

GRCO 2004

Final Draft

May 13, 2004

CERTIFIED MAIL
RETURN RECEIPT NO. 5357 7119

Ms Dorinda Mancini
Giant Industries Arizona, Inc. d/b/ Giant Refining Company ("Giant")
Route 3, Box 7
Gallup, New Mexico 87301

RE: Discharge Permit GW-032
Ciniza Refinery
McKinley County, New Mexico

Dear Ms. Mancini:

The groundwater discharge permit renewal, GW-032, for the Giant Refining Company (Giant) Ciniza Refinery located in the Section 28 and Section 33, Township 15 North, Range 15 West, NMPM, McKinley County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 30 working days of receipt of this letter.**

The original discharge permit was approved on August 01, 1986, with an expiration date of August 01, 1991. The discharge permit renewal application dated February 21, 2002 including attachments, subsequent information dated September 09, 2003, January 20, 2004, and a complete revised discharge plan submittal May 05, 2004, all submitted pursuant to Section 3106 of the New Mexico Water Quality Control Commission (WQCC) Regulations also includes all earlier applications and all conditions later placed on those approvals.

The discharge permit is renewed pursuant to Section 3109.C. Please note Section 3109.G, which provides for possible future amendment of the permit. Please be advised that approval of this permit does not relieve Giant Refining Company of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does it relieve Giant Refining Company of its responsibility to comply with any other governmental authority's rules and regulations. Please be advised that all exposed pits, including lined pits and open top tanks (exceeding 16 feet in diameter) shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

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Please note that Section 3104. of the regulations requires that "when a permit has been approved, discharges must be consistent with the terms and conditions of the permit." Pursuant to Section 3107.C.,

Giant Refining Company is required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3109.H.4., this approval is for a period of five years. **This approval will expire August 01, 2006** and an application for renewal should be submitted in ample time before that date. Pursuant to Section 3106.F. of the regulations, if a discharger submits a discharge permit renewal application at least 120 days before the discharge permit expires and is in compliance with the approved permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved.

The discharge permit application for the Giant Refining Company, Ciniza Refinery is subject to the WQCC Regulation 3114. Every billable facility submitting a discharge permit will be assessed a fee equal to the filing fee of \$100.00 plus flat fee of \$ 8400.00 for Oil Refineries. The OCD has received the \$100.00 filing fee and \$8400.00 flat fee.

If you have any questions, please contact Wayne Price of my staff at (505-476-3487) or E-mail WPRICE@state.nm.us. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief

RCA/lwp
Attachments-1
xc: OCD Aztec Office

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ATTACHMENT TO THE DISCHARGE PERMIT GW-032 APPROVAL
Giant Refining Company, Ciniza Refinery
DISCHARGE PERMIT APPROVAL CONDITIONS
May 13, 2004

1. Payment of Discharge Permit Fees: The \$100.00 filing fee and \$8400.00 flat fee has been received by the OCD.
2. Commitments: Giant Refining Company will abide by all commitments submitted in the discharge permit renewal application dated February 22, 2002 including attachments and all subsequent information and these conditions for approval.
3. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in place and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets must also be stored on an impermeable pad with curbing.
4. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
5. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad within the berm.
6. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.
7. Labeling: All tanks, drums, and other containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill, or ignite.
8. Below Grade Tanks/Sumps/Pits/Ponds: All below grade tanks, sumps, pits and ponds must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design, unless approved otherwise. All below grade tanks, sumps and pits must be tested annually or as specified below, see additional conditions, except systems that have secondary containment with leak detection. These systems with leak detection shall have a monthly inspection of the leak detection to determine if the primary containment is

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leaking. Results of tests and inspections shall be maintained at the facility covered by this discharge plan and available for NMOCD inspection. Any system found to be leaking shall be reported pursuant to Item # 12. Permit holders may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.

Existing Refinery Evaporation Ponds: These ponds will be exempted from required secondary containment as long as giant can demonstrate that all fluids are being contained within the pond system.

API Separator(s): A closure plan for OCD approval shall be filed by September 01, 2004 for the Old API separator.

New Wastewater (Total Plant) API Separator: Giant must conform to permit condition Item #8. above. This system must have secondary containment with leak detection.

Additional Conditions: Giant shall develop, within one year of this plan being approved, a spreadsheet that contains all single lined underground tanks/sumps/pits. Each device or system shall have an identification number, drawing reference, date installed, test dates, test method, pass/fail/repair information with signature, and investigation results if applicable. Giant shall test at a minimum 20% of the total below grade devices each year.

9. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be approved by the OCD prior to installation and must be tested to demonstrate their mechanical integrity every five (5) years. Results of such tests shall be maintained at the facility covered by this discharge plan and available for NMOCD inspection. Permit holders may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.

Additional Conditions: Giant shall develop, within one year of this plan being approved, a spreadsheet that contains all underground process and wastewater lines. Each line shall have an identification number, drawing reference, date installed, test dates, test method, pass/fail/repair information with signature, and investigation results if applicable. Giant shall test at a minimum 20% of the underground process/wastewater pipelines each year.

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10. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be approved for construction and/or operation unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.
11. Housekeeping: All systems designed for spill collection/prevention, and leak detection will be inspected at least monthly to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices will be emptied of fluids within 48 hours of discovery. A record of inspection will be retained on site for a period of five years.
12. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116. and WQCC 1203. to the OCD Aztec District Office.
13. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge permit will be approved by OCD on a case-by-case basis.
 1. Rule 712 Waste: Pursuant to Rule 712, disposal of certain non-domestic waste is allowed at solid waste facilities permitted by the New Mexico Environment Department as long as the waste stream is identified in the discharge permit, and existing process knowledge of the waste stream does not change without notification to the Oil Conservation Division.
14. OCD Inspections: Additional requirements may be placed on the facility based upon results from OCD inspections.
15. Storm Water Permit: Giant Refining Company shall maintain stormwater runoff controls. As a result of operations if any water contaminant that exceeds the WQCC standards listed in 20 NMAC 6.2.3101 is discharged in any stormwater run-off then Giant shall notify the OCD within 24 hours of discovery, modify the permit within 15 days and submit for OCD approval. Giant shall also take immediate corrective actions pursuant to Item 12 of these conditions.

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16. Vadose Zone and Water Pollution: The previously submitted investigation(s) and remediation plans were submitted pursuant to the discharge permit and all future discoveries of contamination will be addressed through the discharge permit. Groundwater monitor wells shall be observed, sampled and analyzed as proposed in the Discharge Plan Renewal application Section 9.4 dated 04/27/04.

A. ANNUAL Groundwater REPORT: An annual report will be submitted to the OCD by September 01 of each year. The annual reports will contain:

- i. A description of the monitoring and remediation activities, which occurred during the year including conclusions and recommendations.
- ii. Summary tables listing laboratory analytic results, of all water quality sampling for each monitoring point and plots of concentration vs. time for contaminants of concern from each monitoring point. Any WQCC constituent found to exceed the groundwater standard shall be highlighted and noted in the annual report. Copies of the most recent years laboratory analytical data sheets will also be submitted.
- iii. An annual water table potentiometric elevation map using the water table elevation of the ground water in all refinery monitor wells. A corrected water table elevation shall be determined for all wells containing phase-separated hydrocarbons. This map shall show well locations, pertinent site features, and the direction and magnitude of the hydraulic gradient.
- iv. Plots of water table elevation vs. time for each ground water monitoring point.
- v. An annual product thickness map based on the thickness of free phase product on ground water in all refinery recovery wells. This map shall include isopleth lines for products and contaminants of concern.
- vi. The volume of product recovered in the recovery wells during each quarter and the total recovered to date.
- vii. Electronic filing: OCD would like to encourage Giant to file this report in an acceptable electronic format.

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B. Additional Requirements:

- i. Giant shall notify the OCD Santa Fe and local district office at least 2 weeks in advance of all scheduled activities such that the OCD has the opportunity to witness the events and split samples. For large facilities, i.e. refineries, an annual notification will suffice.
- ii. Giant shall notify the NMOCD within 15 days of the discovery of separated-phase hydrocarbons or the exceedance of a WQCC standard in any down gradient monitor well where separate-phase hydrocarbons were not present or where contaminant concentrations did not exceed WQCC standards during the preceding monitoring event.

17. Refinery Land farms: Giant Refining Company will abide by all commitments submitted in the application for Refinery Surface Waste Disposal Facility dated April 12, 1995, the approval conditions issued by OCD on June 14, 1995, Offsite Waste Approval dated January 24, 1996 and these conditions of approval.

- A. The approval conditions issued by OCD on June 14, 1995 Reporting item 1. shall now read:
Analytical results from the treatment zone monitoring will be submitted to the OCD in the annual report required on the 1st day of September of each year. Giant shall report any significant changes in the monitoring results.
- B. Northeast OCD Land Treatment Area (Old Railroad Rack Lagoon Temporary Land farm: Giant Refining Company will abide by all commitments submitted in the application dated 04/27/04 Section 9.0 (Temporary Landfarm). Analytical results from the treatment zone monitoring will be submitted to the OCD in the annual report required on the 1st day of September of each year. Giant shall report any significant changes in the monitoring results.
- C. OCD approves of Giant's request to reduce tilling to once per month.
- D. Disposal or re-use of any remediated material must receive OCD approval on a case-by-case basis.

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18. Railroad Rack Lagoon: A closure plan shall be submitted for OCD approval by September 01, 2004 for the Railroad Rack Lagoon pit area. All fluids shall be removed within 48 hours of discovery.
19. Evaporation Ponds: All wastewater discharged to the ponds shall be demonstrated that it meets the definition of EPA RCRA Non-hazardous pursuant to 40 CFR Part 260-261. A minimum freeboard of two feet will be maintained in the ponds so that no over topping of wastewater occurs. Any major repairs or modifications to the ponds or leak detection systems must receive prior OCD approval. Any exceedence of the freeboard or any leaks or releases shall be reported pursuant to Item 12. (Spill Reporting) of these conditions.
- A. Pond Inspections: Evaporation ponds shall be inspected a minimum of three times a week and after any major storm event. Weekly records shall be maintained for fluid levels, freeboard, seepage, flow channels, pipes, valves and dike integrity.
 - B. Pond #3 Evaporation Spray System:
 - i. Individual sprinklers (atomizers) in the spray system will be oriented to direct the fluid spray so that no direct spray or windblown draft will leave the confines of pond #3.
 - ii. The spray system will not be operated when wind conditions will allow spray or salt precipitates to drift outside the confines of pond #3.
 - B. Pond(s) Water Quality and Quantity Monitoring: Surface water shall be observed, sampled and analyzed as proposed in the discharge plan renewal application Section 9.5 dated 04/27/04. In addition, all wastewater from the refinery or other sources entering the ponds shall be metered and records maintained and reported in an annual report to be submitted on the 1st day of September of each year.
 - D. Temporary storage ponds, which were previously approved, shall be identified and Giant shall submit a closure plan for OCD approval by September 01, 2004.

Water Sales from Ponds: All water sales shall be as proposed in the discharge plan renewal application Section 9 (Surplus Water Sales) dated 04/27/04 and any additional conditions placed on those sales by the OCD. Please be advised that OCD approval does not relieve Giant of liability should these operations pose a threat to property, ground water, surface water, human health or the environment. In addition, OCD approval does not relieve Giant of responsibility for compliance with any other federal, state, or local laws and/or regulations.

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20. Wastewater from Pilot Travel Center and Truck Stop Facility:

In order for OCD to allow wastewater from the Pilot Travel Center and Truck Stop Facility to continue to be disposed of at the Giant Ciniza refinery, OCD will require Giant to incorporate the following conditions and controls into the discharge plan permit:

1. The by-pass line, or any other by-pass means, whether by pipe, surface/sub-surface flow shall be disconnected, plugged and/or prevented from flowing into the evaporation ponds before treatment.
2. All wastewater received from the Pilot Travel Center and Truck Stop shall be EPA RCRA Non-Hazardous as defined in 40 CFR part 261 and shall not contain phase separated hydrocarbons or solids.
3. Giant shall design, implement and maintain a sampling and metering station on the incoming line. Grab samples shall be collected quarterly and analyzed for Hazardous Characteristics (TCLP) by EPA method 1311 and B.O.D. All emergency up-sets or an exceedence of RCRA standards shall be reported to OCD within 24 hours and immediate corrective actions taken.

21. Annual Report: On an annual basis due September 01, Giant will submit a formal report to the OCD on the past year's activities. The report will include the following at a minimum:

- A. A summary of all major refinery activities or events.
- B. Results of all sampling and monitoring events.
- C. Summary of all waste and wastewater disposed of, sold, or treated on-site, including a refinery waterwater balance sheet including a mass balance of the evaporation pond rates.
- D. Summary of the sump and underground wastewater lines tested.
- E. Summary of all leaks, spills and releases and corrective actions taken.
- F. Summary of discovery of new groundwater contamination. This should include recommendations for investigation and remediation.
- G. Summary and Copies of all EPA/NMED RCRA activity.

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22. Transfer of Discharge Permit: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge permit. A written commitment to comply with the terms and conditions of the previously approved discharge permit must be submitted by the purchaser and approved by the OCD prior to transfer.
23. Closure: The OCD will be notified when operations of the facility are discontinued for a period in excess of six months. Prior to closure of the facility a closure permit will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure
24. Certification: **Giant Refining Company** by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. **Giant Refining Company** further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Conditions accepted by: **Giant Refining Company**

Company Representative- print name

Date _____
Company Representative- Sign

Title _____