

1RF – 454

**Zia Hills (Superman)
Recycling Facility and
Containment**

Approval with Conditions

**Conoco Phillips
October 16, 2020**

From: [LucasKamat, Susan, EMNRD](#)
To: [Lee, Jeremy L](#)
Cc: [Randall Hicks](#); louis.c.salazar@conocophillips.com; [Venegas, Victoria, EMNRD](#); [Polak, Tiffany, EMNRD](#)
Subject: Approval with Conditions, ConocoPhillips Zia Hills Recycling Facility and Containment (1RF-454), Section 30. T26S, R32E (Lea County, NM)
Date: Friday, October 16, 2020 1:50:00 PM

Good afternoon, Mr. Lee.

The New Mexico Oil Conservation Division (OCD) has reviewed the recycling containment permit application and related documents, submitted by Conoco Phillips (CP) (OGRID # 217817) on May 28, 2020, for the proposed Zia Hills Superman Recycling Facility and Containment in Lea County, New Mexico.

CP requested variances from 19.15.34 NMAC for the Zia Hills Superman Recycling Facility and Containment related to 19.15.34.12.A (2) NMAC containment side-slope requirements; 19.15.34.12.A (3) NMAC liner anchors and anchor trench requirements, 19.15.34.12 A (4) NMAC liner requirements, 19.15.34.13 B (2) NMAC freeboard requirements, 19.15.34.13.B (4) liner repair or replacement requirements, 19.15.34.13.B (5) fluid removal and liner repair and replacement requirements, 19.15.34.13 D NMAC fencing requirements, 19.15.34.13 E NMAC netting requirements, and 19.15.34.14.C NMAC / 19.15.34 NMAC Table I closure criteria for recycling containments.

The following variances have been approved.

- The variance to 19.15.34.13 D NMAC for the installation around the entire facility of a chain link fence, six (6) feet in height with a minimum of three (3) strands of barbed wire over the top of the chain link, is approved per the application.
- The variance to 19.15.34.13 E NMAC for the installation of an audible bird deterrence system, a Bird-X Mega-Blaster, is approved per the application.
- The variance to 19.15.34.14.C NMAC and 19.15.34 NMAC Table I for the use of alternate analytical method 8015/8015M for total petroleum hydrocarbons (TPH) is approved per the application.

The following variance, specific to the earthen containments, has been approved.

- The variance to 19.15.34.12 A (4) NMAC for the installation on the earthen containments of a 60-mil non-reinforced HDPE primary liner and a 60-mil non-reinforced HDPE secondary liner with a 200-mil geogrid drainage layer is approved per the application.

The following variances, specific to the above-ground storage tank (AST) containments, have been approved.

- The variance to 19.15.34.12.A (2) NMAC for the no side-slope requirement for the AST containment with vertical walls is approved per the application.

- The variance to 19.15.34.12.A (3) NMAC for the liners to be anchored to the top of the AST steel walls with clips and no anchor trenches is approved per the application.
- The variance to 19.15.34.12 A (4) NMAC for the installation on the ASTs containments of a 40-mil non-reinforced LLDPE primary liner and a 40-mil non-reinforced LLDPE secondary liner with a 200-mil geogrid drainage layer is approved per the application.

The following variances have been denied.

- The variance to 19.15.34.13.B (4) NMAC for allowing more than 48 hours after discovery to repair or replace a compromised primary liner above the fluid level is denied. Extension requests to the 48-hours after discovery timeframe to repair or replace a liner are considered based on the merits of the specific situation and request, and not a generic request. The containment liners must be repaired or replaced within 48-hours of discovery of the compromise or damage above the fluid level.
- The variance to 19.15.34.13.B (5) NMAC for allowing more than 48 hours after discovery to remove fluids and to repair or replace a compromised primary liner beneath the fluid level is denied. Extension requests to the 48-hours after discovery timeframe to remove fluids and to repair or replace a liner are considered based on the merits of the specific situation and request, and not a generic request.

The following variance, specific to the above-ground storage tank (AST) containments, has been denied.

- The variance to 19.15.34.13 B (2) NMAC for a 2-feet freeboard has been denied. The variance request did not address how a 2-feet freeboard would prevent overtopping of the tanks after wind and/or precipitation events. The containment must operate with the 3-feet freeboard as specified by rule.

The Form C-147 form and supporting documents submitted for registering and permitting the Zia Hills Superman Recycling Facility and Containment (1RF-454) is approved with the following conditions of conditions of approval:

- CP shall construct, operate, maintain, close, and reclaim the Zia Hills Superman Recycling Facility and Containment in compliance with 19.15.34 NMAC, including, but not limited to, the performance of containment inspections; recording of detailed inspection reports; removal of debris, foreign objects and oil from the containment; and monthly reporting of recycling and reuse of produced water, drilling fluids, and liquid oil field waste.
- The Zia Hills Superman Recycling Facility and Containment is approved for five (5) years of operation from the date of permit application. OCD received the permit application on May 28, 2020. The Zia Hills Superman Recycling Facility and Containment permit expires on May 28, 2025. If CP wishes to extend operations past five (5) years, an annual permit extension request must be submitted using an OCD form C-147 via email to OCD.Enviro@state.nm.us by April 28, 2025.

- CP shall provide the location (latitude and longitude) of each of the four (4) containments to OCD after construction.
- CP shall notify OCD when construction of each facility and/or containment at the Zia Hills Superman Recycling Facility and Containment (east containment, west containment, raw produced water AST, and future treated water) commences.
- CP shall notify OCD when recycling operations commence and cease at the Zia Hills Superman Recycling Facility and Containment.
- Water reuse and recycling from Zia Hills Superman Recycling Facility and Containment is limited to wells owned or operated by CP (OGRID # 217817).
- A minimum of 3-feet freeboard must be maintained in all the recycling containments, both earthen and steel tank, at all times during operations.
- CP shall provide OCD with the calculations for the operational total fluid capacity of each of the containments (east containment, west containment, raw produced water AST, and future treated water) within 30 days of receiving produced water in the containment. The operational fluid capacity is the total volume of the containment, minus the volume not utilized due to the freeboard.
- If less than 20% of the total fluid capacity is utilized every six months, beginning from the first withdraw, operation of the facility is considered ceased and notification of cessation of operations should be sent electronically to OCD.Enviro@state.nm.us. An extension to extend the cessation of operation, not to exceed six months, may be submitted using a C-147 form to OCD.Enviro@state.nm.us.
- CP shall submit monthly reports of recycling and reuse of produced water, drilling fluids, and liquid oil field waste. on via OCD form C-148. (Form C-148 is available for download at the OCD website at <http://www.emnrd.state.nm.us/OCD/forms.html>.)
- CP shall comply with 19.15.29 NMAC Releases in the event of any release of produced water or other oil field wastes at Zia Hills Superman Recycling Facility and Containment.

The facility has been assigned an OCD Administrative Order number 1RF-454. Please reference this number in all future communications, modifications, and notices related to Zia Hills Superman Recycling Facility and Containment and for monthly reporting of recycling and reuse of produced water, drilling fluids and liquid oil field waste. A copy of the approved C-147 forms for 1RF-454 is available through the OCD Imaging system at <http://ocdimage.emnrd.state.nm.us/imaging//AEOrderFileView.aspx?appNo=pSL2029048811> within 24 hours.

Please keep a copy of this electronic communication for your files. A certified copy will be mailed to you next week. A copy of this electronic communication will be saved in 1RF-454 electronic file on OCD Imaging referenced above.

Please do not hesitate to contact me if you have further questions or concerns.

Regards,
Susan

Susan A. Lucas Kamat

Environmental Scientist

Oil Conservation Division

Energy, Minerals, and Natural Resources Department

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District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-147
Revised April 3, 2017

Recycling Facility and/or Recycling Containment

Type of Facility: ☒ Recycling Facility ☒ Recycling Containment*
Type of action: ☒ Permit ☐ Registration
☐ Modification ☐ Extension
☐ Closure ☐ Other (explain) _____

* At the time C-147 is submitted to the division for a Recycling Containment, a copy shall be provided to the surface owner.

Be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.

Operator: : ConocoPhillips Company OGRID #: 217817
Address: PO Box 2197 Houston TX 77252
Facility or well name (include API# if associated with a well): Zia Hills Recycling Facility and Containment
OCD Permit Number: 1RF-454 (For new facilities the permit number will be assigned by the district office)
U/L or Qtr/Qtr _____ Section 30 Township 26S Range 32E County: Lea
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.

☒ **Recycling Facility:**
Location of (if applicable): Latitude 32.014527° Longitude -103.714621 NAD83 (Approximate)
Proposed Use: ☒ Drilling* ☒ Completion* ☒ Production* ☒ Plugging *
**The re-use of produced water may NOT be used until fresh water zones are cased and cemented*
☐ Other, *requires permit for other uses. Describe use, process, testing, volume of produced water and ensure there will be no adverse impact on groundwater or surface water.*
☒ Fluid Storage
☐ Above ground tanks ☒ Recycling containment ☐ Activity permitted under 19.15.17 NMAC explain type _____
☐ Activity permitted under 19.15.36 NMAC explain type: _____ ☐ Other explain _____
☒ For multiple or additional recycling containments, attach design and location information of each containment
☐ **Closure Report (required within 60 days of closure completion):** ☐ Recycling Facility Closure Completion Date: _____

3.

☒ **Recycling Containment:** VOLUME 1 FOR IN-GROUND CONTAINMENTS; VOLUME 2 FOR AST CONTAINMENTS
☐ Annual Extension after initial 5 years (attach summary of monthly leak detection inspections for previous year)
Center of Recycling **Two In Ground Containments** (adjacent): (if applicable) Latitude 32.014614° Longitude -103.717637;
CUV'containments: Latitude 32.015321 Longitude -103.714592 NAD83 (Approximate)
☒ For multiple or additional recycling containments, attach design and location information of each containment: SEE DESIGN DRAWINGS
☒ Lined ☐ Liner type: Thickness **In Ground x2:** Primary 60- Mil HDPE; Secondary 60-Mil HDPE ☐ LLDPE ☒ HDPE ☐ PVC ☐ Other
AST: Primary _____ ; Secondary liner _____ . SEE DESIGN DRAWINGS ☐ String-Reinforced
Liner Seams: ☒ Welded ☐ Factory ☐ Other _____ Volume: SEE DESIGN DRAWINGS bbl Dimensions: (Inside dimensions) SEE DESIGN DRAWINGS AST final design drawings pending
☐ Recycling Containment Closure Completion Date: May 2020

4.

Bonding:

☒ Covered under bonding pursuant to 19.15.8 NMAC per 19.15.34.15(A)(2) NMAC (**These containments are limited to only the wells owned or operated by the owners of the containment.**)

☐ Bonding in accordance with 19.15.34.15(A)(1). Amount of bond \$_____ (**work on these facilities cannot commence until bonding amounts are approved**)

☐ Attach closure cost estimate and documentation on how the closure cost was calculated.

5.

Fencing:

☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet

☒ Alternate. Please specify 6 foot Chain link with 3 strand barbed wire

6.

Signs:

☒ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☐ Signed in compliance with 19.15.16.8 NMAC

7.

Variances:

Justifications and/or demonstrations that the proposed variance will afford reasonable protection against contamination of fresh water, human health, and the environment.

Check the below box only if a variance is requested:

☒ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval. If a Variance is requested, include the variance information on a separate page and attach it to the C-147 as part of the application.

If a Variance is requested, it must be approved prior to implementation. See Volume 3

8.

Siting Criteria for Recycling Containment

Instructions: The applicant must provide attachments that demonstrate compliance for each siting criteria below as part of the application. Potential examples of the siting attachment source material are provided below under each criteria.

General siting

Ground water is less than 50 feet below the bottom of the Recycling Containment.

NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells **FIGURES 1-2**

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

- Written confirmation or verification from the municipality; written approval obtained from the municipality **FIGURE 3**

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Minerals Division **FIGURE 4**

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; topographic map **FIGURES 5a-e**

Within a 100-year floodplain. FEMA map **FIGURE 6**

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; visual inspection (certification) of the proposed site **FIGURE 7**

Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; aerial photo; satellite image **FIGURE 8**

Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. **FIGURES 1 and 7**

- NM Office of the State Engineer - iWATERS database search; visual inspection (certification) of the proposed site

Within 500 feet of a wetland. **FIGURE 9**

- US Fish and Wildlife Wetland Identification map; topographic map; visual inspection (certification) of the proposed site

☐ Yes ☒ No
☐ NA

☐ Yes ☒ No
☐ NA

☐ Yes ☒ No

☐ Yes ☒ No

☐ Yes ☒ No

☐ Yes ☒ No

☐ Yes ☒ No

☐ Yes ☒ No

☐ Yes ☒ No

9.

Recycling Facility and/or Containment Checklist:

Instructions: Each of the following items must be attached to the application. Indicate, by a check mark in the box, that the documents are attached.

- ☒ Design Plan - based upon the appropriate requirements.
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements.
- ☒ Closure Plan - based upon the appropriate requirements.
- ☒ Site Specific Groundwater Data -
- ☒ Siting Criteria Compliance Demonstrations -
- ☒ Certify that notice of the C-147 (only) has been sent to the surface owner(s)

10.

Operator Application Certification:

I hereby certify that the information and attachments submitted with this application are true, accurate and complete to the best of my knowledge and belief.

Name (Print): Jeremy Lee Title: Regulatory Coordinator

Signature:  Date: 3/30/20

e-mail address Jeremy.L.Lee@conocophillips.com Telephone: 832.486.2510

11.

OCD Representative Signature:  Approval Date: Oct 16, 2020

Title: Environmental Scientist OCD Permit Number: 1RF-454

☐ OCD Conditions _____

☐ Additional OCD Conditions on Attachment