

DOCKETED	
Docket Number:	99-AFC-01C
Project Title:	Elk Hills Power Project - Compliance
TN #:	266454
Document Title:	Appendix O Phase 1 Environmental Site Assessment Part G
Description:	Appendix O Phase 1 Environmental Site Assessment, Part G for CalCapture Project
Filer:	Daniel I. Padilla
Organization:	California Resources Corporation
Submitter Role:	Applicant
Submission Date:	10/10/2025 12:13:58 PM
Docketed Date:	10/10/2025

CalCapture CCS Project

Phase I Environmental Site Assessment Report

Prepared for:
Carbon TerraVault Holdings, LLC, a carbon
management subsidiary of California Resources
Corporation

October 2025

Prepared by:
Stantec Consulting Services Inc.
2646 Santa Maria Way, Suite 107
Santa Maria, CA 93455

Project/File:
185806775

From: <Mark_E_Slezak@oxy.com>
To: <joe@co.kern.ca.us>
CC: <Mike_Glavin@oxy.com>, <Raymond_Rodriguez@oxy.com>, <Jerry_F_Korhonen@o...>
Date: 03/01/2012 7:08 PM
Subject: OEHI Elk Hills and Elk Hills Power Plant RMP Resubmissions
Attachments: Elk Hills Power 2012-02.RMP.pdf; OEHI 2011-12-09 RMP Resubmission.pdf

Joe,

It was nice meeting you today. Per our conversation, we are providing you copies of our CalARP Risk Management Plans in the attached PDF files. As we discussed, the OEHI Elk Hills facilities (7 processes) and Elk Hills Power (EHP) Plant process are all filed as Program Level 1 Prevention programs per CalARP Section 2735.4 - Applicability, for the reasons that:

1. Elk Hills Power Plant has been entirely acquired by Occidental Petroleum and is operated by OEHI. Consequently, EHP is no longer an off-site receptor for OEHI Elk Hills facilities and visa versa.
2. For the past five years there has not been an accidental release of a regulated substance that has led to offsite consequences, including death, injury, or response or restoration activities for an exposure to an environmental receptor.
3. None of the processes have worst case scenario endpoint distances that extend to a public receptor.
4. Emergency response procedures for these facilities are coordinated and unified (same reporting and response structure), and are coordinated with local emergency planning and response agencies.

Please let us know if you have any questions.

Regards,

Mark Slezak
HES Risk Engineering Leader
Occidental of Elk Hills, Inc.
661-412-5219
mark_e_slezak@oxy.com

CalARP Incident Summary Report
For
Occidental of Elk Hills, Inc.
35R Cogen Anhydrous Ammonia Release
Date of Incident: March 02, 2011

Incident Summary

On March 2, 2011, at 11:03 am, during annual preventative maintenance on Cogen Unit #2, a third party contractor crew was conducting maintenance on the facility relief valves. Combustion Turbine Generator (CTG) #2 was down for annual inspection and Preventative Maintenance (PM). While conducting removal and replacement of the four relief valves on the 12,500 gallon anhydrous ammonia storage vessel, one of the relief valves was removed while still under pressure resulting in a release of approximately 1,253 gallons of anhydrous ammonia. No offsite impacts were reported to have occurred due to the incident.

There are two relief valves on each individual piping system and each system is equipped with a three way diverter valve isolation system. Rotating the diverter valve handle one direction allows one of the two relief valves to remain in service while allowing the safe removal of the second isolated relief valve. In this incident, the contract technician removed the valve which was still in service instead of the isolated valve. While attempting to secure the PSV, the PSV blew off of the diverter valve.

The contract employee climbed down from the vessel and, along with the other contractors, proceeded to evacuate the facility. At this point, the Cogen Operator smelled an ammonia odor and evacuated the crews from the area.

The Cogen Operator manually started the deluge system on the ammonia storage vessel, notified the Communications Operations Center (COC) and his Production Coordinator, got the facility sign-in book, and proceeded to the evacuation area to take roll call.

Shortly after being notified, Occidental of Elk Hills, Inc. (OEHI) emergency medical technicians (EMT's) arrived at the evacuation area to check the Contractor employees for ammonia inhalation. The Contractor employees' vital signs were normal.

OEHI emergency response team (ERT) personnel responded and a command post and incident command system were established. The Gas Operations Supervisor was named the incident operations manager and, with the assistance of the contract relief valve personnel, they were able to sketch out the operation of the three way diverter valve. After a full review and rehearsal of the diverter valve's operation, two members of the emergency response team dressed in full turnout bunker gear and utilizing self-contained breathing air packs (SCBA) entered the Cogen Facility. One of the members climbed the vessel's ladder while the other remained at ground level as back-up. After climbing the ladder, the ERT member was able to gain access from the working platform on top of the vessel and easily rotate the handle of the diverter valve and isolate the leak.

At approximately 12:03pm, one hour after the release began, the ERT members blocked in the open side of the diverter valve.

The contract employees were examined by Emergency Medical Technicians on site as well as by contractor's occupational physician. The employees were released back to duty the same day without any medical treatment or work restrictions.

Agency Notifications

Kern County Environmental Health Notified: 03/02/11 Time: 1124
Name of KCEH Representative: Dan Starkey

CalEMA Notified: 03/02/11 Time: 1126
Name of CalEMA Representative: Amanda Loveless CalEMA Number: 11-1272

DOGGR Notified: 03/02/11 Time: 1146
Name of DOGGR Representative: Jennifer Shives

SJVAPCD Notified: 03/02/11 Time: 1127
Name of SJVPCD Representative: Dave Baldwin

CalOSHA Notified: 03/02/11 Time: 1317 voice mail

NRC Notified: 03/02/11 Time: 1407
Name of NRC Representative: Ms. Arsenault NRC Number: 968995

Incident Investigation

An Incident Investigation Team was formed and an investigation was immediately conducted. The investigation team identified the following root causes for the incident:

- Lack of contractor employee training by contractor on the hazards associated with ammonia or how to handle an ammonia leak.
- Lack of knowledge and understanding displayed by contractor when assigning tasks that are safety sensitive.
- Lack of training and understanding by contractor on OEHI Safe Work Systems permitting and procedures.
- Job Safety Analysis and Stop Valve Permit were confusing and need improvement.
- Contractor supervisor and crew did not know proper operation of diverter valve, including use of bleeder on valve to relieve trapped pressure.

- Contractor Field Supervisor/Safety Representative did not know or did not discuss proper operation or lock-out/tag-out (LOTO) of diverter valve with crew before assigning employee to block-in valve and remove PSV.
- Lack of knowledge of valve types that may be encountered at Elk Hills.

Corrective Actions

- Contractor shall conduct a site hazard risk assessment.
- Contractor shall review existing HAZCOM training program and update the program to include site-specific hazardous materials encountered at Elk Hills and non-Unit properties.
- Contractor shall address supervisory, safety, and technical skill deficiencies within organization and ensure trained/skilled personnel are serving in these positions.
- Contractor shall review OEHI Safety Handbook and Safe Work Systems Handbook. Training should be completed on applicable permits and permitting process and on OEHI Safe Work Systems.
- Contractor Safety manager shall develop a new "fit for duty" program (including a focus on distressed employees).
- Update JSA to include sections for Area, Facility, Work Location, and Equipment.
- Stop Valve Permitting process shall be reviewed to be determined if an update is needed.
- Potentially conflicting valve operation indicators shall be removed (specifically, the directional information on hand wheel).
- Contractor shall put in place a system of anonymous notification for hazard reporting and general suggestions.
- An assessment of contractor's HES Management System shall be conducted.
- Alternative valves for this application shall be evaluated.

ENVIRONMENTAL HEALTH SERVICES DEPARTMENT

MATTHEW CONSTANTINE, R.E.H.S., Director

2700 "M" STREET, SUITE 300
BAKERSFIELD, CA 93301-2370
Voice: (661) 862-8700
Fax: (661) 862-8701
TTY Relay: (800) 735-2929
Web: www.co.kern.ca.us/eh
E-Mail: eh@co.kern.ca.us



RESOURCE MANAGEMENT AGENCY

DAVID PRICE III, RMA DIRECTOR

Animal Control Department
Community and Economic Development Department
Engineering and Survey Services Department
Environmental Health Services Department
Planning Department
Roads Department

June 4, 2009

OCCIDENTAL OF ELK HILLS INC
OCCIDENTAL OF ELK HILLS INC
P O BOX 1001
TUPMAN, CA 93276-1001

Facility Name: OCCIDENTAL OF ELK HILLS INC
Facility Address: 28590 HIGHWAY 119, TUPMAN
Facility CR #: 002624

Anniversary Date: February 20, 2009

CalARP Resubmit due date: February 20, 2014

California Accidental Release Prevention Program
Notification Letter: Anniversary Date on CalARP/RMP 5 Year Re-submittal

Kern County Environmental Health Services Department (KCEHSD) is providing you with the above referenced information concerning your facility's CalARP re-submittal date requirements. As required by Title 19, Section 2745.10, the facility's CalARP must be reviewed and re-submitted by the above date or earlier to the appropriate agencies.

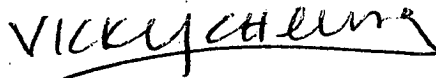
1. Upon due date and/or prior, immediately submit the RMP Submit document to this Department and Federal EPA as required in Section 2745.10 of Article 3, Chapter 4.5, Division 2, of Title 19.
2. For Federal only facilities the RMP-eSubmit will be the acceptable format to the Federal RMP Reporting Center. Please provide our office a copy of the submittal as well.
3. For California only facilities the RMP Submit 2004 will be the acceptable format. Please provide our office a copy of the submittal.
4. For Federal facilities with California processes, the RMP-eSubmit is used for the Federal process and a separate RMP Submit 2004 format for all California listed processes shall be provided to our office.
5. An electronic copy of the submission in WORD only format must be sent to this office.
6. Please submit a copy of your facility's last compliance audit, hazard assessment, and emergency response/action plan to our office along with the RMP submittals.



Please also note your Kern County Facility ID number as indicated at the top of this letter, all future CalARP plan submissions, corrections and other correspondence must include this number.

If you have further questions regarding this matter, please contact me at (661) 862-8774.

Sincerely,

A handwritten signature in black ink that reads "Vicky Cheung". The signature is written in a cursive style with a long horizontal stroke at the end.

Vicky Cheung, REHS III
CalARP/ Hazardous Materials Specialist
Unified Hazardous Materials/Waste Program

ENVIRONMENTAL HEALTH SERVICES DEPARTMENT

MATTHEW CONSTANTINE, R.E.H.S., Director

2700 "M" STREET, SUITE 300
BAKERSFIELD, CA 93301-2370
Voice: (661) 862-8700
Fax: (661) 862-8701
TTY Relay: (800) 735-2929
Web: www.co.kern.ca.us/eh
E-Mail: eh@co.kern.ca.us



RESOURCE MANAGEMENT AGENCY

DAVID PRICE III, RMA DIRECTOR

Animal Control Department
Community and Economic Development Department
Engineering and Survey Services Department
Environmental Health Services Department
Planning Department
Roads Department

May 11, 2009

Mike Glavin
Occidental Of Elk Hills
P. O. Box 1001
Tupman, CA 93276-1001

*Hand
delivered on
5-11-09
DS*

RISK MANAGEMENT PLAN - Notice of Deficiency

Dear Mr. Glavin:

Pursuant to the California Code of Regulations (CCR) Title 19, your facility Risk Management Plan (RMP) was initially reviewed for completeness as a Program 1 facility. It was recently determined that a deficiency existed within the program designation. With the opening of Elk Hills Power the Program 1 designation, as reported in your RMP, did not meet the reporting requirements of Section 2735.4 (c) for the following processes units; LTS-1, LTS-2, 35R LOAP, 35R Loading & Storage, Cogeneration Plant, under Section 2735.4 (e) (2). This section states that a facility subject to OSHA Process Safety Management (PSM) requirements is also subject to RMP Program 3 reporting. The change in your designation is due to the addition of offsite receptors at the Elk Hills Power facility. The above listed process units are now subject to Program 3 requirements.

The process unit listed as Elk Hills 27R Field Storage remains a Program 1 process.

This deficiency in your RMP was corrected on February 23, 2009. This Department and Federal EPA consider your facility in compliance. If you have any questions regarding this notice, please feel free to contact me at (661) 862-8757.

Sincerely,

A handwritten signature in black ink, appearing to read "Dan Starkey", written over a circular stamp.

Dan Starkey, R.E.H.S.
Hazardous Materials Specialist III
Unified Hazardous Materials/Waste Program

DS:

cc: File

(hmlstarkey)\deficiency.notice.oxy.elkhills.5.09



Printed on Recycled Paper



2624

OCCIDENTAL OF ELK HILLS, INC.
28590 Highway 119, P.O. Box 1001, Tupman, CA 93276-1001
Telephone 661 763-6000

February 20, 2009

RECEIVED

FEB 23 2009

Risk Management Plan (RMP) Reporting Center
P.O. Box 1515
Lanham-Seabrook, Maryland 20703-1515

KERN COUNTY
ENVIRONMENTAL HEALTH SERVICES

Subject: Certification Statement for Program 1 and Program 3 Processes
Occidental of Elk Hills, Inc.
EPA Facility ID: 1000 0014 0876

To Whom It May Concern:

Based on the criteria in 40 CFR 68.10, the distance to the specified endpoint for the worst-case accidental release scenario for the following processes could impact a public receptor:

- LTS-1
- LTS-2
- Cogeneration Plant
- 35R LOAP
- 35R Loading & Storage

The distance to the specified endpoint for the worst-case accidental release scenario for the Elk Hills 27R Field Storage facility would not impact a public receptor and will remain as a Program Level 1 facility.

Within the past five years, the processes have had no accidental release that caused offsite impacts as provided in the risk management program rule (40 CFR 68.10(b)(1)). Occidental of Elk Hills, Inc. administers a fully implemented Process Safety Management program under 29 CFR 1910. In the event of fire, explosion, or a release of a regulated substance from the processes, entry within the distance to the specified endpoints may pose a danger to public emergency responders. Therefore, public emergency responders should not enter this area except as arranged with the emergency contact indicated in the RMP.

The undersigned certifies that, to the best of my knowledge, information, and belief, formed after reasonable inquiry, the information submitted is true, accurate, and complete.

Sincerely,

Armando Gonzalez
Manager, Health, Environment, Safety

djc:
Attachments

cc: Dan Starkey, KCEHSD



OCCIDENTAL OF ELK HILLS, INC.
28590 Highway 119, P.O. Box 1001, Tupman, CA 93276-1001
Telephone 661 763-6000

January 29, 2009

Ms. Mary Wesling
US EPA Region 9, SFD 9-2
75 Hawthorn St.
San Francisco, CA 94105

Re: Clean Air Act Risk Management Program Inspection

Dear Ms. Wesling

During your inspection of Occidental of Elk Hills, Inc. (OEHI) on January 21, 2009, you requested receipt of the following documents:

1. Organization Charts – attached are copies of the three OEHI organization charts, which we presented to you on January 21, 2009.
2. Overview PowerPoint Presentation – a copy of the presentation given to you at the beginning of the inspection.
3. Flare Worst Case Study – breakdown or upset scenarios for all three gas plants.
4. Audit Action Items Abstract – a summary of the 2005 HESMS (QA) and HES/PRM (QC) Assessment of Occidental of Elk Hills, Inc. - Plants.
5. Aerial Photograph of Regulated Facilities – as discussed during the inspection.

If you have any questions or require additional information, please Nicky A. Langley directly at (661) 763-6525.

Sincerely,

Armando G. Gonzalez
Health, Environment, Safety and Security Manager

NAL/attachments

Dan Starkey - RE: Elk Hills inspection

From: "Miller, Taylor"
To:
Date: 01/16/2009 12:04 PM
Subject: RE: Elk Hills inspection
CC: , ,

Ms. Wesling,

I left you a voicemail this morning to further follow up on plans for your visit to the Elk Hills area on the 21st. As I said in my prior email on Wednesday afternoon, we would prefer a separate meeting for Elk Hills but will cooperate with you to do whatever makes sense in this situation. If you would prefer a joint meeting, we would like to request that it be late morning or in the afternoon rather than 9:30 a.m. Note that the EHP power plant offices are about 20 minutes or more away from OEHI's offices. Thank you. Please feel free to call if that's an easier way to coordinate this. Taylor Miller

Taylor O. Miller
Senior Environmental Counsel
Sempra Energy
925 L Street, Suite 650
Sacramento, CA 95814
Tel: (916) 492-4248
Fax: (916) 448-1213
Cell: (16)203-3399

From: Wesling.Mary@epamail.epa.gov [mailto:Wesling.Mary@epamail.epa.gov]
Sent: Wednesday, January 14, 2009 2:01 PM
To: Miller, Taylor
Cc: Addison.Ed@epamail.epa.gov; Lawrence.Kathryn@epamail.epa.gov; dans@co.kern.ca.gov
Subject: Re: Elk Hills inspection

Mr. Miller,

I am out of the office due to a family illness. I would prefer to have a joint meeting with both facilities. Obviously the portion of the meeting relating to your facility will not need to be as long, but we need to ascertain the level of communication and cooperation between the facilities as far as emergency planning, training, evacuation, etc. The purpose is to determine whether the Oxy facility is a Program 1 or 2 RMP facility.

As for applicability of Part 68 to the Elk Hills Plant, it is my understanding that the plant is not likely subject to CAA 112(r)(7) RMP, but it is subject to CAA 112(r)(1), the General Duty Clause.

If you feel strongly that a separate meeting is required, we will try to accommodate you, but it was my understanding that a significant percentage of each of the facilities are owned by Occidental so didn't realize that there was such a separate business structure.

Please advise us whether we can have a joint meeting or need to plan a separate meeting (no more than 2 hours) with the Elk Hills representatives.

You can call my work cell (below) if you need to speak to me.

Thank you,

Mary Wesling
EPCRA/RMP Enforcement Coordinator
US EPA Region IX (SFD-9-3)
75 Hawthorne Street
San Francisco, CA 94105
v-mail: 415-972-3080
cell: 415-816-6597
fax: 415-947-3520

-----"Miller, Taylor" <TMiller@Sempra.com> wrote: -----

To: Mary Wesling/R9/USEPA/US@EPA, Ed Addison/R9/USEPA/US@EPA
From: "Miller, Taylor" <TMiller@Sempra.com>
Date: 01/14/2009 01:39PM
Subject: Elk Hills inspection

Mary and Ed - I left a voicemail for Mary before lunch suggesting she give me a call concerning the planned inspection next week. I have worked with Elk Hills Power for many years concerning permitting and environmental regulatory issues and have been asked to help out with responding to the inspection. As you may know, Sempra Energy is part owner of Elk Hills Power LLC which owns and operates the power plant within the Elk Hills oil field under a lease with Occidental of Elk Hills. I'd like to discuss applicability of Part 68 to the power plant and better understand your perspective on the inspection. I'm thinking that a separate meeting would be preferable and that a separate information request list would likely also be useful. Just in case Mary is out or is on a blackberry like some of us I thought I would also send you this note. My contact information is below. Could one of you give me a call?

Taylor Miller

Taylor O. Miller

Senior Environmental Counsel

Sempra Energy

925 L Street, Suite 650

Sacramento, CA 95814

Tel: (916) 492-4248

Fax: (916) 448-1213

Cell: (916) 203-3399

#895

Dan Starkey - RE: Elk Hills inspection

From: "Miller, Taylor"
To:
Date: 01/14/2009 4:14 PM
Subject: RE: Elk Hills inspection
CC: , ,

Ms. Wesling,

Thank you for your response and sorry to interrupt what you need to be doing today. Feel free to respond to this as convenient. Here's some additional background. Occidental of Elk Hills (OEHI) is the entity which owns and operates the Elk Hills oil field. The Elk Hills Power plant is owned and operated by Elk Hills Power, LLC (EHP) on a 34 acre leasehold area within the seven square mile oil field. EHP is owned 50% each by Semptra Energy Generation and Occidental Petroleum. OEHI has no decision making authority regarding operation of the EHP power plant. All operating personnel at the power plant are employees of Elk Hills Power, LLC.

We also received a separate letter, which appears to have been prepared previously but is also dated December 15, 2008. This letter is quite similar but was directed only to OEHI. Much of both letters relates to compliance by OEHI with the Chemical Accident Prevention provisions of Part 68 of Title 40. As you mentioned, EHP and the power plant are not subject to those provisions since the EHP stationary source does not have more than a threshold quantity of a regulated substance in a process, as listed in 40 CFR sec. 68.130. However, as you probably also know, EHP has submitted a Risk Management Plan for Aqueous Ammonia and Storage and Use to the Kern County under the California Accidental Release Prevention Program (CalARP). I believe the requirements of the state regulations largely follow those of Part 68.

OEHI and EHP are two separate entities with different operations and consequently the information request will apply to the two facilities differently. For this reason, we were thinking at EHP that separate meetings and information requests would be less confusing. Otherwise, as demonstrated by the list in the December 15 letter, many issues relating to Part 68 compliance that are relevant only to OEHI may be intertwined with discussions of matters that may be germane to EHP operations. That said, we are happy to proceed however you think best accomplishes your purposes. Thank you for your cooperation. Taylor Miller

From: Wesling.Mary@epamail.epa.gov [mailto:Wesling.Mary@epamail.epa.gov]
Sent: Wednesday, January 14, 2009 2:01 PM
To: Miller, Taylor
Cc: Addison.Ed@epamail.epa.gov; Lawrence.Kathryn@epamail.epa.gov; dans@co.kern.ca.gov
Subject: Re: Elk Hills inspection

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Please advise us whether we can have a joint meeting or need to plan a separate meeting (no more than 2 hours) with the Elk Hills representatives.

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Thank you,

Mary Wesling
EPCRA/RMP Enforcement Coordinator
US EPA Region IX (SFD-9-3)
75 Hawthorne Street
San Francisco, CA 94105
v-mail: 415-972-3080
cell: 415-816-6597
fax: 415-947-3520

-----"Miller, Taylor" <TMiller@Sempra.com> wrote: -----

To: Mary Wesling/R9/USEPA/US@EPA, Ed Addison/R9/USEPA/US@EPA
From: "Miller, Taylor" <TMiller@Sempra.com>
Date: 01/14/2009 01:39PM
Subject: Elk Hills inspection

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Taylor Miller

Taylor O. Miller

Senior Environmental Counsel

Sempra Energy

925 L Street, Suite 650

Sacramento, CA 95814

Tel: (916) 492-4248

Fax: (916) 448-1213

Cell: (916) 203-3399



#2624

OCCIDENTAL OF ELK HILLS, INC.

28590 Highway 119, P.O. Box 1001, Tupman, CA 93276-1001
Telephone 661 763-6000

August 18, 2008

RECEIVED

AUG 20 2008

KERN COUNTY
ENVIRONMENTAL HEALTH SERVICES

Mr. Dan Starkey
Hazardous Materials Specialist
Kern County Environmental
Health Services Department
2700 M Street, Suite 300
Bakersfield, CA 93301

Subject: Inquiries Concerning Status of Program Level for Occidental of Elk Hills, Inc.

Dear Mr. Starkey:

Occidental of Elk Hills, Inc. (OEHI) received your email correspondence on July 17, 2008 concerning the Program Designation under the Federal RMP and Cal ARP programs. Your email suggests that OEHI should have been redesignated from a Program 1 facility to a Program 3 facility because your office believes the Elk Hills Power Plant (EHPP) should be considered a public receptor under 19 CCR 2735.4(c)(2).

In contrast, OEHI believes that Elk Hills Power should not be considered an offsite "public receptor" as it does not fit the definition outlined in 19 CCR 2735.3 (nn) based on the following facts:

1. Occidental Petroleum is the majority owner (78%) of the Elk Hills oil field, which is operated as Occidental of Elk Hills, Inc. (OEHI).
2. The EHPP is co-owned by Occidental Petroleum and Sempra Generation (a subsidiary of Sempra Energy)
3. Elk Hills Power is wholly contained within the greater Occidental of Elk Hills, Inc. facility/oil field.

Elk Hills Power is an integrated facility in the greater Occidental of Elk Hills oil field and dependent on the oil field for fuel, and is, therefore, not an independent facility.

Given the location of Elk Hills Power within the Occidental of Elk Hills oil field and the interdependence of the oil field and power plant, workers at the facility would not be considered members of the public. During the licensing of EHPP, the California Energy Commission came to the same conclusion when they reviewed and approved the Elk Hills Power Plant application in the subject areas of Worker Safety, Public Health and Air Quality as outlined below.

*"...The California Unions for Reliable Energy (CURE) has stated in their comments on the preliminary staff assessment (PSA) for the EHPP that potential impacts on offsite workers from an accidental release of anhydrous ammonia are being ignored (CURE 1999c). The off-site workers in question are employed by Occidental Petroleum Corporation (OPC) which is the parent company to the applicant, Elk Hills Power, LLC (EHP). Since these workers are employees of the parent company to the applicant, it is staff's opinion that they do not meet the criteria for being public receptors in the EPA Risk Management Plan Program (RMP)..."*¹

¹ California Energy Commission, *Final Staff Assessment (Part 1 of 3) Elk Hills Power, LLC 99-AFC-1*, Page 62
http://www.energy.ca.gov/sitingcases/elkhills/documents/2000-01-06_FSA_PART-1.PDF

Given the clear ownership stake of Occidental Petroleum in both Elk Hills Power (50%) and Occidental of Elk Hills, Inc. (78%), workers at Elk Hills Power would not be considered offsite "public receptors."

If you or members of your staff have questions or comments concerning this issue, please contact me directly at (661) 763-6068.

Sincerely,

A handwritten signature in black ink, appearing to read "D.J. Champion", with a horizontal line extending to the right.

Dennis J. Champion, PE
Environmental Engineer

DJC:

cc: Mike Glavin, OEHI
Nicky Langley, OEHI
Randy Pitre, OEHI

#2624

Dan Starkey - Change in Program Designation

From: Dan Starkey
To: dennis_champion@oxy.com; randy_pitre@oxy.com
Date: 07/17/2008 10:35 AM
Subject: Change in Program Designation

Dennis & Randy:

It has come to the attention of this Department that Occidental Of Elk Hills Inc, will be required to change the RMP reporting to this Department and Federal EPA from Program 1 to Program 3 (19CCR Section 2735.4 (f)) . The facility located adjacent to your gas plant and cogen, Elk Hills Power is a separate company owned by Semptra and its employees are considered off site public receptors for your processes (19CCR Section 2735.4 (c)(2)).

(nn) "Public receptor" means offsite residences, institutions (e.g., schools, hospitals), industrial, commercial, and office buildings, parks, or recreational areas inhabited or occupied by the public at any time without restriction by the stationary source where members of the public could be exposed to toxic concentrations, radiant heat, or overpressure, as a result of an accidental release.

Section 2735.4 Applicability.

(c) Program 1 eligibility requirements. A covered process is eligible for Program 1 requirements as provided in Section 2735.5(d) if it meets all of the following requirements:

(2) The distance to a toxic or flammable endpoint for a worst-case release assessment conducted under Article 4 of Section 2750.3 **is less than the distance to any public receptor, as defined in Section 2735.3 (nn) and Section 2750.5; and,**

You no longer meet this section.

(f) If at any time a covered process no longer meets the eligibility criteria of its Program level, the owner or operator shall comply with the requirements of the new Program level that applies to the process and update the RMP as provided in Section 2745.10.

Section 2745.10 RMP Updates.

(6) Within six months of a change that requires a revised offsite consequence analysis as provided in Section 2750.7; and,

(7) Within six months of a change that alters the Program level that applied to any covered process.

Occidental should have re-evaluated its RMP when Elk Hills Power facility was built and employees at that off site location became public receptors.

Please review this information and if you have any questions contact me at the numbers listed below.

Dan Starkey
 Kern County Environmental Health
 Certified Unified Program Agency (CUPA)
 CalARP / Hazardous Materials Programs

2700 "M" Street, Suite 300
Bakersfield, CA 93301
Office # (661) 862-8757
Cell # (661) 345-0979
Fax # (661) 862-8701
Additional E-Mail: d.starkey@sbcglobal.net

2624

From: <Wesling.Mary@epamail.epa.gov>
To: <dans@co.kern.ca.us>
Date: 12/15/2008 10:36 AM
Subject: Fw: Program Designation for Oxy Elk Hills
Attachments: Chap-02 final.pdf; Chap-01 final.pdf

CC: <Addison.Ed@epamail.epa.gov>

Dan,
I finally got some comment from EPA HQ on Elk Hills. Still haven't gotten anything from my own attorneys. I've highlighted a couple of key questions which you may already have the answer to. Let me know if you already have this information and we can better prepare for the "visit."

Mary Wesling
EPCRA/RMP Enforcement Coordinator
US EPA Region IX (SFD-9-3)
75 Hawthorne Street
San Francisco, CA 94105
v-mail: 415-972-3080
cell: 415-816-6597
fax: 415-947-3520

----- Forwarded by Mary Wesling/R9/USEPA/US on 12/15/2008 10:31 AM -----

Jim	
Belke/DC/USEPA/U	
S	To
	Mary Wesling/R9/USEPA/US@EPA
12/10/2008 10:33	cc
AM	Craig Haas/DC/USEPA/US@EPA,
	Jonathan Averbach/DC/USEPA/US@EPA
	Subject
	Re: Fw: Program Designation for
	Oxy Elk Hills(Document link: Mary
	Wesling)

This is an interesting one. These appear to be two separate corporations, no? Occidental Petroleum says they are a majority shareholder in one (OEHI), and a co-owner of the other (EHPP). But it is not the sole parent company of either. I assume that is why they legally separated out the two companies - because there are other parent companies involved in both. So we apparently cannot say that OEHI and EHPP are separate divisions of Occidental Petroleum - since they appear to be separate companies. This argues for considering them as different stationary sources, since they are not under the control of the same person. CAA section 112(r)(2)(c) defines "stationary sources" as: "Any buildings, structures, equipment, installations, or substance

emitting stationary activities

- Which belong to the same industrial group,
- Which are located on one or more contiguous properties,
- Which are under the control of the same person (or persons under common control), and
- From which an accidental release may occur."

If they are two separate stationary sources, then each facility would consider the other to be "the public." I imagine that there are other facts that might change this view - for example, if there were some common management company that operates both facilities, maybe that would be considered a "parent company" and make them the same stationary source.

Assuming they are not the same stationary source - by itself that does not necessarily mean that they are public receptors for one another. In most cases they would be, unless one facility would not be considered "offsite" of the other. This would be the case if the larger facility - OEHI - that geographically encompassed the other - EHPP - also restricted access to EHPP, all of the time. But if EHPP employees have access to EHPP that is unrestricted by OEHI, then EHPP is a public receptor for OEHI.

The claim by OEHI that the California Energy Commission decided that OEHI is not a public receptor for EHPP is interesting, but it doesn't really bear on the question at hand, which seems to be the opposite - i.e., is EHPP a public receptor for OEHI? Just in passing though, it looks to me like the California Energy Commission's decision isn't consistent with our regulatory guidance. Chapters 1 and 2 of the General Guidance relate to the question of stationary sources and public receptors (attached).

Again, if anyone wants to weigh in - feel free.

(See attached file: Chap-02 final.pdf)(See attached file: Chap-01 final.pdf)



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3920**

December 15, 2008
Mr. John Allen, President and General Manager, and
Patricio Rivera, HES Manager
Occidental of Elk Hills Inc.
P O Box 1001
Tupman Ca 93276—1001
Phone: (661)763-6000/(661) 763-6071
Email: patricio_rivera@oxy.com

Dear Mssrs. Allen and Rivera

This is to advise you of a planned visit and inspection of the Occidental Of Elk Hills Inc. facility at 28590 Hwy 119, Tupman, Ca 93276 on Tuesday, January 21, beginning at 9:30 a.m. We estimate that the inspection should take about six hours. The inspection team will include Mary Wesling, US EPA Region IX EPCRA/RMP Enforcement Coordinator, and Lance Richman and myself from the Emergency Prevention and Preparedness Section, and Dan Starkey plus possibly others from the Kern County Fire Department.

The inspection is an element of our ongoing compliance evaluation of industrial facilities that fall under the Clean Air Act 1990 as amended, Section 112(r) regarding the Risk Management Program, Section 103(e) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and Sections 302 through 312 of the Emergency Planning and Community Right-to-Know Act (EPCRA).

I have attached a list of the documentation related to your operations that we wish to review during the inspection. To avoid delays, we ask that the documents be available on site, or preferably, you can send documents to our office for review. If these documents are not available please contact Mary Wesling at 415-972-3080 or wesling.mary@epa.gov.

PFDs for both Facilities, and Flare system
Plot Plans for both Facilities and Flare system
Organization Charts
Information on Corporate Ownership/Management Control structure including documentation of incorporation for both entities.
Any contract agreement between the entities.
Flow chart showing responsibility for all phases of operations at both facilities.
Employee contract/payment information to confirm which entity actually pays the employees.
P&ID for both facilities.
Process list w Capacities and Start-up dates
Recent RMP/PSM Compliance Audit report w tracking Database

Recent PHA update w tracking Database
Incident Investigation Summaries for Last 2 Years
Open MOCs (if any) Tracking
Release Notification Procedure
Plot plans for C3-C4-C5 storage
WCS for Flare Studies
Have available on site for review: CA Haz.Mat.Bus.Plan and CalARPP

Please feel free to e-mail mary.wesling@epa.gov if you have any questions or comments regarding our visit. Our fax number is (415) 947-3520.

Thank you,

Ed Addison, SFD-9-3
EPCRA/RMP Inspector, US EPA Region IX
Cc: Dans@co.kern.ca.us
Mary Wesling, US EPA Region IX EPCRA/RMP Enforcement Coordinator

Particulars

RMP: 40 CFR – Part 68.

Mechanical Integrity: Process equipment, flare and tank facilities

- List and describe all combustible open vented Pressure Relief Devices (PRDs).
- List and Describe open vented knockout drums, if any.
- Location, and performance studies of Pressure Relief devices, with records of recent valve liftings.
- Emergency shutdown methods that affect PCVs, Open-vented PRVs and PRDs, Flares – automated, mechanical, controlled by operator.
- Flares: WCSs studies: Describe Worst Case Scenario analyses re: complete and substation power failures, simultaneous steam and cooling water failures. Flare system mass-flow rates, tip velocities, radiation rates, header pressure drops. Include effect of new installations in the engineering studies for each, and their 5-year updates.
- Power supply: Cogen status and steam supply cushion – measures taken to prevent full power failures.
- Training, instructions and feedback re Emergency shutdown methods – frequency, quality.
- Near miss lists and tracking procedures – last 2 years reports, how tracked.
- Incident investigations, reports, and follow-up process, if different from above.
 - \$ Review releases and notification times
 - \$ Investigation reports and root cause analysis: how are root cause analyses performed

§ Measures to prevent recurrence

- Internal Audit Result Analysis – who performs 3-year updates.
- **Analysis** of facility Inspection Department results—a copy of summary indicating frequency, status, and who does.
- PHA participation – 5 year updates, who does and method.
- MOC participants and procedures:
 - For added capacity
 - For process and pressure changes
- Standards for equipment maintenance – how selected; who decides.
- Process Turnaround Selection Methods – cycle for each process.
- Process Safety Analysis – who looks at full process unit safety situation; annual operating instruction validation and recertification.
- Equipment Replacement Determinations

I. Who in the organization decides if, and when, major repairs are "required" in facility to maintain mechanical integrity?

II. If repair involves major expense (i.e. >\$10 MM), how is money made available in the current accounting system in place for upgrading facility?

III. If funds not available, then what happens?

- Pre-startup procedures: Who is responsible. Approvals required – MOCs required. Who involved.
- Supervisor training and qualification criteria
- Unit Supervisor Job Description/Task delegation – contractors used.
- Management with technical experience to non-technical personnel ratio, and selection criteria – Who. How.
- Contractor use: employee classifications and training – methods, schools supplying skills and operator training?
- **Facility Communications: when, where, who, and how?**
 - Outside operators to:
 - Other units
 - Supervisors
 - Board operators
 - Management
 - Contractors
 - Maintenance
 - Process engineers

- Process engineers interaction with all of above.

EPCRA

- Release notifications/major process stack emissions reports – any reporting excluded due to Permits, Consent Decrees, Continuous Release Reporting or other.
- Methods used for identification of substances released and their quantities – who does and how.

#2624

From: <George_Gough@oxy.com>
To: <dans@co.kern.ca.us>
Date: 08/22/2007 4:58 PM
Subject: RE: Elk Hills Hydrofluoric Acid Storage

CC: <Randy_Pitre@oxy.com>, <George_Gough@oxy.com>
Dan:

Nice talking to you. As you requested attached for your files is our analysis of the CalARP applicability issue for our HF acid. As we mentioned on the phone, we thought there were two possible ways to exclude our HF acid chemical from CalARP requirements, namely by concentration thresholds and applicability requirements in Title 19, Section 2735.4. OEHI did not include our applicability analysis in our previous e-mail. However, the HF acid chemical stored at various Elk Hills well locations for use during well acidizing does not meet the CalARP applicability requirements for the following reasons:

1. Title 19, Section 2735.4(1) requires that "a stationary source has a process with more than the threshold quantity of a regulated substances as listed in Tables 1 or 2." OEHI's HF acid does not exceed the 50% concentration threshold in Table 1. HF is not listed in Table 2. Therefore, OEHI's HF acid is not regulated under CalARP.

2. Title 19, Section 2735.4(2) requires that "a stationary source has a process with more than a threshold quantity of a regulated substance as listed in Table 3 and the AA makes a determination pursuant to Section 25534 of the HSC that an RMP is required". OEHI's HF acid is listed in Table 3. However, the AA has not made a determination that an RMP is required. Therefore, OEHI's HF acid is not regulated under CalARP.

3. Title 19, Section 2735.4(3) requires that "a stationary sources has a process with more than a threshold quantity of regulated substance as listed in Tables 1 or 2 and Table 3. Since OEHI's HF acid is less than 50 percent concentration, it does not exceed the threshold quantity listed in Table 1. HF acid is not listed in Table 2. This chemical is listed in Table 3. Since the HF acid does not meet both conditions, OEHI's HF acid is not regulated under CalARP.

I appreciate your help with resolving this matter. I will be out of the office until 09/04/07. If you need any additional information, please do not hesitate to contact Randy Pitre at (661) 763-6018.

Regards,

George

-----Original Message-----

From: Dan Starkey [mailto:dans@co.kern.ca.us]
Sent: Wednesday, August 22, 2007 11:53 AM
To: Gough, George
Subject: Re: Elk Hills Hydrofluoric Acid Storage

Hey George how are you doing. Took a look at your e mail and have a difference of opinion.

The Cas # 7664-39-3 is also registered for the listings below. As you can see the smart guys who wrote the State regs failed to associate a concentration with the aquas solution so all HF solutions that exceed 100 lbs. are covered by CalARP. The way to determine is calculate the amount of HF in the largest container. If the weight exceeds 100 lbs that tank would fall under the CalARP Regs. A 5000 gallon tank with .015 % would have approx 75 gallons of HF. (75 gallons HF X 9.8 lbs/gal HF = 735 Lbs) Looks like Oxy is in unless my numbers are off, take a look and let me know what you think.

Products found

These are the products registered under the CAS registry number entered.

Click the red button to get the registered suppliers for this product.

Or start a new search.

Hydrofluoric acid7664-39-3

Hydrofluoric acid 0,1 mol/L7664-39-3

Hydrofluoric acid 100%7664-39-3

Hydrofluoric acid 40 %7664-39-3

Hydrofluoric acid 40% for semiconductor7664-39-3

Hydrofluoric acid 51-55%7664-39-3

Hydrofluoric acid aqueous7664-39-3

Hydrofluoric acid electronic grade7664-39-3

Hydrogen fluoride 62-64 % in urea7664-39-3

Hydrogen fluoride, anhydrous7664-39-3

Dan Starkey
Kern County Environmental Health
Certified Unified Program Agency (CUPA)
CalARP / Hazardous Materials Programs
2700 "M" Street, Suite 300
Bakersfield, CA 93301
Office # (661) 862-8757
Cell # (661) 345-0979
Fax # (661) 862-8701
Additional E-Mail: d.starkey@sbcglobal.net



2624

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3920**

December 15, 2008
Mr. John Allen, President and General Manager, and
Patricio Rivera, HES Manager
Occidental of Elk Hills Inc.
P O Box 1001
Tupman Ca 93276-1001
Phone: (661)763-6000/(661) 763-6071
Email: patricio_rivera@oxy.com

Mr. James McArthur, Plant Manager
Sonnie Pineda, Plant Engineer
Elk Hills Power, LLC
P.O. Box 460
Tupman, CA 93276
spineda@elkhills.com

Dear Mssrs. Allen, Rivera, McArthur and Pineda:

This is to advise you of a planned visit and inspection of the Occidental Of Elk Hills Inc. facility at 28590 Hwy 119, Tupman, Ca 93276 and the Elk Hills Power, LLC facility at 4026 Skyline Road, Tupman, CA 93276 on Wednesday, January 21, 2009. If it is convenient for the two business entities, US EPA would like to conduct the initial meeting with the two companies jointly, beginning at 9:30 a.m. at the Occidental of Elk Hills, Inc. offices. We estimate that the initial meeting and inspection should take about six hours. The inspection team will need to tour portions of the facilities, review documents and interview facility representatives. Logistics for the meeting and inspections may be adjusted following the initial meeting. If an alternate location for the initial meeting is more convenient, please notify Ed Addison (addison.ed@epa.gov) or Mary Wesling (wesling.mary@epa.gov). The inspection team will include Mary Wesling, US EPA Region IX EPCRA/RMP Enforcement Coordinator, and Lance Richman and myself from the Emergency Prevention and Preparedness Section, and Dan Starkey plus possibly others from the Kern County Fire Department.

The purpose of the inspection is to discuss and evaluate information pertaining to the operations at the two facilities pertaining to the applicability of the certain laws as relating to the specific circumstances of the operations. The inspection of these facilities is an element of our ongoing compliance evaluation of industrial facilities that fall under the Clean Air Act 1990 as amended, Section 112(r) regarding the Risk Management Program, Section 103(e) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and Sections 302 through 312 of the Emergency Planning and Community Right-to-Know Act (EPCRA).

I have attached a list of the documentation related to your operations that we wish to review during the inspection. To avoid delays, we ask that the documents be available on site, or

preferably, you can send documents to our office for review. If these documents are not available please contact Mary Wesling at 415-972-3080 or wesling.mary@epa.gov.

PFDs for both Facilities, and Flare system
Plot Plans for both Facilities and Flare system
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Incident Investigation Summaries for Last 2 Years
Open MOCs (if any) Tracking
Release Notification Procedure
Plot plans for C3-C4-C5 storage
WCS for Flare Studies
Have available on site for review: CA Haz.Mat.Bus.Plan and CalARPP

Please feel free to e-mail mary.wesling@epa.gov if you have any questions or comments regarding our visit. Our fax number is (415) 947-3520.

Thank you,

Ed Addison, SFD-9-3
EPCRA/RMP Inspector, US EPA Region IX
Cc: Dans@co.kern.ca.us
Mary Wesling, US EPA Region IX EPCRA/RMP Enforcement Coordinator

Particulars

RMP: 40 CFR – Part 68.

Mechanical Integrity: Process equipment, flare and tank facilities

- List and describe all combustible open vented Pressure Relief Devices (PRDs).
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- Location, and performance studies of Pressure Relief devices, with records of recent valve liftings.
- Emergency shutdown methods that affect PCVs, Open-vented PRVs and PRDs, Flares – automated, mechanical, controlled by operator.

- Flares: WCSs studies: Describe Worst Case Scenario analyses re: complete and substation power failures, simultaneous steam and cooling water failures. Flare system mass-flow rates, tip velocities, radiation rates, header pressure drops. Include effect of new refinery installations in the engineering studies for each, and their 5-year updates.
- Power supply: Cogen status and steam supply cushion – measures taken to prevent full power failures.
- Training, instructions and feedback re Emergency shutdown methods – frequency, quality.
- Near miss lists and tracking procedures – last 2 years reports, how tracked.
- Incident investigations, reports, and follow-up process, if different from above.
 - \$ Review releases and notification times
 - \$ Investigation reports and root cause analysis: how are root cause analyses performed
 - \$ Measures to prevent recurrence
- Internal Audit Result Analysis – who performs 3-year updates.
- Analysis of refinery Inspection Department results—a copy of summary indicating frequency, status, and who does.
- PHA participation – 5 year updates, who does and method.
- MOC participants and procedures:
 - For added capacity
 - For process and pressure changes
- Standards for equipment maintenance – how selected; who decides.
- Process Turnaround Selection Methods – cycle for each process.
- Process Safety Analysis – who looks at full process unit safety situation; annual operating instruction validation and recertification.
- Equipment Replacement Determinations
 - I. Who in the refinery organization decides if, and when, major repairs are "required" in a facility to maintain mechanical integrity?*
 - II. If repair involves major expense (i.e. ;>\$10 MM), how is money made available in the current accounting system in place for upgrading facility?*
 - III. If funds not available, then what happens?*
- Pre-startup procedures: Who is responsible. Approvals required – MOCs required. Who involved.
- Supervisor training and qualification criteria

- Unit Supervisor Job Description/Task delegation – contractors used.
- Management with technical experience to non-technical personnel ratio, and selection criteria – Who. How.
- Contractor use: employee classifications and training – methods, schools supplying skills and operator training?
- Facility Communications: when, where, who, and how?
 - Outside operators to: Other units
Supervisors
Board operators
Management
Contractors
Maintenance
Process engineers
 - Process engineering interaction with all of above.

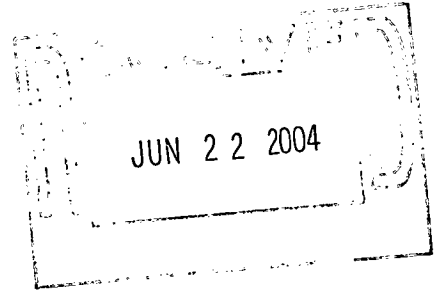
EPCRA

- Release notifications/major process stack emissions reports – any reporting excluded due to Permits, Consent Decrees, Continuous Release Reporting or other.
- Methods used for identification of substances released and their quantities – who does and how.



OCCIDENTAL OF ELK HILLS, INC.
28590 Highway 119, P.O. Box 1001, Tupman, CA 93276-1001
Telephone 661 763-6000

June 21, 2004



Mr. Steve McCalley, REHS
Director
Environmental Health Services Department
2700 M Street, Suite 300
Bakersfield, CA 93301

Subject: RMP Submittal – 5 Year Update
Occidental of Elk Hills, Inc.

Dear Mr. McCalley:

Please find enclosed documents forwarded to the U.S. EPA concerning the June 21, 2004 submittal of required RMP data. The information was provided to the EPA utilizing the "RMPSubmit 2004" program. The attached 3.5" diskette contains the *RMPSubmit 2004* text file for your review.

If you or members of your staff have questions or comments concerning this issue, please contact me directly at (661) 763-6068.

Sincerely,


Dennis J. Champion, PE
Environmental Engineer

Enclosure

cc: Dennis Newman, OEHI
Randy Pitre, OEHI
Lori Whitlock, OEHI
Dan Starkey, KCEHSD



OCCIDENTAL OF ELK HILLS, INC.

28590 Highway 119, P.O. Box 1001, Tupman, CA 93276-1001

Telephone 661 763-6000

June 21, 2004

Risk Management Plan (RMP) Reporting Center
c/o CSC
Suite 300
8400 Corporate Drive
New Carrollton, MD 20785

Subject: Certification Statement for Program 1 Process(es)
Occidental of Elk Hills, Inc.
EPA Facility ID: 1000 0014 0876

To Whom It May Concern:

Based on the criteria in 40 CFR 68.10, the distance to the specified endpoint for the worst-case accidental release scenario for the following process(es) is less than the distance to the nearest public receptor:

- LTS-1
- LTS-2
- Cogeneration Plant
- 35R LOAP
- 35R Loading & Storage

Within the past five years, the process(es) has (have) had no accidental release that caused offsite impacts provided in the risk management program rule (40 CFR 68.10(b)(1)). No additional measures are necessary to prevent offsite impacts from accidental releases. In the event of fire, explosion, or a release of a regulated substance from the process(es), entry within the distance to the specified endpoints may pose a danger to public emergency responders. Additionally, uncontrolled runaway reactions may pose a danger to public emergency responder entering the distance-to-endpoint. Therefore, public emergency responders should not enter this area except as arranged with the emergency contact indicated in the RMP. The undersigned certifies that, to the best of my knowledge, information, and belief, formed after reasonable inquiry, the information submitted is true, accurate, and complete.

Sincerely,



Patricio Rivera
Manager, Health, Environment, Safety

PR:djc
Attachments

cc: Dennis Newman, OEHI



MAY 23 2000

OCCIDENTAL OF ELK HILLS, INC.
28590 Highway 119, P.O. Box 1001, Tupman, CA 93276-1001
Telephone 661 763-6000

May 22, 2000

Mr. Dan Starkey
Environmental Engineer
Kern County Environmental Health Services Department
2700 M Street, Suite 300
Bakersfield, CA 93301

Subject: Qualified Person Form
Occidental of Elk Hills, Inc.

Dear Mr. Starkey:

Please find enclosed the form you requested outlining the qualified person for the RMP submitted by Occidental of Elk Hills, Inc. on June 21, 1999. It is our understanding that the Qualified Person information was the only information you required.

Your cooperation in this matter is appreciated. If you have questions or comments concerning this issue, please contact me directly at (661) 763-6068.

Sincerely,

Dennis J. Champion, PE
Environmental Engineer

Attachment

cc: Harley Pinson, OEHI
Dennis Newman, OEHI

4. *Adaptation*

22

[illegible]

10

Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains. The concentration of the *Agrobacterium* suspension was 10⁶ cells/ml (A), 10⁷ cells/ml (B), 10⁸ cells/ml (C), and 10⁹ cells/ml (D). The concentration of the *Agrobacterium* suspension was 10⁶ cells/ml (A), 10⁷ cells/ml (B), 10⁸ cells/ml (C), and 10⁹ cells/ml (D). The concentration of the *Agrobacterium* suspension was 10⁶ cells/ml (A), 10⁷ cells/ml (B), 10⁸ cells/ml (C), and 10⁹ cells/ml (D). The concentration of the *Agrobacterium* suspension was 10⁶ cells/ml (A), 10⁷ cells/ml (B), 10⁸ cells/ml (C), and 10⁹ cells/ml (D).

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Lichtenthaler and Whistler (1973). The total chlorophyll content was determined by the method of Arar and Cook (1981). The carotenoid content was determined by the method of Lichtenthaler and Whistler (1973). The total carotenoid content was determined by the method of Arar and Cook (1981). The total protein content was determined by the method of Lowry et al. (1951). The total lipid content was determined by the method of Bligh and Dyer (1959). The total carbohydrate content was determined by the method of Dubois and Gilles (1950). The total nucleic acid content was determined by the method of Burton (1956). The total ash content was determined by the method of AOAC (1990). The total moisture content was determined by the method of AOAC (1990). The total dry matter content was determined by the method of AOAC (1990). The total organic acid content was determined by the method of AOAC (1990). The total alkaloid content was determined by the method of AOAC (1990). The total saponin content was determined by the method of AOAC (1990). The total tannin content was determined by the method of AOAC (1990). The total flavonoid content was determined by the method of AOAC (1990). The total phenol content was determined by the method of AOAC (1990). The total terpenoid content was determined by the method of AOAC (1990). The total steroid content was determined by the method of AOAC (1990). The total glycoside content was determined by the method of AOAC (1990). The total alkaloid content was determined by the method of AOAC (1990). The total saponin content was determined by the method of AOAC (1990). The total tannin content was determined by the method of AOAC (1990). The total flavonoid content was determined by the method of AOAC (1990). The total phenol content was determined by the method of AOAC (1990). The total terpenoid content was determined by the method of AOAC (1990). The total steroid content was determined by the method of AOAC (1990). The total glycoside content was determined by the method of AOAC (1990).

[illegible]

KERN COUNTY ENVIRONMENTAL HEALTH
CERTIFIED UNIFIED PROGRAM AGENCY

CERTIFICATION STATEMENT PROGRAM - 1
MANAGEMENT APPROVAL

Facility Name: Occidental of Elk Hills, Inc.

Based on the criteria in Section 2735.4 of Title 19 of CCR, the distance to the specified endpoint for the worst-case accidental release scenario for the following process(es) is less than the distance to the nearest public receptor:

List Process(es):

1. 35R Gas Plant
2. LTS-1
3. LTS-2
4. 35R Loading Racks
5. 35R Cogeneration Facility

Within the past five years, the process(es) has (have) had no accidental release that caused offsite impacts provided in the risk management program Section 2735.4 (c)(1). No additional measures are necessary to prevent offsite impacts from accidental releases. In the event of fire, explosion, or a release of a regulated substance from the process(es), entry within the distance to the specified endpoints may pose a danger to public emergency responders. Therefore, public emergency responders should not enter this area except as arranged with the emergency contact indicated in the RMP. The undersigned certifies that, to the best of my knowledge, information, and belief, formed after reasonable inquiry, the information submitted is true, accurate, and complete.

Signature

Print Name

Title

Date

QUALIFIED PERSON CERTIFICATION

As a qualified person, I have reviewed and can attest to the validity and appropriateness of the information contained in the RMP. I certify this RMP to be complete in accordance with Sections 2745.3 through 2745.9 of Title 19 of the California Code of Regulations. Further, to the best of my knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete.

Signature

D. J. Champion

Title

Environmental Engineer

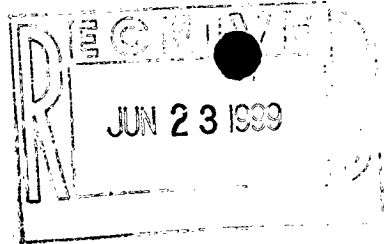
Print Name

Dennis J. Champion, PE

Date

May 22, 2000

ds/rmp.program1



OCCIDENTAL OF ELK HILLS, INC.
28590 Highway 119, P.O. Box 1001, Tupman, CA 93276-1001
Telephone 805 763-6000

June 21, 1999

Mr. Steve McCalley, REHS
Director
Environmental Health Services Department
2700 M Street, Suite 300
Bakersfield, CA 93301

Subject: RMP Submittal
Occidental of Elk Hills, Inc.

Dear Mr. McCalley:

Please find enclosed documents forwarded to the U.S. EPA concerning the June 21, 1999 submittal of required RMP data. The information was provided to the EPA utilizing the "RMPSubmit" program. The attached 3.5" diskette contains the *RMPSubmit* text file for your review.

If you or members of your staff have questions or comments concerning this issue, please contact me directly at (661) 763-6068.

Sincerely,

Dennis J. Champion, PE
Environmental Engineer

Attachment
Enclosure

cc: Harley Pinson, OEHI
Dennis Newman, OEHI
Don Kohler, BRES

Certification Statement for Program 1 Process(es):

Based on the criteria in 40 CFR 68.10, the distance to the specified endpoint for the worst-case accidental release scenario for the following process is less than the distance to the nearest public receptor:

- Gas processing, Loading and Storage, and Cogeneration Plant

Within the past five years, the process has had no accidental release that caused offsite impacts provided in the risk management program rule (40 CFR 68.10(b)(1)). No additional measures are necessary to prevent offsite impacts from accidental releases. In the event of fire, explosion, or a release of a regulated substance from the process, entry within the distance to the specified endpoints may pose a danger to public emergency responders. Therefore, public emergency responders should not enter this area except as arranged with the emergency contact indicated in the RMP. The undersigned certifies that, to the best of my knowledge, information, and belief, formed after reasonable inquiry, the information submitted is true, accurate, and complete.

Donald E Romine

Signature

Don Romine

Print Name

General Manager

Title

June 21, 1999

Date

P.O. Box 1001
Tupman, CA 93276
(661) 763-6000

Occidental of Elk Hills, Inc.

Fax

To: Dan Starkey

From: Dennis Champion

Fax: 862-8701

Pages: 3 (inc. cover)

Phone: 862-8757

Date: 05/22/00

Re: Information Request

CC:

☐ **Urgent**

☒ **For Review**

☐ **Please Comment**

☐ **Please Reply**

☐ **Please Recycle**

• **Comments:**

Dan,

Here is the information you requested.

KERN COUNTY ENVIRONMENTAL HEALTH
CERTIFIED UNIFIED PROGRAM AGENCY

CERTIFICATION STATEMENT PROGRAM - 1
MANAGEMENT APPROVAL

Facility Name: Occidental of Elk Hills, Inc.

Based on the criteria in Section 2735.4 of Title 19 of CCR, the distance to the specified endpoint for the worst-case accidental release scenario for the following process(es) is less than the distance to the nearest public receptor:

List Process(es):

1. 35R Gas Plant
2. LTS-1
3. LTS-2
4. 35R Loading Racks
5. 35R Cogeneration Facility

Within the past five years, the process(es) has (have) had no accidental release that caused offsite impacts provided in the risk management program Section 2735.4 (c)(1). No additional measures are necessary to prevent offsite impacts from accidental releases. In the event of fire, explosion, or a release of a regulated substance from the process(es), entry within the distance to the specified endpoints may pose a danger to public emergency responders. Therefore, public emergency responders should not enter this area except as arranged with the emergency contact indicated in the RMP. The undersigned certifies that, to the best of my knowledge, information, and belief, formed after reasonable inquiry, the information submitted is true, accurate, and complete.

Signature

Print Name

Title

Date

QUALIFIED PERSON CERTIFICATION

As a qualified person, I have reviewed and can attest to the validity and appropriateness of the information contained in the RMP. I certify this RMP to be complete in accordance with Sections 2745.3 through 2745.9 of Title 19 of the California Code of Regulations. Further, to the best of my knowledge, information, and belief formed after reasonable inquiry, the information submitted is true, accurate, and complete.

Signature

D. J. Champion

Print Name

Dennis J. Champion, PE

Title

Environmental Engineer

Date

May 22, 2000

ds/rmp.program1



OCCIDENTAL OF ELK HILLS, INC.
28590 Highway 119, P.O. Box 1001, Tupman, CA 93276-1001
Telephone 661 763-6000

May 22, 2000

Mr. Dan Starkey
Environmental Engineer
Kern County Environmental Health Services Department
2700 M Street, Suite 300
Bakersfield, CA 93301

Subject: Qualified Person Form
Occidental of Elk Hills, Inc.

Dear Mr. Starkey:

Please find enclosed the form you requested outlining the qualified person for the RMP submitted by Occidental of Elk Hills, Inc. on June 21, 1999. It is our understanding that the Qualified Person information was the only information you required.

Your cooperation in this matter is appreciated. If you have questions or comments concerning this issue, please contact me directly at (661) 763-6068.

Sincerely,

A handwritten signature in black ink, appearing to read "D. J. Champion", followed by a horizontal line.

Dennis J. Champion, PE
Environmental Engineer

Attachment

cc: Harley Pinson, OEHI
Dennis Newman, OEHI

ENVIRONMENTAL HEALTH SERVICES DEPARTMENT

RESOURCE MANAGEMENT AGENCY

STEVE McCALLEY, R.E.H.S., Director
2700 "M" STREET, SUITE 300
BAKERSFIELD, CA 93301-2370
Voice: (661) 862-8700
Fax: (661) 862-8701
TTY Relay: (800) 735-2929
e-mail: eh@co.kern.ca.us



DAVID PRICE III, RMA DIRECTOR
Community Development Program Department
Engineering & Survey Services Department
Environmental Health Services Department
Planning Department
Roads Department

May 17, 2000

OCCIDENTAL OF ELK HILLS INC
PO BOX 1001
TUPMAN, CA 93276

Att: DENNIS CHAMPION

SUBJECT: RMP CERTIFICATION DEFICIENCY - OCCIDENTAL OF ELK HILLS INC

Dear: Sir

This Department has reviewed your RMP, and determined that the Qualified Person Certification was not included in your RMP submittal.

Section 2745.2 of the Cal ARP regulations states that the RMP shall be certified complete by stationary source **owner or operator** and a **qualified person**. Completeness shall be determined in accordance with Sections 2745.3 through 2745.9. Section 2745.9 requires the owner or operator to submit in the RMP a single certification that to the best of the signer's knowledge, information, and belief formed after reasonable inquiry, the information is true, accurate, and complete. The following is the definition of a "Qualified person":

A "Qualified person" means a person who is qualified to attest, at a minimum to: (1) the validity and appropriateness of the process hazard analyses (PHA) performed pursuant to Section 2760.2; (2) the completeness of a risk management plan; and (3) the relationship between the corrective steps taken by the owner or operator following the PHAs and those hazards which were identified in the analyses.

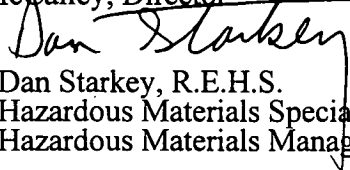
In order to comply with these requirements we have enclosed a Program 2 & 3 Certification form. Please complete the certification form and return to this office within seven (7) days at:

Kern County Environmental Health
Hazardous Materials Management Program
2700 M Street, Suite 300
Bakersfield, CA 93301
ATTN: Dan Starkey

If you have any questions or need further information you may contact me at (661) 862-8757 or by e-mail at dans@co.kern.ca.us.

Sincerely,

Steve McCalley, Director

By: 
Dan Starkey, R.E.H.S.
Hazardous Materials Specialist III
Hazardous Materials Management Program

Enclosure
DS:

ds/2&3defic.letter

278 388 149 *Spurkey*

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to

OCCIDENTAL OF ELK HILLS INC
ATTN DENNIS CHAMPION
P O BOX 1001
TUPMAN CA 93276

Special Delivery Fee

Restricted Delivery Fee

Return Receipt Showing to
Whom & Date Delivered

Return Receipt Showing to Whom,
Date, & Addressee's Address

TOTAL Postage & Fees

\$

Postmark or Date

5-17-00

PS Form 3800 April 1995



X 002624

OCCIDENTAL OF ELK HILLS, INC.
10800 Stockdale Highway Bakersfield, California 93311
Telephone 661 412-5000

April 4, 2013

Mr. Dan Starkey
Hazardous Material Specialist
Kern County Environmental Health Services Dept.
2700 "M" Street, Suite 300
Bakersfield, CA 93301

**RE: Occidental of Elk Hills, Inc. (OEHI)
Updated Risk Management Program (RMP)**

Dear Mr. Starkey:

Please find enclosed, one copy of OEHI's updated RMP. The updated RMP was certified and submitted to the EPA using their central data exchange (CDX) system. The main cause for submitting an updated RMP was the decommissioning of OEHI's Lean Oil Absorption Plant (LOAP) regulated process.

If you have any questions regarding this updated RMP, please feel free to contact Raymond Rodriguez at (661) 412-5263 or myself at (661) 412-5222.

Sincerely,

Mike Glavin
Environmental Team Lead
Occidental of Elk Hills, Inc.

Enclosure

cc: Raymond Rodriguez, OEHI

RECEIVED

APR - 4 2013

KERN COUNTY
ENVIRONMENTAL HEALTH SERVICES

**Section 1. Registration Information**

Reason for Resubmission	Process no longer covered (source has other processes that remain covered) (40 CFR 68.190(b)(7))
1.1 Source Identification	
1.1.a. Facility Name	Occidental of Elk Hills, Inc.
1.1.b. Parent Company #1 Name	Occidental Oil and Gas
1.1.c. Parent Company #2 Name	Chevron, USA
1.2 EPA Facility Identifier	100000140876
1.3 Other EPA Systems Facility Identifier	
1.4 Dun and Bradstreet Numbers (DUNS)	
1.4.a. Facility DUNS	017101887
1.4.b. Parent Company #1 DUNS	070142740
1.4.c. Parent Company #2 DUNS	009140559
1.5 Facility Location	
1.5.a. Street - Line 1	28590 Highway 119
1.5.b. Street - Line 2	
1.5.c. City	Tupman
1.5.d. State	CA
1.5.e. Zip Code - Zip +4 Code	93276
1.5.f. County	KERN
1.5.g. Facility Latitude (in decimal degrees)	35.278204
1.5.h. Facility Longitude (in decimal degrees)	-119.468691
1.5.i. Method for determining Lat/Long	Interpolation - Digital map source (TIGER)
1.5.j. Description of location identified by Lat/Long	Plant Entrance (General)
1.5.k. Horizontal Accuracy Measure (meters)	3
1.5.l. Horizontal Reference Datum Code	World Geodetic System of 1984
1.5.m. Source Map Scale Number	
1.6 Owner or Operator	
1.6.a. Name	Occidental of Elk Hills, Inc
1.6.b. Phone	(661) 412-5000
1.6.c. Street - Line 1	10800 Stockdale Highway
1.6.d. Street - Line 2	
1.6.e. City	Bakersfield
1.6.f. State	CA
1.6.g. Zip Code - Zip +4 Code	93311-3637
Foreign Country	
Foreign State/Province	
Foreign Zip/Postal Code	
1.7 Name, title and email address of person or position responsible for RMP (part 68) implementation	
1.7.a. Name of person	Robert A. Barnes
1.7.b. Title of person or position	President and General Manager
1.7.c. Email address of person or position	bob_barnes@oxy.com

**Section 1. Registration Information**

1.8 Emergency Contact	
1.8.a. Name	Armando Gonzalez
1.8.b. Title of person or position	HES Manager
1.8.c. Phone	(661) 412-5221
1.8.d. 24-Hour Phone	(661) 763-6363
1.8.e. 24-Hour Phone Extension/PIN #	
1.8.f. Email address for emergency contact	armando_gonzalez@oxy.com
1.9 Other Points of Contact	
1.9.a. Facility or Parent Company E-mail Address	susie_geiger@oxy.com
1.9.b. Facility Public Contact Phone Number	(661) 412-5044
1.9.c. Facility or Parent Company WWW Homepage Address	oxy.com
1.10 Local Emergency Planning Committee (LEPC)	
1.11 Number of fulltime equivalent (FTEs) employees on site	566
1.12 Covered by	
1.12.a. OSHA PSM	Y
1.12.b. EPCRA section 302	Y
1.12.c. CAA Title V Air Operating Permit Program	Y
1.12.d. Air Operating Permit ID #	S-2234
1.13 OSHA Star or Merit Ranking	
1.14 Last Safety Inspection (by an External Agency) Date	03/27/2012
1.15 Last Safety Inspection Performed by an External Agency	State environmental agency
1.16 Will this RMP involve Predictive Filing?	
1.18 RMP Preparer Information	
1.18.a. Name	Raymond Rodriguez
1.18.b. Phone	(661) 412-5263
1.18.c. Street - Line 1	10800 Stockdale Highway
1.18.d. Street - Line 2	
1.18.e. City	Bakersfield
1.18.f. State	CA
1.18.g. Zip	93311-3637
Foreign Country	
Foreign State/Province	
Foreign Zip Code	

**Section 1. Registration Information****Section 1.17 Process Specific Information****Process 1**

Process ID #	1000041251		
Process Description	LTS-1		
1.17.a. Program Level	1		
1.17.b. NAICS Code(s)	211112 (Natural Gas Liquid Extraction)		
1.17.c. Chemical(s)			
	Chemical Name	CAS Number	Quantity
	Flammable Mixture	00-11-11	1500000
	Chemicals in Flammable Mixture	CAS Number of Chemical in Mixture	
	Isobutane [Propane, 2-methyl]	75-28-5	
	Isopentane [Butane, 2-methyl-]	78-78-4	
	Methane	74-82-8	
	Propane	74-98-6	
	Butane	106-97-8	
	Ethane	74-84-0	
	Pentane	109-66-0	

**Section 1. Registration Information****Section 1.17 Process Specific Information****Process 2**

Process ID #	1000041252		
Process Description	LTS-2		
1.17.a. Program Level	1		
1.17.b. NAICS Code(s)	211112 (Natural Gas Liquid Extraction)		
1.17.c. Chemical(s)			
	Chemical Name	CAS Number	Quantity
	Flammable Mixture	00-11-11	1500000
	Chemicals in Flammable Mixture	CAS Number of Chemical in Mixture	
	Isobutane [Propane, 2-methyl]	75-28-5	
	Isopentane [Butane, 2-methyl-]	78-78-4	
	Methane	74-82-8	
	Ethane	74-84-0	
	Propane	74-98-6	
	Butane	106-97-8	
	Pentane	109-66-0	

**Section 1. Registration Information****Section 1.17 Process Specific Information****Process 3**

Process ID #	1000041253		
Process Description	Cogeneration Plant		
1.17.a. Program Level	1		
1.17.b. NAICS Code(s)	221112 (Fossil Fuel Electric Power Generation)		
1.17.c. Chemical(s)			
	Chemical Name	CAS Number	Quantity
	Ammonia (anhydrous)	7664-41-7	51000

**Section 1. Registration Information****Section 1.17 Process Specific Information****Process 4**

Process ID #	1000041255		
Process Description	Storage & Loading		
1.17.a. Program Level	1		
1.17.b. NAICS Code(s)			
211112 (Natural Gas Liquid Extraction)			
1.17.c. Chemical(s)			
	Chemical Name	CAS Number	Quantity
	Butane	106-97-8	2500000
	Ethyl mercaptan [Ethanethiol]	75-08-1	27000
	Propane	74-98-6	4000000
	Pentane	109-66-0	3000000

**Section 1. Registration Information****Section 1.17 Process Specific Information****Process 5**

Process ID #	1000041256		
Process Description	27R Field Storage		
1.17.a. Program Level	1		
1.17.b. NAICS Code(s)	211112 (Natural Gas Liquid Extraction)		
1.17.c. Chemical(s)			
	Chemical Name	CAS Number	Quantity
	Flammable Mixture	00-11-11	450000
	Chemicals in Flammable Mixture	CAS Number of Chemical in Mixture	
	Butane	106-97-8	
	Pentane	109-66-0	

**Section 1. Registration Information****Section 1.17 Process Specific Information****Process 6**

Process ID #	1000041257		
Process Description	14Z FGP1		
1.17.a. Program Level	1		
1.17.b. NAICS Code(s)	211112 (Natural Gas Liquid Extraction)		
1.17.c. Chemical(s)			
	Chemical Name	CAS Number	Quantity
	Flammable Mixture	00-11-11	16000
	Chemicals in Flammable Mixture	CAS Number of Chemical in Mixture	
	Methane	74-82-8	
	Ethane	74-84-0	
	Propane	74-98-6	
	Butane	106-97-8	
	Pentane	109-66-0	
	Propane	74-98-6	21000

**Section 1. Registration Information****Section 1.17 Process Specific Information****Process 7**

Process ID #	1000041258		
Process Description	CGP1		
1.17.a. Program Level	1		
1.17.b. NAICS Code(s)	211112 (Natural Gas Liquid Extraction)		
1.17.c. Chemical(s)			
	Chemical Name	CAS Number	Quantity
	Propane	74-98-6	6650000
	Butane	106-97-8	3890000
	Pentane	109-66-0	4204200
	Flammable Mixture	00-11-11	2000000
	Chemicals in Flammable Mixture	CAS Number of Chemical in Mixture	
	Isobutane [Propane, 2-methyl]	75-28-5	
	Isopentane [Butane, 2-methyl-]	78-78-4	
	Methane	74-82-8	
	Ethane	74-84-0	
	Propane	74-98-6	
	Butane	106-97-8	
	Pentane	109-66-0	

**Section 2. Toxics: Worst Case****Scenario 1**

Process Name	Cogeneration Plant
2.1 Chemical	
2.1.a. Name	Ammonia (anhydrous)
2.1.b. Percent Weight of Chemical	
2.2 Physical State	Gas liquified by pressure
2.3 Model Used	EPA's RMP*Comp(TM)
2.4 Scenario	Liquid spill and vaporization
2.5 Quantity Released (lbs)	51000
2.6 Release Rate (lbs/min)	5100
2.7 Release Duration (mins)	10
2.8 Wind Speed (meters/sec)	1.5
2.9 Atmospheric stability class	F
2.10 Topography	Rural
2.11 Distance to endpoint (miles)	4
2.12 Estimated residential population within distance to endpoint (numbers)	0
2.13 Public receptors within distance to endpoint	
2.13.a. Schools	
2.13.b. Residences	
2.13.c. Hospitals	
2.13.d. Prison/Correctional Facilities	
2.13.e. Recreational Areas	
2.13.f. Major commercial, office or industrial areas	
2.13.g. Other	
2.14 Environmental receptors within distance to endpoint	
2.14.a. National or State Parks, Forests or Monuments	
2.14.b. Officially Designated Wildlife Sanctuaries, Preserves or Refuges	
2.14.c. Federal Wilderness Area	
2.14.d. Other	
2.15 Passive mitigation considered	
2.15.a. Dikes	
2.15.b. Enclosures	
2.15.c. Berms	
2.15.d. Drains	
2.15.e. Sumps	
2.15.f. Other	
2.16 Graphic file	

**Section 4. Flammables: Worst Case****Scenario 1**

Process Name	27R Field Storage
Chemical	Flammable Mixture
4.1.a. Chemical Name	Flammable Mixture
4.2 Model Used	EPA's OCA Guidance Reference Tables or Equations
4.3 Scenario	Vapor Cloud Explosion
4.4 Quantity Released (lbs)	150000
4.5 Endpoint Used	1 PSI
4.6 Distance to endpoint (miles)	0.43
4.7 Estimated residential population within distance to endpoint (numbers)	0
4.8 Public receptors within distance to endpoint	
4.8.a. Schools	
4.8.b. Residences	
4.8.c. Hospitals	
4.8.d. Prison/Correctional Facilities	
4.8.e. Recreational Areas	
4.8.f. Major commercial, office or industrial areas	
4.8.g. Other	
4.9 Environmental receptors within distance to endpoint	
4.9.a. National or State Parks, Forests or Monuments	
4.9.b. Officially Designated Wildlife Sanctuaries, Preserves or Refuges	
4.9.c. Federal Wilderness Area	
4.9.d. Other	
4.10 Passive mitigation considered	
4.10.a. Blast Walls	
4.10.b. Other	
4.11 Graphic file	

**Section 4. Flammables: Worst Case****Scenario 2**

Process Name	LTS-1
Chemical	Flammable Mixture
4.1.a. Chemical Name	Flammable Mixture
4.2 Model Used	EPA's OCA Guidance Reference Tables or Equations
4.3 Scenario	Vapor Cloud Explosion
4.4 Quantity Released (lbs)	583000
4.5 Endpoint Used	1 PSI
4.6 Distance to endpoint (miles)	0.7
4.7 Estimated residential population within distance to endpoint (numbers)	0
4.8 Public receptors within distance to endpoint	
4.8.a. Schools	
4.8.b. Residences	
4.8.c. Hospitals	
4.8.d. Prison/Correctional Facilities	
4.8.e. Recreational Areas	
4.8.f. Major commercial, office or industrial areas	
4.8.g. Other	
4.9 Environmental receptors within distance to endpoint	
4.9.a. National or State Parks, Forests or Monuments	
4.9.b. Officially Designated Wildlife Sanctuaries, Preserves or Refuges	
4.9.c. Federal Wilderness Area	
4.9.d. Other	
4.10 Passive mitigation considered	
4.10.a. Blast Walls	
4.10.b. Other	
4.11 Graphic file	

**Section 4. Flammables: Worst Case****Scenario 3**

Process Name	LTS-2
Chemical	Flammable Mixture
4.1.a. Chemical Name	Flammable Mixture
4.2 Model Used	EPA's OCA Guidance Reference Tables or Equations
4.3 Scenario	Vapor Cloud Explosion
4.4 Quantity Released (lbs)	583000
4.5 Endpoint Used	1 PSI
4.6 Distance to endpoint (miles)	0.7
4.7 Estimated residential population within distance to endpoint (numbers)	0
4.8 Public receptors within distance to endpoint	
4.8.a. Schools	
4.8.b. Residences	
4.8.c. Hospitals	
4.8.d. Prison/Correctional Facilities	
4.8.e. Recreational Areas	
4.8.f. Major commercial, office or industrial areas	
4.8.g. Other	
4.9 Environmental receptors within distance to endpoint	
4.9.a. National or State Parks, Forests or Monuments	
4.9.b. Officially Designated Wildlife Sanctuaries, Preserves or Refuges	
4.9.c. Federal Wilderness Area	
4.9.d. Other	
4.10 Passive mitigation considered	
4.10.a. Blast Walls	
4.10.b. Other	
4.11 Graphic file	

**Section 4. Flammables: Worst Case****Scenario 4**

Process Name	Storage & Loading
Chemical	Butane
4.1.a. Chemical Name	Butane
4.2 Model Used	EPA's OCA Guidance Reference Tables or Equations
4.3 Scenario	Vapor Cloud Explosion
4.4 Quantity Released (lbs)	450000
4.5 Endpoint Used	1 PSI
4.6 Distance to endpoint (miles)	0.62
4.7 Estimated residential population within distance to endpoint (numbers)	0
4.8 Public receptors within distance to endpoint	
4.8.a. Schools	
4.8.b. Residences	
4.8.c. Hospitals	
4.8.d. Prison/Correctional Facilities	
4.8.e. Recreational Areas	
4.8.f. Major commercial, office or industrial areas	
4.8.g. Other	
4.9 Environmental receptors within distance to endpoint	
4.9.a. National or State Parks, Forests or Monuments	
4.9.b. Officially Designated Wildlife Sanctuaries, Preserves or Refuges	
4.9.c. Federal Wilderness Area	
4.9.d. Other	
4.10 Passive mitigation considered	
4.10.a. Blast Walls	
4.10.b. Other	
4.11 Graphic file	

**Section 4. Flammables: Worst Case****Scenario 5**

Process Name	CGP1
Chemical	Propane
4.1.a. Chemical Name	Propane
4.2 Model Used	EPA's OCA Guidance Reference Tables or Equations
4.3 Scenario	Vapor Cloud Explosion
4.4 Quantity Released (lbs)	6650000
4.5 Endpoint Used	1 PSI
4.6 Distance to endpoint (miles)	1.52
4.7 Estimated residential population within distance to endpoint (numbers)	0
4.8 Public receptors within distance to endpoint	
4.8.a. Schools	
4.8.b. Residences	
4.8.c. Hospitals	
4.8.d. Prison/Correctional Facilities	
4.8.e. Recreational Areas	
4.8.f. Major commercial, office or industrial areas	
4.8.g. Other	
4.9 Environmental receptors within distance to endpoint	
4.9.a. National or State Parks, Forests or Monuments	
4.9.b. Officially Designated Wildlife Sanctuaries, Preserves or Refuges	
4.9.c. Federal Wilderness Area	
4.9.d. Other	
4.10 Passive mitigation considered	
4.10.a. Blast Walls	
4.10.b. Other	
4.11 Graphic file	

**Section 4. Flammables: Worst Case****Scenario 6**

Process Name	14Z FGP1
Chemical	Propane
4.1.a. Chemical Name	Propane
4.2 Model Used	EPA's OCA Guidance Reference Tables or Equations
4.3 Scenario	Vapor Cloud Explosion
4.4 Quantity Released (lbs)	21000
4.5 Endpoint Used	1 PSI
4.6 Distance to endpoint (miles)	0.22
4.7 Estimated residential population within distance to endpoint (numbers)	0
4.8 Public receptors within distance to endpoint	
4.8.a. Schools	
4.8.b. Residences	
4.8.c. Hospitals	
4.8.d. Prison/Correctional Facilities	
4.8.e. Recreational Areas	
4.8.f. Major commercial, office or industrial areas	
4.8.g. Other	
4.9 Environmental receptors within distance to endpoint	
4.9.a. National or State Parks, Forests or Monuments	
4.9.b. Officially Designated Wildlife Sanctuaries, Preserves or Refuges	
4.9.c. Federal Wilderness Area	
4.9.d. Other	
4.10 Passive mitigation considered	
4.10.a. Blast Walls	
4.10.b. Other	
4.11 Graphic file	

**Section 9. Emergency Response**

9.1 Written emergency response (ER) plan	
9.1.a. Is your facility included in the written community emergency response plan?	Y
9.1.b. Does your facility have its own written emergency response plan?	Y
9.2 Does your facility's ER plan include specific actions to be taken in response to accidental releases of regulated substances?	Y
9.3 Does your facility's ER plan include procedures for informing the public and local agencies responding to accidental releases?	Y
9.4 Does your facility's ER plan include information on emergency health care?	Y
9.5 Date of most recent review or update of your facility's ER plan	12/18/2012
9.6 Date of most recent ER training for your facility's employees	05/14/2012
9.7 Local agency with which your facility's ER plan or response activities are coordinated	
9.7.a. Name of agency	Kern County Fire Department
9.7.b. Phone number	(661) 765-2155
9.8 Subject to	
9.8.a. OSHA Regulations at 29 CFR 1910.38	Y
9.8.b. OSHA Regulations at 29 CFR 1910.120	Y
9.8.c. Clean Water Act Regulations at 40 CFR 112	Y
9.8.d. RCRA Regulations at 40 CFR 264, 265, 279.52	Y
9.8.e. OPA-90 Regulations at 40 CFR 112, 33 CFR 154, 49 CFR 194, 30 CFR 254	Y
9.8.f. State EPCRA Rules of Laws	Y
9.8.g. Other	29 CFR 1910.119



Executive Summary

1. Accidental Release Prevention and Emergency Response Policies

Occidental of Elk Hills, Inc. (OEHI), a subsidiary of Occidental Petroleum Corporation, is strongly committed to employee and public safety, as well as sound environmental practices. This commitment is demonstrated by our comprehensive accidental release prevention program that covers areas such as design, installation, operating procedures, maintenance, and employee training associated with the processes at our facility. It is our policy to implement appropriate controls to prevent possible releases of regulated substances.

2. The Stationary Source and the Regulated Substances Handled

The OEHI stationary source contains six (6) regulated processes related to natural gas production and one process related to fossil fuel power generation that supports the other processes. Within these processes, OEHI has identified flammable substances and mixtures of these substances in various concentrations (Methane, Ethane, Propane, Butane, Isobutane, Pentane, and Isopentane) that are present in amounts that exceed the threshold quantities. One process contains ethyl mercaptan that is used for natural gas odorizing and one (1) process contains anhydrous ammonia that is used for emissions control and is present in an amount that exceeds the threshold quantity. Natural gasoline, comprised of pentane and heavier hydrocarbons, is present in three of the processes having storage vessels. The regulated processes are:

IDProgramDescriptionChemicals

11LTS-1Flammable hydrocarbons

21LTS-2Flammable hydrocarbons

31Cogeneration PlantAmmonia (anhydrous)

41Storage & LoadingPropane, Butane, Natural Gasoline, Ethyl mercaptan

5127R Field StorageButane, Natural Gasoline

6114Z FGP1 Flammable hydrocarbons

71CGP1 Propane, Butane, Natural Gasoline

All of these processes are assigned to a Level 1 Prevention Program as 1) there have been no accidents in the past five (5) years that resulted in significant off-site impacts, 2) there are no public receptors within the worst case scenario endpoint distances, and 3) the emergency response plan has been coordinated with local responders. Although these processes are assigned to the lowest prevention program level, OEHI has implemented higher level prevention program elements consistent with an RMP Level 3 Prevention Program and OSHA Process Safety Management (PSM) requirements.

3. The Worst Case Release Scenario, including administrative controls and mitigation measures to limit the distances for each reported scenario.

Worst Case Scenarios, which involve release of the entire contents of the largest vessels and pipelines, were modeled for regulated toxic and flammable substances in each process using the EPA RMP Offsite Consequence Analysis Guidance tables and equations. Administrative controls considered in the analysis include inventory limitations for storage vessels based upon high level alarms and shut-downs to ensure adequate "head space". No mitigation measures were considered that would serve to limit the distances for these scenarios. Worst case scenario analysis determined that there are no public receptors or environmental receptors within the distance to the toxic or flammable substance endpoints.

4. The General Accidental Release Prevention Program and the Chemical-Specific Prevention Steps Our facility has taken all steps necessary to comply with the accidental release prevention requirements set out under 40 CFR part 68 of the EPA.

The following sections briefly describe the elements of the release prevention program that is in place at OEHI. These elements are the basis for Process Safety Management system as required under 29 CFR 1910.119 / CalOSHA § 5189.

Process Safety Information

OEHI maintains a detailed record of safety information that describes the hazards of the chemicals used in the processes, information regarding the technology of the process (process chemistry, process flow diagrams, safe upper and lower limits for process parameters, etc.), and detailed equipment information (materials of construction, piping and instrument diagrams, design codes and standards, safety systems, etc.).

Process Hazard Analysis

OEHI conducts comprehensive studies to ensure that hazards associated with processes are identified and appropriately managed. The primary methodology used to conduct these analyses is Hazard And Operability (HAZOP) studies. The studies are undertaken by a team of qualified personnel with expertise in engineering and process operations and are revalidated at a regular interval of 5 years. Findings related to the hazard analysis are addressed in a timely manner based on relative risk of potential hazards.

Operating Procedures

For the purpose of safely conducting activities within covered processes, OEHI maintains written operating procedures. These procedures address various modes of operation such as initial startup, normal operations, temporary operations, emergency shutdown, emergency operations, normal shutdown and startup after a



Executive Summary

turnaround. The information is regularly reviewed and is readily accessible to operators involved in the processes.

Training

OEHI has a comprehensive training program in place to ensure that employees who are operating processes are competent in the operating procedures associated with these processes as well as emergency response activities. Refresher training is provided every 3 years.

Mechanical Integrity

OEHI carries out documented inspections, tests, and maintenance checks of process equipment to ensure adequate mechanical integrity. These activities are conducted by the Mechanical Integrity group and Maintenance persons. Only qualified personnel are permitted to carry out inspections, tests, and maintenance activities on process equipment and systems such as pressure vessels, storage tanks, piping systems, relief and vent systems, emergency shutdown systems, pumps, compressors and electrical equipment. Specialized training is provided as needed for certain maintenance checks. Equipment deficiencies identified by the maintenance checks are tracked to completion through the company maintenance work order system and corrected in a safe and timely manner.

Management of Change

A Management of Change program is in place at OEHI to manage changes in process chemicals, technology, equipment, procedures, and personnel. Process operators, maintenance personnel or any other employee whose job tasks are affected by a modification in process conditions are promptly made aware of and trained on the modification.

Pre-startup Reviews

Pre-start up safety reviews related to new processes and to modifications of established processes are conducted whenever there is a change in the safety information as part of the Management of Change process. These reviews are conducted to confirm that construction, equipment, operating and maintenance procedures are suitable for safe startup prior to placing equipment into operation.

Compliance Audits

OEHI conducts internal audits on a regular basis to verify compliance and effectiveness of the prevention program elements defined by the RMP rule and OSHA Process Safety Management. Although compliance audits are required at least every 3 years under OSHA PSM, current practice is to conduct audits on an annual basis. Corrective actions required as a result of the audits are tracked to completion through the company action tracking system.

Incident Investigation

OEHI promptly investigates any incident that has resulted in, or could reasonably result in a catastrophic release of a regulated substance. These investigations are undertaken to identify the situation leading to the incident as well as any corrective actions to prevent future releases. All reports are retained for a minimum of 5 years.

Employee Participation

OEHI believes that process safety management and accident prevention is a team effort. Company employees are strongly encouraged to express their views concerning accident prevention issues and to recommend improvements. In addition, employees have access to all information created as part of the facility's implementation of the RMP rule, including Process Hazard Analyses (PHAs).

Contractors

OEHI utilizes contractors to conduct specialized maintenance and construction activities. Prior to selecting a contractor, a thorough evaluation of safety performance of the contractor is carried out. OEHI has a strict policy of informing the contractors of known potential hazards related the contractor's work and the processes. Contractors are also informed of all the procedures for emergency response should an accidental release of a regulated substance occur.

5. Five-year Accident History

OEHI has had an excellent record of preventing accidental releases during the last 5 years. Due to effective release prevention program elements, there has been no accidental releases during this period that meet the RMP reporting requirements.

6. Emergency Response Plan

OEHI maintains a written emergency response plan (Emergency Management Plan) that covers accidental releases of hazardous materials. The plan includes all aspects of emergency management, including adequate first aid and medical treatment, evacuations, notification of local emergency response agencies and the public, as well as post-incident decontamination of affected areas. To ensure proper functioning, emergency response equipment is regularly inspected and serviced. In addition, the Emergency Management Plan is regularly updated to reflect any pertinent changes taking place within our processes that would require a modified emergency response.

KERN COUNTY ENVIRONMENTAL HEALTH SERVICES DEPARTMENT

HAZARDOUS MATERIALS MANAGEMENT PROGRAM

CALIFORNIA ACCIDENTAL RELEASE PREVENTION PROGRAM

2700 M Street, Suite 300, Bakersfield, CA 93301 • (661) 862-8700, Fax (661) 862-8701

CALARP INSPECTION REPORT

Facility ID: FA0035735	File No.: 002624	Report Date: April 24, 2012
Facility Name: Occidental of Elk Hills	Inspection Date: March 1, and 27, 2012	
Facility Address: 28590 Highway 119	EPA ID No.:	
City: Tupman	Zip Code:	Program Level: 1
Facility Contact: Jerry Korhonen	Contact Phone: (661) 412-5267	Contact email: jerry_korhonen@oxy.com

REASON FOR INSPECTION: This inspection is for the purpose of determining compliance with the accidental release prevention requirements of the California Code of Regulations, Title 19, Division 2, Chapter 4.5, California Accidental Release Prevention (CalARP) Program. The scope of this inspection may include, but is not limited to: reviewing and obtaining copies of documents and records; interviews and taking of statements; reviewing chemical storage, handling, processing, and use; taking samples and photographs; and any other inspection activities necessary to determine compliance with the laws and regulations.

INSPECTION FINDINGS

Is facility subject to RMP regulation (Title 19 CCR, Chapter 4.5)?		☒ Yes	☐ No
Did facility submit RMP? ☒ Yes ☐ No		Date of last RMP update: _____	
1) Process/NAICS code: 211112	Program Level 1 ☒ 2 ☐ 3 ☐		
Regulated Substance: Flammable Mixture	Max. quantity in process: 1500000lbs		
2) Process/NAICS code: 211112	Program Level 1 ☒ 2 ☐ 3 ☐		
Regulated Substance: Flam Mixture	Max. quantity in process: 1500000lbs		
3) Process/NAICS code: 221112	Program Level 1 ☒ 2 ☐ 3 ☐		
Regulated Substance: Anhydrous Ammonia	Max. quantity in process: 51000lbs		
4) Process/NAICS code: 211112	Program Level 1 ☒ 2 ☐ 3 ☐		
Regulated Substance: Flam Mixture	Max. quantity in process: 2000000lbs		
5) Process/NAICS code: 211112	Program Level 1 ☒ 2 ☐ 3 ☐		
Regulated Substance: Flam Mixture	Max. quantity in process: 4000000lbs		
6) Process/NAICS code: 211112	Program Level 1 ☒ 2 ☐ 3 ☐		
Regulated Substance: Flam Mixture	Max. quantity in process: 450000lbs		
Did facility correctly assign program levels to processes?		☒ Yes	☐ No

Joe Canas

Inspector Name

Haz Mat Prog Mgr

Title

(661) 862-8756

Phone

Signature

Date

CALARP INSPECTION REPORT

Program Level 1

VIOLATIONS

Article 1, General		
Yes	Viol.#	Section 2735.5, General Requirements
☒	1001	The owner or operator of a stationary source that is subject to this chapter, pursuant to Section 2735.4, shall submit an RMP which includes all requirements described in Section 2745.3 through Section 2745.9. [Section 2735.5(b)(1)]
☒	1002	The RMP shall include a registration that reflects all covered processes. [Section 2735.5(b)(2)]
☒	1003	Analyze the worst-case release scenario for the process(es); document that the nearest public receptor is beyond the distance to a toxic or flammable endpoint; and submit in the RMP the worst-case release scenario, as provided in Section 2745.4. [Section 2735.5(d)(1)]
☒	1004	Complete the five-year accident history for the process and submit it in the RMP, as provided in Section 2745.5. [Section 2735.5(d)(2)]
☒	1005	Ensure that response actions have been coordinated with local emergency planning and response agencies. [Section 2735.5(d)(3)]
☒	1006	Certify in the RMP the following: "Based on the criteria in Section 2735.4 of Title 19 of CCR, the distance to the specified endpoint for the worst-case accidental release scenario for the following process(es) is less than the distance to the nearest public receptor: [list process(es)]. Within the past five years, the process(es) has (have) had no accidental release that caused off-site impacts provided in the Risk Management Program Section 2735.4(c)(1). No additional measures are necessary to prevent off-site impacts from accidental releases. In the event of fire, explosion, or a release of a regulated substance from the process(es), entry within the distance to the specified endpoints may pose a danger to public emergency responders. Therefore, public emergency responders should not enter this area except as arranged with the emergency contact indicated in the RMP. The undersigned certifies that, to the best of my knowledge, information, and belief, formed after reasonable inquiry, the information submitted is true, accurate, and complete."
Article 3, Risk Management Plan Components and Submission Requirements		
Yes	Viol.#	Section 2745.4, RMP Off-Site Consequence Analysis Component
☒	1401	The owner or operator shall submit in the RMP one worst-case release scenario for each Program 1 process. [Section 2745.4(a)(1)]
Yes	Viol.#	Section 2745.5, RMP Five-Year Accident History
☒	1500	The owner or operator shall submit as part of the RMP information on each accident. [Section 2745.5]
Yes	Viol.#	Section 2745.10, RMP Updates
☒	1601	The owner or operator of a stationary source shall revise and update the RMP submitted at least once every five years from the date of its initial submission or most recent update. [Section 2745.10(a)(1)]
Article 4, Hazard Assessment		
Yes	Viol.#	Section 2750.2, Off-Site Consequence Analysis Parameters
☒	1201	The following endpoints shall be used for analyses of off-site consequences: use the toxic endpoints in Appendix A for regulated substances listed on both Table 1 and Table 3. [Section 2750.2(a)(2)]
☒	1202	The following endpoints shall be used for analyses of off-site consequences: flammable. For Table 2, regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: explosion. An overpressure of 1 PSI. [Section 2750.2(a)(4)(A)]
☒	1203	The following endpoints shall be used for analyses of off-site consequences: flammable. For Table 2, regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: radiant heat/exposure time. A radiant heat of 5 KW/M2 for 40 seconds. [Section 2750.2(a)(4)(B)]
☒	1204	The following endpoints shall be used for analyses of off-site consequences: flammable. For Table 2 regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: lower flammability limit. A lower flammability limit as provided in NFPA documents or other generally recognized sources. [Section 2750.2(a)(4)(C)]
☒	1205	The following endpoints shall be used for analyses of off-site consequences: use the toxic endpoints in Appendix A for regulated substances listed on both Table 1 and Table 3. [Section 2750.2(a)(2)]

☒	1206	The following endpoints shall be used for analyses of off-site consequences: flammable. For Table 2, regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: explosion. An overpressure of 1 PSI. [Section 2750.2(a)(4)(A)]
☒	1207	The following endpoints shall be used for analyses of off-site consequences: flammable. For Table 2, regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: radiant heat/exposure time. A radiant heat of 5 KW/M2 for 40 seconds. [Section 2750.2(a)(4)(B)]
☒	1208	The following endpoints shall be used for analyses of off-site consequences: flammable. For Table 2 regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: lower flammability limit. A lower flammability limit as provided in NFPA documents or other generally recognized sources. [Section 2750.2(a)(4)(C)]
☒	1209	For the worst-case release analysis, the owner or operator shall use a wind speed of 1.5 meters per second and F atmospheric stability class. For the analysis of alternative scenarios, the owner or operator may use typical temperature/humidity data gathered at the stationary source or at a local meteorological station. [Section 2750.2(b)]
☒	1210	For the worst-case release analysis of a regulated toxic substance, the owner or operator shall use the highest daily maximum temperature in the previous three years and average humidity for the site, based on temperature/humidity data gathered at the stationary source or at a local meteorological station. For analysis of alternative scenarios, the owner or operator may use typical temperature/humidity data gathered at the stationary source or at a local meteorological station. [Section 2750.2(c)]
☒	1211	Height of release. The worst-case release of a regulated toxic substance shall be analyzed assuming a ground level (0 feet) release. For an alternative scenario analysis of a regulated toxic substance, release height may be determined by the scenario. [Section 2750.2(d)]
☒	1212	Surface roughness. The owner or operator shall use either urban or rural topography, as appropriate. Urban means that there are many obstacles in the immediate area; obstacles include buildings or trees. Rural means there are no buildings in the immediate area and the terrain is generally flat and unobstructed. [Section 2750.2(e)]
☒	1213	Dense or neutrally buoyant gases. The owner or operator shall ensure that tables or models used for dispersion analysis of regulated toxic substances appropriately account for gas density. [Section 2750.2(f)]
☒	1214	Temperature of released substance for worst case, liquids other than gases liquefied by refrigeration only shall be considered to be released at the highest daily maximum temperature, based on data for the previous three years appropriate for the stationary source, or at process temperature, whichever is higher. For alternative scenarios, substances may be considered to be released at a process or ambient temperature that is appropriate for the scenario. [Section 2750.2(g)]
Yes	Viol.#	Section 2750.3, Worst Case Release Scenario Analysis
☒	1101	The RMP includes one worst-case scenario, including an off-site consequence analysis for each Program 1 process, as provided in 2750.2. [Section 2750.3(a)(1)]
☒	1102	The owner or operator determined the worst-case release quantity if released from a vessel, the greatest amount held in a single vessel, taking into account administrative controls that limit the maximum quantity. [Section 2750.3(b)(1)]
☒	1103	The owner or operator determined the worst-case release quantity if released from a pipe, the greatest amount held in a pipe, taking into account administrative controls that limit the maximum quantity. [Section 2750.3(b)(2)]
☒	1104	The owner or operator for toxic substances that are normally gases at ambient temperature and handled as a gas or a liquid under pressure shall assume the whole quantity in the vessel or pipe would be released as a gas over 10 minutes. [Section 2750.3(c)]
☒	1105	For regulated toxic substances that are normally gases at ambient temperature and handled as a gas or a liquid under pressure, the release rate shall be assumed to be the total quantity divided by 10 unless passive mitigation systems are in place. [Section 2750.3(c)(1)]
☒	1106	For regulated toxic gases handled as refrigerated liquids at ambient pressure, if the released substance is not contained by passive mitigation systems or if the contained pool would have a depth of 1 centimeter or less, the owner or operator shall assume that the substance is released as a gas in 10 minutes. [Section 2750.3(c)(2)(A)]
☒	1107	For regulated toxic gases handled as refrigerated liquids at ambient pressure, if the released substance is contained by passive mitigation systems in a pool in a depth greater than 1 centimeter, the owner or operator may assume that the quantity in the vessel or pipe is spilled instantaneously to form a liquid pool. [Section 2750.3(c)(2)(B)]

☒	1108	For regulated toxic gases handled as refrigerated liquids at ambient pressure, if the released substance is contained by passive mitigation systems in a pool in a depth greater than 1 centimeter, the volatilization rate shall be calculated at the boiling point of the substance. [Section 2750.3(c)(2)(B)]
☒	1109	For regulated toxic substances that are normally liquids at ambient temperature, the owner or operator shall assume that the quantity in the vessel or pipe is spilled instantaneously to form a liquid pool. [Section 2750.3(d)(1)]
☒	1110	The surface area of the pool shall be determined by assuming that the liquid spreads to 1 centimeter deep unless passive mitigation systems are in place that serve to contain the spill and limit the surface area. Where passive mitigation is in place, the surface area of the contained liquid shall be used to calculate the volatilization rate. [Section 2750.3(d)(1)(A)]
☒	1111	For regulated toxic substances that are normally liquids at ambient temperature, the owner or operator shall assume that quantity in the vessel or pipe is spilled instantaneously to form a liquid pool. If the release would occur onto a surface that is not paved or smooth, the owner or operator may take into account the actual surface characteristics. [Section 2750.3(d)(1)(B)]
☒	1112	The volatilization rate shall account for the highest daily maximum temperature occurring in the past three years, the temperature of the substance in the vessel, and the concentration of the substance if the liquid spilled is a mixture or solution. [Section 2750.3(d)(2)]
☒	1113	The rate of release to air shall be determined from the volatilization rate of the liquid pool. [Section 2750.3(d)(3)]
☒	1114	The rate of release to air may be determined by using the methodology in the RMP off-site consequence analysis guidance or any publicly available techniques that account for the modeling conditions and are recognized by industry as applicable as part of current practices. Proprietary models that account for the modeling conditions may be used provided the implementing agency is allowed access to the model describing its features and differences. [Section 2750.3(d)(3)]
☒	1115	The owner or operator shall assume that the quantity of the substance vaporizes resulting in a vapor cloud explosion. A yield rate factor of 10% of the available energy released in the explosion shall be used to determine the distance to the explosion endpoint if the model used is based on TNT-equivalent methods. [Section 2750.3(e)]
☒	1116	For flammable gases, a yield rate factor of 10% of the available energy released in the explosion shall be used to determine the distance to the explosion endpoint if the model used is based on TNT-equivalent methods. [Section 2750.3(e)]
☒	1117	For regulated flammable substances that are normally gases at ambient temperature and handled as a gas or as a liquid under pressure, the owner or operator shall assume that the quantity in the vessel or pipe, as determined under Section (b), is released as a gas over 10 minutes. [2750.3(e)(1)]
☒	1118	For flammable gases handled as refrigerated liquids at ambient pressure, the volatilization rate (release rate) shall be calculated at the boiling point of the substance and at the conditions specified in Section (d). [Section 2750.3(e)(2)(B)]
☒	1119	For flammable liquids at ambient temperature, the owner or operator shall assume that the quantity in the vessel or pipe is spilled instantaneously to form a liquid pool. [Section 2750.3(f)(1)]
☐	1120	The owner or operator shall use the parameters defined in Sections 2750.2 to determine distance to the endpoints. [Section 2750.3(g)]
☒	1121	The owner or operator may use either the methodology provided in the RMP OCA guidance or any commercially or publicly available air dispersion modeling techniques, provided the techniques account for the specified modeling conditions and are recognized by industry as applicable as part of current practices. [Section 2750.3(g)]
☒	1122	Passive mitigation systems may be considered for the analysis of worst case provided that the mitigation system is capable of withstanding the release event triggering the scenario and would still function as intended. [Section 2750.3(h)]
☒	1123	The owner or operator shall select as the worst case for regulated flammable substances or the worst case for regulated toxic substances, a scenario based on the following factor if such a scenario would result in a greater distance to an endpoint defined in Section 2750.2(a) beyond the stationary source boundary than the scenario provided under Section (b): smaller quantities handled at higher process temperature or pressure. [Section 2750.3(i)(1)]
☒	1124	The owner or operator shall select as the worst case for regulated flammable substances or the worst case for regulated toxic substances, a scenario based on the following factor if such a scenario would result in a greater distance to an endpoint defined in Section 2750.2(a) beyond the stationary source boundary than the scenario provided under Section (b): proximity to the boundary of the stationary source. [Section 2750.3(i)(2)]

CALARP INSPECTION REPORT
COMMENTS PAGE

Page #	Violation Code #	VIOLATIONS
		[Tab_to_Insert_rows_as_needed]

RECOMMENDATIONS

COMMENTS
The facilities were recently classified as Program 1, instead of 3

Violations were observed/ discovered as listed above. All violations must be corrected by implementing the action listed by each violation. All minor violations must be corrected within 30 days or as specified. KCEHSD must be informed in writing, certifying that the violations have been corrected. A false statement that the violations have been corrected is a violation of the law and is punishable by a fine of not less than \$2,000 or more than \$25,000 for each violation. Your facility may be re-inspected at any time.

You may request a meeting with the KCEHSD Program Manager to discuss the inspection findings and/or proposed corrective actions. The issuance of this Inspection Report does not preclude KCEHSD from taking administrative, civil, or criminal action as a result of the violations that were discovered or violations that have not been corrected within the time specified.

Facility Rep. Signature_____
Title_____
Inspector Signature_____
Date



MATTHEW CONSTANTINE, DIRECTOR
PUBLIC HEALTH SERVICES

ENVIRONMENTAL HEALTH

DIVISION

2700 M STREET, SUITE 300, BAKERSFIELD, CA 93301-2370

VOICE: (661) 862-8740 FAX: (661) 862-8701

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"ONE VOICE"



CLAUDIA JONAH, MD
PUBLIC HEALTH OFFICER

CalARP Inspection Report

Facility ID: FA0035735	File No: 002624	Report Date: 12/10/2012
Facility Name: OCCIDENTAL OF ELK HILLS INC (RMP REGULATED FACILITIE	Inspection Date: 11/28/2012	
Facility Address: 28590 HIGHWAY 119 TUPMAN, CA 93276	EPA ID No: 1000 0014 0876	
	Program Level: 1	
Facility Contact: Drew Laza	Contact Phone: (661) 763-6714	Contact Email: mike_glavin@oxy.com

Reason for Inspection: This inspection is for the purpose of determining compliance with the accidental release prevention requirements of the California Code of Regulations, Title 19, Division 2, Chapter 4.5, California Accidental Release Prevention (CalARP) Program. The scope of this inspection may include, but is not limited to: reviewing and obtaining copies of documents and records; interviews and taking of statements; reviewing chemical storage, handling, processing, and use; taking samples and photographs; and any other inspection activities necessary to determine compliance with the laws and regulations.

Inspection Findings

RMP Submittal Date: 06/08/2012	Next RMP Submittal Date: 06/08/2017
Last Compliance Audit: 07/22/2011	Next Compliance Audit: 07/22/2014

NAME	TYPE OF PROCESS/PRODUCT	QUANTITY	CONCENTRATION	PROGRAM LVL
LTS-1	NATURAL GAS LIQUID EXTRACT FLAMMABLE MIXTURE	1,500,000 lbs	100 %	1
NAME	TYPE OF PROCESS/PRODUCT	QUANTITY	CONCENTRATION	PROGRAM LVL
LTS-2	NATURAL GAS LIQUID EXTRACT FLAMMABLE MIXTURE	1,500,000 lbs	100 %	1
NAME	TYPE OF PROCESS/PRODUCT	QUANTITY	CONCENTRATION	PROGRAM LVL
COGENERATION PLANT	AIR POLLUTION CONTROL NOX AMMONIA ANHYDROUS	51,000 lbs	100 %	1
NAME	TYPE OF PROCESS/PRODUCT	QUANTITY	CONCENTRATION	PROGRAM LVL
35R LOAP	NATURAL GAS LIQUID EXTRACT FLAMMABLE MIXTURE	2,000,000 lbs	100 %	1
NAME	TYPE OF PROCESS/PRODUCT	QUANTITY	CONCENTRATION	PROGRAM LVL
35R LOADING AND STORAGE	NATURAL GAS LIQUID EXTRACT PROPANE	4,000,000 lbs	100 %	1
NAME	TYPE OF PROCESS/PRODUCT	QUANTITY	CONCENTRATION	PROGRAM LVL
35R LOADING AND STORAGE	NATURAL GAS LIQUID EXTRACT BUTANE	2,500,000 lbs	100 %	1
NAME	TYPE OF PROCESS/PRODUCT	QUANTITY	CONCENTRATION	PROGRAM LVL
35R LOADING AND STORAGE	NATURAL GAS LIQUID EXTRACT ETHYL MERCAPTAN	27,000 lbs	100 %	1
NAME	TYPE OF PROCESS/PRODUCT	QUANTITY	CONCENTRATION	PROGRAM LVL
35R LOADING AND STORAGE	NATURAL GAS LIQUID EXTRACT PENTANE	3,000,000 lbs	100 %	1
NAME	TYPE OF PROCESS/PRODUCT	QUANTITY	CONCENTRATION	PROGRAM LVL
27R FIELD STORAGE	NATURAL GAS LIQUID EXTRACT FLAMMABLE MIXTURE	450,000 lbs	100 %	1
NAME	TYPE OF PROCESS/PRODUCT	QUANTITY	CONCENTRATION	PROGRAM LVL
14Z FGP1	Flammable Mixture	16,000 lbs	100 %	1
NAME	TYPE OF PROCESS/PRODUCT	QUANTITY	CONCENTRATION	PROGRAM LVL
CGP1	Flammables	16,500,000 lbs	100 %	1

DAN R STARKEY
Inspector Name

HAZARDOUS MATERIALS SPECIALIST III
Title

(661) 862-8757
Phone

12/10/2012
Date

Yes	Violation #	Section 2735.6, Management System
	1001	The owner or operator of a stationary source that is subject to this chapter, pursuant to Section 2735.4, shall submit an RMP which includes all requirements described in Section 2745.3 through Section 2745.9. [Section 2735.5(b)(1)]
	1002	The RMP shall include a registration that reflects all covered processes. [Section 2735.5(b)(2)]
	1003	Analyze the worst-case release scenario for the process(es); document that the nearest public receptor is beyond the distance to a toxic or flammable endpoint; and submit in the RMP the worst-case release scenario, as provided in Section 2745.4. [Section 2735.5(d)(1)]
	1004	Complete the five-year accident history for the process and submit it in the RMP, as provided in Section 2745.5. [Section 2735.5(d)(2)]
	1005	Ensure that response actions have been coordinated with local emergency planning and response agencies. [Section 2735.5(d)(3)]
	1006	Certify in the RMP the following: "Based on the criteria in Section 2735.4 of Title 19 of CCR, the distance to the specified endpoint for the worst-case accidental release scenario for the following process(es) is less than the distance to the nearest public receptor: [list process(es)]. Within the past five years, the process(es) has (have) had no accidental release that caused off-site impacts provided in the Risk Management Program Section 2735.4(c)(1). No additional measures are necessary to prevent off-site impacts from accidental releases. In the event of fire, explosion, or a release of a regulated substance from the process(es), entry within the distance to the specified endpoints may pose a danger to public emergency responders. Therefore, public emergency responders should not enter this area except as arranged with the emergency contact indicated in the RMP. The undersigned certifies that, to the best of my knowledge, information, and belief, formed after reasonable inquiry, the information submitted is true, accurate, and complete."
		Section 2745.4, RMP Off-Site Consequence Analysis Component
	1401	The owner or operator shall submit in the RMP one worst-case release scenario for each Program 1 process. [Section 2745.4(a)(1)]
		Section 2745.5, RMP Five-Year Accident History
	1500	The owner or operator shall submit as part of the RMP information on each accident. [Section 2745.5]
		Section 2745.10, RMP Updates
	1601	The owner or operator of a stationary source shall revise and update the RMP submitted at least once every five years from the date of its initial submission or most recent update. [Section 2745.10(a)(1)]
		Section 2750.2, Off-Site Consequence Analysis Parameters
	1201	The following endpoints shall be used for analyses of off-site consequences: use the toxic endpoints in Appendix A for regulated substances listed on both Table 1 and Table 3. [Section 2750.2(a)(2)]
	1202	The following endpoints for a worst case scenario shall be used for analyses of off-site consequences: flammable. For Table 2, regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: explosion. An overpressure of 1 PSI. [Section 2750.2(a)
	1203	The following endpoints for a worst case scenario shall be used for analyses of off-site consequences: flammable. For Table 2, regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: radiant heat/exposure time. A radiant heat of 5 KW/M2 for 40 seconds. [Section 2750.2(a)(4)(B)]
	1204	The following endpoints for a worst case scenario shall be used for analyses of off-site consequences: flammable. For Table 2 regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: lower flammability limit. A lower flammability limit as provided in NFPA documents or other generally recognized sources. [Section 2750.2(a)(4)(C)]
	1205	The following endpoints shall be used for analyses of off-site consequences: use the toxic endpoints in Appendix A for regulated substances listed on both Table 1 and Table 3. [Section 2750.2(a)(2)]
	1206	The following endpoints for an alternate release scenario shall be used for analyses of off-site consequences: flammable. For Table 2, regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: explosion. An overpressure of 1 PSI. [Section 2750.2(a)(4)(A)]

1207	The following endpoints an alternate release scenario shall be used for analyses of off-site consequences: flammable. For Table 2, regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: radiant heat/exposure time. A radiant heat of 5 KW/M2 for 40 seconds. [Section 2750.2(a)(4)(B)]
1208	The following endpoints an alternate release scenario shall be used for analyses of off-site consequences: flammable. For Table 2 regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: lower flammability limit. A lower flammability limit as provided in NFPA documents or other generally recognized sources. [Section 2750.2(a)(4)(C)]
1209	For the worst-case release analysis, the owner or operator shall use a wind speed of 1.5 meters per second and F atmospheric stability class. For the analysis of alternative scenarios, the owner or operator may use typical temperature/humidity data gathered at the stationary source or at a local meteorological station. [Section 2750.2(b)]
1210	For the worst-case release analysis of a regulated toxic substance, the owner or operator shall use the highest daily maximum temperature in the previous three years and average humidity for the site, based on temperature/humidity data gathered at the stationary source or at a local meteorological station. For analysis of alternative scenarios, the owner or operator may use typical temperature/humidity data gathered at the stationary source or at a local meteorological station. [Section 2750.2(c)]
1211	Height of release. The worst-case release of a regulated toxic substance shall be analyzed assuming a ground level (0 feet) release. For an alternative scenario analysis of a regulated toxic substance, release height may be determined by the scenario. [Section 2750.2(d)]
1212	Surface roughness. The owner or operator shall use either urban or rural topography, as appropriate. Urban means that there are many obstacles in the immediate area; obstacles include buildings or trees. Rural means there are no buildings in the immediate area and the terrain is generally flat and unobstructed. [Section 2750.2(e)]
1213	Dense or neutrally buoyant gases. The owner or operator shall ensure that tables or models used for dispersion analysis of regulated toxic substances appropriately account for gas density. [Section 2750.2(f)]
1214	Temperature of released substance for worst case, liquids other than gases liquefied by refrigeration only shall be considered to be released at the highest daily maximum temperature, based on data for the previous three years appropriate for the stationary source, or at process temperature, whichever is higher. For alternative scenarios, substances may be considered to be released at a process or ambient temperature that is appropriate for the scenario. [Section 2750.2(g)]
Section 2750.3, Worst Case Release Scenario Analysis	
1101	The RMP includes one worst-case scenario, including an off-site consequence analysis for each Program 1 process, as provided in 2750.2. [Section 2750.3(a)(1)]
1102	The owner or operator determined the worst-case release quantity if released from a vessel, the greatest amount held in a single vessel, taking into account administrative controls that limit the maximum quantity. [Section 2750.3(b)(1)]
1103	The owner or operator determined the worst-case release quantity if released from a pipe, the greatest amount held in a pipe, taking into account administrative controls that limit the maximum quantity. [Section 2750.3(b)(2)]
1104	The owner or operator for toxic substances that are normally gases at ambient temperature and handled as a gas or a liquid under pressure shall assume the whole quantity in the vessel or pipe would be released as a gas over 10 minutes. [Section 2750.3(c)]
1105	For regulated toxic substances that are normally gases at ambient temperature and handled as a gas or a liquid under pressure, the release rate shall be assumed to be the total quantity divided by 10 unless passive mitigation systems are in place. [Section 2750.3(c)(1)]
1106	For regulated toxic gases handled as refrigerated liquids at ambient pressure, if the released substance is not contained by passive mitigation systems or if the contained pool would have a depth of 1 centimeter or less, the owner or operator shall assume that the substance is released as a gas in 10 minutes. [Section 2750.3(c)(2)(A)]

1107	For regulated toxic gases handled as refrigerated liquids at ambient pressure, if the released substance is contained by passive mitigation systems in a pool in a depth greater than 1 centimeter, the owner or operator may assume that the quantity in the vessel or pipe is spilled instantaneously to form a liquid pool. [Section 2750.3(c)(2)(B)]
1108	For regulated toxic gases handled as refrigerated liquids at ambient pressure, if the released substance is contained by passive mitigation systems in a pool in a depth greater than 1 centimeter, the volatilization rate shall be calculated at the boiling point of the substance. [Section 2750.3(c)(2)(B)]
1109	For regulated toxic substances that are normally liquids at ambient temperature, the owner or operator shall assume that the quantity in the vessel or pipe is spilled instantaneously to form a liquid pool. [Section 2750.3(d)(1)]
1110	The surface area of the pool shall be determined by assuming that the liquid spreads to 1 centimeter deep unless passive mitigation systems are in place that serve to contain the spill and limit the surface area. Where passive mitigation is in place, the surface area of the contained liquid shall be used to calculate the volatilization rate. [Section 2750.3(d)(1)(A)]
1111	For regulated toxic substances that are normally liquids at ambient temperature, the owner or operator shall assume that quantity in the vessel or pipe is spilled instantaneously to form a liquid pool. If the release would occur onto a surface that is not paved or smooth, the owner or operator may take into account the actual surface characteristics. [Section 2750.3(d)(1)(B)]
1112	The volatilization rate shall account for the highest daily maximum temperature occurring in the past three years, the temperature of the substance in the vessel, and the concentration of the substance if the liquid spilled is a mixture or solution. [Section 2750.3(d)(2)]
1113	The rate of release to air shall be determined from the volatilization rate of the liquid pool. [Section 2750.3(d)(3)]
1114	The rate of release to air may be determined by using the methodology in the RMP off-site consequence analysis guidance or any publicly available techniques that account for the modeling conditions and are recognized by industry as applicable as part of current practices. Proprietary models that account for the modeling conditions may be used provided the implementing agency is allowed access to the model describing its features and differences. [Section 2750.3(d)(3)]
1115	The owner or operator shall assume that the quantity of the substance vaporizes resulting in a vapor cloud explosion. A yield rate factor of 10% of the available energy released in the explosion shall be used to determine the distance to the explosion endpoint if the model used is based on TNT-equivalent methods. [Section 2750.3(e)]
1116	For flammable gases, a yield rate factor of 10% of the available energy released in the explosion shall be used to determine the distance to the explosion endpoint if the model used is based on TNT-equivalent methods. [Section 2750.3(e)]
1117	For regulated flammable substances that are normally gases at ambient temperature and handled as a gas or as a liquid under pressure, the owner or operator shall assume that the quantity in the vessel or pipe, as determined under Section (b), is released as a gas over 10 minutes. [2750.3(e)(1)]
1118	For flammable gases handled as refrigerated liquids at ambient pressure, the volatilization rate (release rate) shall be calculated at the boiling point of the substance and at the conditions specified in Section (d). [Section 2750.3(e)(2)(B)]
1119	For flammable liquids at ambient temperature, the owner or operator shall assume that the quantity in the vessel or pipe is spilled instantaneously to form a liquid pool. [Section 2750.3(f)(1)]
1120	The owner or operator shall use the parameters defined in Sections 2750.2 to determine distance to the endpoints. [Section 2750.3(g)]

1121	The owner or operator may use either the methodology provided in the RMP OCA guidance or any commercially or publicly available air dispersion modeling techniques, provided the techniques account for the specified modeling conditions and are recognized by industry as applicable as part of current practices. [Section 2750.3(g)]
1122	Passive mitigation systems may be considered for the analysis of worst case provided that the mitigation system is capable of withstanding the release event triggering the scenario and would still function as intended. [Section 2750.3(h)]
1123	The owner or operator shall select as the worst case for regulated flammable substances or the worst case for regulated toxic substances, a scenario based on the following factor if such a scenario would result in a greater distance to an endpoint defined in Section 2750.2(a) beyond the stationary source boundary than the scenario provided under Section (b): smaller quantities handled at higher process temperature or pressure. [Section 2750.3(i)(1)]
1124	The owner or operator shall select as the worst case for regulated flammable substances or the worst case for regulated toxic substances, a scenario based on the following factor if such a scenario would result in a greater distance to an endpoint defined in Section 2750.2(a) beyond the stationary source boundary than the scenario provided under Section (b): proximity to the boundary of the stationary source. [Section 2750.3(i)(2)]

VIOLATIONS

VIOLATION #	DEGREE OF VIOLATION
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CORRECTIVE ACTION REQUIRED

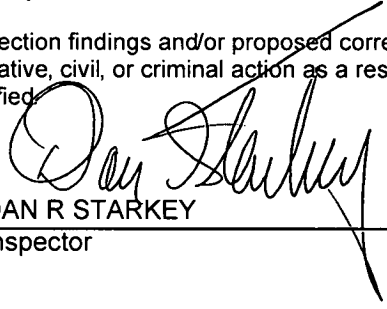
RECOMMENDATIONS/ COMMENTS:

Violations were observed/ discovered as listed above. All violations must be corrected by implementing the action listed by each violation. All minor violations must be corrected within 30 days or as specified. KCEHSD must be informed in writing, certifying that the violations have been corrected. A false statement that the violations have been corrected is a violation of the law and is punishable by a fine of not less than \$2,000 or more than \$25,000 for each violation. Your facility may be re-inspected at any time.

You may request a meeting with the KCEHSD Program Manager to discuss the inspection findings and/or proposed corrective actions. The issuance of this Inspection Report does not preclude KCEHSD from taking administrative, civil, or criminal action as a result of the violations that were discovered or violations that have not been corrected within the time specified.

Facility Rep. Signature

Title



DAN R STARKEY
Inspector

12/10/2012
Date

KERN COUNTY ENVIRONMENTAL HEALTH SERVICES DEPARTMENT

HAZARDOUS MATERIALS MANAGEMENT PROGRAM

CALIFORNIA ACCIDENTAL RELEASE PREVENTION PROGRAM

2700 M Street, Suite 300, Bakersfield, CA 93301 • (661) 862-8700, Fax (661) 862-8701

CALARP INSPECTION REPORT

Facility ID: FA0035735	File No.: 002624	Report Date: April 24, 2012
Facility Name: Occidental of Elk Hills	Inspection Date: March 1, and 27, 2012	
Facility Address: 28590 Highway 119	EPA ID No.:	
City: Tupman	Zip Code:	Program Level: 1
Facility Contact: Jerry Korhonen	Contact Phone: (661) 412-5267	Contact email: jerry_korhonen@oxy.com

REASON FOR INSPECTION: This inspection is for the purpose of determining compliance with the accidental release prevention requirements of the California Code of Regulations, Title 19, Division 2, Chapter 4.5, California Accidental Release Prevention (CalARP) Program. The scope of this inspection may include, but is not limited to: reviewing and obtaining copies of documents and records; interviews and taking of statements; reviewing chemical storage, handling, processing, and use; taking samples and photographs; and any other inspection activities necessary to determine compliance with the laws and regulations.

INSPECTION FINDINGS

Is facility subject to RMP regulation (Title 19 CCR, Chapter 4.5)?		☒ Yes	☐ No
Did facility submit RMP? ☒ Yes ☐ No		Date of last RMP update: _____	
1) Process/NAICS code: 211112	Program Level 1 ☒ 2 ☐ 3 ☐		
Regulated Substance: Flammable Mixture	Max. quantity in process: 1500000lbs		
2) Process/NAICS code: 211112	Program Level 1 ☒ 2 ☐ 3 ☐		
Regulated Substance: Flam Mixture	Max. quantity in process: 1500000lbs		
3) Process/NAICS code: 221112	Program Level 1 ☒ 2 ☐ 3 ☐		
Regulated Substance: Anhydrous Ammonia	Max. quantity in process: 51000lbs		
4) Process/NAICS code: 211112	Program Level 1 ☒ 2 ☐ 3 ☐		
Regulated Substance: Flam Mixture	Max. quantity in process: 2000000lbs		
5) Process/NAICS code: 211112	Program Level 1 ☒ 2 ☐ 3 ☐		
Regulated Substance: Flam Mixture	Max. quantity in process: 4000000lbs		
6) Process/NAICS code: 211112	Program Level 1 ☒ 2 ☐ 3 ☐		
Regulated Substance: Flam Mixture	Max. quantity in process: 450000lbs		
Did facility correctly assign program levels to processes?		☒ Yes	☐ No

Joe Canas
Inspector Name

Haz Mat Prog Mgr
Title

(661) 862-8756
Phone

Signature

Date

CALARP INSPECTION REPORT

Program Level 1

VIOLATIONS

Article 1, General		
Yes	Viol.#	Section 2735.5, General Requirements
☒	1001	The owner or operator of a stationary source that is subject to this chapter, pursuant to Section 2735.4, shall submit an RMP which includes all requirements described in Section 2745.3 through Section 2745.9. [Section 2735.5(b)(1)]
☒	1002	The RMP shall include a registration that reflects all covered processes. [Section 2735.5(b)(2)]
☒	1003	Analyze the worst-case release scenario for the process(es); document that the nearest public receptor is beyond the distance to a toxic or flammable endpoint; and submit in the RMP the worst-case release scenario, as provided in Section 2745.4. [Section 2735.5(d)(1)]
☒	1004	Complete the five-year accident history for the process and submit it in the RMP, as provided in Section 2745.5. [Section 2735.5(d)(2)]
☒	1005	Ensure that response actions have been coordinated with local emergency planning and response agencies. [Section 2735.5(d)(3)]
☒	1006	Certify in the RMP the following: "Based on the criteria in Section 2735.4 of Title 19 of CCR, the distance to the specified endpoint for the worst-case accidental release scenario for the following process(es) is less than the distance to the nearest public receptor: [list process(es)]. Within the past five years, the process(es) has (have) had no accidental release that caused off-site impacts provided in the Risk Management Program Section 2735.4(c)(1). No additional measures are necessary to prevent off-site impacts from accidental releases. In the event of fire, explosion, or a release of a regulated substance from the process(es), entry within the distance to the specified endpoints may pose a danger to public emergency responders. Therefore, public emergency responders should not enter this area except as arranged with the emergency contact indicated in the RMP. The undersigned certifies that, to the best of my knowledge, information, and belief, formed after reasonable inquiry, the information submitted is true, accurate, and complete."
Article 3, Risk Management Plan Components and Submission Requirements		
Yes	Viol.#	Section 2745.4, RMP Off-Site Consequence Analysis Component
☒	1401	The owner or operator shall submit in the RMP one worst-case release scenario for each Program 1 process. [Section 2745.4(a)(1)]
Yes	Viol.#	Section 2745.5, RMP Five-Year Accident History
☒	1500	The owner or operator shall submit as part of the RMP information on each accident. [Section 2745.5]
Yes	Viol.#	Section 2745.10, RMP Updates
☒	1601	The owner or operator of a stationary source shall revise and update the RMP submitted at least once every five years from the date of its initial submission or most recent update. [Section 2745.10(a)(1)]
Article 4, Hazard Assessment		
Yes	Viol.#	Section 2750.2, Off-Site Consequence Analysis Parameters
☒	1201	The following endpoints shall be used for analyses of off-site consequences: use the toxic endpoints in Appendix A for regulated substances listed on both Table 1 and Table 3. [Section 2750.2(a)(2)]
☒	1202	The following endpoints shall be used for analyses of off-site consequences: flammable. For Table 2, regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: explosion. An overpressure of 1 PSI. [Section 2750.2(a)(4)(A)]
☒	1203	The following endpoints shall be used for analyses of off-site consequences: flammable. For Table 2, regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: radiant heat/exposure time. A radiant heat of 5 KW/M2 for 40 seconds. [Section 2750.2(a)(4)(B)]
☒	1204	The following endpoints shall be used for analyses of off-site consequences: flammable. For Table 2 regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: lower flammability limit. A lower flammability limit as provided in NFPA documents or other generally recognized sources. [Section 2750.2(a)(4)(C)]
☒	1205	The following endpoints shall be used for analyses of off-site consequences: use the toxic endpoints in Appendix A for regulated substances listed on both Table 1 and Table 3. [Section 2750.2(a)(2)]

☒	1206	The following endpoints shall be used for analyses of off-site consequences: flammable. For Table 2, regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: explosion. An overpressure of 1 PSI. [Section 2750.2(a)(4)(A)]
☒	1207	The following endpoints shall be used for analyses of off-site consequences: flammable. For Table 2, regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: radiant heat/exposure time. A radiant heat of 5 KW/M2 for 40 seconds. [Section 2750.2(a)(4)(B)]
☒	1208	The following endpoints shall be used for analyses of off-site consequences: flammable. For Table 2 regulated flammable substances, flammable endpoints vary according to the scenarios studied, based upon the following: lower flammability limit. A lower flammability limit as provided in NFPA documents or other generally recognized sources. [Section 2750.2(a)(4)(C)]
☒	1209	For the worst-case release analysis, the owner or operator shall use a wind speed of 1.5 meters per second and F atmospheric stability class. For the analysis of alternative scenarios, the owner or operator may use typical temperature/humidity data gathered at the stationary source or at a local meteorological station. [Section 2750.2(b)]
☒	1210	For the worst-case release analysis of a regulated toxic substance, the owner or operator shall use the highest daily maximum temperature in the previous three years and average humidity for the site, based on temperature/humidity data gathered at the stationary source or at a local meteorological station. For analysis of alternative scenarios, the owner or operator may use typical temperature/humidity data gathered at the stationary source or at a local meteorological station. [Section 2750.2(c)]
☒	1211	Height of release. The worst-case release of a regulated toxic substance shall be analyzed assuming a ground level (0 feet) release. For an alternative scenario analysis of a regulated toxic substance, release height may be determined by the scenario. [Section 2750.2(d)]
☒	1212	Surface roughness. The owner or operator shall use either urban or rural topography, as appropriate. Urban means that there are many obstacles in the immediate area; obstacles include buildings or trees. Rural means there are no buildings in the immediate area and the terrain is generally flat and unobstructed. [Section 2750.2(e)]
☒	1213	Dense or neutrally buoyant gases. The owner or operator shall ensure that tables or models used for dispersion analysis of regulated toxic substances appropriately account for gas density. [Section 2750.2(f)]
☒	1214	Temperature of released substance for worst case, liquids other than gases liquefied by refrigeration only shall be considered to be released at the highest daily maximum temperature, based on data for the previous three years appropriate for the stationary source, or at process temperature, whichever is higher. For alternative scenarios, substances may be considered to be released at a process or ambient temperature that is appropriate for the scenario. [Section 2750.2(g)]
Yes	Viol.#	Section 2750.3, Worst Case Release Scenario Analysis
☒	1101	The RMP includes one worst-case scenario, including an off-site consequence analysis for each Program 1 process, as provided in 2750.2. [Section 2750.3(a)(1)]
☒	1102	The owner or operator determined the worst-case release quantity if released from a vessel, the greatest amount held in a single vessel, taking into account administrative controls that limit the maximum quantity. [Section 2750.3(b)(1)]
☒	1103	The owner or operator determined the worst-case release quantity if released from a pipe, the greatest amount held in a pipe, taking into account administrative controls that limit the maximum quantity. [Section 2750.3(b)(2)]
☒	1104	The owner or operator for toxic substances that are normally gases at ambient temperature and handled as a gas or a liquid under pressure shall assume the whole quantity in the vessel or pipe would be released as a gas over 10 minutes. [Section 2750.3(c)]
☒	1105	For regulated toxic substances that are normally gases at ambient temperature and handled as a gas or a liquid under pressure, the release rate shall be assumed to be the total quantity divided by 10 unless passive mitigation systems are in place. [Section 2750.3(c)(1)]
☒	1106	For regulated toxic gases handled as refrigerated liquids at ambient pressure, if the released substance is not contained by passive mitigation systems or if the contained pool would have a depth of 1 centimeter or less, the owner or operator shall assume that the substance is released as a gas in 10 minutes. [Section 2750.3(c)(2)(A)]
☒	1107	For regulated toxic gases handled as refrigerated liquids at ambient pressure, if the released substance is contained by passive mitigation systems in a pool in a depth greater than 1 centimeter, the owner or operator may assume that the quantity in the vessel or pipe is spilled instantaneously to form a liquid pool. [Section 2750.3(c)(2)(B)]

☒	1108	For regulated toxic gases handled as refrigerated liquids at ambient pressure, if the released substance is contained by passive mitigation systems in a pool in a depth greater than 1 centimeter, the volatilization rate shall be calculated at the boiling point of the substance. [Section 2750.3(c)(2)(B)]
☒	1109	For regulated toxic substances that are normally liquids at ambient temperature, the owner or operator shall assume that the quantity in the vessel or pipe is spilled instantaneously to form a liquid pool. [Section 2750.3(d)(1)]
☒	1110	The surface area of the pool shall be determined by assuming that the liquid spreads to 1 centimeter deep unless passive mitigation systems are in place that serve to contain the spill and limit the surface area. Where passive mitigation is in place, the surface area of the contained liquid shall be used to calculate the volatilization rate. [Section 2750.3(d)(1)(A)]
☒	1111	For regulated toxic substances that are normally liquids at ambient temperature, the owner or operator shall assume that quantity in the vessel or pipe is spilled instantaneously to form a liquid pool. If the release would occur onto a surface that is not paved or smooth, the owner or operator may take into account the actual surface characteristics. [Section 2750.3(d)(1)(B)]
☒	1112	The volatilization rate shall account for the highest daily maximum temperature occurring in the past three years, the temperature of the substance in the vessel, and the concentration of the substance if the liquid spilled is a mixture or solution. [Section 2750.3(d)(2)]
☒	1113	The rate of release to air shall be determined from the volatilization rate of the liquid pool. [Section 2750.3(d)(3)]
☒	1114	The rate of release to air may be determined by using the methodology in the RMP off-site consequence analysis guidance or any publicly available techniques that account for the modeling conditions and are recognized by industry as applicable as part of current practices. Proprietary models that account for the modeling conditions may be used provided the implementing agency is allowed access to the model describing its features and differences. [Section 2750.3(d)(3)]
☒	1115	The owner or operator shall assume that the quantity of the substance vaporizes resulting in a vapor cloud explosion. A yield rate factor of 10% of the available energy released in the explosion shall be used to determine the distance to the explosion endpoint if the model used is based on TNT-equivalent methods. [Section 2750.3(e)]
☒	1116	For flammable gases, a yield rate factor of 10% of the available energy released in the explosion shall be used to determine the distance to the explosion endpoint if the model used is based on TNT-equivalent methods. [Section 2750.3(e)]
☒	1117	For regulated flammable substances that are normally gases at ambient temperature and handled as a gas or as a liquid under pressure, the owner or operator shall assume that the quantity in the vessel or pipe, as determined under Section (b), is released as a gas over 10 minutes. [2750.3(e)(1)]
☒	1118	For flammable gases handled as refrigerated liquids at ambient pressure, the volatilization rate (release rate) shall be calculated at the boiling point of the substance and at the conditions specified in Section (d). [Section 2750.3(e)(2)(B)]
☒	1119	For flammable liquids at ambient temperature, the owner or operator shall assume that the quantity in the vessel or pipe is spilled instantaneously to form a liquid pool. [Section 2750.3(f)(1)]
☐	1120	The owner or operator shall use the parameters defined in Sections 2750.2 to determine distance to the endpoints. [Section 2750.3(g)]
☒	1121	The owner or operator may use either the methodology provided in the RMP OCA guidance or any commercially or publicly available air dispersion modeling techniques, provided the techniques account for the specified modeling conditions and are recognized by industry as applicable as part of current practices. [Section 2750.3(g)]
☒	1122	Passive mitigation systems may be considered for the analysis of worst case provided that the mitigation system is capable of withstanding the release event triggering the scenario and would still function as intended. [Section 2750.3(h)]
☒	1123	The owner or operator shall select as the worst case for regulated flammable substances or the worst case for regulated toxic substances, a scenario based on the following factor if such a scenario would result in a greater distance to an endpoint defined in Section 2750.2(a) beyond the stationary source boundary than the scenario provided under Section (b): smaller quantities handled at higher process temperature or pressure. [Section 2750.3(i)(1)]
☒	1124	The owner or operator shall select as the worst case for regulated flammable substances or the worst case for regulated toxic substances, a scenario based on the following factor if such a scenario would result in a greater distance to an endpoint defined in Section 2750.2(a) beyond the stationary source boundary than the scenario provided under Section (b): proximity to the boundary of the stationary source. [Section 2750.3(i)(2)]

CALARP INSPECTION REPORT
COMMENTS PAGE

Page #	Violation Code #	VIOLATIONS
		[Tab_to_Insert_rows_as_needed]

RECOMMENDATIONS

COMMENTS
The facilities were recently classified as Program 1, instead of 3

Violations were observed/ discovered as listed above. All violations must be corrected by implementing the action listed by each violation. All minor violations must be corrected within **30** days or as specified. KCEHSD must be informed in writing, certifying that the violations have been corrected. A false statement that the violations have been corrected is a violation of the law and is punishable by a fine of not less than \$2,000 or more than \$25,000 for each violation. Your facility may be re-inspected at any time.

You may request a meeting with the KCEHSD Program Manager to discuss the inspection findings and/or proposed corrective actions. The issuance of this Inspection Report does not preclude KCEHSD from taking administrative, civil, or criminal action as a result of the violations that were discovered or violations that have not been corrected within the time specified.

Facility Rep. Signature_____
Title_____
Inspector Signature_____
Date

Facility Completeness

Ident: 002624

Facility: Occidental Of Elk Hills Inc

RMP Components	Citation	Required Elements	Response
Executive Summary	2745.3	Description of the stationary source and its accidental release prevention and emergency response policies, regulated substances handled, worst-case release scenario(s) and the alternative release scenario(s), administrative controls and mitigation measures used to limit the distances for each reported scenario, the general accidental release prevention program and chemical-specific prevention steps, five-year accident history, emergency response program, and, planned changes to improve safety. □ □	Complete - PSM items are included in the summary, however they are not part of our review because the facility is only subject to Program 1 under CalARP.
Offsite Consequence Analysis	2745.4	Program 1 processes - RMP contains one worst-case release scenario reported for each Program 1 process.	Complete
Worst Case Release Scenario	2745.4	Program 2 and 3 processes - One worst-case release scenario reported to represent all regulated toxic substances held above the threshold quantity (represents greatest distance to an endpoint)	NA
Worst Case Release Scenario	2745.4	Program 2 and 3 processes - One worst-case release scenario to represent all regulated flammable substances held above the threshold quantity.	NA
Worst Case Release Scenario	2745.4	Program 2 and 3 processes - Additional worst-case scenarios for toxics or flammables required to be reported because they impact different public receptors? [see Section 2750.3(a)(2)(C)]	NA
Scenario Data	2745.4	The following data is provided for each submitted scenario:	
Scenario Data	2745.4	Chemical name, physical state (toxics only), basis of results (give model name if used), scenario (explosion, fire, toxic gas release, or liquid spill and vaporization), quantity released in pounds, release rate, release duration, wind speed and atmospheric stability class (toxics only), topography (toxics only), distance to endpoint, public and environmental receptors within the distance, passive mitigation considered, and active mitigation considered (alternative releases only).	Complete
Offsite Impacts	2750.5	RMP contains an estimate of the population that are within the radius as determined by the distance to the endpoint (circle with its center at the point of the release).	No offsite impacts reported
5 Year Accident History	2745.5	The RMP includes all accidental releases from covered processes that resulted in deaths, injuries, or significant property damage on site, or known offsite deaths, injuries, evacuations, sheltering in place, property damage, or environmental damage.	No accidents reported
5 Year Accident History	2745.5	The following data is provided for each accidental release reported in the RMP:	

Facility Completeness

Ident: 002624

Facility: Occidental Of Elk Hills Inc

RMP Components	Citation	Required Elements	Response
5 Year Accident History	2745.5	Date, time, and approximate duration of the release; Regulated substance(s) released; Estimated quantity released in pounds; Type of release event and its source; Weather conditions (if known); On-site impacts; Known offsite impacts; Initiating event and contributing factors (if known); Whether offsite responders were notified (if known); and Operational or process changes that resulted from investigation of the release.	NA
Emergency Response Program	2745.8	Does the plan include procedures for informing the public and local agencies responsible for responding to accidental releases?	REVIEW ER DOCUMENT FOR COMPLIANCE
Certification	2745.9	Program 1 processes - the required certification statement is signed and provided with RMP [see 2735.5(d)(4)].	Complete
Registration	2740.1	The required registration information has been submitted with the RMP.	Complete
Registration	2740.1	AA requested a registration from a stationary source covered by this chapter prior to submittal of the RMP. Registration submitted prior to an RMP submittal includes a certification of accuracy.	Yes
Registration	2740.1	The registration shall include the following data:	
Registration	2740.1	Stationary source name, street, city, county, state, zip code, latitude, and longitude;	Complete
Registration	2740.1	The stationary source Dun and Bradstreet number;	Complete
Registration	2740.1	Name and Dun and Bradstreet number of the corporate parent company;	Complete
Registration	2740.1	The name, telephone number, and mailing address of the owner or operator;	Complete
Registration	2740.1	The name and title of the person or position with overall responsibility for RMP elements and implementation;	John Allen - President & General Manager
Registration	2740.1	The name, title, telephone number, and 24-hour telephone number of the emergency contact;	Patricio Rivera - HES Manager Work - 763-6071 24 hr - 763-6363
Registration	2740.1	For each covered process, the name and CAS number of each regulated substance held above the threshold quantity in the process, the maximum quantity of each regulated substance or mixture in the process (in pounds) to two significant digits, the SIC code, and the Program level of the process;	Complete
Registration	2740.1	The stationary source USEPA identifier;	1000 0014 0876

Facility Completeness

Ident: 002624

Facility: Occidental Of Elk Hills Inc

RMP Components	Citation	Required Elements	Response
Registratton	2740.1	The number of full-time employees at the stationary source;	1200
Registratton	2740.1	Whether the stationary source is subject to Section 5189 of Title 8 of CCR;	Not for CalARP - DISCUSS REASON FOR INCLUDING PSM ELEMENTS IN EX SUMMARY. ASK IF THEY WANT US TO REVIEW THE PSM ELEMENTS.
Registratton	2740.1	Whether the stationary source is subject to Part 355 of Title 40 of CFR;	Yes <i>ok need to do my program -1</i>
Registratton	2740.1	Whether the stationary source is subject to an operating permit under Title V of CAA; and	Yes # S-2234-000
Registratton	2740.1	The date of the last safety inspection of the stationary source by a federal, state, or local government agency and the identity of the inspecting entity.	02-02-2004 Kern County Fire Department When was the last ER exersice and was KCFD or our Department invited to participate:

PHA

Occidental Elk Hills inspection notes:

✓ ~~35R~~ ^{Ethyl} Mercaptan - 6.8 #/gallon [4700 gal x 6.8 #/gal] = 31,960 #

Fed PSM

Anhydrous Ammonia - 61680 # Labeling piping w/flow direction
/color/Ammonia every 20 ft. ✓

complete [Isobutane - 300,000 gal listed in BP is it part of your inventory?] ✓✓

27R Natural Gasoline - 2 x 90,000.00 gallons near waste storage area not listed ✓✓

~~35S Chlorine Gas - 5.0 FT3/lbs [1620 FT3 / 5 FT3/#] = 324 lbs~~ ✓✓

Find out

(Magnatreat M (Acrolein) - 7.1 #/gal)

Batch Process about this ✓

~~11G Anhydrous Ammonia 20FT3/# [6780 FT3 / 20FT3/#] = 339 # not in program~~ ✓

out

Look at all Crude tanks ✓

Additional 90 day area ✓

36S

Waste oil tank - needs ^{dig for} 2nd any containment ^{outlet} ✓

Garage

Maintain on sump → (Closed out with vacuum trucks
pump in sump (Walnut Filters

↓ Milky liquid under AG Storage tanks - unknown

Look at labeling tanks/containers

35 R LOAP → Insp. - New eyewash system to remove heat at point of use

loading Racks → Tanker off K 20 Tanks ✓

Cogen = Label NH₃ lines (color and flow directions)
LST #1 = Gas Plant

Facility Inspection

Ident: 002624

Facility: Occidental Of Elk Hills Inc

CalARP Requirement	Citation	Inspection	Response
Offsite Consequence Analysis	h1	h1	LEPC - WHAT IS THE WESTSIDE DISASTER PREPAREDNESS
Worst Case	2750.3-8	Does the layout of the facility match the WCA?	Taft ✓ 1 1/2 years
Worst Case	2750.3-8	Do the technical assumptions match the facility? (surface roughness, windspeed etc.)	Hospital Closed
5 Year Accident History	2750.9	Verify the procedures used to maintain accident history accuracy are in place.	work w/ KCFD & Sifted Haze
Program Level I	2735.5	How has the facility coordinated with the local responders?	
Emergency Response Program	2765.2	Review emergency response plan to verify that they have addressed the following concerns:	
Emergency Response Program	2765.2	Who is responsible for notifying emergency responders?	
Emergency Response Program	2765.2	Who is responsible for notifying public agencies?	
Emergency Response Program	2765.2	Who is responsible for notifying of releases?	

KBR operator of Plant

BP - notes → 35 R 27 R - waste storage Pods

KBR

What was the outcome of the OSHA →
Minimal - eye wash / moc 1 item
Lockout Tagout Training

Terry - ER

Pondy

Joe Ashley - waste management

Nabilkseri - PSM

Mike Scott

Steve Tottman

Facility Technical

Ident: 002624

Facility: Occidental Of Elk Hills Inc

CalARP Requirement	Citation	Technical Review	Response
	h1	h1	
Worst Case	2750.3-8	Was the analysis performed by qualified people?	OBTAIN LIST (Dennis Chapman)
Worst Case	2750.3-8	Are the technical assumptions credible? Where does the data for the populations estimations come from?	Occidental owns all surrounding property. 763-6068
Worst Case	2750.3-8	Was the model used approved by the AA?	331-0118
Worst Case	2750.3-8	Was the model used valid for the type of material?	Yes
Worst Case	2750.3-8	Does the analysis describe the impacts on local population? The environment?	Yes
Worst Case	2750.3-8	Is the WC up to date (within 5 yrs or 6 mos. within major change)?	NA - no offsite impact
Worst Case	2750.3-8	Were any additional Worst Case Analyses required because they affected different populations?	Yes
Worst Case	2750.3-8	Will any passive safeguards withstand the event and still function?	No
5 Year Accident History	2750.9	Is the 5 year accident history up to date and complete?	NA
5 Year Accident History	2750.9	What were the initiating events for any accidents and were responders notified?	Yes
			NEAR MISSES

Results of Consequence Analysis

Chemical: Acrolein

CAS #: 107-02-8

Category: Toxic Liquid

Scenario: Worst-case

Quantity Released: 500 pounds

Liquid Temperature: 70 F

Mitigation Measures: NONE

Release Rate to Outside Air: 19.1 pounds per minute

Evaporation Time: 26.2 minutes

Topography: Rural surroundings (terrain generally flat and unobstructed)

Toxic Endpoint: 0.0011 mg/L; basis: ERPG-2

Estimated Distance to Toxic Endpoint: 8.1 miles (13.0 kilometers)

-----Assumptions About This Scenario-----

Wind Speed: 1.5 meters/second (3.4 miles/hour)

Stability Class: F

Air Temperature: 77 degrees F (25 degrees C)

Results of Consequence Analysis

Chemical: Acrolein

CAS #: 107-02-8

Category: Toxic Liquid

Scenario: Worst-case

Quantity Released: 150 pounds

Liquid Temperature: 70 F

Mitigation Measures: NONE

Release Rate to Outside Air: 5.72 pounds per minute

Evaporation Time: 26.2 minutes

Topography: Urban surroundings (many obstacles in the immediate area)

Toxic Endpoint: 0.0011 mg/L; basis: ERPG-2

Estimated Distance to Toxic Endpoint: 3.9 miles (6.3 kilometers)

-----Assumptions About This Scenario-----

Wind Speed: 1.5 meters/second (3.4 miles/hour)

Stability Class: F

Air Temperature: 77 degrees F (25 degrees C)

Results of Consequence Analysis

Chemical: Acrolein

CAS #: 107-02-8

Category: Toxic Liquid

Scenario: Worst-case

Quantity Released: 200 pounds

Liquid Temperature: 70 F

Mitigation Measures: NONE

Release Rate to Outside Air: 7.63 pounds per minute

Evaporation Time: 26.2 minutes

Topography: Urban surroundings (many obstacles in the immediate area)

Toxic Endpoint: 0.0011 mg/L; basis: ERPG-2

Estimated Distance to Toxic Endpoint: 5.6 miles (9.0 kilometers)

-----Assumptions About This Scenario-----

Wind Speed: 1.5 meters/second (3.4 miles/hour)

Stability Class: F

Air Temperature: 77 degrees F (25 degrees C)

Results of Consequence Analysis

Chemical: Acrolein

CAS #: 107-02-8

Category: Toxic Liquid

Scenario: Worst-case

Quantity Released: 250 pounds

Liquid Temperature: 70 F

Mitigation Measures: NONE

Release Rate to Outside Air: 9.54 pounds per minute

Evaporation Time: 26.2 minutes

Topography: Urban surroundings (many obstacles in the immediate area)

Toxic Endpoint: 0.0011 mg/L; basis: ERPG-2

Estimated Distance to Toxic Endpoint: 5.6 miles (9.0 kilometers)

-----Assumptions About This Scenario-----

Wind Speed: 1.5 meters/second (3.4 miles/hour)

Stability Class: F

Air Temperature: 77 degrees F (25 degrees C)

Results of Consequence Analysis

Chemical: Acrolein

CAS #: 107-02-8

Category: Toxic Liquid

Scenario: Worst-case

Quantity Released: 1000 pounds

Liquid Temperature: 70 F

Mitigation Measures: NONE

Release Rate to Outside Air: 38.2 pounds per minute

Evaporation Time: 26.2 minutes

Topography: Rural surroundings (terrain generally flat and unobstructed)

Toxic Endpoint: 0.0011 mg/L; basis: ERPG-2

Estimated Distance to Toxic Endpoint: 14 miles (23 kilometers)

-----Assumptions About This Scenario-----

Wind Speed: 1.5 meters/second (3.4 miles/hour)

Stability Class: F

Air Temperature: 77 degrees F (25 degrees C)

Results of Consequence Analysis

Chemical: Acrolein

CAS #: 107-02-8

Category: Toxic Liquid

Scenario: Worst-case

Quantity Released: 1500 pounds

Liquid Temperature: 70 F

Mitigation Measures: NONE

Release Rate to Outside Air: 57.2 pounds per minute

Evaporation Time: 26.2 minutes

Topography: Rural surroundings (terrain generally flat and unobstructed)

Toxic Endpoint: 0.0011 mg/L; basis: ERPG-2

Estimated Distance to Toxic Endpoint: 18 miles (29 kilometers)

-----Assumptions About This Scenario-----

Wind Speed: 1.5 meters/second (3.4 miles/hour)

Stability Class: F

Air Temperature: 77 degrees F (25 degrees C)

Results of Consequence Analysis

Chemical: Acrolein

CAS #: 107-02-8

Category: Toxic Liquid

Scenario: Worst-case

Quantity Released: 2911 pounds

Liquid Temperature: 70 F

Mitigation Measures: NONE

Release Rate to Outside Air: 111 pounds per minute

Evaporation Time: 26.2 minutes

Topography: Rural surroundings (terrain generally flat and unobstructed)

Toxic Endpoint: 0.0011 mg/L; basis: ERPG-2

Estimated Distance to Toxic Endpoint: >25 miles (>40 kilometers); report as 25 miles

-----Assumptions About This Scenario-----

Wind Speed: 1.5 meters/second (3.4 miles/hour)

Stability Class: F

Air Temperature: 77 degrees F (25 degrees C)

CalARP INITIAL REVIEW CHECKLIST

Facility Name: Occidental Elk Hills Work Order # _____ Program # 1

- | | | | |
|--|--------------------------------------|-------------------------------------|---|
| 1. Executive Summary | ☒ yes | ☐ no | |
| 2. OCA | ☒ yes | ☐ no | <i>need to check
no attempt for Topic</i> |
| 3. RMP 5-yr Accident History | ☐ yes | ☐ no | <i>no data</i> |
| 4. Program 2 Prevention Program | ☐ yes | ☒ no | <i>Not Required</i> |
| 5. Program 3 Prevention Program | ☐ yes | ☒ no | <i>Not Required</i> |
| 6. PSM Required | ☒ yes | ☐ no | |
| 7. Emergency Response Program | ☒ yes | ☐ no | |
| 8. RMP Certification by Owner/Operator | ☒ yes | ☐ no | |
| 9. RMP Certification by Qualified Person | ☒ yes | ☐ no | |
| 10. Date Review Completed | _____ | | |
| 11. Time to Complete Review | <u>1.0</u> | | |

List all deficiencies Below.

*Tried to review Disk -
Called Champion and ask to submit in a readable format.*

H811

Failure to meet the following conditions of satellite accumulation regulations:

CLASS II
VIOLATION

04/20/2019

- Accumulate up to 55 gallons of hazardous waste or one quart of acute hazardous waste at or near the initial point of accumulation which was under the control of the operator.
- Total time hazardous waste can be accumulated onsite in any generator accumulation area is one year, i.e., the combined accumulation time at a satellite accumulation point and at a 90/180/270 accumulation area (depending on size of generator and distance transported), whichever comes first.
- The generator complies with section 66265.171, 66265.172, and 66265.173(a).
- The container must be clearly marked with the initial date that hazardous waste is first placed in the container and labelled with the words "Hazardous Waste" including specified information
- Container must be labelled with the date the satellite accumulation limit is reached and moved within three days after reaching the 55 gallon (or one quart) limit to a "90 day" accumulation area
- 55 gallons (or one quart of acute hazardous waste) of waste per process may be accumulated 22 CCR 12 66262.34(e)

Violation Details &**Corrective Action Required:**

During the inspection, it was observed that the Lab Waste was being removed every 2 years. Please have any satellite accumulation area remove their waste within 1 year or moved once it reaches the 55 gallon threshold. Also, please ensure that all containers are properly labeled to determine accumulation start dates. This violation was corrected on site and no further action is required.

INSPECTION COMMENTS:

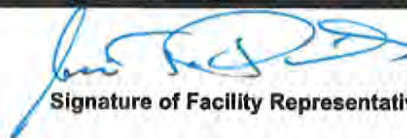
During the inspection, four (4) 55 gallon containers of bleach were discovered being stored in the hazardous waste area. Please confirm if they are waste or product before dealing with containers appropriately.

COMMENTS: Go to <http://www.kernpublichealth.com/hazardous-materials> for forms and information.



Inspector: BRODY SALEEN

Inspection Date: 03/21/2019

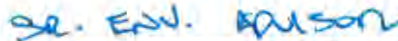


Signature of Facility Representative:

Certification: I certify under penalty of perjury that this facility has complied with the corrective actions listed on this inspection form.



Printed Name of Owner/Operator



Title



Signature of Owner/Operator



Date

Inspector: BRODY SALEENInspection Date: 03/21/2019

Printed: 03/27/2019

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H345

Failure to electronically update the Hazardous Materials Business Plan (HMBP) within 30 days of any one of the following events:

- (a) A 100 percent or more increase in the quantity of a previously disclosed material
- (b) Any handling of a previously undisclosed hazardous material at or above reportable quantities.
- (c) Change of business address.
- (d) Change of business ownership.
- (e) Change of business name.
- (f) A substantial change in the handler's operations that requires modification to any portion of the HMBP. HSC 6.95 25508.1(a)-(f)

CLASS II
VIOLATION

04/20/2019

**Violation Details &
Corrective Action
Required:**

The facilities hazardous material/waste inventory was not accurate. Please update/include the following items on the California Environmental Reporting System (CERS).

- 1.) Universal Waste - bulbs 1500 lbs
- 2.) Natural Gas - 2000 CF
- 3.) Lab Waste Acids - 110 g
- 4.) Lab Waste Solvents - 110 g
- 5.) Lab Waste Oils - 110 g
- 6.) Gasoline - 10,000 g
- 7.) Diesel - 5,000 g

This violation shall be corrected within 30 days.

H346

Failure to complete and electronically submit a Site Map with all required content (ie. north orientation, loading areas, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shutoffs, evacuation staging areas, hazardous material handling and storage areas, and emergency response equipment). HSC 6.95 25505(a) (2), 25508(a)(1)

CLASS II
VIOLATION

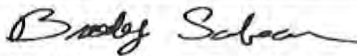
04/20/2019

**Violation Details &
Corrective Action
Required:**

Please update the Site Map with location of new hazardous materials/wastes added to CERS. This violation shall be corrected within 30 days.

INSPECTION COMMENTS:

COMMENTS: Go to <http://www.kernpublichealth.com/hazardous-materials> for forms and information.



Inspector: BRODY SALEEN

Inspection Date: 03/21/2019


Signature of Facility Representative:

Certification: I certify under penalty of perjury that this facility has complied with the corrective actions listed on this inspection form.



Printed Name of Owner/Operator



Title



Signature of Owner/Operator



Date

Inspector: BRODY SALEENInspection Date: 03/21/2019

Printed: 03/27/2019

Page 3 of 3

Appendix G Interview Forms



KEY SITE MANAGER INTERVIEW

Name: Mr. Ryan Sexton

Company, Title: CRC, Operations Specialist

Phone: _____ Length of time familiar with property: 17 years

What is current use of subject property?	Oil and gas field.
Describe past uses of subject property:	None known.
Are you aware of any current or past use or storage of hazardous substances or petroleum products on subject property?	Crude oil, gasoline, butane produced by the facility. Other hazardous substances and petroleum products are used in maintenance and support of operations.
Are you aware of any spills or leaks of hazardous substances or petroleum products, or other environmental incidents on the subject property?	None known.
Are you aware of any government agency enforcement actions, investigations, citations, notices of violation, or active or threatened litigation pertaining to environmental issues at the subject property?	None known.
Are you aware of any concerns or complaints expressed by occupants or neighbors of the subject property pertaining to environmental matters?	None known.
Are you aware of any spills of hazardous substances or petroleum products, or other environmental incidents or concerns at adjoining or nearby properties?	Open case at adjacent waste management complex.

7. Commonly Known or Reasonably Ascertainable Information. Are you aware of commonly known or reasonably ascertainable information about the property that would help the Environmental Professional to identify conditions indicative of releases or threatened releases of hazardous substances or petroleum products?

For example: Do you know the past uses of the property? Yes (describe)

Additional information is located on

https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000010089

10G - AOC 030-003

AOC 030-003 includes a 14-acre active land farm (Land Farm) used for the passive bioremediation of petroleum hydrocarbons in soil that had been impacted by disposal of well drilling waste material.

Waste Discharge Requirements Waste Discharge Requirements Order 73-42 (Order), which regulates the 10G Waste Management Complex

Staff tentatively concurs with the recommendation for NFA for AOC 030-003 002 based on no identified threat to water quality.

Do you know of chemicals, hazardous substances or petroleum products that are present or once were present at the property? Yes (describe)

10G - AOC 030-003

Historically, AOC 030-003 was used for disposal of well drilling waste material.

Arsenic concentrations remaining in the 0-5 ft bgs soil depth interval at AOC-030-003

Do you know of spills or other releases of chemicals, hazardous substances or petroleum products that have taken place at the property? Yes (describe)

10G - AOC 030-003

Historically, AOC 030-003 was used for disposal of well drilling waste material.

Do you know of any environmental cleanups that have taken place at the property? Yes (describe)

10G - AOC 030-003

Waste Discharge Requirements Waste Discharge Requirements Order 73-42 (Order), which regulates the 10G Waste Management Complex

Staff tentatively concurs with the recommendation for NFA for AOC 030-003 002 based on no identified threat to water quality.

groundwater is not considered a media of concern for risk to human health because the depth to groundwater is estimated to be approximately 300 ft bgs and the area is characterized by poor groundwater quality, low precipitation rates, a high rate of evaporation, and low leaching potential.

No 8. The Degree of Obviousness of Contamination. E1527-13 and the federal AAI rule (40 CFR 312.31) require that the Phase I ESA consider the degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation . Based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property? Yes (describe)

10G - AOC 030-003

The primary removal action objective (RAO) was to mitigate potential exposure to receptors by removing arsenic in soil to concentrations that are protective of human health, based on the current environmental conditions and reasonably anticipated future site uses. The purpose of the corrective measures was to achieve RAOs by remediating arsenic-impacted soil to commercial/industrial cleanup goals (26 milligrams per kilogram [mg/kg]) from the surface to 5 feet (ft) below ground surface (bgs) and providing a clean soil cover.

Arsenic concentrations remaining in the 0-5 ft bgs soil depth interval at AOC-030-003

No 9. Availability of Previous Environmental Reports. Are you aware of previous environmental site assessment reports, other environmental reports, documents, correspondence, etc. concerning the property and its environmental condition? Yes (describe)

https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000010089

Soil management plan (SMP)

https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000010089

AOC 030-003 (10G Land Farm) Reports:

- AFSI. (2015). RCRA Facility Investigation Work Plan, AOC 030; Former Naval Petroleum Reserve No.1 Closure Project, Elk Hills, California. Sacramento, CA: Ahtna Facility Services, Inc., prepared for the U.S. Department of Energy.
- AFSI. (2016, February 19). Sampling Plan for AOC 030-003; Former Naval Petroleum Reserve No. 1 Closure Project, Elk Hills, California. Sacramento, CA: Ahtna Facility Services, Inc., prepared for the U.S. Department of Energy.
- AFSI. (2018, January 5). RFI Implementation Report, AOC 030; Former Naval Petroleum Reserve No. 1 Closure Project, Elk Hills, California. Sacramento, CA: Ahtna Facility Services, Inc., prepared for the U.S. Department of Energy.
- AFSI. (2018a, December 18). Supplemental Sampling Plan, AOC 030-003; Former Naval Petroleum Reserve No. 1 Closure Project, Elk Hills, California. Sacramento, CA, USA: Ahtna Facility Services, Inc., prepared for the U.S. Department of Energy.
- AFSI. (2020). RFI Implementation Report, Supplemental Sampling Investigation, AOC 030-003; Former Naval Petroleum Reserve No. 1 Closure Project, Elk Hills, California. Sacramento, CA: Ahtna Facility Services, Inc., prepared for U.S. Department of Energy.
- AFSI. (2020a, July 2). Draft Remedy Selection and Statement of Basis, AOC 030-003; Former Naval Petroleum Reserve No. 1 Closure Project, Elk Hills, California. Sacramento, CA: Ahtna Facility Services, Inc., prepared for the U.S. Department of Energy.
- AFSI. (2021, January 29). Draft Remedy Selection and Statement of Basis, AOC 030-003; Former Naval Petroleum Reserve No. 1 Closure Project, Elk Hills, California. Sacramento, CA: Ahtna Facility Services, Inc., prepared for the U.S. Department of Energy.
- Paragon. (2021a, August 4). Final Remedy Selection and Statement of Basis, AOC 030-003. Folsom, CA: Paragon Professional Services, LLC, prepared for the U.S. Department of Energy.
- Paragon. (2022, April 6). Remedy Selection and Statement of Basis, AOC 030-003, Addendum. Folsom, CA: Paragon Professional Services, LLC, prepared for the U.S. Department of Energy.
- Paragon. (2023, February 13). Remedy Selection and Statement of Basis, AOC 030-003, Addendum. Folsom, CA: Paragon Professional Services, LLC, prepared for the U.S. Department of Energy.
- Paragon. (2023a, March 21). Remedy Selection and Statement of Basis, AOC 030-003, Amendment. Folsom, CA: Paragon Professional Services, LLC, prepared for the U.S. Department of Energy.

Latest document is Paragon. (2024, April 26). *RFI Implementation Report Remedy Selection and Statement of Basis, AOC 030-003.*

AOC 092 (CalCapture proposed project area) Reports:

- AFSI. (2017a, December 20). RFI Implementation Report, Supplemental Sampling Investigation, AOC 092; Former Naval Petroleum Reserve No. 1 Closure Project, Elk Hills, California. Sacramento, CA: Ahtna Facility Services, Inc., prepared for the U.S. Department of Energy.
- AFSI. (2021, January 29). RFI Implementation Report, Phase 2 and Phase 3 Supplemental Sampling Investigations, AOC 092; Former Naval Petroleum Reserve No. 1 Closure Project, Elk Hills, California. Sacramento, CA: Ahtna Facility Services, Inc., prepared for the U.S. Department of Energy.
- Paragon. (2022, March 11). RFI Implementation Report, Phase 4 Supplemental Sampling Investigation, AOC 092. Folsom, CA: Paragon Professional Services, LLC, prepared for the U.S. Department of Energy.
- Paragon. (2023, September 13). Final Interim Measures/Removal Action Work Plan, AOC 092; Former Naval Petroleum Reserve No. 1, Elk Hills, CA. Folsom, CA: Paragon Professional Services, LLC, prepared for the U.S. Department of Energy.
- Paragon. (2024, July 22). Phase 5 Supplemental Sampling Plan AOC 092. Folsom, California.



Stantec is a global leader in sustainable architecture, engineering, and environmental consulting. The diverse perspectives of our partners and interested parties drive us to think beyond what's previously been done on critical issues like climate change, digital transformation, and future-proofing our cities and infrastructure. We innovate at the intersection of community, creativity, and client relationships to advance communities everywhere, so that together we can redefine what's possible.



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