



Permit to Operate 13279

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EQUIPMENT OWNER:

Templeton Investments

205590

EQUIPMENT OPERATOR:

Chevron Environmental Management Company

EQUIPMENT LOCATION:

2770 Santa Maria Way

STATIONARY SOURCE/FACILITY:

Twitchell Wering Lease – Tract 48 (CSC)

SSID: 11001

FID: 11240

PROJECT/PROCESS DESCRIPTION:

This project involves the excavating, loading, and hauling of approximately 5,000 cubic yards of crude oil-impacted soil from oilfield operations at the Twitchell Wering Lease. The contaminated soil is located at 2770 and 2850 Santa Maria Way in Santa Maria. The soil will be pre-profiled for disposal to minimize onsite storage time. Stockpiles will be covered with continuous heavy-duty plastic sheeting (thickness equal to or greater than 20 mil) or Soil-Sement to reduce fugitive particulates and Reactive Organic Compound (ROC) emissions. The excavated soil will be removed from the site by covered dump trucks.

CONDITIONS:

1. **Emission Concentration Action Levels.** The emission concentrations at the property boundary ¹ from this project herein are set forth as action levels:
 - a. 2 ppmv ROC as hexane over daily background, sustained for 30 seconds. ²

¹ Property boundary is defined in Figures 3a and 3b of the *Air Quality Monitoring Plan, Twitchell Wering Lease*.

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- b. 50 µg particulate matter (dust) /m³ air over daily background, sustained for 30 seconds.²

If either of the above concentrations is exceeded, activities shall immediately cease and mitigation measures shall be taken to reduce the emissions and the permittee shall notify the APCD via phone (805-961-8800) *and* fax (805-961-8801, Attn: *CSC Project Manager*) within 4 hours of discovery or the start of the next business day. After the above actions are completed, the permittee may resume operations upon demonstration that the emission concentrations at the property boundary are below the action levels. Compliance shall be based on the operational, monitoring, recordkeeping and reporting requirements.

2. **Operation Limitations.** The permittee shall comply with the following operational limits:
- a. No chemical defined by APCD Rule 102 as a Reactive Organic Compound shall be used during the excavation.
 - b. No chemical designated as a Toxic Air Contaminant³ or Candidate Toxic Air Contaminant shall be used during the excavation.
 - c. In the event the project produces nuisance complaints from the general public, the project shall cease immediately and mitigation measures shall be taken to eliminate the nuisance potential. For the purpose of this permit, in addition to the APCD Rule 303 definition of nuisance, a nuisance shall be considered any one complaint to the APCD from a resident or business within 500 feet of the project or property boundary.
 - d. Excavated contaminated soil shall be temporarily stockpiled or directly loaded onto trucks or roll-off bins and covered with tarpaulins or plastic (thickness equal to or greater than 20 mil thickness) and transported off site expeditiously.
3. **Odors.** Petroleum hydrocarbon odors⁴ shall not be detectable at or beyond the property boundary. If petroleum hydrocarbon odors are detected at or outside of the property boundary, the project shall cease immediately and mitigation measures shall be taken to eliminate the nuisance potential. These measures shall include applying heavy-duty plastic sheeting (thickness equal to or greater than 20 mil thickness) that is held securely to the ground over excavated areas. This sheeting shall be kept readily available onsite during the project. Operations may resume upon demonstration that odors are not detectable at or beyond the property boundary.

² A continuous measurement taken over no more than 30 seconds that exceeds the action level or multiple readings averaged over no more than 30 seconds that exceed the action level.

³ Substances identified as Toxic Air Contaminants by the Air Resources Board, pursuant to the provisions of AB 1807 and AB 2728.

⁴ For the purpose of this permit, petroleum hydrocarbon odors do not include combusted gasoline or diesel (e.g., mobile equipment exhaust).

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4. **Visible Dust Emissions.** There shall be no visible dust emissions at the property boundaries due to the project activities.⁵ If visible dust emissions from removal and loading activities are detected at the property boundary, removal and loading activities shall cease and dust mitigation measures shall be implemented immediately.

5. **Soil-Binder.** The soil binder “Soil-Sement” may be used in place of plastic sheeting in open pits, exposed sidewalls, and stockpiles if the permittee complies with the following requirements:
 - a. The “Soil-Sement” binder shall be applied at a rate of at least 0.28 gallons of concentrate per square yard of treated surfaces to disturbed areas in open pits, exposed sidewalls and temporary stockpiles at the end of each work day and when not being worked for 4 hours or more. The “Soil-Sement” binder shall be applied at a ratio of one (1) gallon of “Soil-Sement” to four (4) gallons of water.
 - b. The stockpiles shall be monitored daily for ROCs in accordance with conditions 8.d and 8.e. If the results of any of the stockpile monitoring exceed 10 ppmv ROC, “Soil-Sement” shall be reapplied or the stockpile shall be covered with heavy-duty plastic sheeting (thickness equal to or greater than 20 mil thickness).
 - c. The permittee shall keep records of the daily amount of “Soil-Sement” binder applied, the “Soil-Sement” to water ratio, the daily treated area and the results of the monitoring of the excavated areas on non-working days.

If the APCD determines at any time that the “Soil-Sement” binder is not effective at controlling dust or ROC emissions, the permittee shall apply heavy-duty plastic sheeting to open pits, exposed sidewalls and stockpiles (thickness equal to or greater than 20 mil thickness).

6. **Vapor and Dust Suppression.** The permittee shall comply with the following vapor and dust suppression requirements:
 - a. The following shall be covered at all times when not being moved with continuous⁶ heavy-duty plastic sheeting (thickness equal to or greater than 20 mil thickness):
 - i. Temporary soil stockpiles.⁷
 - ii. Open pits and exposed sidewalls. Exposed portions of the open excavation shall be covered with continuous heavy-duty plastic sheeting (thickness equal to or greater than 20 mil thickness) when not being worked for 4 hours or more. Exposed

⁵ Visible dust that is clearly created by neighboring agricultural operations (e.g., tractor for agricultural use) is not included in this permit condition.

⁶ Multiple overlapping panels of plastic sheeting may be used to fulfill the “continuous” requirement.

⁷ This includes all temporary stockpiles that were created from excavated materials. Clean, imported-fill soil is not required to be covered.

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sidewalls shall be covered with clean fill dirt or continuous heavy-duty plastic sheeting when excavation activities are not being conducted.

- iii. All excavated material loaded on transport trucks prior to exiting load-out area and during transit. No openings or holes in the covers shall be permitted.
- b. Dust shall be controlled by use of water spray trucks to prevent any nuisances.
 - i. During excavation and backfilling activities and at the end of each workday, water trucks or hoses shall be used to prevent dust from being generated. Areas of vehicle movement shall be kept damp enough to prevent dust from leaving the site.
 - ii. During dry periods (defined here as no measurable precipitation during past three calendar days), water sprays or other adequate measures shall be applied twice daily to all areas disturbed by excavation with the potential to emit fugitive dust on any day that work activities occur.
 - iii. Loose dirt and dust shall be removed from all vehicular wheels using brushes, rumble strips, or water prior to leaving the site. If the permittee or the APCD inspector determines rumble strips are not effective, brushing or water washing shall be used as the primary method for cleaning wheels. If the permittee or the APCD inspector determines brushing is not effective, then water washing shall be used as the primary method for cleaning the wheels.
- c. Contaminated or potentially contaminated soil shall not be spread offsite. This includes any unnecessary movement or agitation of soil that may cause the uncontrolled evaporation of ROC into the atmosphere.
- d. Upon completion of soil-disturbing activities in each area, soil shall be stabilized to prevent wind erosion.

The contractor shall designate a person or persons to monitor the dust control program and to order increased dust suppression, as necessary, to prevent transport of dust offsite. The name and telephone number of such persons shall be provided to the APCD prior to project start-up.

- 7. **Alternative Plastic Sheeting.** DURA SKRIM 10HUV, a 10 mil, polyester-reinforced polyethylene sheeting may be used in place of 20 mil plastic sheeting. If the APCD determines at any time that DURA SKRIM 10HUV sheeting is not effective at controlling dust or ROC emissions, the permittee shall apply 20 mil plastic sheeting.
- 8. **Monitoring.** Upon initiating operations, the permittee shall implement an excavated soil monitoring program consistent with the following:
 - a. Air monitoring for dust and ROC concentration shall be conducted in the excavation site at least once every thirty minutes. The excavation site includes any stockpiles, or any

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areas of disturbed soil, or any active work areas. If emission concentration action levels are exceeded during excavation site monitoring, air monitoring shall be conducted every 100 feet along the property boundary. If emission concentration action levels are exceeded at the property boundary line, activities shall cease and water spray or other dust prevention measures shall be immediately used to control emissions. The applicant shall notify the APCD via phone (805-961-8800) *and* fax (805-961-8801, Attn: CSC Project Manager) within 4 hours of discovery of an exceedance at the property boundary.

- b. The background dust and ROC concentration shall be measured once every thirty minutes during operations concurrent with the excavation site air monitoring. The wind direction and wind speed shall be recorded during each background reading. The background concentration shall be measured at 200 feet upwind of the active excavation site.

Alternatively, the background dust and ROC concentrations may be established each day prior to beginning soil disturbing activities by sampling and recording concentrations at the property boundary. Any other method to establish background concentrations must be approved in writing by the APCD prior to using the method.

- c. Air monitoring readings shall be taken at 1.5 meters from the ground (average breathing height).
- d. The permittee shall monitor any stockpile left onsite for more than 24 hours for ROC at the beginning and end of every work day and at the beginning of each removal, loading or grading activity. For each stockpile at least 4 readings shall be taken: one upwind, one downwind, one 90 degrees from the upwind position, and one 90 degrees from the downwind position. For any stockpile with sides greater than 20 feet long, one reading shall be taken every 20 feet around the perimeter of the pile. Record all ROC concentration readings in a format approved by the APCD.
- e. Measure contaminated soils for ROCs as volatile organic compounds to determine contamination by using an Organic Vapor Analyzer⁸ (OVA) calibrated to hexane, complying with 40 CFR Part 60 Appendix A, EPA Reference Method 21 Section 3 or any equivalent method with prior approval in writing by the APCD. If other calibrating gases are used, then the measured readings shall be correlated to and expressed as hexane.

ROCs shall be measured by placing the probe inlet at a distance of no more than three inches from the surface of the contaminated soil and, while slowly moving the probe across the soil surface, observe the instrument readout. If an increased meter reading is observed, continue to sample the contaminated soil until the maximum meter reading is obtained. Leave the probe inlet at this maximum reading location for approximately

⁸ The APCD considers both photo ionization detectors and flame ionization detectors to be acceptable OVAs for contaminated soil clean-up (CSC) projects.

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double the instrument response time. Record all ROC concentration readings in a format approved by the APCD.

- f. Confirmation sampling and testing shall be conducted in accordance with the *Site Restoration Plan*⁹. Test results shall be made available upon APCD request within 21 days of sampling. All test results shall be included in the compliance report.
- g. Odor monitoring shall be conducted in the excavation site at least once every thirty minutes during excavation activities. If noticeable odors are detected in the excavation site, monitoring shall be conducted every 100 feet along the property boundary. If noticeable petroleum hydrocarbon odors¹⁰ are detected at the project boundary, the project shall cease immediately and mitigation measures shall be taken to eliminate the nuisance potential.

Upon showing reasonable need, the APCD may require an increased (or decreased) monitoring frequency. Backup documentation such as instrument calibration, equipment maintenance, chain of custody records and sampling logs shall be available for APCD review. If documentation is not onsite, the permittee shall produce the required documentation within 7 calendar days of request by the APCD. The instruments shall be maintained according to manufacturer's specifications.

- 9. **Recordkeeping.** The permittee shall record and maintain the following information. This data shall be maintained for a minimum of three (3) years from the date of each entry and made available to the APCD upon request:
 - a. Sampling lab analysis results required by condition 8.f.
 - b. ROC and dust concentration sampling results and odor monitoring results. An APCD-approved log shall be maintained (tabular format) that contains the following information on an ongoing basis: site location; permit number, sampling date, ROC concentration results (in units of ppmv), dust concentration results (units of $\mu\text{g}/\text{m}^3$), and odor monitoring results (whether or not odors were detected).
 - c. Actions taken to remedy perimeter exceedances of emission concentration action levels based on sampling results and odor monitoring. These actions shall be documented in an APCD-approved *CSC Non-Compliance Reporting Form*.
 - d. Dates and number of hours per day of excavation activities.

⁹ As approved by the Santa Barbara County Fire Department, Protection Services Division letter dated October 28, 2009

¹⁰ For the purpose of this permit, petroleum hydrocarbon odors do not include combusted gasoline or diesel (e.g., mobile equipment exhaust).

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- e. Start and end times each day excavation activities occur and reasons for shutting down work (e.g., end of work day, visible dust offsite, ROC or dust concentration action levels exceeded, or detectable odors at or beyond property boundary).
 - f. Amount of soil excavated per day.
 - g. Description of type and engine size of onsite mobile excavation equipment used.
 - h. Records of treatment/disposal shall be maintained for all contaminated soil removed from this site. Such records shall include identification and location of the generator, the transporter and the receiving facility. In addition, such records shall be signed and dated by each of the above parties indicating the receipt or relinquishment of the contaminated soil at the time custody is transferred.
 - i. All records required by condition 5.c.
10. **Reporting.** Within 60 days of the completion of the project, a written report documenting compliance with the terms and conditions of this permit shall be provided by the permittee to the APCD (Attn: *CSC Project Manager*). The report shall contain information necessary to verify compliance with the emission limits and other requirements of this permit. The report shall be in a format approved by the APCD. Compliance with all limitations and restrictions shall be documented in the submittals. All logs and other basic source data not included in the report shall be made available to the APCD upon request. The report shall include all records required by conditions 9.a.– i. above.
11. **Permit Expiration.** This permit is valid for two years from the date of issuance. The APCD may extend the life of this permit for good cause. To obtain an extension, the permittee shall make the request in writing at least 15 days prior to the expiration of this permit.
12. **Discovery of Additional Contamination.** The amount of contaminated soil excavated under this permit shall not exceed 5,000 cubic yards. If additional contaminated soil is found that was not detailed in the *Site Restoration Plan* and a revised Site Restoration Plan or Remedial Action Plan is required by the Fire Department, the additional contaminated soil shall not be excavated under this permit. A new permit application shall be submitted for the work required by the revised Site Restoration Plan or Remedial Action Plan.
13. **Scope of Project.** The conditions of this permit are valid for the entire length of the project, including excavation, sampling, stockpiling and transportation offsite and backfilling with clean, imported-fill soil. This condition shall not be construed as allowing work beyond two years from issuance or allowing operations to continue beyond what was described in the permit application and Site Restoration Plan.

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14. **Initial Operations and APCD Inspection.** The permittee shall:
 - a. Notify the APCD in writing (Attn: *Compliance Supervisor - North County*) of the initial operation date. This notification shall be provided 7 days prior to initial operations.
 - b. Arrange for an inspection by contacting the APCD's *Compliance Supervisor - North County*, no later than 24 hours after initial operations commence. This inspection is required to verify that the project is in compliance with APCD Rules and Permit Conditions.
15. **Project Completion.** The permittee shall notify the APCD in writing (Attn: *CSC Project Manager*) within one week of completion of the project.
16. **Documents Incorporated by Reference.** The document listed below, including any APCD-approved updates thereof, is incorporated herein by reference and shall have the full force and effect of a permit condition for this permit. The permittee shall obtain approval of the document prior to commencing operation under this permit. This document shall be implemented for the life of the Project and shall be made available to APCD inspection staff upon request.
 - a. *Air Quality Monitoring Plan* (approved November 10, 2009).
17. **Consistency with Analysis.** Operation under this permit shall be conducted consistent with all data, specifications and assumptions included with the application and supplements thereof (as documented in the APCD's project file) and the APCD's analyses under which this permit is issued as documented in the Permit Analyses prepared for and issued with the permit.
18. **Compliance.** Nothing contained within this permit shall be construed as allowing the violation of any local, state or federal rules, regulations, air quality standards or increments.
19. **Severability.** In the event that any condition herein is determined to be invalid, all other conditions shall remain in force.
20. **Conflict Between Permits.** The requirements or limits that are more protective of air quality shall apply if any conflict arises between the requirements and limits of this permit and any other permitting actions associated with the equipment permitted herein.
21. **Access to Records and Facilities.** As to any condition that requires for its effective enforcement the inspection of records or facilities by the APCD or its agents, the permittee shall make such records available or provide access to such facilities upon notice from the APCD. Access shall mean access consistent with California Health and Safety Code Section 41510 and Clean Air Act Section 114A.
22. **Reimbursement of Costs.** All reasonable expenses, as defined in APCD Rule 210, incurred by the APCD, APCD contractors, and legal counsel for the activities listed below that follow the

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issuance of this permit, including but not limited to permit condition implementation, compliance verification and emergency response, directly and necessarily related to enforcement of the permit shall be reimbursed by the permittee as required by Rule 210. Reimbursable activities include work involving: permitting, compliance, CEMS, modeling/AQIA, ambient air monitoring and air toxics.

23. **Nuisance.** Except as otherwise provided in Section 41705 of the California H&SC, no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
24. **Grounds for Revocation.** Failure to abide by and faithfully comply with this permit or any Rule, Order, or Regulation may constitute grounds for revocation pursuant to California Health & Safety Code Section 42307 *et seq.*

AIR POLLUTION CONTROL OFFICER

DATE

Attachments:

- Permit Evaluation for Permit to Operate 13279

Notes:

- This permit expires two years from issuance.
- Stationary sources are subject to an annual emission fee (see Fee Schedule B-3 of Rule 210).



PERMIT EVALUATION FOR PERMIT TO OPERATE 13279

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1.0 BACKGROUND

1.1 General: This project involves the removing, loading, and hauling of contaminated soil from the Twitchell Wedging Lease. The contaminated soil is associated with two well heads and lease roads. Previous remediation activities at the site removed contaminated soil associated with the former sumps. The soil at the site is contaminated with hydrocarbon concentrations greater than SBCFPD investigation levels. There were also detectable concentrations of polycyclic aromatic hydrocarbons, metals, benzene, and trimethylbenzene at the site. A total of about 5,000 cubic yards of contaminated soil will be removed from the project. Excavated material will be loaded onto trucks for transportation offsite. Fugitive dust and ROC emissions will be monitored and mitigated through the use of water sprays, vapor suppressants, covering, and direct offsite removal of excavated soils. Stockpiles will be covered with continuous heavy-duty plastic sheeting and sprayed with vapor suppressant to reduce odors, fugitive particulates and Reactive Organic Compound (ROC) emissions. Contaminated soil will be removed from the site to an approved off-site disposal facility.

1.2 Permit History: No previous permits have been issued for this location.

1.3 Compliance History: None.

2.0 ENGINEERING ANALYSIS

2.1 Equipment/Processes: The contaminated soil will be excavated and removed from the site.

2.2 Emission Controls: Emission controls include soil stabilization using water, vapor suppressants and covering with continuous heavy-duty plastic sheeting (thickness equal to or greater than 20 mil thickness) and/or Soil-Sement.

2.3 Emission Factors: Emissions factors were not used.

2.4 Reasonable Worst Case Emission Scenario: Emissions were not calculated for this project. See Section 2.5 for further discussion.

2.5 Emission Calculations: Emissions were not calculated for this project as there are no reliable methods for estimating emissions from small soil removal and loading projects such as this.

2.6 Special Calculations: There are no special calculations.

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- 2.7 BACT Analyses: Best Available Control Technology was not required for this project.
- 2.8 Enforceable Operational Limits: The permit has enforceable operating conditions that ensure that visible dust emissions and odors (organic compounds) do not leave the site.
- 2.9 Monitoring Requirements: Monitoring of the operational limits is required to ensure that they are enforceable. Dust and ROC monitoring in the excavation site is required. If elevated dust or ROC levels are detected in the excavation site, monitoring at the property boundary is required.

Typically monitoring is only conducted at the property boundary, because the action levels set by the permit are based on property boundary dust and ROC levels. The applicant proposed this modified monitoring approach to reduce the manpower requirements for monitoring. This revised approach is being approved because it is as effective as property boundary measurements in controlling emissions. Typically the maximum dust and ROC concentrations will be found where active work is being done, so if dust and ROC concentrations are below action levels in the excavation site it is reasonable to assume they are below action levels at the property boundary too. Monitoring of disturbed areas and stockpiles is required in addition to monitoring of active work areas to ensure that fugitive emissions from those areas are controlled.

Additional monitoring includes OVA readings of stockpiled soil and lab analysis of the soil as specified in the *Site Restoration Plan*.

- 2.10 Recordkeeping and Reporting Requirements: The permit requires that the data which is monitored be recorded and reported to the APCD.

3.0 REEVALUATION REVIEW (not applicable)

4.0 REGULATORY REVIEW

- 4.1 Partial List of Applicable Rules: This project is anticipated to operate in compliance with the following rules:

- Rule 201. Permits Required
- Rule 202. Exemptions to Rule 201
- Rule 301. Circumvention
- Rule 302. Visible Emissions
- Rule 303. Nuisance
- Rule 801. New Source Review
- Rule 802. Nonattainment Review
- Rule 803. Prevention of Significant Deterioration

- 4.2 Rules Requiring Review: None.

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4.3 NEI Calculations: The net emission increase calculation is used to determine whether certain requirements must be applied to a project (e.g., offsets, AQIA, PSD BACT). This permit does not contribute to the NEI and so the NEI for this permit is zero.

5.0 AQIA

The project is not subject to the Air Quality Impact Analysis requirements of Regulation VIII.

6.0 OFFSETS/ERCs

6.1 Offsets: The emission offset thresholds of Regulation VIII are not exceeded.

6.2 ERCs: This source does not generate emission reduction credits.

7.0 AIR TOXICS

An air toxics health risk assessment was not performed for this permitting action.

8.0 CEQA / LEAD AGENCY

This project is categorically exempt from CEQA pursuant to Article 19, *Categorical Exemptions*, Section 15308, *Actions by Regulatory Agencies for Protection of the Environment*, of the CEQA Guidelines (Title 14, *California Code of Regulations*, Chapter 3, *Guidelines for Implementation of the California Environmental Quality Act*). The Santa Barbara County Fire Department is the lead agency and the APCD is a responsible agency.

9.0 SCHOOL NOTIFICATION

A school notice pursuant to the requirements of H&SC §42301.6 was required. This project is within 1000 feet of a K-12 school.

10.0 PUBLIC and AGENCY NOTIFICATION PROCESS/COMMENTS ON DRAFT PERMIT

10.1 This project was subject to public review for 30 days.

10.2 The permittee had no comments on the draft permit.

11.0 FEE DETERMINATION

Fees for the APCD's work efforts are assessed on a reimbursable basis. The Project Code is URS Corporation - Active (205590).

12.0 RECOMMENDATION

It is recommended that this permit be granted with the conditions as specified in the permit.

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AQ Engineer

Date

Engineering Supervisor

Date