



February 27, 2009

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Santa Fe, NM 87505

Hope Monzeglio

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Hazardous Waste Bureau
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Re: OCD Discharge Permit GW-032 Condition 24

Dear Mr. Jones and Ms. Monzeglio:

This letter and submission address the OCD Discharge Permit GW-032 Condition 24 requirements. Specifically the below listed items address the OCD GW-032 revised schedule letter dated March 12, 2008, which granted a submission due date of March 1, 2009.

Condition 24 A. and B. - A letter and final design drawings were sent to Carl Chavez on January 26, 2009 requesting additional time needed to complete the Pilot Travel Center lift station. Gallup is progressing with the new Pilot Travel Center lift station/underground line design that OCD approved in the fourth quarter of 2008 and is expected to be completed by June 13, 2009.

The two new four inch underground sewer lines were installed and pressure tested in December 2008 to demonstrate mechanical integrity. The existing line is still in use but a few piping modifications completed in February allow the wastewater to be transferred over to one of the new lines should a problem arise with the existing line. This will assure there will be no bypass to the evaporation pond.

Condition 24. E. - the *Biohazard Management Plan* is attached. This comprehensive plan covers the waste treatment facility and evaporation ponds. As requested by OCD a copy of the plan is also being sent to Heidi Krapsi, Bureau Chief, Environmental Epidemiology, NM Department of Health.

Please contact me at (505) 722-0217 if you have any comments or questions regarding this submittal.

Sincerely,

Ed Riege MPH
Environmental Manager

C: Heidi Krapsi

LIBRARY COPY

**Biohazard Management Plan
Wastewater Treatment Plant
Gallup Refinery**

**Western Refining
Gallup, New Mexico**

March 2009

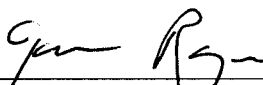


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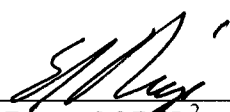
March 2009

Prepared by:



Gaurav Rajen, Ph.D.¹
Environmental Engineer

Reviewed by:



Ed Riege, M.P.H.²
Environmental Manager

¹ Dr. Gaurav Rajen is an environmental engineer with several decades of experience who has conducted numerous assessments of risks from hazardous, radioactive, and biological wastes, worked closely with the U.S. Environmental Protection Agency and the Agency for Toxic Substance and Disease Registry on such assessments, and published extensively in these fields. He has supported Sandia National Laboratories' International Biological Threat Reduction Program and co-authored a report related to bio-security and bio-safety in South Asia. He was a speaker at the Biological Threat Reduction conference in 2005 sponsored by the State of New Mexico's Department of Homeland Security and Emergency Management.

² Mr. Ed Riege has several decades of experience in assessing environmental risks, including biological risks, and also hold a Master's degree in Public Health from Loma Linda University.

Abstract

We have created a Biohazard Management Plan that addresses possible risks from biohazards at the Gallup Refinery's Wastewater Treatment Plant (WWTP). We have assessed risks through literature reviews, independent analyses, and review of our monitoring data. To manage the most significant risks (in absolute terms the risks are low, but could have severe consequences), we have created a system of engineering practices and controls, physical protective equipment, and the use of specialized containers to temporarily store, and later transport and dispose any infectious wastes that could enter our WWTP. We find that environmental risks from the attraction of vectors (such as rodents or birds) to our biomaterials are minimized by virtue of the Aggressive Biological Treatment we utilize to treat our wastewater. Through our plan, we are in conformity with recommendations of the U.S. Environmental Protection Agency and the New Mexico Environment Department, as well as requirements related to blood-borne pathogens and other infectious materials required by the Occupational Safety and Health Administration.

Executive Summary

This “Biohazard Management Plan” addresses the potential biohazards present in the wastewater treatment plant (WWTP) of the Gallup Refinery of Western Refining. To develop this Biohazard Plan, we have first assessed risks from our WWTP’s biohazards. Our major findings are -

- On-site risks from biohazards to workers at the refinery’s WWTP in terms of health effects are a small but finite possibility – therefore, we have created a series of management controls to minimize these risks, including the use of appropriate physical protective equipment, an immunization program, and training. There are risks to WWTP workers from sharps (such as needles, etc.) contaminated with infectious wastes. As the consequences could be severe, we plan to keep on-site specially designed containers for infectious wastes and utilize existing programs of the State of New Mexico for disposal of sharps or other authorized infectious waste handlers. (Risks to any inadvertent intruder are estimated far lesser than the risks to on-site workers and risks to inadvertent intruders are found to not be of any appreciable concern.)
- Risks from airborne bioaerosols are shown to be the only route for risks from off-site exposures. Levels of bioaerosols from WWTPs are known to drop off to background after about 300 m. The nearest permanent residents are located 3000 m away. Other population centers are the Pilot Travel Center, and the Interstate-40 corridor which have workers and transient visitors. Both of these transient population centers are greater than 600 m away. As the distances to population centers are much greater than 300 m, we do not anticipate any risks from bioaerosols to these residents and transient visitors.
- Environmental risks are minimized by making our wastewater and sludge unattractive to vectors (such as rodents or birds).

Based on these assessments of risks and identification of risks that need to be minimized, we have created a detailed plan to manage risks and control exposures. Our plan conforms to the operational requirements mandated by the State of New Mexico’s Solid Waste Regulations regarding infectious wastes that require the creation of a management plan for all WWTPs that might handle infectious wastes (regardless of quantity).

We have created a management plan with engineering practices and controls as well as physical protective equipment to manage and control likely biohazards at the Gallup Refinery. We offer an immunization program for employees who work with wastewater, and have coupled this with enhanced training, ongoing medical evaluations, and record-keeping. We will continually update this plan as needed. The persons responsible for the implementation and oversight of this plan are:

Refinery Manager

- Mark Turri

Operations Manager – Off-sites (oversees the WWTP)

- Joel Quinones

Health and Safety Manager

- Frank Deller

Environmental Manager

- Ed Riege

Training Coordinator – Off-sites

- Kelly Sanchez

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LIST OF ACRONYMS

ATSDR	Agency for Toxic Substances and Disease Registry
CDC	Centers for Disease Control
CFU	Colony forming units
EPA	Environmental Protection Agency
GPM	Gallons per minute
GPD	Gallons per day
HBV	Hepatitis B Virus
HIV	Human Immunodeficiency Virus
NMED	New Mexico Environment Department
OC	Oil Conservation Division
OSHA	Occupational Safety and Health Administration
PPE	Physical protective equipment
WWTP	Wastewater treatment plant