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FACT SHEET

JUNE 30, 2010

INTENT TO ISSUE A MODIFY A HAZARDOUS WASTE FACILITY PERMIT UNDER THE NEW MEXICO HAZARDOUS WASTE ACT

NAVAJO REFINING COMPANY, ARTESIA REFINERY (NRC) EDDY COUNTY, NEW MEXICO

Facility Name: Navajo Refining Company, Artesia Refinery

EPA Identification Number: NMD048918817

Type of Facility: Navajo Refining Company, Artesia Refinery (NRC, or the Facility) is an operating refinery that has been in service since the 1920's. The Facility has a crude oil capacity of approximately 120,000 barrels (bbls) per day. The current and historic operations of the Facility process crude oils into gasoline, diesel and jet fuels. The Facility was issued a Hazardous Waste Facility Permit by the New Mexico Environment Department (NMED) in September 2003 to conduct closure and post-closure care activities at the Facility under the New Mexico Hazardous Waste Act (HWA). NMED proposes to modify the Hazardous Waste Permit as described under the basis for Draft Permit Modification.

Location: NRC is located at the intersection of U.S. Highways 285 and 82 in Artesia. The Facility is situated on the east side of Artesia in the broad Pecos River Valley of Eastern New Mexico in Eddy County and occupies approximately 561 acres. Specifically, the Artesia Refinery located in Township 17 South, Range 26 East, Sections 1, 2, 9, 10, 11, 12 and the southern portion of Township 17 South, Range 27 East Section 6.

Owner: Navajo Refining Company

Operator: Navajo Refining Company

Introduction

Navajo Refining Company (NRC) as the owner and operator of Artesia Refinery currently has a Hazardous Waste Facility Permit for Post-Closure Care issued by NMED to manage hazardous waste pursuant to the HWA and the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (RCRA, 42 U.S.C. 6901 et seq.). Prior to issuing modifications to the final modified permit, the NMED is required by regulation to issue a draft permit for public comment, pursuant to 20.4.1.901.A(3) NMAC. NMED is also required to issue a fact sheet which serves as two functions: 1) to facilitate public review of that draft permit; and 2) to provided the basis for any requirements not specified in state regulations. This fact sheet contains all required information under 20.4.1.901 (a) through (f).

NRC PERMIT HISTORY

September 2, 2003 - The NMED issued a Hazardous Waste Facility Permit for Post-Closure Care on September 2, 2003.

November 27, 2007 - NRC submitted a Permit Modification request (PMR); however, the public notice requirements of 40 CFR 270.42(c)(2) were not completed.

January 14, 2008 – NMED required NRC to comply with the public notice requirements found in 40 CFR 270.42(c)(2) and resubmit the PMR.

February 12, 2008 – NMED received the PMR and documentation that public notice requirements were complete.

March 28, 2008 - NMED sent NRC a Notice of Deficiency (NOD) determining the February 12, 2008 PMR submittal to be administratively incomplete.

June 30, 2008-NMED received the revised PMR.

July 31, 2008 - NMED determined the June 30, 2008 submittal administratively incomplete and issued a second NOD.

September 8, 2008 –NMED received the information required by the June 30, 2008 NOD.

November 5, 2008 - NMED determined the June 30, 2008 and additional information submitted on September 5, 2008 PMR documents to be administratively complete.

June 5, 2009 – NMED sent NRC a NOD that stated the revised PMR was technically deficient.

September 25, 2009 – NMED granted an extension for the submittal of the PMR to November 15, 2009.

November 16, 2009 – NMED received a technically adequate PMR.

Regulatory Background

Prior to the issuance of the September 2003 Permit, NRC managed three hazardous waste management units: the North Colony Landfarm (NCL), the Tetra Ethyl Lead surface impoundment (TEL), and the Evaporation Ponds (EP). The modifications to the Permit address changes to the NCL and the EPs.

The NCL is an approximately 4.25-acre land treatment unit located adjacent to the north of aboveground diesel storage tanks 834 and 838. The NCL received hazardous wastes (K049, K050, K051 and K052) between 1980 and 1990. Soil and groundwater beneath the NCL has been affected by possible releases from the landfarm and from petroleum release(s) from the adjacent tank farm (tanks 834 and 838) located south of the NCL. The NCL is currently completing the closure process by establishing a vegetative cover and post-closure care monitoring requirements are in effect.

The TEL site is an approximately 0.9-acre surface impoundment that was used to treat oily wastes and other hazardous materials. The unit also was used historically for weathering of pipe and other materials generated in refinery tetra ethyl lead processes. The piping and other process materials were removed from the site after weathering. Nonhazardous wastes were placed in the TEL site between 1980 and 1983. Placement of waste in the TEL site was discontinued in 1983. The TEL surface impoundment was capped with crushed and compacted caliche and revegetated in 1989. Closure was approved by NMEID in June 1989. Post-closure care is in effect.

The Evaporation Ponds (surface impoundments) are located adjacent to the Pecos River approximately three miles east of the refinery. There are a total of five evaporation ponds. Pond 1 received refinery wastewater from the early 1930s to 1987 and is considered a part of solid waste management unit (SWMU) 4. Ponds 2, 3, 5, and 6 were constructed between 1966 and 1988. Pond 4 was never constructed. The combined surface area of evaporation ponds 2 through 6 is approximately 95 acres. Wastewater effluent discharged directly from the refinery to Pond 1 via an open ditch (Three-Mile Ditch [TMD]) until 1987. In 1987, discharge to Pond 1 was discontinued and Pond 1 was taken out of service. Refinery wastewater was discharged from the refinery through a wastewater conveyance pipe that replaced the TMD to Pond 2 between 1987 and 1994 and to pond 5 between 1994 and 1999. Ponds 3 and 6 received overflow from Ponds 2 and 5. Discharge to Ponds 2, 3, 5 and 6 was discontinued in September 1999. Navajo began operation of an on-site wastewater treatment system that discharges to the City of Artesia publicly owned treatment works (POTW) and to Class I injection wells owned by Navajo in October 1999. The Class I injection wells operate under a discharge permit issued by the New Mexico Oil Conservation Division (OCD). The EPs are currently being investigated. Upon completion of the investigations, the Evaporation Ponds will be closed.

The following are additional terms related to the Regulatory Background:

Subtitle C of RCRA provides “cradle to grave” environmental regulation for the management of hazardous waste at hazardous waste treatment, storage, and disposal facilities. The United States Environmental Protection Agency (EPA) has authorized the State of New Mexico to implement and enforce Subtitle C requirements, including corrective action requirements, under its own hazardous waste management program. The State’s enabling authority for the program is the

HWA, which authorizes the State's Environmental Improvement Board (EIB) to adopt regulations and NMED to implement and enforce the provisions of the HWA and regulations.

On November 19, 1980, the RCRA regulations became effective, and it became unlawful to treat, store, or dispose of hazardous waste without having, or having applied for, a permit. For existing treatment, storage, or disposal facilities (TSDFs), the requirement to submit an application is satisfied by submitting the "Part A" portion of the application; the "Part B" portion may be submitted at a later time. The roles of these Parts are clarified in 40 CFR § 270.10.

As part of the State's program, the EIB has adopted regulations relating to, among other things, the issuance of hazardous waste permits. These regulations incorporate by reference pertinent sections of the code of federal regulations – 40 CFR parts 260 through 270, and 273 – and are codified in the Hazardous Waste Management Regulations (HWMR), 20.4.1 NMAC.

The HWA and HWMR require each person owning or operating an existing facility or planning to construct a new facility for the treatment, storage, or disposal of hazardous waste to have a permit. *See* 42 U.S.C. 6925 and 20.4.1.900 NMAC (incorporating 40 CFR 270.1). A treatment, storage or disposal facility in existence on November 19, 1980 is eligible for "interim status." Interim status authorizes an existing facility to operate, subject to the interim status standards set forth in 20.4.1.600 NMAC, incorporating 40 CFR part 265, until NMED issues or denies a RCRA permit or until interim status is otherwise terminated.

The HWA and HWMR further require corrective action for all releases of hazardous waste or constituents from any SWMU at a facility seeking a permit, regardless of the time at which waste was placed in such unit. [42 U.S.C. 6924(u), Section 74-4-4.2(B), NMSA 1978, and 20.4.1.500 NMAC incorporating 40 CFR 264.101(a)]. Corrective action is also required beyond the facility boundary. [42 U.S.C. 6924(v) and 20.4.1.500 NMAC incorporating 40 CFR 264.101(c)].

On January 26, 1983, RCRA subjected "units" managing and disposing of hazardous waste to the closure and post-closure standards of 40 CFR Part 264, Subpart G and Part 265, Subpart G and required a post-closure care permit in some circumstances.

On January 25, 1985, the State received from EPA authorization to implement its hazardous waste program under the HWA. 50 Fed. Reg. 1515 (Jan. 11, 1985). Subsequent program revisions were approved effective on April 10, 1990, July 25, 1990, December 4, 1992, August 23, 1994, December 21, 1994, July 10, 1995, January 2, 1996, March 10, 1997, July 13, 1998, October 9, 2001, and October 16, 2007.

On January 2, 1996, the State received from EPA authorization to implement the corrective action program under the HWA. See 60 Fed. Reg. 53708 (Oct. 17. 1995); 61 Fed. Reg. 2450 (Jan. 26, 1996).

BASIS FOR DRAFT PERMIT MODIFICATION

The existing Permit is being modified to: 1) include the addition of Tank 815 to the NCL. Tank 815 was installed on the eastern half of the NCL in August 2005. Tank 815 is an 80,000 barrel tank that stores ultra low sulfur diesel (ULSD) fuel. Tank 815 is enclosed within a separate soil

berm that acts as secondary containment in the event the tank experiences catastrophic failure; 2) clarify NCL closure requirements and modify the post-closure care requirements resulting from the installation of Tank 815; 3) clarify the target cleanup levels; 4) modify the groundwater monitoring requirements; 5) modify Appendix A to incorporate additional solid waste management units (SWMUs) and Areas of Concern (AOC); 6) remove Appendix B; and 8) correct typographical errors and references throughout the Permit. The above modifications are included in the draft Permit.

In addition, the Permit has two Attachments (Attachment 1 and 2) which provide additional details for closure and post-closure activities at the NCL, the TEL, and the EP. Attachment 1 also addresses the Facility's Spill Prevention, Control, and Countermeasures Plan (SPCC) and the Facility Response Plan (FRP); these two plans have been combined into one plan called the Integrated Contingency Plan (ICP). Attachment 1 and 2 have been modified to address changes to the closure and post-closure activities at the NCL and to address the inclusion of the ICP.

PERMIT ORGANIZATION AND MODIFICATIONS

The Permit is comprised of four Modules, Appendices A through D, and Attachments 1 and 2. The Modules contain general permit and facility conditions and post-closure care and corrective action requirements.

Permit terms are established to ensure compliance with New Mexico's HWA and HWMRs and are derived from applicable regulatory requirements, the Permittees' commitments, or requirements established by NMED to ensure adherence with the regulations or to protect human health or the environment as provided at 20.4.1.900 NMAC, incorporating by reference 40 CFR § 270.32(b)(2).

This Fact Sheet and the draft Permit generally refer to regulations by citing the federal hazardous waste management regulations, 40 CFR Parts 260 through 273, rather than the New Mexico Hazardous Waste Management Regulations, 20.4.1 NMAC, which incorporate by reference the federal regulations, with certain exceptions. Where relevant, the New Mexico HWMRs are cited directly.

Permit: The Modules, Appendices, and Attachments of the Permit are described below:

Module 1: ***General Permit Conditions*** contains permit conditions that apply to all hazardous waste management units, most of which are based on mandatory permit conditions set forth in 40 CFR Part 270.

Module 2: ***General Facility Conditions*** contains mandatory permit conditions the Permittee must follow for operation of hazardous waste management facilities set forth at 20.4.1.500, incorporating 40 CFR 264, subpart B through E.

Module 3: ***Post-Closure Care*** contains permit conditions the Permittee must follow for post-closure care of the NCL, the TEL, the EPs and any other unit at which it is not possible to accomplish "clean closure" by removal of all waste, hazardous constituents, and waste residues.

Module 4: ***Corrective Action*** contains the conditions and requirements for corrective action for releases from SWMUs and AOCs, and includes: notification and assessment requirements for releases; confirmatory sampling requirements; investigations requirements; interim measures; remedy selection; and permit modification requirements. SWMUs are any discernable units at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units may include any area at the Facility at which solid wastes has been routinely and systematically released, but does not include one-time accidental spills that are immediately remediated or areas in which waste has not been managed (e.g., product storage areas). AOCs are considered to be any discernable area at the facility, or off-site, determined by the Secretary to be impacted by migration of contamination from the facility, where hazardous waste or hazardous constituent(s) are present, or are suspected to be present, as a result of a release from the facility, and that pose a current or potential threat to human health or the environment. The regulatory justifications for imposing corrective action are contained in the NMED's technical support documents filed in the administrative record. These permit conditions ensure that the Permittee appropriately address releases of hazardous waste and hazardous constituents to the environment.

Appendix A: ***Summary of Solid Waste Management Units and Areas of Concern*** contains a list of SWMU, AOC, and Hazardous Waste Management Unit at the facility.

Appendix B: ***Constituents of Concern for Wastes from Petroleum Processes*** contains a list of Constituents of Concern for Waste from Petroleum Processes.

Appendix C: ***Sampling Methods and Procedures*** contains requirements for sampling methods and procedures.

Appendix D: ***Chemical Analytical Procedures*** contains requirements for chemical analysis.

Attachment 1: addresses security and inspection requirements at the NCL, TEL, and Evaporation Ponds, preparedness and prevention, contingency plan, hazard prevention, and prevention of accidental ignition/reaction.

Attachment 2: addresses closure and post-closure plan for the NCL, TEL, and Evaporation Ponds.

<u>Modifications to the Modules, Appendices, and Attachments</u>

Module 1 Modifications:

Permit Section (PS) 1.4 –**Definitions**: This Section modifies the definition of the NCL to include Tank 815.

Module 2 Modifications:

PS 2.7.1 -**Required Equipment**: This Section has been modified to incorporate the ICP.

PS 2.7.3 –**Access to Communication and Alarm System**: This Section has been modified to incorporate the ICP.

PS 2.8.1 –**Implementation of Plan**: This Section had been modified to incorporate the ICP.

Module 3 Modifications:

PS III.A – **Module Highlights**: This Section has modified the description of the NCL to include Tank 815.

PS 3.2.3.a –**North Colony Landfarm Post-closure Care**: This Section has modified the closure and post-closure care requirements at the NCL resulting from the installation of Tank 815. This Section also ensures the installation of a vegetative cover (closure) is completed.

Module 4 Modifications:

PS 4.1.1 –**Ground Water, Soil and Surface Water Cleanup Levels**: This Section includes modifications for groundwater, soil and surface water cleanup levels. The Cleanup Levels Section contains the cleanup levels specified by the Department as targets for the completion of corrective action. The overall human health target risk levels are 10^{-5} for carcinogens and a Hazard Index of 1.0 for non-carcinogens. (*see* Subpart S at 30825-28) For the most part, the constituent-specific cleanup levels are contained in regulations that have already been developed and published for the protection of ground water, soils, surface water, and air. In addition, ecological risk is to be assessed in accordance with the Department's published guidance.

PS 4.1.1.a –**Groundwater Cleanup levels**: The groundwater cleanup targets are mostly derived from existing regulations. Contaminant cleanup levels are based upon:

a. Maximum Contaminant Levels (MCLs) adopted by EPA under the Safe Drinking Water Act, 42 USC 300f to 300j-26 or the EIB, 20.7.10 NMAC.
b. WQCC groundwater quality standards, 20.6.2.3103 NMAC.
c. Toxic pollutant cleanup levels in 20.6.2.7.WW.

These cleanup standards are all contained in regulations issued pursuant to public process. See Subpart S at 30800. In the absence of a WQCC standard or a MCL, the Department will use EPA's Regional Screening Levels for Chemical Contaminants at Superfund Sites (RSLs). Where toxicological information is published, the risk levels cited in Section 4.1.1.a shall be used.

PS 4.1.1.b –**Soil Cleanup Levels:** This Section has been modified so the soil cleanup levels are the soil screening levels specified by the Department based on the risk levels cited in Section 4.1.1.b. Where migration of contaminants may have occurred, the Department may require the use of a dilution-attenuation factor of one, which attributes no impact to dilution or attenuation. Where no soil screening level has been set, cleanup shall be governed by EPA RSLs for contaminants designated as "n", "max", and "sat" or ten times the human health SSL for compounds designated as "c". Based on the future land use, cleanup may be based on a risk assessment using the risk levels cited in Permit Section 4.1.1.

4.1.1.c –**Land Use Determination:** This Section has been included and discusses all soil cleanup levels which shall be based on residential land use scenarios unless an alternate and use scenario is approved by NMED.

PS 4.1.1.d –**Surface Water Cleanup Levels**: Permit Section 4.1.1.d contains the requirement for the Permittee to comply with the surface water quality standards outlined in the Clean Water 20 Act (33 U.S.C. §§ 1251 to 1387), the New Mexico WQCC Regulations (20.6.2 NMAC), and the State of New Mexico Standards for Interstate and Intrastate Surface Waters (20.6.4 NMAC). The Permittee must demonstrate compliance with these requirements at each SWMU and AOC in order to obtain a Corrective Action Complete determination.

PS 4.1.1.e –**Ecological Risk Evaluation**: This Section has been included and requires that screening for ecological risk be derived using the methodology in the Department's *Guidance for Assessing Ecological Risks Posed by Chemicals: Screening-Level Ecological Risk Assessment.*

PS 4.1.1.f –**Background Concentrations**: This Section addresses comparison of background concentrations in ground water, soil, or surface water to the clean up levels.

PS 4.1.1.g –**Variance from Cleanup Levels**: This Section governs applications for variances from cleanup levels.

PS 4.1.1.g.i –**Water Quality Standards**: This Section states that the Permittee may seek an alternative abatement standard pursuant to the WQCC regulations, 20.6.2.4103.E and F.

PS 4.1.1g.ii –**Soil Standards and Non-WQCC Groundwater Standards**: This Section addresses the process by which the Permittee may seek a variance from any cleanup level for soil or groundwater.

PS 4.6 –**Corrective Action For Permitted Units**: This Section contains modifications to the NCL, the TEL, and the Evaporation Ponds relating to investigation and cleanup of soil and groundwater.

PS 4.6.3.c(iii) –**Evaporation Pond Closure Plan**: **-** This Section incorporates the closure requirements for Evaporation Ponds based on site characterization conducted since 2004.

PS 4.7.6.a –**Facility-Wide Groundwater Monitoring**: This Section has incorporated changes to facility wide groundwater monitoring requirements to facilitate changes to monitoring requirements based on the results of ongoing site investigations.

PS 4.7.6.b –**Groundwater Monitoring**: This Section has modified and updated the groundwater monitoring requirements.

Modifications to the Appendices

Appendix A- *SWMU*, AOC, and Hazardous Waste Management Unit tables: This Appendix has added to the SWMU and AOC list and presented the information in table format.

Appendix B- Constituents of Concern for Waste from Petroleum Processes: This Appendix has been removed from the Permit.

Attachment 1 –The sections pertaining to the NCL have been modified in reference to security, inspection requirements, NCL inspection log, tank inspection checklist, secondary containment checklist, preparedness and prevention, the contingency plan, and hazard prevention. Other modifications include the incorporation of the ICP, and changes to references.

Attachment 2 -This Attachment modifies the Closure/Post-Closure Care requirements for the NCL.

PUBLIC PARTICIPATION

There are significant opportunities for the public to learn about and become involved in the regulation of hazardous waste at NRC, including the corrective action processes in the revised draft Permit. Documents pertinent to permitting and corrective action activities submitted to or issued by the Department are available for public review in the Department's administrative record at 2905 Rodeo Park Drive East, Building 1, Santa Fe, New Mexico. This Fact Sheet is in part an effort to involve the public, and at the end of this Fact Sheet is a description of how the public may comment on the revised draft Permit.

Regulations require public involvement any time there is a modification to change the Permit. That process involves public notices and may include an opportunity for public comment. Public notices are provided in local newspapers and letters to individuals on the facility mailing list are sent that include notification of requested modifications. The facility mailing list is maintained by the Department and any interested person may request to be placed on the list to be informed of such actions.

PUBLIC REVIEW OF THE DRAFT PERMIT

The Administrative Record for this proposed action consists of the permit modification request, the draft Permit, this Public Notice, the Fact Sheet, and other supporting documentation the Department relied on to develop the draft permit. The Administrative Record may be reviewed, with prior appointment, at the following location during the public comment period.

NMED - Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, New Mexico 87505-6303
Phone: (505) 476-6000
Monday – Friday: 8:00 a.m. to 5:00 p.m.
Contact: *Pam Allen*

A copy of the draft Permit, this Public Notice, and the Fact Sheet are also available on the Department's website at: http://www.nmenv.state.nm.us/hwb/nrcperm.html under NRC Permit Modfication. To obtain a copy of the Administrative Record or a portion thereof, please contact

Ms. Pam Allen at (505) 476-6000, or at address given above. The Department will provide copies, or portions thereof, of the Administrative Record at a cost to the requestor.

The Department issues this public notice on **June 30,2010**, to announce the beginning of a 60-day comment period that will end at **5:00 p.m. MDT, August 30, 2010**. Any person who wishes to comment on the revised draft Permit or request a public hearing should submit written or electronic mail (e-mail) comment(s) with the commenter's name and physical address to the respective address below. Only comments and/or requests received before **5:00 p.m. MDT** on **August 4, 2010** will be considered.

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Ref: NRC Permit Modification

Written comments must be based on reasonably available information and include, to the extent practicable, all referenced factual materials. Documents in the administrative record need not be re-submitted if expressly referenced by the commenter. Requests for a public hearing must provide: (1) a clear and concise factual statement of the nature and scope of the interest of the person requesting the hearing; (2) the name and physical address of all persons whom the requestor represents; (3) a statement of any objections to the revised draft Permit, including specific references to any conditions; and (4) a statement of the issues which the commenter proposes to raise for consideration at the hearing. The Department will provide a thirty day notice of a public hearing, if one is scheduled.

The Department must ensure that the revised draft Permit is consistent with the New Mexico Hazardous Waste Management Regulations. All written comments submitted will be considered in formulating a decision on issuance of a final permit, or that may cause the revised draft Permit to be modified. The Department will respond in writing to all public comments. This response will specify which provisions, if any, of the revised draft Permit have been changed in the final permit and the reasons for the changes. All persons presenting written comments or who requested notification in writing will be notified of the decision by mail. These responses will also be posted on the Department's website.

After consideration of all the written public comments received the Secretary of the Department or his designee will make the final decision on this revised draft Permit. The decision will be publicly available, and shall be included in a notification to the Applicants by certified mail. The Secretary's decision shall constitute a final agency decision and may be appealed as provided by the HWA.

ARRANGEMENTS FOR PERSONS WITH DISABILITIES

If any person requires assistance, an interpreter or auxiliary aid to participate in this process, please contact Judy Bentley at NMED, Personnel Service Bureau, Room N-4071, 1190 St. Francis Drive, P.O. Box 5469, Santa Fe, New Mexico, 87502. Ms. Bentley's telephone number is (505) 827-9872. TDY users please access Ms. Bentley's number through the New Mexico Relay Network at 1-800-659-8331.

Under Consideration