, and/or enforcing this Consent Order will be Oklahoma County, Oklahoma.

48. The requirements of this Consent Order will be considered satisfied and this Consent Order terminated when (i) Respondent receives written notice from DEQ that Respondent has demonstrated that all the terms of the Consent Order have been completed to the satisfaction of DEQ, and that any assessed penalty under this Consent Order has been paid; or (ii) Respondent receives a RCRA permit renewal incorporating the terms of this Consent Order as it applies to groundwater remediation, and any assessed penalty under the Consent Order has been paid. Respondent may request in writing from DEQ that the Consent Order be reviewed to determine if Respondent has successfully completed all of the tasks outlined in the Consent Order. DEQ will review Respondent's request and make a determination regarding the termination of the Consent Order.



49. Respondent and DEQ may amend this Consent Order by mutual consent. Such amendments must be in writing and the effective date of the amendments will be the date on which they are signed by DEQ.

50. The individuals signing this Consent Order certify that they are authorized to sign it and to legally bind the parties they represent.

51. This Consent Order becomes effective on the date of the later of the two signatures below.

FOR RESPONDENT:

OKLAHOMA DEPARTMENT
OF ENVIRONMENTAL QUALITY:



Michael B. Swanson
Vice President; and
Wynnewood Refinery General Manager

Date: 6/26/15

for 
Scott A. Thompson
Executive Director

Date: 6/30/15





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

**1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733**

January 13, 2014

CERTIFIED MAIL: RETURN RECEIPT REQUESTED – 7007 1490 0004 0588 9369

**Mr. Bill Wuensche
Refinery General Manager
CVR Energy, Inc
P.O. Box 305
Wynnewood, Oklahoma 73098**

EXHIBIT A

**Re: EPA RCRA Compliance Inspection – March 2013
EPA ID# OKD000396549 – CVR Energy, Inc. – Wynnewood Refinery**

Dear Mr. Wuensche

During the week of March 11, 2013, The United States Environmental Protection Agency (EPA) conducted an unannounced Compliance Evaluation Inspection (CEI) at CVR Energy, Inc.'s petroleum refinery in Wynnewood, Oklahoma. I would like to thank you for the time and the courtesy you and your staff extended to our inspector. Enclosed, please find a copy of the CEI Report, which chronicles the inspection findings. A copy of this CEI report will be transmitted separately to the Oklahoma Department of Environmental Quality (ODEQ).

Based on the information contained in the enclosed inspection report, there are areas of concern for which EPA may take enforcement action under the Resource Conservation and Recovery Act (RCRA). If you have not already done so, we encourage you to immediately address all compliance issues identified in the CEI report.

If you have any questions regarding this matter, please contact Mr. John Penland of my staff at (214) 665-9717 or email to penland.john@epa.gov.

Sincerely,

Guy Tidmore

Chief




Compliance Enforcement Section (6EN-HE)
Hazardous Waste Enforcement Branch

Enclosure

cc: Mike Edwards, Environmental Program Manager
Oklahoma Department of Environmental Quality
Hazardous Waste Compliance and Inspection Section



**EPA REGION 6 ENFORCEMENT DIVISION
INSPECTION REPORT**

FRS #:	110000453697		
Media #:	OKD000396549		
Permit #:	OKD000396549		
Inspection Type:	RCRA Compliance Evaluation Inspection		
Inspection Date:	March 11-15, 2013		
Company Name:	CVR ENERGY, INC.		
Facility Name:	WYNNEWOOD REFINERY		
Physical Location:	906 South Powell		
	Wynnewood, Oklahoma 73098		
Mailing Address:	P.O. Box 305		
	Wynnewood, Oklahoma 73098		
County/Parish:	Garvin County		
SIC Code:	2911		
NAICS Code:	32411		
Reg Programs	Large Quantity Generator and Permitted Hazardous Waste Storage Facility		
Facility Representatives:	Bill Wuensche	Vice President/ Refinery Manager	405-665-6622
	Sidney G. Cabiness	Environmental Manager	405-665-6601
	Evan Hillburn	Environmental Technician	405-665-6515
	Gary Messec	Training Specialist	405-665-6525
EPA Inspectors:	John Penland	6EN-HE	Environmental Scientist 214-665-9717
State Inspectors:	Cliff Hoyle	Oklahoma Department of Environmental Quality - Tulsa	Environmental Compliance Inspector 405-702-5215
EPA Lead Inspector Signature/Date	 John Penland, Environmental Scientist		1/14/14 {Date}
Peer Reviewer Signature/Date	 Adolphus Talton, Environmental Scientist		1/14/14 {Date}
Supervisor Signature/Date	 Guy Temple, Chief, Hazardous Waste Enforcement Section		1/14/14 {Date}

(MBA)



**EPA REGION 6 ENFORCEMENT DIVISION
INSPECTION REPORT**

FRS #:	110000453697		
Media #:	OKD000396549		
Permit #:	OKD000396549		
Inspection Type:	RCRA Compliance Evaluation Inspection		
Inspection Date:	March 11-15, 2013		
Company Name:	CVR ENERGY, INC.		
Facility Name:	WYNNEWOOD REFINERY		
Physical Location:	906 South Powell		
	Wynnewood, Oklahoma 73098		
Mailing Address:	P.O. Box 305		
	Wynnewood, Oklahoma 73098		
County/Parish:	Garvin County		
SIC Code:	2911		
NAICS Code:	32411		
Reg Programs	Large Quantity Generator and Permitted Hazardous Waste Storage Facility		
Facility Representatives:	Bill Wuensche	Vice President/ Refinery Manager	405-665-6622
	Sidney G. Cabbiness	Environmental Manager	405-665-6601
	Evan Hillburn	Environmental Technician	405-665-6515
	Gary Messec	Training Specialist	405-665-6525
EPA Inspectors:	John Penland	6EN-HE	Environmental Scientist 214-665-9717
State Inspectors:	Cliff Hoyle	Oklahoma Department of Environmental Quality - Tulsa	Environmental Compliance Inspector 405-702-5215
EPA Lead Inspector Signature/Date	John Penland, Environmental Scientist		{Date}
Peer Reviewer Signature/Date:	Adolphus Talton, Environmental Scientist		{Date}
Supervisor Signature/Date	Guy Tidmore, Chief, Hazardous Waste Enforcement Section		{Date}

MA

Section I - INTRODUCTION

During the week of March 11, 2013, I, John Penland, conducted an unannounced compliance evaluation inspection (CEI) at the CVR Energy, Inc. Wynnewood Refinery (the Wynnewood Refinery) located in Wynnewood, Oklahoma, for compliance with the Resource Conservation and Recovery Act (RCRA). On March 11, 2013, I met with Mr. Evan Hillburn, the RCRA Compliance Technician, and conducted an opening inspection briefing. During this briefing I presented my credentials to Mr. Hillburn and explained the procedure for the inspection. I conducted a second briefing for Sidney Cabbiness, the Refinery Environmental Manager, when she arrived on the afternoon of March 11, 2013. My inspection included: walkthroughs of the facility's production, storage, and waste management areas; interviews with facility personnel; collection and review of facility records; and collection of environmental samples from the refinery's wastewater and stormwater management areas. I concluded the inspection on March 15, 2013 with a brief closeout meeting which included a discussion of the areas of concern summarized in Section III.

This report serves as documentation of the onsite activities and observations as they pertain to the RCRA CEI. Photographs taken during the inspection to document onsite observations are included as Appendix 1. An aerial map of depicting important locations related to the inspection is provided in Appendix 2.

FACILITY DESCRIPTION

CVR Energy owns and operates an integrated petroleum refinery (SIC 2911), located at 906 South Powell Street in Wynnewood, Oklahoma. The facility consists of crude oil distillation units, product blending units, petroleum storage tanks, a wastewater treatment unit and associated maintenance, warehouse, laboratory, and office areas. The facility refines crude oil into lighter refined products, such as gasoline, diesel fuel, and kerosene, and has a total refining capacity of approximately 70,000 barrels of crude oil per day.

The Wynnewood Refinery operates one hazardous waste storage tank (Tank 2007) under the authorization of RCRA Permit 000396549 issued by the Oklahoma Department of Environmental Quality (ODEQ)¹. This tank is permitted to store hazardous waste sludge generated from the refinery's API separator (K051).

The previous RCRA compliance inspection was conducted by Clifton Hoyle of the ODEQ on March 17, 2011². This inspection identified multiple concerns with the facility's management of containers of hazardous waste and resulted in the issuance of a written notice to comply on April 14, 2011.

At the time of this inspection, the Wynnewood Refinery had recently returned to normal operations following completion of a refinery-wide turnaround. However, the refinery's permitted hazardous waste storage tank (Tank 2007) and stormwater tank (Tank 2003) were both out-of-service.

WASTE DESCRIPTION

This section provides a description of wastes observed during this inspection or otherwise listed on Wynnewood's 2009 and 2011 biennial reports.³

¹ Appendix 3 – RCRA Hazardous Waste Permit 000396549

² Appendix 4 – ODEQ RCRA Compliance Inspection and Notice to Comply

³ Appendix 5 – Wynnewood Refinery's RCRA Biennial Reports for 2009 and 2011

MBA

Slop Oil Emulsion Solids
(D018, K049)

Waste solids are generated at irregular intervals from the refinery's slop oil tank (Tank 2001). This waste stream was not observed during the inspection.

Primary Sludge
(F037)

This waste stream is generated from the refinery's waste water treatment system. The primary points of generation include the process sewer lines, the v-ditch, and Tanks 2004 and 2005. Tank 2003 was taken out of service for clean-out during the refinery-wide turnaround and it was determined that during its previous operating period it had received untreated refinery waste water. Therefore, sludges removed from this tank during the turnaround carried the F037 listing. Approximately 43 containers of primary sludge from the Tank 2003 clean-out were observed during this inspection. These containers were not labeled with the words "hazardous waste" and had been stored onsite for more than 90 days prior to the inspection.

API Separator Sludge
(K051)

During normal operations, this waste stream is generated from the refinery API separator and piped directly to Tank 2007. This tank is authorized to store API separator sludge under a permit issued by ODEQ. During this inspection, Tank 2007 was out of service for maintenance and clean-out. During this maintenance period, K051 sludges were being directed to containers (frac tanks) sited near the API separator. None of these containers were marked with either the words "hazardous waste" or the date when the waste was accumulated.

Oily Refinery Debris
(D001, D018, D028, D029, F037, K049, K051)

According to Evan Hillburn, this waste stream is comprised of rags, oily debris, used PPE, and other materials contaminated with hazardous waste during refinery operations. Containers of this waste stream were observed during this inspection and none of the containers were marked with the words "hazardous waste" or the date when the waste was accumulated.

Heat Exchanger Tube Bundle Sludge
(K050)

Heat Exchanger Tube Bundle Sludge is generated during the refinery unit turnarounds. Sludge that is generated when the tube bundles are removed from the heat exchanger shell is placed into containers and disposed offsite. Heat exchanger tube bundles are then cleaned by power washing at the bundle cleaning pad. Sludge that is generated during this cleaning process is washed directly into the V-ditch. This waste was observed during this inspection on the bundle cleaning pad and in a stormwater drainage area adjacent to the V-ditch.

Mono or Diethanolamine Solution
(D002, D003)

This caustic solution is generated from the amine unit in the sulfur recovery unit. Typically this stream is non-hazardous, however there have been periods when this solution was disposed as hazardous waste. The amine solution that was onsite at the time of this inspection had been determined by Wynnewood to be non-hazardous.



Oily Refinery Sludges
(D018, K169)

This waste category is used for waste sludges generated during the clean-out of the refinery's product storage tanks. This waste stream was not observed during this inspection.

Reformer Catalyst
(D018)

This waste stream is generated from the refinery's platformer unit during maintenance activities. The waste is managed in containers and disposed of at an offsite TSD facility. This waste was not observed during this inspection.

Hydrotreating Catalyst
(D001, D018, K171)

This waste stream is generated from the refinery's hydrotreater unit during maintenance activities. The waste is managed in containers and disposed of at an offsite TSD facility. This waste was not observed during this inspection.

Lab Pucks

(D001, D002, D004, D005, D006, D007, D008, D009, D011, D019, D038, P105, U012, U080, U196, U211, U213, U218)

Lab pucks are infrequently generated by the facility's analytical laboratory. This waste was not observed during this inspection.

Section II - OBSERVATIONS

Waste Water Treatment System

The combined refinery process wastewater generated by the refinery is directed into an open, concrete-lined ditch (V-ditch) which conveys the wastewater to the API Separator. This ditch also directly receives runoff and spills from the hazardous waste container storage area, heat exchanger bundle cleaning sludge, and other liquid wastes from various areas of the refinery. The V-ditch is equipped with a screen at the outlet to the API Separator which separates contaminated debris from the wastewater stream. The wastewater is then treated in the API Separator. Sludges from the API separator are collected and pumped into Tank 2007, which is a hazardous waste permitted K051 storage tank. Following treatment in the API Separator, wastewater is then routed to wastewater storage tanks (Tank 2004 and Tank 2005) and then into the biotreatment unit (Oxidation Ditch). From the biotreatment unit the wastewater passes through a clarifier and then a series of three settling lagoons before being discharged through the NPDES permitted discharge point.⁴

In the event of high wastewater levels in the V-ditch, wastewater will pass through an overflow weir at the upstream end of the V-ditch into an overflow tank. This overflow tank is equipped with pumps activated by a level controller which directs the overflow water into Tank 2003. These overflow waters are then pumped back to the wastewater treatment unit via the wastewater equalization tank (Tank 2004). According to the wastewater blockflow diagram obtained during the inspection, this overflow water can also be directed to a unit dubbed "Lake Miller". This unit was not observed during this inspection.

At the time of this inspection both Tank 2003 and the permitted K051 storage tank were out of service for cleaning. For the duration of the Tank 2003 shutdown the overflow tank had been redirected directly to the east settling lagoon bypassing the oxidation ditch. Each bypass of the oxidation ditch was

⁴ Appendix 6 – Block Flow Diagram of Wynnewood Refinery's Wastewater Treatment System



documented in a letter to ODEQ’s Water Quality Division⁵. API separator sludges were being pumped into, and stored in, portable frac tanks located near the API Separator. Three of these containers were observed at the time of the inspection. None of these containers were marked with the words “Hazardous Waste” or with the date when the wastes were accumulated.

Throughout this inspection, I made observations of the V-ditch. I documented numerous cracks in the concrete lining of the V-ditch. In one of these cracks, I observed vegetation growing through the gap in the concrete. At the south end of the V-ditch I observed visible staining of the soils at the top of the V-ditch. On October 1, 2010, Wynnewood submitted a corrective action plan for the OPDES outfall 002, the stormwater drainage area paralleling the V-ditch. This plan was a requirement of an administrative order issued by ODEQ to address exceedences of OPDES permit limits. According to the plan, it was determined that the root cause for the exceedances included discharges from the WWTU⁶.

On March 13, 2013, I collected a grab sample of liquids from the following areas: The inlet point for the V-ditch located at the northern end of the ditch, the V-ditch overflow sump, the north end of the East Lagoon, and stormwater drainage area adjacent to the V-ditch near Gate B-12. These samples were analyzed by the EPA laboratory in Houston, Texas. The primary analyte of concern was benzene. The full laboratory report is included as Appendix 9 and a summary of the results for each sample location is provided in the table below.

Sample Identification	Sample Location	TCLP Benzene (mg/L)
WRC001	V-ditch Overflow Sump	0.147
WRC002	V-ditch (North End)	1.8
WRC003	Stormwater impoundment near API separator	Below detection limits
WRC004	East Lagoon	Below detection limits

Permitted Hazardous Waste Storage Tank

Tank 2007 is used for storage of API Separator sludge (K051) and is subject to the requirements of RCRA permit 000396549 issued by ODEQ. On March 12, 2013, I inspected the Tank 2007 for compliance with the conditions of its permit. The tank was not actively managing waste at the time of this inspection as it had been taken out of service for its clean out. Secondary containment for the tank is provided by a square concrete impoundment with a drainage sump which is connected to the refinery process wastewater sewer. I observed cracks in each of the four walls and the base of the secondary containment area. These cracks varied in width from hairline to over one centimeter and propagated across the entire length and width of the concrete area and ran beneath Tank 2007. Two of the cracks had vegetation growing through them.

⁵ Appendix 7 – Notices of Bypass of the Wastewater Treatment System

⁶ Appendix 8 – Wynnewood Refinery’s Stormwater Outfall 002 Corrective Action Plan

Removal of the hazardous waste sludge and cleaning of the tank occurred during the period between November 5, 2012, and January 30, 2013. A centrifuge was employed by the Wynnewood Refinery to separate solids from the API Separator Sludge. Liquids from this process were being conveyed by a flexible hose to the drainage sump in the secondary containment area. On or about December 19, 2012 during the cleanout of Tank 2007, a carryover of solids from the centrifuge clogged the drainage sump and caused an accumulation of liquids with entrained API sludge solids within the secondary containment area. When I inspected the Tank on March 12, 2013, the concrete area was stained from this event. This staining was also present on the interior surfaces of the cracks which propagated through the containment area. According to Evan Hillburn, this spill was not reported to ODEQ.

Hazardous Waste Container Management Areas

Wynnewood operates a single concrete pad as a combined hazardous waste container storage area and heat exchanger bundle cleaning area. This pad abuts the V-ditch and is equipped with corrugated metal walls to prevent overspray during heat exchanger bundle cleaning.

At the time of this inspection, 82 containers of hazardous waste were stored in the following areas: the hazardous waste container storage pad; the unpaved area located to the northeast of the hazardous waste storage pad; and adjacent to a corrugated metal building located east of the hazardous waste storage pad. None of these containers were marked with the words “Hazardous Waste” and many were not labeled with a date of accumulation. However, with the assistance of Evan Hillburn, I was able to identify the contents of the containers. The following wastes were present on the hazardous waste container storage pad and the adjacent areas at the time of this inspection:

- 43 containers of hazardous waste sludges generated during the clean-out of Tank 2003 (F037). This cleanout occurred during the period from September 16, 2012 to November of 2012. Five of these containers were marked with an accumulation dates ranging from September 30, 2012 to October 22, 2012.
- 11 containers of refinery sludge – API Separator Sludge (K051).
- 23 containers of hazardous oily debris (D018)
- 1 container of sulfamic acid (D002)
- 4 containers with contents unknown but will be disposed as hazardous waste.

In addition, containers of hazardous waste were also observed at the following locations:

- 4 closed, unmarked containers near the API separator adjacent to the fence line separating the refinery from the stormwater drainage area. These containers were alleged to be F037 sludges from the V-ditch by Evan Hillburn.
- 1 overfilled satellite accumulation container for sludges from the V-ditch screen
- 1 closed unmarked container near pumps adjacent to the API separator. Alleged to be API Separator sludge (K051) by Evan Hillburn.
- 1 open satellite accumulation container of API separator sludge staged next to the API separator
- 2 unmarked, roll-off containers of sludge from the clean-out of Tank 2003 located in the unpaved area east of the API separator. One of these containers was open with its contents exposed to the elements.
- 3 unmarked frac tank containers storing API Separator sludge according to Sydney Cabbiness

On March 15, 2013, Evan Hillburn provided photographs demonstrating that Wynnewood Refining had applied hazardous waste labels to the containers noted during this inspection. The containers

in the photographs appeared to be closed and labeled. However the accumulation dates for the containers can not be determined from the photographs. These photographs are included in the inspection photolog.

Heat Exchanger Bundle Cleaning

During the turnaround the hazardous waste container storage pad was also used for cleaning heat exchanger bundles. Residues from this activity were still present on the pad on March 11, 2013. In addition, the corrugated metal walls were no longer intact and in some areas whole sections were missing. Because of this observation, I inspected the storm water drainage area which lies on the opposite side of the V-ditch and is outside of the facility fenceline. The chainlink fence separating the drainage area from the facility was coated with an unknown material. Stained vegetation and chunks of solid material which appeared to be bundle cleaning sludge were observed in the stormwater drainage area opposite of the holes in the corrugated metal walls of the bundle cleaing pad.

Employee Training

On March 14, 2013, I reviewed the records for employee hazardous waste training. The refinery's training program is overseen by Mr. Gary Messec, the refinery Training Specialist, and includes each employee of Wynnewood refinery. However, the training program does not include contractors employed by Wynnewood Refinery. Instead each contractor is required to attend a mandatory site orientation that covers emergency procedures and some aspects of the refinery's hazardous waste management program.

Manifests

On March 14, 2013, I reviewed the hazardous waste manifests for hazardous waste shipments originated by the refinery during the previous 12 months. I did not identify any areas of concern with these manifests

Contingency Plan

I did not review the refinery's contingency plan during the inspection. However, I did request a copy of the plan from Syney Cabiness on March 12, 2013 for later review. This document was provided to me on March 15, 2013.

Facility Inspections

On March 14, 2013, I reviewed the records of inspections conducted by the refinery of the hazardous waste container storage areas. I did not identify any areas of concern with these inspection records.

Section III – AREAS OF CONCERN

	<i>Areas of Concern</i>	<i>Documentation</i>	<i>Regulatory References</i>	<i>Comments</i>
1	Operation of a Hazardous Waste Storage Unit Without a Permit		270.1	Storage of hazardous waste containers on and around the hazardous waste container storage pad with out meeting the permit exemption requirements

CVR Energy, Inc. – Wynnewood Refinery
FY2013 Inspection

1a	Failure to label containers used for the storage of hazardous waste with the words "Hazardous Waste"	Appendix 1 – Photos 019, 021, 023-026, 031-032, 047-054, 076, 080-083, 121, 122, 124-127	§262.34(a)(3)	82 containers located in this area and employed for the storage of hazardous waste were not labeled during the week of the inspection. This is a recurrence of an area of concern noted during the ODEQ inspection of March 17, 2011.
1b	Failure to label containers used for the storage of hazardous waste with the date of accumulation of the waste	Appendix 1 – Photos 019, 025, 047, 048-54, 074, 077	§262.34(a)(2)	77 containers employed for the storage of hazardous waste were not labeled during the week of the inspection.
1c	Unpermitted storage of a hazardous waste for a period greater than 90 days	Appendix 1 – Photos 019, 023-026, 031, 032, 047, 048, 050, 080, 083	§262.34	43 containers of F037 hazardous waste sludge generated during the cleanout of Tank 2003. This cleanout occurred during the period from September 16, 2012 to November of 2012, at least 100 days prior to the inspection.
1d	Failure to close containers used for the storage of a hazardous waste	Appendix 1 – Photos 047 and 076	§262.34(a)(1)(i) §265.173(a)	One container of contaminated debris either D018 or K051 located on hazardous waste container storage pad. One container of F037 refinery sludge located at the unpaved area east of the hazardous waste container storage pad.
2	Operation of a Hazardous Waste Storage Unit Without a Permit		270.1	Storage of Hazardous waste containers in the

CVR Energy, Inc. – Wynnewood Refinery
FY2013 Inspection

				area adjacent to the API Separator and V-Ditch screen without meeting the permit exemption requirements
2a	Failure to label containers used for the storage of hazardous waste with the words "Hazardous Waste"	Appendix 1 – Photos 006-009, 012-014, 017, 033-035, 072 and 073	§262.34(a)(3)	10 containers located in this area and employed for the storage of hazardous waste were not labeled during the week of the inspection. This is a recurrence of an area of concern noted during the ODEQ inspection of March 17, 2011.
2b	Failure to label containers used for the storage of hazardous waste with the date of accumulation of the waste	Appendix 1 – Photos 006-009, 012-014, 017, 033-035, 072 and 073	§262.34(a)(2)	10 containers employed for the storage of hazardous waste were not labeled during the week of the inspection.
2c	Unpermitted storage of a hazardous waste for a period greater than 90 days	Appendix 1 – Photos 033-035	§262.34	2 containers of F037 hazardous waste sludge generated during the cleanout of Tank 2003. This cleanout occurred during the period from September 16, 2012 to November of 2012, at least 100 days prior to the inspection.
2d	Failure to close containers used for the storage of a hazardous waste	Appendix 1 – Photos 033 and 034	§262.34(a)(1)(i) §265.173(a)	One rolloff container containing F037 sludge located in unpaved area east of the API separator.
2e	Failure to close containers used for the accumulation of a hazardous waste in a satellite accumulation area	Appendix 1 – Photos 010, 011, 018, 117, 118, 119	§262.34(c)(1)(i) §265.173(a)	One container located at the south end of the V-ditch used for the accumulation of F037 sludge from the

CVR Energy, Inc. – Wynnewood Refinery
FY2013 Inspection

				V-ditch. One container located at the API Separator used for the accumulation of K051 API Separator sludge.
3	Operation of a Hazardous waste disposal unit without a permit. Unpermitted disposal of a hazardous waste due to discharges from the V-ditch	Appendix 1- Photos 040-046, 071, 093, 094, 097-099, 110 Appendix 9	§270.1(b)	Benzene concentrations in the refinery wastewater exceed the threshold for the hazardous waste characteristic of benzene toxicity (D018). The cracks observed in the structure of the V-ditch render it incapable of containing this waste water.
4	Failure to report a leak or spill from the permitted hazardous waste storage Tank 2007	Appendix 1 – Photos 055, 056, 062-064	RCRA Permit OKD000396549 Section III	API Separator sludges, a listed hazardous waste, were spilled into the secondary containment for Tank 2007. The cracks observed in the secondary containment structure render the it incapable of containing this waste. Staining observed on the interior surfaces of these cracks indicated that the waste entered the environment and impacted the soils beneath the secondary containment area. According to Evan Hillburn, notice of the API Separator sludge spill was not provided to ODEQ.

CVR Energy, Inc. – Wynnewood Refinery
FY2013 Inspection

5	Failure to maintain secondary containment free of cracks or gaps for permitted hazardous waste storage Tank 2007	Appendix 1 – Photos 056-065	RCRA Permit OKD000396549 §264.193(e)(1)(iii)	Visible cracks were observed in the secondary containment liner for hazardous waste storage Tank 2007
6	Unpermitted disposal of a hazardous waste from the Heat Exchanger Bundle Cleaning Pad	Appendix 1 – Photos 020-023, 037, 068-070	§270.1(b)	Material appearing to be heat exchanger bundle sludge was observed in the storm water drainage area.

