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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

November 14, 2013

Michael G. McKee
Vice President and Refinery Manager
Navajo Refining Company, L.L.C.
501 E Main Street
Artesia, NM 88210

RE: DISCHARGE OF SELENIUM FROM THE REFINERY WASTE WATER TREATMENT SYSTEM, NAVAJO REFINING COMPANY, ARTESIA REFINERY EPA ID No. NMD048918817

Dear Mr. McKee:

In a meeting on October 21, 2013, I met with representatives of Navajo Refining Company (Navajo) at the New Mexico Environment Department's (NMED) office in Santa Fe, New Mexico. They informed me of issues facing the Navajo Artesia Refinery and its waste water treatment system (WWTS) effluent, which is discharged into three underground injection control (UIC) wells. The UIC wells are permitted through the Oil Conservation Division (OCD) of the Energy, Minerals and Natural Resources Department (EMNRD) of the State of New Mexico, OCD Permit Nos. UICI-008-01, UICI-008-02, and UICI-008-03. None of the three UIC wells are permitted to receive selenium above established threshold limits.

At the meeting, Navajo's representatives explained the steps the company took to self-report the selenium sample results above the threshold of 1.0 milligram per liter (mg/l), and the continuing efforts it was taking to diagnose and ameliorate the problem. On October 15, 2013, Navajo orally notified NMED of selenium exceedances confirmed from September 27, 2013. Then again, on October 20, 2013, Navajo orally notified NMED of confirmed selenium exceedances from October 15, 2013. Both of these confirmed sample results were also reported to the OCD on a Form C-141, with a copy delivered to NMED. Navajo represented, and I confirmed with NMED's Hazardous Waste Bureau (HWB), that Navajo was working with NMED and OCD staff to investigate the reasons for the selenium concentrations and to determine the best solution to this technical problem.

On November 8, 2013, Navajo personnel again met with me to provide an update on additional sampling results indicating high selenium concentrations from wastewater injected into the UIC wells on October 31, November 4, and November 5, 2013. The results of those samples were orally conveyed to NMED staff on November 5, 6 and 7, 2013. NMED staff understands that the selenium was detected using toxicity characteristic leaching procedure (TCLP) and metals analysis (EPA Methods 1311 and 6010). The highest concentrations ranged between 1.0 mg/l, the Maximum Concentration Limit for the Toxicity Characteristic (TC), and 1.25 mg/l.

To date, based on telephone conversations between NMED's HWB and refinery personnel, Navajo has taken the following actions to reduce selenium concentrations in the refinery waste water effluent to levels below 1.0 mg/l:

1. Following receipt of the September 27, 2013, selenium TCLP results, production levels were reduced to decrease selenium in waste water discharge.
2. The refinery diverted its waste water discharge to tanks located at the refinery.
3. Refinery personnel notified the NMED's HWB of the discovery within 24 hours of receipt of the laboratory analytical data.
4. The refinery initiated an investigation to identify the source of the selenium present in the WWTS effluent.
5. Because certain crude oil feedstocks were suspected to contain relatively higher concentrations of selenium, the refinery temporarily suspended those sources of crude oil in order to evaluate their impact on selenium levels in the discharge.
6. Prior to the discovery of selenium at concentrations greater than the TC limit, the refinery had purchased pumps to allow for increased injection rates at the UIC wells, due to the increased downhole pressures observed from oilfield activities. The pumps were installed and became operational during the first week of November 2013.
7. The refinery notified NMED that it was evaluating the installation of an iron co-precipitate treatment system to reduce metals concentrations in the WWTS effluent as an interim measure. Navajo acknowledged that there was the potential for the treatment method to cause problems with the UIC wells due to iron precipitation. NMED understands that the refinery is working with a consultant (CH2MHill) to assess and install a selenium removal treatment technology, either as a feedstock pretreatment or as part of the WWTS. Installation of the selenium treatment system is anticipated to be completed within 12-18 months.
8. The refinery continued testing of the WWTS after production rates were decreased and the crude oil source was changed, and sampling analysis indicated that selenium concentrations in the WWTS effluent had decreased to levels below the TC limit.
9. The refinery increased production rates toward target levels. Subsequent to the increased production, selenium concentrations in the WWTS effluent increased to levels greater than the TC limit and production levels were again reduced to decrease selenium in waste water discharge and the waste water was again diverted to tanks located at the refinery.
10. The refinery initiated an internal investigation in an attempt to identify whether a specific process unit is the source of the selenium.
11. The refinery notified NMED that Reverse Osmosis (RO) reject water that contains relatively low concentrations of selenium has been added to the refinery waste water

collection system upstream of the waste water treatment system, reducing selenium concentrations in the waste stream while a permanent solution is evaluated and implemented.

It is NMED's position that Navajo has taken all appropriate measures to address the discharge of selenium at this point in time and NMED authorizes Navajo to operate at up to full capacity as it seeks to identify a long term solution to this vexing technical issue. NMED believes the refinery must continue to operate up to full capacity in order to identify the cause of the high selenium concentrations and to determine the best method to address the issue in the short and long term. NMED also believes the health, safety and environmental risks that can result from ceasing operations and then restarting the refinery outweigh the potential threats of selenium being injected into UIC wells located well beneath the lowermost formation at low concentrations. NMED also recognizes that immediate installation of a long-term solution to reduce WWTS effluent selenium concentrations is not practicable. NMED understands that Navajo proposes to identify an additional short-term interim measure in December 2013 and is currently working with a consultant to design and install a selenium treatment system to reduce WWTS effluent selenium concentrations as described above. Therefore, in light of Navajo's immediate and comprehensive response to the selenium exceedance, including Navajo's prompt self-reporting to both NMED and OCD; Navajo's constant communication with NMED and OCD regarding the efforts it has undertaken to resolve the selenium issue; the fact that a solution to the selenium exceedance issue cannot be identified without continuing to run the refinery at full capacity; and, most importantly, the safety risk posed by stopping and restarting operations at the refinery, NMED believes the most prudent course of action is for Navajo to continue operating at full capacity while it works to develop a long-term solution to this issue.

NMED is aware of the Amended Order EMNRD entered into with Navajo on November 14, 2013. By way of this correspondence, NMED requires Navajo to implement the measures described in Items 7 and 11 above. On days when discharging, Navajo must collect effluent samples from the discharge point of the WWTS for analysis of total and TCLP RCRA 8 metals by EPA Method 6010/6020 and EPA Methods 1311 and 6010, respectively. If the results of chemical analyses demonstrate that the refinery WWTS effluent is nonhazardous, the schedule for sample collection must continue at the following frequency, beginning within three days of receipt of this letter, to establish a record of compliance:

a) Weeks 1 and 2: daily
b) Weeks 3 and 4: twice weekly
c) Weeks 5 through 8: weekly
d) After week 8: monthly

Navajo must notify NMED within 24 hours of receipt of information indicating a discharge of hazardous waste in accordance with RCRA Permit Section 1.5 and 40 C.F.R. § 270.5(a)(2)(v). If such a discharge occurs, Navajo must repeat the sampling sequence provided in items a) through d) above.

Navajo must submit a report documenting all discharges of hazardous waste from the WWTS, all measures both taken and proposed to reduce selenium concentrations in the WWTS effluent.

The report also must describe the disposition of all diverted WWTS effluent (excluding laboratory samples) and provide all chemical analytical data collected beginning on or after October 31, 2013. The data must be provided in summary tables (detects only) and include the laboratory reports. In addition, the report must include all WWTS effluent chemical analytical data (organics and inorganics) collected since January 1, 2010. The laboratory reports must be submitted in electronic format (CD or DVD). The report must provide a schedule for implementation of all measures described in Items 7 and 11 above and include a projected schedule for both completion of the design and implementation of any measure to reduce WWTS effluent selenium concentrations. The report must be submitted to NMED no later than January 31, 2014.

I appreciate Navajo self-reported the selenium exceedance as well as its ongoing efforts to keep our staff informed of the measures Navajo is taking to resolve this issue.

Should you have any questions, please contact me at (505) 827-2855.

Sincerely,

Ryan Flynn
Secretary
New Mexico Environment Department

cc: B. Tongate, Deputy Secretary, NMED
J. Kendall, General Counsel, NMED
T. Blaine, Director, NMED EHD
J. Kieling, NMED HWB
D. Cobrain, NMED HWB