GW - 028

SWMU-1/AOC Group 1

2011 - Present

NEW MEXICO
ENVIRONMENT DEPARTMENT

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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 9, 2011

Darrell Moore
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211-0159

RE: APPROVAL WITH MODIFICATIONS
SWMU-1/AOC GROUP 1 ADDITIONAL CORRECTIVE ACTION INVESTIGATION REPORT (REVISION 2 JUNE 2009)
NAVAJO REFINING COMPANY, ARTESIA REFINERY
EPA ID# NMD048918817
HWB-NRC-07-008

Dear Mr. Moore:

The New Mexico Environment Department (NMED) has reviewed Navajo Refining Company's Artesia Refinery (Permittee) *SWMU-1/AOC Group 1 Corrective Action Investigation Report (Revision 2 June 2009)* (Report), dated June 2009. NMED hereby issues this approval with the following modifications.

1. Section 7 (Summary and Conclusions), page 79:

NMED Comment: The vertical and horizontal extent of contamination for SWMU/AOC Group 1 has not been completely defined. Additional investigation activities may be warranted in the future to further define the vertical and horizontal extent of contamination. See Comment 11 below.

2. Section 8 (Recommendations), page 86:

NMED Comment: The Permittee recommended continued operation of recovery trenches at (AOC-1 Diesel Tank Farm) and (AOC-3 Southeast Tank Farm). The Permittee must evaluate the efficiency of the current recovery trenches and assess the need for additional recovery trenches or other remediation systems. The evaluation must be included with the investigation data from Group 2 and Group 3.

3. Section 7.1 (SWMU-1 North API Separator), page 80-81:

NMED Comment: The Permittee could achieve corrective action complete status with complete removal of the North API Separator (all concrete and ancillary equipment) and any contaminated soils affected by releases from the API. It may not be possible to isolate the sources of contamination if contaminant plumes have comingled. These activities must be considered when evaluating current and previously obtained data; see also Comment 11.

4. Section 2.2.2 AOC-1 (Diesel Tank Farm), pages 6:

Permittee Statement: "[t]he report states, based on soil gas survey results, it is likely that there were historical releases of diesel and of gasoline in the area."

NMED Comment: Section 7.2 (AOC-1 (Diesel Tank Farm)) indicates soil and groundwater concentrations are consistent with a historic release of diesel. The fuel fingerprint analysis in this area is consistent with diesel and gasoline range organics. In the Response Letter, discuss the potential sources of the gasoline.

5. Section 4.2.5 (Decontamination Procedures and Investigation Derived Wastes), page 39, paragraph 4:

Permittee Statement: "[s]oil cuttings were staged in 55-gallon containers and labeled according to the area from which the soil cuttings were obtained. The drummed waste was then sent off-site for disposal at CRI, a non-hazardous waste landfill. Waste disposal records are maintained at the Refinery."

NMED Comment: In the Response Letter, discuss if analytical sampling was conducted on the waste in the 55-gallon drums and include the analytical results.

6. Section 4.4.4 (Monitor Well Groundwater Sampling), page 43, paragraph 2:

Permittee Comment: "[t]he equipment used for the field measurements was calibrated at least once during each day of the sampling event. Low-flow purging continued until the field

measurements of pH, temperature, specific conductance, oxidation-reduction potential and dissolved oxygen of the purged water stabilizes within a specified range of the previous measurements."

NMED Comment: Provide explanations for the following in the Response Letter:

a. Explain what the "specified range of previous measurements" is referring in the above quote which indicates when the purge water has stabilized. The Permittee must refer to Appendix C, C.2.i.i (Well Purging) of the Post Closure Care Permit that states "[w]ater samples may be obtained from a well after the measured parameters of purge water have stabilized to within ten percent for three consecutive measurements."

b. Identify the instruments (by name) used to collect field measurements.

c. Explain how groundwater and phase separated hydrocarbon (PSH) levels were measured (refer to Appendix C, C.2.h.i (Groundwater levels)) in accordance with the Post Closure Care Permit.

d. Items a through c must be included in all future documents as applicable.

7. Section 4.4.6 (PSH Sampling), page 44:

Permittee Statement: "[t]he bailer was slowly removed and groundwater was decanted from the bottom of the bailer. The PSH remaining in the bailer was then placed into the sample container, which was then sealed and properly labeled. Excess groundwater and PSH was returned to the well from which it was removed."

NMED Comment: Excess groundwater and phase separated hydrocarbons (PSH) must not be returned to the well; they must be disposed in the wastewater collection system upstream of the API separator. In the future, all purge water and PSH must be disposed in the refinery wastewater treatment system.

8. Section 6.2.2.4 (AOC-3 (Southeast Tank Farm), page 77:

Permittee Statement: "[t]able 8 contains a summary of the TPH results for the PSH samples. As can be seen, the sample from RW-15 appears to be primarily a gasoline product with some diesel range organics while the sample from MW-97 appears to be primarily a diesel product with some gasoline range organics."

NMED Comment: Reference to MW-97 in the above quote appears to be a typographical error and should reference MW-102. Clarify this discrepancy in the Response Letter and submit a replacement page for the Report that references the correct monitoring well.

9. Section 7.1 (SWMU-1 North API Separator), page 81:

Permittee Statement: "[s]oil vapor, soil and groundwater samples indicate the presence of hydrocarbons in the subsurface."

NMED Comment: Soil vapor samples were not collected at SWMU-1. Clarify in the Response Letter that the reference to the soil vapor samples is a typographical error and submit a replacement page for the Report accordingly.

10. Section 7.2 (AOC-1 (Diesel Tank Farm), page 81:

Permittee Statement: "[i]n most locations, the volatile organic concentrations [VOC] decrease with depth while the DRO concentrations remain consistent or decrease slightly with depth."

NMED Comment: Although the VOC concentrations generally decrease with depth, many of the concentrations are above the New Mexico Soil Screening Levels. No response is necessary.

11. Section 8 (Recommendations), page 86:

Permittee Statement: "[t]he data obtained from this investigation should be compiled with previously obtained data and on-going data collected during semiannual groundwater monitoring events. The compiled data should be reviewed and additional corrective actions recommended, as appropriate."

NMED Comment: NMED agrees the data obtained from this investigation should be complied with the other investigations (Group 2 and Group 3) to determine additional corrective action and remediation activities. The Permittee must prevent off-site migration as well as begin remediation activities within and beyond the facility boundaries.

The Permittee must submit a Response Letter responding to all comments in this letter where required. The Permittee must also submit replacement pages as required. The Response Letter and replacement pages must be submitted on or before May 2, 2011.

If you have any questions regarding this letter, please contact Hope Monzeglio of my staff at (505) 476-6045.

Sincerely,

John E. Kieling
Program Manager
Permits Management Program
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB
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