

**GW - 028**

**SWMU/  
AOC Group 3**

**Corrective Action  
Work Plan**



SUSANA MARTINEZ  
Governor

JOHN A. SANCHEZ  
Lieutenant Governor

**NEW MEXICO  
ENVIRONMENT DEPARTMENT**

***Hazardous Waste Bureau***

2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Phone (505) 476-6000 Fax (505) 476-6030  
[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)



DAVE MARTIN  
Secretary

BUTCH TONGATE  
Deputy Secretary

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

June 27, 2012

Mr. Robert Combs  
Navajo Refining Company  
P.O. Box 159  
Artesia, New Mexico 88211-0159

**RE: CANCELLATION OF SUBMITTAL DATE FOR MAIN API  
SEPARATOR (SWMU 22) WORK PLAN  
NAVAJO REFINING COMPANY, ARTESIA REFINERY  
EPA ID NO. NMD048918817  
HWB-NRC-11-006**

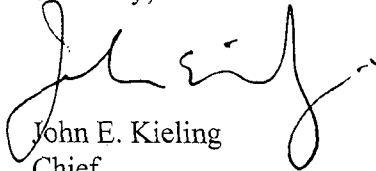
Dear Mr. Combs:

The New Mexico Environment Department (NMED) has conducted a preliminary review of the Navajo Refining Company, Artesia Refinery's (the Permittee) *AOC Group 3 Additional Corrective Action Investigation Workplan* (Work Plan), dated April 2012. NMED's Comment 1 from the *Response to Approval with Modifications AOC Group 3 Corrective Action Investigation Report* (Response), dated March 29, 2012, requires the Permittee to submit an additional work plan for the removal and sampling of the Main API Separator (SWMU 22) in AOC Group 3 by June 29, 2012. However, the Permittee included the proposed plan for removal and sampling of SWMU 22 in the April 2012 Work Plan. Therefore, the Permittee is not required to submit the required work plan for the removal and sampling of the Main API Separator since it has been included in the *AOC Group 3 Additional Corrective Action Investigation Workplan*.

Robert Combs  
June 27, 2012  
Page 2 of 2

If you have any questions regarding this letter, please contact Leona Tsinnajinnie of my staff at (505) 476-6057.

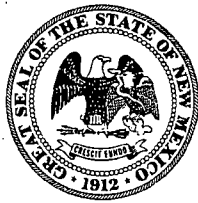
Sincerely,

A handwritten signature in black ink, appearing to read 'John E. Kieling', with a stylized flourish at the end.

John E. Kieling  
Chief  
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB  
L. Tsinnajinnie, NMED HWB  
C. Chavez, EMNRD OCD  
J. Lackey, NRC  
P. Krueger, Arcadis

File: Reading File and NRC 2012, HWB-NRC-11-006



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DAVE MARTIN  
Secretary

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Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

March 29, 2012

Robert Combs  
Navajo Refining Company  
P.O. Box 159  
Artesia, New Mexico 88211-0159

**RE: RESPONSE TO APPROVAL WITH MODIFICATIONS  
AOC GROUP 3 CORRECTIVE ACTION  
INVESTIGATION REPORT, JULY 2011  
NAVAJO REFINING COMPANY, ARTESIA REFINERY  
EPA ID NO. NMD048918817  
HWB-NRC-11-006**

Dear Mr. Combs:

The New Mexico Environment Department (NMED) has completed its review of Navajo Refining Company, Artesia Refinery's (the Permittee) *Response to Approval with Modifications AOC Group 3 Corrective Action Investigation Report* (Response), dated March 12, 2012. NMED has the following comments.

**Comment 1: Comment 4, Permittee's Response 4**

The Permittee states, "in the very near future, the Main API Separator will be physically removed. Because the removal is imminent, it is not feasible to prepare a sampling work plan for NMED review and approval. After the removal of the Main API Separator from the ground, a total of five grab soil samples will be collected, one each from the floor and each of the side walls of the excavation. The samples will be analyzed for the same suites of parameters used for this SWMU during the AOC Group 3 CAI [and the] need for installation of an additional groundwater monitoring well in the vicinity of the Main API Separator will be evaluated based upon the results of the soil samples collected during the removal operation." The Permittee must submit a work plan describing the removal and sampling activities of the Main API Separator

Robert Combs  
March 29, 2012  
Page 2 of 2

(SWMU 22) as required by the December 2010 Post-Closure Care Permit (Permit) to determine if a release has occurred at SWMU 22. The work plan must receive approval from NMED prior to the Permittee beginning the work. The list of parameters to be analyzed by the Permittee includes total petroleum hydrocarbons (TPH) as gasoline range organics (GRO), diesel range organics (DRO), and oil range organics (ORO), volatile organic compounds (VOCs), cyanide, RCRA 8 metals, and semi-volatile organic compounds (SVOCs). The Permittee must replace the RCRA 8 metals with the Skinner List Metals and include flashpoint analysis. In addition, the Permittee must propose more than six samples from the limits of the excavation and also propose to sample any excavated soil for the purpose of disposal characterization. The concrete from the API separator is contaminated with listed hazardous waste (K051) and adjacent soils may also be affected by releases from the unit. The Permittee must propose to conduct a hazardous waste determination for all generated waste and discuss management of such waste.

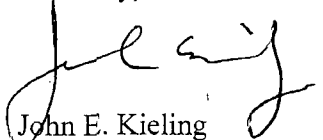
#### **Comment 2**

On page 17, paragraph 3, the Permittee requested an extension of the submittal date for the work plan for the additional investigations at SWMUs 17, 20, 21, and 23 to be extended to April 30, 2012. NMED sent an e-mail to the Permittee on March 21, 2012 approving this request. The Permittee must submit the work plan for the additional investigation of SWMUs 17, 20, 21, and 23 by **April 30, 2012**.

The Permittee is required to address the comments in this response letter. The work plan required by Comment 1 must be submitted to NMED by **June 29, 2012**.

If you have any questions regarding this letter, please contact Leona Tsinnajinnie of my staff at (505) 476-6057.

Sincerely,

  
John E. Kieling  
Acting Chief  
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB  
L. Tsinnajinnie, NMED HWB  
J. Lackey, NRC  
P. Krueger, Arcadis  
C. Chavez, EMNRD OCD

File: Reading File and NRC 2012, HWB-NRC-11-006



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Lieutenant Governor

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ENVIRONMENT DEPARTMENT**

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DAVE MARTIN  
Secretary

BUTCH TONGATE  
Deputy Secretary

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

December 28, 2011

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

**RE: APPROVAL WITH MODIFICATIONS  
AOC GROUP 3 CORRECTIVE ACTION  
INVESTIGATION REPORT, JULY 2011  
NAVAJO REFINING COMPANY, ARTESIA REFINERY  
EPA ID No. NMD048918817  
HWB-NRC-11-006**

Dear Mr. Moore:

The New Mexico Environment Department (NMED) has completed its review of Navajo Refining Company, Artesia Refinery's (the Permittee) *AOC Group 3 Corrective Action Investigation Report* (Report), dated July 2011. NMED hereby issues this approval with the following modifications.

**Comment 1**

The Executive Summary (Main API Separator (SWMU 22)) page xi, paragraph 1 states, "[o]nly a surface sample was collected from boring SWMU22-BH01 due to the overhead access issues." Section 3.1 (Health and Safety Considerations), page 6 states, "Navajo personnel approved each boring location prior to the start of any subsurface penetration." In a response letter, explain why boring SWMU22-BH01 was not relocated to collect a more representative sample and why the Permittee did not relocate the boring prior to drilling if overhead access prevented drilling at that location.

**Comment 2**

Section 1 (Introduction), pages 1 through 3, provides a summary about the regulatory history of the Refinery as well as descriptions of the Area of Concern (AOC) Group 3 Solid Waste Management Units (SWMUs). However, there is no information about historical or current releases that may have occurred within each SWMU. In addition, Figure 3 (Clarified Slurry Oil Tanks (SWMU 17) Sample Locations), Figure 5 (South Bundle Cleaning Pad (SWMU 21) Sample Locations), Figure 6 (Main API Separator (SWMU 22) Sample Locations), and Figure 7 (South Alkylation Unit (SWMU 23) Sample Locations) depict several tanks upgradient, downgradient, or within the SWMUs but the tanks are not discussed in this section or in the background section of the investigation report. Provide additional information about the tanks and historical and current releases that have occurred near or within all of the SWMUs of the Group 3 investigation as part of the background sections of the work plan for additional investigation activities to be conducted at SWMUs 17, 20, 22 and 23.

**Comment 3**

Section 1 (Introduction), pages 1 through 2, bullet 1 states, "[a]n underground storage tank (UST) is located south of the slurry slinger building and is out of service. The UST was formerly used to contain slurry slinger oil. The contents of the tank were removed when the tank was removed from service in 2000. At that time, the tank was believed to be in good condition. Because the tank is underground, no additional information is available regarding the condition of the tank. There are currently no plans to remove the UST." Provide additional information about the UST to include when the UST was installed, how long it was in use, the volume of the UST, the depth of the UST, the composition of the UST, and any information on releases. In addition, provide replacement figures that include the location of the UST on all figures depicting SWMU 17 (Clarified Slurry Oil Tanks) with the response letter and work plan. Because the UST contained K170 waste (clarified slurry oil tank sediment), the UST location must be investigated for evidence of releases. Address investigation the UST location in the response letter.

**Comment 4**

Section 1 (Introduction), page 3, paragraph 1 states, "[c]urrently, the concrete separator is used to settle catalyst fines. Water and catalyst are placed into the separator. The catalyst is allowed to settle to the bottom of the separator while water passes through the overflow and into the wastewater treatment system. The settled catalyst is periodically removed and disposed of properly." Comment 3 from NMED's September 22, 2010 Approval with Modifications for the *SWMU/AOC Group 3 Corrective Action Investigation Work Plan* states, "NMED considers the current use of the Main API separator as a potential source of contamination and a unit used for storage of a solid waste. The API separator was not constructed as a solid waste storage unit and

Mr. Darrell Moore  
Navajo Refining Company  
December 28, 2011  
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there is potential for contaminated water to be released from the unit. Upon further review of the investigation report and review of the other investigation activities that have occurred within the refinery, NMED will determine the need and schedule for further corrective action related to the Main API separator." In addition to the investigations at SWMUs 17, 20, and 23, the Permittee must install a monitoring well as close as is practicable east of the Main API separator to monitor for new releases. The Permittee must include the installation of the monitoring well as part of implementation of the work plan.

#### **Comment 5**

Section 3.1 (Health and Safety Considerations), page 6, paragraph 3 describes the sampling equipment used to collect soil samples from each borehole. The Permittee must verify that the soil samples were collected from native soils and that all soil samples were collected as discrete samples and provide a description of decontamination procedures for the slide hammer tool in the response letter.

#### **Comment 6**

Section 3.2.4, page 9, paragraph 2 states, "[t]he Workplan included installation of a second soil boring beneath the piping south of the separator. The location was cleared using a slide hammer tool and hydro-vac; however, it was not possible to install the actual boring. Therefore, a soil sample was collected from the 0 to 1 ft bgs interval only." Section 4.2, page 20, paragraph 2 states, "[s]ite conditions had no major impact on the investigations, with the exception of the planned boring south of the API Separator that could not be installed." The Permittee did not provide an explanation for why the soil boring was not completed further than 1 ft bgs. The Executive Summary is the only section where the issue is addressed. In future reports, the Permittee must be consistent when reporting information about all issues with field activities in all work plans and reports. No response is necessary.

#### **Comment 7**

Section 3.3.2 (Well Installation Methods), page 14, paragraph 3 states, "[d]ue to scheduling, some of the wells were developed immediately before sampling while some wells were developed one or two days prior to sampling." The Permittee must clarify if the statement applies to all monitoring wells whether the wells are temporary and permanent. If not, the Permittee must clarify which wells were developed one or two days prior to sampling.

#### **Comment 8**

Section 3.7 (Investigation Derived Waste), pages 17-18, describes the type of investigation derived waste (IDW) generated and where the waste was disposed. The Permittee must provide



Mr. Darrell Moore  
Navajo Refining Company  
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the volumes of soil and groundwater waste generated during the investigation in the response letter and must include this information in all future work plans and reports.

#### **Comment 9**

Sections 4.1 (Surface Conditions) and 4.3 (Subsurface Conditions) describe the surface and subsurface conditions at the Refinery. Comment 4 from NMED's September 22, 2010 Approval with Modifications for the *SWMU/AOC Group 3 Corrective Action Investigation Work Plan* states, "[a]lthough not addressed in the March 30, 2010 Notice of Disapproval (NOD), Section 3 includes the facility's site conditions which [are] broken down into surface and subsurface conditions. The Site Conditions Section as presented does not relate to the site conditions for each [SWMU] being investigated. In future documents, the Permittee must address the site conditions as they relate to the units being investigated." The Permittee did not describe the conditions at each SWMU. The Permittee must comply with Comment 4 from NMED's September 22, 2010 Approval with Modifications and address the site conditions at the units being investigated in a work plan proposing a second phase of investigation at SWMUs 17, 20, 22 and 23.

#### **Comment 10**

Section 5.1 (New Mexico Soil Screening Levels), page 22, paragraph 1 references NMED's guidance document, *Technical Background Document for Development of Soil Screening Levels Revision 4.0, June 2006*. However, Tables 3 (Soil Screening Levels and Selected Critical Soil Screening Level) and 4 (Groundwater Screening Levels and Selected Critical Soil Screening Level) reference the *Revision 5.0, December 2009* guidance document. In the response letter, verify that the Permittee used the *Revision 5.0, December 2009* guidance document to conduct the assessment of the analytical data results for the Group 3 investigation and include a replacement page for Section 5.1 referencing the correct guidance document.

#### **Comment 11**

Sections 5.1 (New Mexico Soil Screening Levels) and 5.2 (New Mexico Groundwater Standards), page 23 discuss how the screening levels were determined for groundwater and soil. However, the Permittee did not indicate which Total Petroleum Hydrocarbon (TPH) Screening Level Table, 2a or 2b, was referenced from the *New Mexico Environment Department TPH Screening Guidelines, October 2006*. Indicate which table was referenced in both sections in the response letter.

Mr. Darrell Moore  
Navajo Refining Company  
December 28, 2011  
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#### **Comment 12**

In Section 7 (Conclusions), pages 53 through 60, the Permittee is not consistent when reporting results, screening levels or conclusions. For example, on page 60, in the section titled *Mercury*, the Permittee states, “[m]ercury was detected in 59 of the 62 soil samples collected as part of the Group 3 investigation. The concentrations ranged from 0.001047 to 0.265 mg/kg. Mercury did not exceed the CSSL of 0.587 mg/kg. Mercury was not detected in any of the groundwater samples collected as part of the AOC Group 3 investigation. The semi-annual groundwater monitoring plan includes analysis of mercury, allowing for future monitoring for this parameter. Mercury is not considered to pose a concern at these areas.” On page 60, in the section titled *Silver*, the Permittee states, “[s]ilver was not detected in 8 of the 34 soil samples collected as part of the Group 3 investigation. However, none exceeded the CSSL of 31.3 mg/kg. Silver was not detected in any of the 13 groundwater samples collected as part of the Group 3 investigation.” The statement implies that only 34 samples were collected and analyzed for silver rather than 62 samples, which is the number of samples cited for the other metals discussed. In addition, silver was detected in eight of the samples rather than in 26 of the samples as the statement implies. In future documents, the Permittee must be consistent when reporting results, screening levels, and conclusions in appropriate sections of all work plans and reports.

#### **Comment 13**

Section 7.1.1 (Hydrocarbon Compounds), pages 53 through 57, discusses the conclusions about the hydrocarbon impacts to each SWMU. The Permittee also mentions monitoring wells within and surrounding the SWMUs that provide downgradient, upgradient, and cross-gradient water quality information but does not discuss monitoring data from these monitoring wells or how they contribute to the conclusions of the investigation. The Permittee must discuss the monitoring of the wells mentioned in each SWMU section and how the data contribute to the conclusions of the investigation in the response letter.

#### **Comment 14**

Section 7.1.1 (Hydrocarbon Compounds, *Main API Separator (SWMU 22)*), page 56, paragraph 4 states, “[a] tank overflow (Tank 836) of waste water occurred to the north west of the Main API Separator in 2010.” The Permittee does not discuss the contaminants were present in the waste water. The Permittee must provide more information about the waste water in Tank 836 in the response letter and phase 2 investigation work plan.

#### **Comment 15**

Section 7.1.1 (Hydrocarbon Compounds, *South Alkylation Unit (SWMU 23)*), page 57, paragraph 1 states, “[t]he exceedances found beneath the South Alkylation Unit are associated with the

Mr. Darrell Moore  
Navajo Refining Company  
December 28, 2011  
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known hydrocarbon plume in the area.” Throughout the Report, the Permittee does not mention the hydrocarbon plume. The Permittee must provide additional information about the hydrocarbon plume in the response letter and in the background sections of any future work plans and reports for sites affected by the plume.

#### **Comment 16**

Section 8 (Recommendations), the Permittee recommends additional soil boring and temporary and cross-gradient monitoring well installations for SWMUs 17 (Clarified Slurry Oil Tanks), 20 (North Bundle Cleaning Pad), and 23 (South Alkylation Unit). The Permittee must provide additional information about the tanks, plumes, and historical and current releases at all the SWMUs included in the Group 3 investigation to support proposed boring locations in the phase 2 investigation work plan required by this letter. In addition, the work plan must also include the installation of a groundwater monitoring well east of the Main API Separator (*see* Comment 4). Soil, groundwater, and separate phase hydrocarbon sampling also must be addressed in the work plan.

#### **Comment 17**

Several work plans and reports submitted to NMED by the Permittee are missing a reference section. The Permittee must provide a reference section with all work plans and reports in all future submittals that cite other documents. No response is necessary.

#### **Comment 18**

Table 3 (Soil Screening Levels and Selected Critical Soil Screening Level), Table 4 (Groundwater Screening Levels and Selected Critical Soil Screening Level), Table 5 (Summary of Soil Sampling Analytical Results), and Table 7 (Summary of Groundwater Sampling Analytical Results) provide soil and groundwater screening levels and analytical results for the Group 3 investigation. However, the Permittee does not indicate which TPH Screening Levels Table, 2a or 2b, was referenced for the Group 3 investigation. The Permittee must indicate in the tables whether Table 2a or 2b of the TPH guidance was referenced, and provide replacement pages for Tables 3, 4, 5, and 7 with the response letter (*see* also Comment 11).

#### **Comment 19**

Table 4 (Groundwater Screening Levels and Selected Critical Soil Screening Level), page 4 of 4, Note 3 states, “NMED TPH Screening for ‘unknown oil’ used for both DRO and ORO range TPH.” Sections 5.1 (New Mexico Soil Screening Levels) and 5.2 (New Mexico Groundwater Standards) states that “TPH DRO and ORO were compared to the screening level values for ‘#3

Mr. Darrell Moore  
Navajo Refining Company  
December 28, 2011  
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and #6 Fuel Oil.” Correct the discrepancy and provide replacement pages for Table 4 with the response letter.

**Comment 20**

Table 5 (Summary of Soil Sampling Analytical Results) and Table 7 (Summary of Groundwater Sampling Analytical Results) provide soil and groundwater analytical results for the Group 3 investigation. However, the Permittee does not explain the bold black font in either table. It appears that the bold black font represents detected compounds that do not exceed the screening levels for soil or groundwater. In future tables, all symbols and highlights must be explained in the footnotes section. No response is necessary.

**Comment 21**

Figure 2 (Site Plan) provides an overview of the Refinery and highlights the Group 3 investigation areas. Although the Permittee provides the name of each location, the SWMU and unit numbers are not provided. In addition, the Permittee did not correctly highlight the Main API Separator in Figure 2. The Permittee highlighted the air stripper. Provide a replacement figure that identifies all of the SWMUs in the site plan and highlights the Main API Separator rather than the air stripper with the response letter. In future submittals, provide SWMU and unit numbers (if applicable) for all investigation areas depicted in the site plans and highlight the SWMUs included in the investigation.

**Comment 22**

Figures 8 (Clarified Slurry Oil Tanks (SWMU 17) Soil Analytical Results Map) through 17 (South Alkylolation Unit (SWMU 23) Groundwater Analytical Results Map) present soil and groundwater analytical results for the Group 3 investigation. The Permittee does not explain the bold black font in the figures. It appears that the bold black font represents detected compounds that do not exceed the screening levels for groundwater or soil. In future figures, all symbols and highlights must be explained in the Legend. No response is required.

**Comment 23**

Figure 11 (Main API Separator (SWMU 22) Soil Analytical Results Map) and Figure 16 (Main API Separator (SWMU 22) Groundwater Analytical Results Map) depict the location of the Main API Separator and summarize soil and groundwater analytical results for SWMU 22, respectively. The figures do not define all symbols in the Legend. In future documents, the Permittee must define all symbols in each figure. No response is required.

Mr. Darrell Moore  
Navajo Refining Company  
December 28, 2011  
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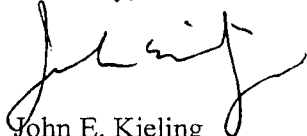
**Comment 24**

Figures 13 (Clarified Slurry Oil Tanks (SWMU 17) Groundwater Analytical Results Map) through 16 (Main API Separator (SWMU 22) Groundwater Analytical Results Map) depict the locations and analytical results for the groundwater samples collected at SWMUs 17, 20, 21, and 22. However, each SWMU sample ending in BH-01 does not show any results and the figures do not explain why the results are not presented. The Permittee must provide replacement pages with the sample results for all SWMU samples ending in BH-01 and/or explain on the figure or in the response letter why results for this sample were not reported. Submit the replacement figures or explanation with the response letter.

The Permittee must respond to all comments required by this Approval with Modifications. A letter containing the required responses and replacement pages must be submitted to NMED on or before **March 13, 2012**. Western must submit a work plan for the additional investigations to NMED on or before **March 31, 2012**.

If you have any questions regarding this letter, please contact Leona Tsinnajinnie of my staff at (505) 476-6057.

Sincerely,



John E. Kielling  
Acting Chief  
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB  
L. Tsinnajinnie, NMED HWB  
J. Lackey, NRC  
P. Krueger, Arcadis  
C. Chavez, EMNRD OCD

File: Reading File and NRC 2011, HWB-NRC-11-006



BILL RICHARDSON  
Governor

DIANE DENISH  
Lieutenant Governor

**NEW MEXICO  
ENVIRONMENT DEPARTMENT**

***Hazardous Waste Bureau***

2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Phone (505) 476-6000 Fax (505) 476-6030  
[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)



RON CURRY  
Secretary

SARAH COTTRELL  
Deputy Secretary

**Certified Mail - Return Receipt Requested**

September 22, 2010

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

**RE: APPROVAL WITH MODIFICATIONS  
SWMU / AOC GROUP 3  
CORRECTIVE ACTION INVESTIGATION WORK PLAN (REVISED)  
NAVAJO REFINING COMPANY, ARTESIA REFINERY  
EPA ID No. NMD048918817  
HWB-NRC-09-004**

Dear Mr. Moore:

The New Mexico Environment Department (NMED) has completed its review of Navajo Refining Company, Artesia Refinery's (the Permittee) *SWMU / AOC Group 3 Corrective Action Investigation Work Plan Revised* (Work Plan), dated August 2010. NMED has reviewed the Work Plan and hereby issues this Approval with the following modifications. No revisions to the Work Plan are necessary.

**Comment 1**

In the first paragraph of the cover letter, the Permittee states "[t]his letter is being submitted on behalf of the Navajo Refining Company (Navajo) by ARCADIS U.S. Inc. (ARCADIS) in response to your letter dated March 30, 2010 regarding the document titled *SWMU/AOC Group 2 Corrective Action Investigation Work Plan* (July 2009)." The title of the document should reference Group 3 and not Group 2. This comment is for clarification purposes and no revision is necessary.

Mr. Darrell Moore  
Navajo Refining Company  
September 22, 2010  
Page 2 of 4

**Comment 2**

In the Executive Summary, page vii and in Section 7 (Schedule), page 31, the Permittee states "Navajo will submit the Investigation Report to NMED within 150 days of completing field activities as required by the Permit." Taking the timeline into consideration, the Investigation Report must be submitted to NMED on or before August 1, 2011.

**Comment 3**

In Section 2.2.4 (Main API Separator (SWMU 22/Group 3 AOC4), page 6, the Permittee states "[c]urrently, the concrete separator is used to settle catalyst fines. Water and catalyst are placed into the separator. The catalyst is allowed to settle to the bottom of the separator while the water passes through the overflow and into the wastewater treatment system. The settled catalyst is periodically removed and either reused or disposed of properly." NMED considers the current use of the Main API separator as a potential source of contamination and a unit used for storage of a solid waste. The API separator was not constructed to store solid waste and the potential leakage of water could contribute to the releases of contamination. Upon review of the investigation report and review of the other investigation activities that have occurred within the refinery, NMED will determine the need and schedule for further corrective action related to the Main API separator.

**Comment 4**

Although not addressed in the March 30, 2010 Notice of Disapproval (NOD), Section 3 includes the facility's site condition which is broken down into surface and subsurface conditions. The Site Conditions Section as presented does not relate to the site conditions for each Solid Waste Management Unit (SWMUs) being investigated. In future documents, the Permittee must address the site conditions as they relate to the units being investigated.

**Comment 5**

In Section 4.1 (Health and Safety Considerations), page 15, the Permittee states "[b]oring locations will be adjusted as necessary to locate a minimum of 18 to 24 inches from known underground utilities." NMED recognizes the need to adjust boring locations. However, all deviations from the Work Plan must be clearly described and documented in the investigation report.

**Comment 6**

In Section 5.1.4 (Main API Separator), page 20, the Permittee states "[i]t may be possible for a small geoprobe rig to negotiate beneath the piping and obtain soil samples from the south side of the separator. The following sample locations are proposed based on the assumption that such negotiation of the area is possible." NMED recognizes the challenges of the overhead piping and underground utilities and acknowledges that portions of the Main API will remain

Mr. Darrell Moore  
Navajo Refining Company  
September 22, 2010  
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uninvestigated. In the future, alternative investigation methods may be required in order to determine if a release has occurred from this unit. See also Comment 3

**Comment 7**

In Section 5.1.5 (South Alkylation Unit), page 20, bullet 1, the Permittee states "1 soil boring will be located north of the unit, approximately 20 feet from MW-104, for the collection of soil and groundwater samples." According to Figure 8, the proposed soil boring is located west of MW-104, not north as stated in bullet 1. NMED concurs with the soil boring location as provided in Figure 8. No revision to the Work Plan is necessary; however, the Permittee must ensure that the location depicted in Figure 8 is used when advancing the soil boring.

**Comment 8**

In Section 5.1.5 (South Alkylation Unit), page 20, the Permittee states in bullet 2 and 3 that "1 monitoring well will be located southeast of the unit, across US Highway 82, near the northwestern corner of the warehouse property owned by Navajo and 1 monitoring well will be located southwest of the unit, across US Highway 82, near the northeastern corner of the vacant lot owned by Navajo." The Permittee must move the location of both monitoring wells proposed in Figure 8 approximately 200 feet east (using the scale provided in Figure 8). With the change in well locations, above ground wells may not be practical; therefore, the Permittee may install flush mounted wells using traffic-rated surface monuments.

**Comment 9**

In Section 5.3.6 (PSH Sample Collection), page 28, the Permittee states "[i]n the event that [phase separated hydrocarbon] PSH is present in any of the temporary wells, samples will be collected when sufficient volume is present for adequate fingerprint analysis." In addition to the temporary wells, if PSH is detected in the newly installed monitoring wells, a sample must also be collected for fuel fingerprint analysis.




Mr. Darrell Moore  
Navajo Refining Company  
September 22, 2010  
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The Permittee does not need to submit a response to this letter or a modified Work Plan. The Permittee must implement all modifications included in this letter. The investigation report must be submitted to NMED no later than August 1, 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

JEK:hm

cc: D. Cobrain, NMED HWB  
H. Monzeglio, NMED HWB  
C. Chavez, OCD  
J. Lackey, NRC  
P. Krueger, Arcadis  
File: Reading File and NRC 2010  
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