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**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**



*James C. Kenney*  
Cabinet Secretary

*Jennifer J. Pruett*  
Deputy Secretary

October 18, 2019

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

**RE: APPROVAL WITH MODIFICATIONS  
RESPONSE TO "APPROVAL WITH MODIFICATIONS, SWMU/AOC GROUP 3  
ADDITIONAL CORRECTIVE ACTION INVESTIGATION REPORT – REVISION 2"  
HOLLYFRONTIER NAVAJO REFINING LLC – ARTESIA REFINERY  
EPA ID NO. NMD048918817  
HWB-NRC-14-004**

Dear Mr. Denton:

The New Mexico Environment Department (NMED) has completed its review of HollyFrontier Navajo Refining LLC, Artesia Refinery's (the Permittee) *Response to "Approval with Modifications, SWMU/AOC Group 3 Additional Corrective Action Investigation Report – Revision 2"* (Response), dated June 6, 2019. NMED hereby issues this Approval with Modifications to the Response and provides the following comments.

**Comment 1**

The Permittee's response to Comment 5 regarding well MW-138 states, "[t]herefore, HFNR will prepare and submit a work plan to install a "nested monitoring well" next to MW-138 to provide a screened interval from approximately 5 to 13 feet below grade to assess the presence of PSH above the screened interval of MW-138." The work plan must be submitted no later than **December 31, 2019**.

**Comment 2**

The Permittee's response to Comment 5 regarding well MW-137 states, "[t]he lithology above the well screen from 0 to 10 feet below grade indicated no potential permeable zones and no hydrocarbon impacts. A "nested monitoring well" screened above 10 feet bgs is unlikely to have groundwater or detect PSH, and thus a "nested monitoring well" is not needed at MW-137." According to the boring log for MW-137, lithology above five feet below ground surface (bgs) was not identified because of the use of Hydrovac. In addition, according to Figure 3 (Cross-Section 2-2'), a sand lens at a depth of less than ten feet bgs may potentially be continuous along the cross-section and may present in the vicinity of MW-137. In the work plan, propose to advance a soil boring adjacent to well MW-137 to the depth of 15 feet bgs and confirm the presence or absence of potential transmissive zones.

**Comment 3**

The Permittee's response to Comment 7 states "[d]etermination of the exact source of H<sub>2</sub>S will not have a significant impact on the current activities in the area." Since there are anthropogenic sources of sulfides at the Facility, the presence of sulfate reducing bacteria (SRB) at MW-137 is unconfirmed. Although NMED concurs that the determination of the exact source of H<sub>2</sub>S will not have a significant impact on the current activities, the presence of SRB at MW-137 must be confirmed. The qualitative analysis of SRB can be conducted using Hach® Biological Activity Reaction Test (BART) kit or equivalent. In the work plan, propose to collect groundwater samples from well MW-137 and conduct qualitative SRB analysis to evaluate the microbial population.

**Comment 4**

The Permittee's response to Comment 10 states "[t]herefore, HFNR proposes to plug and abandon the current MW-62 and install a replacement well (MW-62R) within 10 feet (laterally) from the current MW-62. The well screen will be installed from 5 ft bgs to 25 ft bgs, which will encompass the potential saturated zones and will allow assessment of PSH above the currently screened interval. HFNR will prepare and submit a work plan to install the proposed replacement well." NMED concurs with the installation of the proposed well adjacent to the existing well MW-62. However, the existing well MW-62 must not be abandoned at this time because it is screened deeper than the proposed well and may potentially provide useful data. If well MW-62 is to be plugged and abandoned at a later date, the Permittee may propose to do so after at a minimum of four rounds of groundwater sampling conducted in conjunction with sampling of well MW-62R confirms that the groundwater chemistry between wells MW-62 and MW-62R are consistent.

The Permittee must address all of the above comments in a work plan. The work plan must be submitted to NMED no later than **December 31, 2019**.

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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.

If you have any questions regarding this letter, please contact Michiya Suzuki of my staff at (505) 476-6059.

Sincerely,



John E. Kieling  
Chief  
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB  
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