



State of New Mexico  **ENTERED**  
ENVIRONMENT DEPARTMENT



**Hazardous Waste Bureau**

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**CERTIFIED MAIL – RETURN RECEIPT REQUESTED**

August 7, 2018

Jessica L. O'Brien  
Environmental Supervisor  
Western Refining, Southwest Inc., Gallup Refinery  
92 Giant Crossing Road  
Gallup, New Mexico 87301

**RE: DISAPPROVAL  
RESPONSES TO NMED DISAPPROVAL SANITARY LAGOON  
INVESTIGATION  
WESTERN REFINING SOUTHWEST INC., GALLUP REFINERY  
EPA ID # NMD000333211  
HWB-WRG-15-002**

Dear Ms. O'Brien:

The New Mexico Environment Department (NMED) has reviewed the *Responses to NMED Disapproval Sanitary Lagoon Investigation*, dated April 30, 2018 (April 2018 Response) and May 31, 2018 (May 2018 Response), submitted on behalf of Western Refining Southwest Inc., Gallup Refinery (the Permittee). The Permittee has not fully addressed NMED's comments found in its March 15, 2018 Disapproval, and therefore must address the following comments provided by both NMED and the New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division (OCD).

**Comment 1**

The Permittee's April Response to Comment 6 of NMED's March 15, 2018 *Disapproval* states, "[s]anitary wastewaters are sent to the Sanitary Treatment Pond-1 (STP-1) which uses aeration for treatment." It appears that the Permittee misinterpreted the NMED's comment. To clarify, "sanitary wastewater" refers to the wastewater discharged to the Sanitary Lagoon, rather than the wastewater routed to STP-1. Please provide information regarding how the sanitary wastewater from toilets is treated and how the facility prevents exposure to personnel. If untreated sanitary

discharge is discharged to the Sanitary Lagoon, explain how workers are protected from exposure to the surface discharge.

**Comment 2**

The Permittee's April 30, 2018 Response to NMED's Comment 12 states, "[w]hile the Permittee acknowledges and appreciates NMED's decision, Permittee requests that any future consideration of the sanitary lagoon note its location to be within area identified as SWMU 12." NMED does not consider the sanitary lagoon to be part of SWMU 12. To reiterate NMED's position posited in Comment 12, the discharge to the lagoon has been shown to contain hazardous constituents and is considered a routine and systematic release; therefore, the Sewage Lagoon meets the definition of a SWMU, separate and aside from SWMU 12. The Sewage Lagoon is not part of the process sewer/contact wastewater system/stormwater collection system. The waste discharged directly to the Sewage Lagoon is separate from the migration of contaminants from SWMU 12.

**Comment 3**

Comment 9 of NMED's March 15, 2018 *Disapproval* states, "the Permittee must contact the appropriate Bureau to report the discharge and obtain any required permits." In its response letters, the Permittee did not state whether the discharge was reported. Please provide information regarding the reporting of the discharge and any communications regarding the permitting of the Sanitary Lagoon. If the Permittee did not report the release to the agencies as required, the Permittee is in violation of spill reporting requirements.

**Comment 4**

The Permittee's dye tracer studies conducted in January 2018 demonstrated that the sanitary sewers in the Change House and the Truck Rack Driver's Lounge are connected to the Sanitary Lagoon. The Permittee's observation of the effluent discharged to the Sanitary Lagoon describes the wastewater as, "[f]low is consistently clear, no color or solid matter, slight sanitary odor." Provide information as to whether there is a septic tank or other manner by which solids are captured so that they are not entering the Sanitary Lagoon.

**Comment 5**

The May Response letter text and figures were not included on the electronic version. The paper copies of several figures are illegible. An electronic version of the letter and figures and legible hard copies must be submitted.

**Comment 6**

There are several issues regarding the Permittee's dye tracer studies. The Permittee must address the following issues:

The Permittee's May 2018 Response states, "[d]ye testing was conducted in all areas of our current site operations that would be associated with those buildings and such sanitary sources were determined not be discharging to the Sanitary Lagoon." The buildings listed include "WHSE", "LUBRICATION", and "MKT OFF" which correspond to the Warehouse near the Warehouse Yard, the I/E Shop, and the Trans/Lab on a more current version of the Plant Layout.

Based on the figures provided, it appears that the Mechanic Shop, the Fire House/Flammable Warehouse, Truck Loading Racks, and Marketing Tanks appear to connect to the same sewer line as well. The Permittee must conduct dye tests to evaluate whether there is discharge to the Sanitary Lagoon from these other potential sources. It is also not clear what is meant by "sanitary sources" describe whether this includes sinks, floor drains, sumps or other conveyances for wastewater to enter the sewer system.

Additionally, the Permittee did not record the amount of water used during the first dye test or subsequent dye tests. The Permittee's May 2018 Response letter states, "[c]ontrary to initial dye testing results previously reported, a second dye test was performed at the truck drivers' lounge and was determined not to be discharging to the Sanitary Lagoon." The discrepancy in the results may be caused by a difference in the volume of water used for the tests. Because the Permittee did not keep a record of the volume of water used for the dye tests, the Permittee must not use the results of the tests to determine source areas. The Permittee must conduct additional dye tracer tests to identify the sources of discharge to the Sanitary Lagoon. Conduct the testing in accordance with the procedures outlined below:

1. Determine an appropriate volume and concentration of tracer solution and ensure that the tracers can be separately identified. Since the volume of solutions used in the original tests is not known, start the test with a high volume of the solution. Several dye tests conducted at each potential source with variable water volumes and dye concentrations may be necessary.
2. Discharge the tracer solution from locations labeled on provided figures as "LAB", "MKT OFF", "CHANGE HOUSE", "WHSE", "MAIN WHSE", "FIRE HOUSE", "LUBRICATION", "M. SHOP & GARAGE", "W. SHOP", and "DRIVERS LOUNGE". Each tracer test must be run individually. Release the tracer solution only at the testing location; other locations that may be connected to the Sanitary Lagoon must not be in use during the test.
3. Investigate breakthrough of the tracer at the outfall of the Sanitary Lagoon and the inlet to the STP-1 immediately after the release and for up to 24 hours after the dye tracer release. The breakthrough may be investigated qualitatively; however, ensure that the tracer can be detected at low parts per million level. The tracer solution should be detected either at the outfall of the Sanitary Lagoon or the inlet to the STP-1 shortly after the tracer release. If the dye is not detected at either location, the Permittee must check groundwater monitoring wells in the vicinity of the sewer line for the presence of dye tracer.

Provide a work plan with detailed a description of the proposed investigation methods of the dye tracer testing by no later than **September 14, 2018**.

#### **Comment 7**

NMED recommends, as soon as possible, either plugging the discharge pipe to the Sanitary Lagoon or connecting the discharge pipe to STP-1 so that the discharge no longer releases to the

ground surface. Since the discharge pipe has degraded, the pipe may be a conduit for contaminants to enter the environment. Removal of the entire discharge pipe is recommended after investigations are complete.

**Comment 8**

In the May 2018 Response letter, the Permittee proposes several efforts to hydroexcavate sewer connections. The Permittee must determine the source area(s) and leak locations before hydroexcavation is conducted. If the Permittee hydroexcavates, then it will be impossible to observe the condition of lines, determine the locations of leaks, and focus investigations of the migration of contaminants. Further, removal of the pipes and connections may obscure the locations of some source areas. Once sources and contaminated areas are defined, hydroexcavation and replacement of lines to ensure all wastewater discharges to STP-1 may continue. Before hydroexcavation or discharge pipe removal, report the depth of the discharge pipe from the ground surface. Additionally, note that use of hydroexcavation will produce tanks full of hazardous waste, which will need to be managed properly. In the May 2018 Response the Permittee states that the hydroexcavation work is out for contractor bid; however, prior to conducting these excavations, the Permittee must submit a work plan that describes the proposed work and the management of waste generated by hydroexcavation. The work plan must be submitted no later than **September 8, 2018**.

**Comment 9**

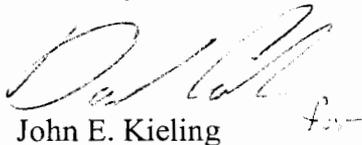
In the May 2018 Response letter, the Permittee states, "Permittee hereby submits an Investigation Work Plan provided in Attachment B." NMED does not accept documents submitted as an appendix or attachment to another document for review. Therefore, NMED considers the Work Plan to be a separate submittal

The Permittee must address all comments in this letter and submit a response by no later than **September 24, 2018**.

Ms. O'Brien  
August 7, 2018  
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If you have questions regarding this letter, please contact Kristen Van Horn of my staff at 505-476-6046.

Sincerely,

A handwritten signature in cursive script, appearing to read "John E. Kieling".

John E. Kieling  
Chief  
Hazardous Waste Bureau

cc: K. Van Horn NMED HWB  
M. Suzuki NMED HWB  
S. Pullen, GWQB  
C. Chavez OCD  
L. King EPA Region 6

File: Reading File and WRG 2018 File  
HWB-WRG-15-002