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FEB 21 2020

Scott M. Denton
Environmental Manager
HollyFrontier Navajo Refining LLC
P.O. Box 159
Artesia, New Mexico 88211-0159

**RE: APPROVAL WITH MODIFICATIONS
SWMU 17 LEAD INVESTIGATION REPORT, OCTOBER 2019
HOLLYFRONTIER NAVAJO REFINING LLC – ARTESIA REFINERY
EPA ID NO. NMD048918817
HWB-NRC-19-005**

Dear Mr. Denton:

The New Mexico Environment Department (NMED) has completed its review of HollyFrontier Navajo Refining LLC, Artesia Refinery's (the Permittee) *SWMU 17 Lead Investigation Report* (Report), dated October 2019. NMED hereby provides this Approval with Modifications with the following comments. NMED's comments are attached.

The Permittee must address all comments in the attachment in a response letter and submit the required replacement pages, figures and tables. The response letter, replacement pages, figures and tables and an electronic version of the revised Report must be submitted to NMED no later than **May 29, 2020**.

This approval is based on the information presented in the document as it relates to the objectives of the work identified by NMED at the time of review. Approval of this document does not constitute agreement with all information or every statement presented in the document.

Mr. Denton
SWMU 17 Pb IR
Page 2

If you have any questions regarding this letter, please contact Michiya Suzuki of my staff at (505) 476-6046.

Sincerely,



Kevin Pierard
Chief
Hazardous Waste Bureau

0305 1 3 2020

cc: D. Cobrain, NMED HWB
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R. Combs, HollyFrontier Navajo Refining LLC, Artesia Refinery
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File: Reading File and NRC 2020, HWB-NRC-19-005

Attachment 1

NMED Comments

Comment 1

In Section 3.0 (Scope of Services), page 3, bullet items 1 and 2, the Permittee propose to collect “[o]ne replicate from the location with the highest reported lead concentration from the previous sampling events (SWMU17-BH02), and three locations approximately 20 ft to the southeast, northeast, and northwest of the SWMU17-BH02 location for delineation (a sample was not collected to the southwest due to the presence of Tank 65).” Comment 5 in the NMED’s *Approval with Modifications Lead (Pb) Investigation Work Plan Solid Waste Management Unit 17*, dated March 22, 2019 (March 2019 Approval), stated, “Comment 4 in NMED’s *Disapproval SWMU/AOC Group 3 Additional Corrective Action Investigation Report – Revised*, dated August 16, 2018, did not direct the Permittee to collect a replicate sample from the sampling location SWMU17-BH02, because the collection of the replicate sample will not provide additional information to delineate the extent of lead contamination at the site. Furthermore, the proposed sampling locations surrounding SWMU17-BH02 are close to the building and the lead concentrations at the proposed locations will likely be similar to those from the previous results. Comment 4 directed the Permittee to define the lateral extent of lead contamination at SWMU 17. The Permittee must collect soil samples at the four suggested locations depicted in the mark-up of Figure 4 attached with this letter as well as include the two proposed locations between Tanks 61 and 65 to attempt to define the lateral extent of lead contamination at SWMU 17. The suggested locations may be adjusted at the Permittee’s discretion; however, provide a justification for the changes in the response letter and submit a revised Figure 4 with the new proposed sample locations.” As stated in Comment 5 of the March 2019 Approval, NMED did not direct the collection of a replicate sample from the sampling location SWMU17-BH02 or the three locations southeast, northeast, and northwest of the SWMU17-BH02 location. Provide a justification for collecting these samples in a response letter.

Comment 2

In Section 3.2.1 (Sample Collection), page 3, paragraph 5, the Permittee states, “[t]he soil cuttings from each location were placed within the boring following sample collection and tamped down.” The lead concentrations in the soil samples collected from boring SWMU17-BH13 and BH16 exceeded the critical screening level of 270 mg/kg. Additionally, the lead concentrations in soil samples collected from borings BH12, BH13, BH14, BH16, BH17, and BH20 were high enough to fail the 20 times rule for the Toxicity Characteristic Leaching Procedure (TCLP) test. Therefore, the soil cuttings potentially contained hazardous waste and should not have been placed back into the borings. All investigation derived wastes must be appropriately disposed and the documentation associated with disposal must be submitted in the future investigations. No response is required.

Comment 3

In Section 5.1 (New Mexico Soil Screening Levels), page 9, bullet item 2, the Permittee states, “[t]he [target soil leachate concentration] Cw, DAF 20 SSL was used to screen the shallow soil samples within SWMU 17, if the value was lower than the Ind/Occ or CW SSLs.” Although Comment 7 in the NMED’s March 2019 Approval stated that the use of dilution attenuation factor (DAF) soil screening levels (SSL) is not appropriate at the site and industrial/occupational and residential exposure soil screening levels must be used, the selected soil screening level for lead (270 mg/kg) is more conservative as an initial screening step. Additionally, the lead contamination in the SWMU 17 shallow soils has not affected groundwater at this time. Therefore, the Permittee may use the DAF 20 SSL for lead. No revision required to the Report.

Comment 4

In Section 7.0 (Conclusions), page 13, bullet item 2, the Permittee states that “the [l]ead concentrations are present above the CSSL, which is for the soil leaching to groundwater exposure pathway, in three shallow soil samples located northeast of Tank 65. The concentrations are below the Ind RSL. Although the Lead concentrations are above the CSSL, the shallow groundwater samples from monitoring wells located immediately downgradient of SWMU 17 do not indicate that Lead has leached from the soil to groundwater in this area.” Areas where these borings were advanced were not covered by a concrete slab. Therefore, even if the shallow groundwater samples collected from the monitoring wells downgradient of the areas do not indicate that lead has leached at this time, the residual lead could potentially contaminate the groundwater in the future. The Permittee must be able to demonstrate that lead will not leach from the soil to groundwater in the future at the site or propose a measure to eliminate the potential for lead to migrate from the soil to groundwater. Discuss how the potential issue will be addressed in the response letter.

Comment 5

In Section 7.0 (Conclusions), page 13, paragraph 4, the Permittee states, “[t]he additional shallow soil samples indicated the presence of TPH above the SSL for the Ind/CW exposure pathway at location SWMU17-BH19.” The Permittee must be able to demonstrate that TPH will not migrate to groundwater or propose a measure to eliminate the potential for the TPH migrating from the soil to groundwater. Discuss how the potential issue will be addressed in the response letter.

Comment 6

Section 7.0 (Conclusions) does not include a discussion of whether the lateral extent of lead and TPH contaminations were delineated at the site. The extent of lead exceeding the screening level in the vicinity of boring SWMU17-BH13 does not appear to be delineated because no soil samples were collected from a location east of boring BH13. Similarly, the extent of TPH

exceeding the screening level in the vicinity of boring SWMU17-BH19 does not appear to be delineated because no soil samples were collected from locations south and west of boring BH19. Include a discussion regarding the delineation of contamination in Section 7.0 and provide a replacement page.

Comment 7

In Section 8.0 (Recommendations), page 14, paragraph 2, the Permittee states, "HFNR will conduct additional measures to prevent worker exposure to TPH in the vicinity of this sample location." Describe the additional measures that the Permittee intends to implement to prevent workers from being exposed to the TPH in the response letter.

Comment 8

According to Table 2 (Summary of Shallow Soil Sample Analytical Results), the soil screening level for lead is indicated as 270 mg/kg. Figure 5 (Summary of Soil Analytical Results) highlights the soil concentration values exceeding the applicable screening levels. The lead concentration for the soil sample collected from boring SWMU17-BH09 is recorded as 178 mg/kg and is highlighted as an exceedance. However, the lead concentration for the soil sample collected from boring SWMU17-BH07 is recorded as 285 mg/kg but is not highlighted as an exceedance. Correct the discrepancies and provide a replacement figure and a table, as appropriate.

Comment 9

Table 2 presents the site concentrations of gasoline range organics (GRO), diesel range organics (DRO), oil range organics (ORO) and total TPH as a sum of GRO, DRO, and ORO analytical results. The concentrations of each analyte were compared with the screening level for unknown oil (3,800 mg/kg). Although it is acceptable to compare the site concentrations of DRO, ORO and total TPH with the screening level for unknown oil, the site concentrations of GRO must be compared with the screening level for gasoline (500 mg/kg) because the screening level of gasoline is much lower than that of unknown oil and the GRO detected at the site are exclusively gasoline constituents. NMED observed that the site concentrations of GRO did not exceed the screening level of 500 mg/kg; however, the table must be revised to include the gasoline screening level of 500 mg/kg for GRO. Provide a replacement table with the response letter.

Comment 10

The DRO and ORO concentrations exceeded the screening levels in some soil samples according to Table 2 but these exceedances were not highlighted as exceedances. For example, the ORO concentration in the soil sample collected from boring SWMU17-BH19 is recorded as 8,090 mg/kg. Review Table 2 to correct additional results that may have been missed and provide a replacement table.