



BILL RICHARDSON Governor

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# NEW MEXICO ENVIRONMENT DEPARTMENT

# Hazardous Waste Bureau

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RON CURRY Secretary

JON GOLDSTEIN Deputy Secretary

### CERTIFIED MAIL - RETURN RECEIPT REQUESTED

April 15, 2009

Mr. Ed Riege Environmental Superintendent Western Refining, Southwest Inc., Gallup Refinery Route 3, Box 7 Gallup, New Mexico 87301

RE: NOTICE OF DISAPPROVAL

PROCESS DESIGN REPORT FOR WASTEWATER TREATMENT

PLANT UPGRADE

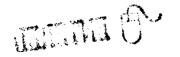
WESTERN REFINING COMPANY, SOUTHWEST, INC., GALLUP REFINERY

EPA ID # NMD000333211

HWB-GRCC-09-002

Dear Mr. Riege:

The New Mexico Environment Department (NMED) and the New Mexico Energy Minerals, and Natural Resource Department, Oil Conservation Division (OCD) have completed their review of the *Process Design Report For Wastewater Treatment Plan Upgrade* (Report), dated February 26, 2009, submitted on behalf of Western Refining Company, Southwest Inc., Gallup Refinery (the Permittee). The Permittee must provide additional information before NMED and OCD can complete their technical review and hereby issues this Notice of Disapproval (NOD) and provides comments below. Comments 5 through 10 are not directly related to the system design



but are part of the wastewater treatment plan upgrade. The Permittee may choose to address these comments in an appendix of the revised Report.

Comment 1

In Section 3.3 (Biological Treatment), the Permittee states "[t]he biological treatment technology selected for [Wastewater Treatment Plant] WWTP upgrade project was a Bioreactor without sludge (biomass) recycle. This technology is akin to an aerated lagoon, but in an above-ground steel tank."

The Permittee currently does not have a National Pollutant Discharge Elimination System (NPDES) Permit. Therefore, the wastewater treatment system (WWTS) upgrade is subject to the Resource Conservation Recovery Act (RCRA) and the New Mexico Hazardous Waste Act (HWA). The bioreactors, tank-based separator, and any future tanks must comply with 20.4.1.500, incorporating 40 CFR 264 Subpart J. The Permittee must revise the Report to show that the tanks comply with the Subpart J design requirements. The Permittee must revise the text and attachments as necessary.

#### Comment 2

In Section 3.3 (Biological Treatment), page 3-3, the Permittee states "[t]he shutdown of Benzene Stripper No. 3 will increase the benzene loading in the NAPIS effluent above current levels. In the detailed engineering phase, Brown and Caldwell will evaluate the impact of this change on the design conditions and evaluate whether or not MBBR media addition to the Bioreactors will be required as a result."

The Permittee must revise the Report to include all changes to the WWTS to account for the increased benzene load resulting from the removal of Benzene Stripper 3.

#### Comment 3

In Section 4.5 (Secondary Containment and Leak Detection), page 4-5, the Permittee states "[t]he proposed design does not include leak detection or containment berms for the Bioreactors (T11 and T12)....However, the Bioreactors will be situated such that a potential leak would flow into EP-1, which is the destination of the Bioreactor effluent."

If the system has a leak, the discharge may not be completely treated and therefore may potentially be characteristic for benzene and/or be a F037/F038 listed waste, which would then enter EP-1. Hazardous waste must not be discharged to EP-1 since it is not permitted by NMED to received hazardous waste and requirements in the OCD Discharge Plan. Because the Permittee does not have a NPDES Permit for the wastewater treatment system, the tank systems within the WWTS are subject to the requirements of 20.4.1.500 NMAC, incorporating 40 CFR 264 Subpart J. The Permittee must revise this Report to reflect compliance with the requirements of 40 CFR 264 Subpart J and revise the attachments as applicable. The Permittee

must also revise the Report to comply with Condition 9 (Above Ground Tanks) of the OCD Discharge Permit (GW-32), dated August 23, 2007. The WWTS cannot be retrofitted and does not qualify for the exemption (tanks that contain fresh water or fluids that are gases at atmospheric temperature and pressure are exempt) under Condition 9 of the OCD Permit.

### Comment 4

The Permittee must revise the Report to include the following modifications:

- a. The WWTS must contain influent and effluent sampling ports to accommodate sampling at the new API separator, the tank based separator, and the bioreactors.
- b. The WWTS must include air vents for the Tank Based Separator and the Bioreactors. These locations must be constructed to allow for emissions sampling.

The text and attachments must be revised as necessary to address items a and b above.

#### Comment 5

In Section 2.2 (Refinery Wastewaters), page 2-1, the Permittee states "[t]he sanitary wastewater generated at the Refinery and the seven adjacent homes owned by the Refinery currently discharges to septic systems and not the WWTP. However, the WWTP upgrades will include the option for these sanitary sources to be redirected to the WWTP at a future date at Western Refining's discretion."

If and when the sanitary sources are redirected to the WWTS, the Permittee must notify the OCD and the Gallup Field Office (http://www.nmenv.state.nm.us/NMED/field\_op.html) prior to implementing this change over and comply with all requirements. No revision is necessary.

## Comment 6

In Section 3.3 (Biological Treatment), page 3-3, the Permittee states "[b]iomass will exit the Bioreactors by being carried out in the Bioreactor effluent. The biomass will settle out in the downstream evaporation ponds, primarily [Evaporation Pond] EP-1. Over time, the settled biomass may accumulate in EP-1 to the extent that dredging will be required."

The Permittee has allowed upsets with the current wastewater treatment system resulting in hazardous waste being discharged to EP-1. Therefore the following requirements apply and the Permittee must revise the Report to address these requirements.

a. Within 30 days of demonstration that the new wastewater treatment system is achieving cleanup criteria, the Permittee must dredge EP-1. The dredged material must be properly characterized and managed for proper disposal. All dredging and waste disposal activities must be approved by both NMED and OCD prior to

implementation. The Report must be revised to describe the dredging process, alternatively, the Permittee may submit a separate work plan to NMED and OCD for approval that addresses the dredging activities.

b. After the initial dredging of EP-1, the Permittee must dredge the biomass from EP-1 anytime the biomass accumulation is greater than one foot. The dredged biomass must be properly characterized as nonhazardous if considered for placement in the OCD landfarm to assist the remediation of contamination soils, pending OCD approval. NMED must be included on all correspondence.

#### Comment 7

In Section 4.2.1 (Stormwater/Diversion tanks), page 4-1, the Permittee states "[i]n the new system, stormwater will flow by gravity to two Stormwater/Diversion Tanks. These tanks are existing with a numerical designation of Z84-T27 and T-28....Stormwater that collects in the tanks will be pumped at a rate of 50 to 200 gpm to the process sewer that feeds to the NAPIS."

Since the stormwater and process wastewater at the refinery comingle, any sludge removed from the bottom of the Stormwater/Diversion tanks must be managed as hazardous waste.

### Comment 8

In Section 4.2.1 (Stormwater/Diversion tanks), page 4-1, the Permittee states "[c]leanouts will be installed on the conveyance pipelines to and from the Stormwater/Diversion Tanks. Cleaning events will be scheduled on a regular, recurring basis."

Any sludge removed during the cleanouts of the pipelines must be managed as hazardous waste. The Permittee must revise the Report to address the management of this sludge.

# Comment 9

In Section 4.2.5 (Bioreactors), page 4-3 and 4-4 the Permittee states "[t]here will be provisions for diverting the Bioreactor effluent away from EP-1 in the event that the treated water quality is not acceptable. A diversion line will be connected to the combined Bioreactor effluent, with its valve normally closed. To divert, this valve would be opened and the valve to EP-1 closed" and the Permittee later states in Section 4.4 (Management of Off-Spec Wastewater), page 4-5, that "[i]f at anytime the Bioreactor effluent were deemed unsuitable for discharge to EP-1, it could be diverted to the new Stormwater/Diversion Tanks as described in Section 4.2.5."

The Permittee must provide a sampling plan that explains how the Permittee will characterize the effluent from the bioreactors entering EP-1. The sampling plan must identify the location of samples that will be collected and address sampling frequency, water quality parameters, and test methods. The effluent must comply with the Water Quality Control Commission standards found in 20.6.2.3103.

#### Comment 10

In Section 4.3.3 (OAPIS), page 4-5, the Permittee states "the [Old API Separator] OAPIS will no longer be required and can be decommissioned."

The OAPIS is Solid Waste Management Unit (SWMU) No. 14. This SWMU is subject to corrective action under the Refinery's RCRA Permit. In the response letter, the Permittee must provide a schedule for the submittal of an investigation work plan to assess releases from the OAPIS.

The Permittee must address all comments contained in this NOD. The revised Report must be submitted with a response letter that details where all revisions have been made, cross-referencing NMED's numbered comments. In addition, an electronic version of the revised Report must be submitted that identifies where all changes made in red-line strikeout format. The Permittee must submit the revised Report to NMED, OCD, and EPA on or before May 30, 2009.

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

Sincerely,

James P. Bearzi

Chief

Hazardous Waste Bureau

cc:

J. Kieling, NMED HWB

D. Cobrain NMED HWB

H. Monzeglio, NMED HWB

B. Jones, OCD

C. Chavez, OCD

G. Rajen, Gallup

J. Dougherty, EPA Region 6

File: Reading File and GRCC 2009 File

HWB-GRCC-09-002