

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION COMMISSION  
OIL CONSERVATION DIVISION**

**IN THE MATTER OF**

**Navajo Refining Company, L.L.C.**

**No. WQA-OCD-CO-2013-001**

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**AMENDMENT TO AMENDED AND SUPPLEMENTAL  
AGREED COMPLIANCE ORDER**

Pursuant to the New Mexico Water Quality Act, NMSA 1978, Sections 74-6-1 through 74-6-17, as amended ("Act"), and the regulations promulgated under the Act, the Oil Conservation Commission and the Oil Conservation Division of the Energy Minerals and Natural Resources Department of the State of New Mexico (together, "OCD") issues this Amendment to Amended and Supplemental Agreed Compliance Order No. WQA-OCD-CO-2013-001, which was issued to Navajo Refining Company, L.L.C. ("Navajo") on November 14, 2013 and which includes Exhibit A (together, the "Order"). The Order directs compliance with the Act, the Water Quality Control Commission Regulations and permits issued under the Act.

**I. FINDINGS AND DETERMINATIONS**

1. The Order at Paragraph 12 of Exhibit A requires that Navajo complete a technical evaluation of potential short-term refinery process changes to reduce selenium concentrations in wastewater and provide OCD with a summary of same on or before December 13, 2013, including its selection of short-term remedies.

2. On or before December 13, 2013, Navajo completed and submitted to OCD its technical evaluation and selection of short-term remedies as required under Paragraph 12 of Exhibit A. Navajo selected as its short-term remedies Iron Co-precipitation via ferric chloride injection ("ICP") and the installation of an approximate 100-gallon per minute, trial SeRT® unit.

3. The Order at Paragraph 13 of Exhibit A requires that, following OCD approval, Navajo commence permitting (if required) and commence and complete construction of the short-term remedies selected pursuant to Paragraph 12 of Exhibit A and that Navajo thereafter achieve compliance with the Se Limit (defined in the Order), all in accordance with general timeframes and conditions provided in the Order.

4. On or about December 16, 2013, OCD conditionally approved Navajo's selected short-term remedies to reduce selenium concentrations in wastewater.

5. Navajo has accelerated its progress in constructing and implementing the approved short-term remedies and kept OCD informed of its progress through monthly interim progress reports and other correspondence.

6. The Order at Paragraph 14 of Exhibit A requires that OCD and Navajo amend Exhibit A to establish milestones and deadlines for the construction and completion of the short-term remedies selected pursuant to Paragraph 12 of Exhibit A and achievement of the Se Limit. OCD and Navajo have agreed to a schedule of these milestones and deadlines. OCD and Navajo have further agreed that Navajo may at any time, after notice to OCD, cease operation of ICP and still satisfy requirements pertaining to these milestones and deadlines, provided that Navajo continues to achieve compliance with the Se Limit.

7. The Order at Paragraph 15 of Exhibit A describes certain long-term options under consideration by Navajo for addressing selenium concentrations in wastewater and requires that Navajo advise OCD of its selection of these options by May 30, 2014. Based on the results of Navajo's technical evaluation and ongoing related work, Navajo has adjusted certain of its plans regarding long-term options for addressing selenium concentrations in wastewater and requires additional time to evaluate and advise OCD of its selection of these long-term options. It is

therefore necessary and appropriate to modify Paragraph 15 of Exhibit A.

8. Paragraph 1.a. of Section IV of the Order provides that Navajo and OCD have the right to modify the Order by written instrument signed by both parties.

## **II. AMENDMENT**

1. The Order at Paragraphs 13 – 15 of Exhibit A are hereby amended and restated in the attached Amended Exhibit A to Amended and Supplemental Agreed Compliance Order to incorporate (a) the agreed-upon schedule of milestones and deadlines for implementation of Navajo's selected short-term remedies to reduce selenium concentrations in wastewater, and (b) adjustments to Navajo's plans regarding long-term options for addressing selenium concentrations in wastewater and the date for selection of these options.

2. The Order remains unchanged except as stipulated herein.

3. This Amendment may be executed in any number of counterparts (whether by facsimile, PDF, or original), each of which will be deemed to be an original and all of which together will constitute the same instrument.

*Done at Santa Fe, New Mexico this \_\_\_\_ day of April, 2014.*

ENERGY, MINERALS AND NATURAL  
RESOURCES DEPARTMENT  
OIL CONSERVATION COMMISSION  
OIL CONSERVATION DIVISION

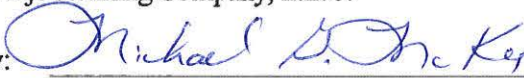
By:   
Name: Jami Bailey

Title: Chair, Oil Conservation Commission  
Director, Oil Conservation Division

ACCEPTANCE

Navajo Refining Company, L.L.C. hereby accepts the foregoing Amendment, and agrees to all of  
the terms and provisions as set forth in the Amendment,

Navajo Refining Company, L.L.C.

By:   
Name: Michael G. McKee

Title: Vice President and Refinery Manager

Date: 22 April 2014

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION COMMISSION  
OIL CONSERVATION DIVISION**

**IN THE MATTER OF**

**Navajo Refining Company, L.L.C.**

**No. WQA-OCD-CO-2013-001**

**Amended Exhibit A to Amended and Supplemental Agreed Compliance Order  
(April 21, 2014)**

**Sampling and Operating Requirements**

1. Beginning on the effective date of the Order, Navajo shall take the following actions:
  - a) Navajo shall sample injection fluid at the Facility sampling point designated by Navajo and approved by OCD (the "Sample Location") for selenium at least weekly until selenium concentrations remain below the Se Limit, for four (4) consecutive weeks. Samples shall be taken on the first business day of each week.
  - b) Once selenium concentrations remain below the Se Limit for four (4) consecutive weeks, Navajo may then reduce testing to once per month. Samples shall be taken on the first business day of each month.
  - c) Once selenium concentrations remain below the Se Limit for four (4) consecutive months, Navajo may then reduce testing to once per calendar quarter. Samples shall be taken on the first business day of each quarter.
  - d) If Navajo stops injection to the wells, Navajo shall sample injection fluid at the Sample Location prior to ceasing injection. Then, upon resuming injection, Navajo shall sample the injection fluid at the Sample Location. No sampling identified in this Exhibit A shall be required when the Facility is not injecting to the wells.
  - e) Samples required by this paragraph 1 shall be analyzed using EPA Method 1311 and, for clarity, other samples taken by Navajo may be analyzed using any method.
2. If a sample is split and sent concurrently to two laboratories, Navajo shall average the results for selenium concentration. Navajo may use any U.S. EPA-certified laboratory for the analysis, and the time limit for any action required under this Exhibit resulting from the receipt of a sample shall not begin until the receipt of all final sampling results.
3. If, at any time during the term of the Order, a sample of the injection fluid required under Paragraph 1, above, exceeds the Se Limit, Navajo shall take reasonable and prudent actions to address the exceedance, including the following:

- a) promptly take appropriate action to reduce selenium loading or concentrations to return the Facility to compliance with the Se Limit;
- b) obtain samples as deemed appropriate by Navajo and its consultants, in an effort to identify any potential sources of increased selenium to the wastewater treatment plant;
- c) take such other actions as may be appropriate to address the exceedance; and
- d) reinstitute weekly sampling and follow the same sampling schedule set forth at Paragraph 1 above.

**Reporting During the Term of the Order**

- 4. Navajo shall provide OCD by e-mail the results of the weekly, monthly and quarterly sampling required under Paragraph 1, above, within three (3) business days after its receipt of the data for that sample.
- 5. In addition to the requirements in paragraph 4 immediately above, Navajo shall provide OCD by e-mail (in lieu of the oral notification required by 20.6.2.1203 NMAC) the results of the first sample from the Sample Location that exceeds the Se Limit (after previously being in compliance) within twenty-four (24) hours after its receipt of the final data for that sample. Laboratory results greater than the Se Limit for samples taken after this exceedance but before samples again comply with the Se Limit are not required to be reported under this Paragraph.
- 6. If Navajo stops injection to the wells, Navajo shall provide OCD by e-mail on the first business day after its receipt of the final data for each sample, the results of the samples from the Sample Location taken prior to ceasing, and after resuming, injection pursuant to Paragraph 1(d) above.
- 7. If Navajo ceases injection at the wells, Navajo shall notify OCD by e-mail within one (1) business day thereafter.
- 8. Navajo shall notify OCD by e-mail that it has resumed injection at the wells within one (1) business day thereafter.
- 9. Beginning November 2013, Navajo shall provide OCD with monthly interim progress reports detailing the status and timeline for actions taken by Navajo during the preceding calendar month under the Order. The monthly progress report shall be due the first business day of the following month and shall include the following:
  - a) a summary of all the results of sampling required pursuant to Paragraph 1, above, and copies of all supporting laboratory data;

- b) a summary of the results of any optional sampling taken during the preceding calendar month (copies of laboratory data for such optional sampling shall be provided to OCD upon request); and
  - c) the calculation of stipulated penalties required under Section III, Paragraph 2 of the Order.
10. On or before November 21, 2013, Navajo shall provide to OCD by e-mail an interim progress report that summarizes its efforts to date to address the causes of the exceedences of the Se Limit.
11. On or before December 4, 2013, Navajo shall advise OCD of the results of its further review of the sampling data and address any anomalies or discrepancies.

**Remedy Selection and Implementation of Short-Term Plan**

12. On or before December 13, 2013, Navajo shall complete a technical evaluation of potential short-term refinery process change(s) to reduce selenium concentrations in wastewater and provide OCD with a summary of Navajo's technical evaluation, above, including:
- a) its selection of a short-term remedy(ies);
  - b) dates for completion of any necessary bench scale or other trials;
  - c) dates of anticipated installation of any selected technology(ies); and
  - d) dates of anticipated startup of any selected technology(ies).
13. Navajo shall construct and implement the remedy selected pursuant to paragraph 12 above (the "Remediation Project") in accordance with the following schedule of milestones and deadlines following OCD approval of same.
- a) Completion of scale-up trial and commencement of full-scale operation of an iron co-precipitation process via ferric chloride injection ("ICP") by February 1, 2014.
  - b) Completion of construction and startup of a Phillips 66, trial SeRT® unit (approximate 100 gallons per minute capacity) by February 1, 2014.
  - c) Confirmation of selenium reduction using trial SeRT® unit by March 31, 2014.
  - d) Achievement of compliance with the Se Limit as measured at the Sample Location by September 15, 2014.

Completion of the foregoing items required by this Paragraph (including OCD approval and Navajo construction, implementation, and achievement of compliance with the Se Limit) shall be referred to as the "Remediation Project Completion." Notwithstanding the foregoing, Navajo may, after notice to OCD, cease operation of ICP at any time and still satisfy requirements for Remediation Project Completion, provided that Navajo continues to achieve compliance with the Se Limit (as measured at the Sample Location).



14. Reserved.

**Long Term Project**

15. Navajo has been working on a project to enhance its wastewater treatment system and is currently implementing Phase I of this project. Phase II of this project is in the design phase and specifically addresses selenium reduction. Navajo is prepared to select the selenium reduction technology and is planning to accelerate the implementation of this technology to quickly reduce selenium in the wastewater. All of the sampling and analysis is complete and the design basis has been approved. Depending on the efficacy of the trial SeRT® unit described in Paragraph 13, above, Navajo may elect to install and/or build a full capacity permanent SeRT® unit or modify the trial SeRT® unit. In addition, Navajo continues to evaluate alternative technologies for selenium removal. On or before September 30, 2014, Navajo shall advise OCD of its selection of long-term options for addressing selenium concentrations in wastewater, including any permitting that may be required and its decision regarding the implementation of the SeRT® technology.