2/19/92

PERMIT MODIFICATIONS

I. Cites

1. Whenever the word "Director" is used in reference to the Director of the New Mexico Environment Department it is to be read as "Secretary" in reference to the Secretary of the New Mexico Environment Department".

2. Whenever the abbreviation "EID" is used in reference to the New Mexico Environment Improvement Division it is to be read as "NMED" in reference to the New Mexico Environment Department.

3. Wherever the abbreviation "HWMR-5" is used in reference to the Hazardous Waste Management Regulations it is to be read as "HWMR-6" in reference to the most current Hazardous Waste Management Regulations.

d. The Permittee shall notify the Director in writing within seven days of determining that there has been a statistically significant increase, or pH decrease, for any unsaturated zone or ground water monitoring parameter. The notification shall summarize the sampling data history for the parameter(s) exhibiting the reportable change.

e. If the Permittee chooses to exercise the ground water monitoring variance provisions of HWMR-5, Part V, Sections 264.98(i) or 264.99(j), the reporting requirements of those sections shall be met.

f. Additional reports described by HWMR-5, Part V, Section 264.100(g) shall be submitted if required.

g. The Permittee shall provide to the Director revised cost estimates for closure care within seven (7) calendar days of the date of the revision. Annual revisions for inflation shall include the inflation factor used to calculate the new estimate.

h. The Permittee shall provide to the Director the documentation appropriate to the financial assurance option selected for closure in accordance with HWMR-5, Part V, Section 264.143; post-closure in accordance with HWMR-5, Part V, Section 264.145; and liability in accordance with HWMR-5, Part V, Section 264.147. Current documentation shall be incorporated into Permit Attachment I by permit modification in accordance with HWMR-5, Part IX, Section 270.42.

i. Other Noncompliance. The Permittee shall report all other instances of noncompliance not otherwise required to be reported above, at the time monitoring reports required by this permit are submitted. The reports shall contain the information listed in permit paragraph II.K.2.b. above.

j. The Permittee shall annually report the ground water monitoring results in accordance with Permit Attachment G.

k. The Permittee shall submit the required additional data in accordance with permit Attachment H.

3. Post-Closure Period Records and Reports.

a. The person holding the position of Environmental Coordinator for the Permittee, or his successor title, during the post-closure care period until issue of a post-closure care permit, will keep a record of all post-closure inspections, repairs, sampling, analysis results, and cost estimates. The record shall also contain the determination of significant increase calculations for the monitoring data and annual determination of ground water flow rate and direction.

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d. The Permittee shall notify the Director in writing within seven days of determining that there has been a statistically significant increase **for metals, or any detection of organics over the Method Detection Limit (MDL)** for any unsaturated zone or ground water monitoring parameter. The MDL is defined as that concentration level at which the laboratory can be confident at P > 0.99 that a given analyte is present in a sample. The notification shall summarize the sampling data history for the parameter(s) exhibiting the reportable change.

e. If the Permittee chooses to exercise the ground water monitoring variance provisions of HWMR-5, Part V, Sections 264.98(i) or 264.99(j), the reporting requirements of those sections shall be met.

f. Additional reports described by HWMR-5, Part V, Section 264.100(g) shall be submitted if required.

g. The Permittee shall provide to the Director revised cost estimates for closure care within seven (7) calendar days of the date of the revision. Annual revisions for inflation shall include the inflation factor used to calculate the new estimate.

h. The Permittee shall provide to the Director the documentation appropriate to the financial assurance option selected for closure in accordance with HWMR-5, Part V, Section 264.143; post-closure in accordance with HWMR-5, Part V, Section 264.145; and liability in accordance with HWMR-5, Part V, Section 264.147. Current documentation shall be incorporated into Permit Attachment I by permit modification in accordance with HWMR-5, Part IX, Section 270.42.

i. Other Noncompliance. The Permittee shall report all other instances of noncompliance not otherwise required to be reported above, at the time monitoring reports required by this permit are submitted. The reports shall contain the information listed in permit paragraph II.K.2.b. above.

j. The Permittee shall annually report the ground water monitoring results in accordance with Permit Attachment G.

k. The Permittee shall submit the required additional data in accordance with permit Attachment H.

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b. The results of monitoring analyses will be reported to the EID within 30 calendar days of their receipt by the Permittee.

L. CLOSURE

1. Performance Standard. The Permittee shall close the facility as required by HWMR-5, Part V, Section 264.111 and in accordance with the Closure Plan, Permit Attachment F.

2. Amendment of Closure Plan. The Permittee shall amend Permit Attachment F. in accordance with HWMR-5, Part V, Section 264.112(c) whenever necessary.

3. Notification of Closure. The Permittee shall notify the Director at least 60 days prior to the date he expects to begin closure.

4. Time Allowed For Closure. After receiving the final volume of hazardous waste, the Permittee shall treat or remove from the site all hazardous waste in accordance with the schedule specified in Permit Attachment F. The Permittee shall complete closure activities in accordance with the schedule specified in Permit Attachment F.

5. Disposal or Decontamination or Equipment. The Permittee shall properly dispose of or decontaminate all facility equipment as required by Permit Attachment F.

6. Certification of Closure. The Permittee shall certify that the facility has been closed in accordance with the specifications in Permit Attachment F. within sixty days of closure.

M. COST ESTIMATE FOR FACILITY CLOSURE

1. Annual Adjustment. The Permittee must adjust for inflation, in accordance with HWMR-5, Part V, Section 264.142(b) the closure cost estimate.

2. Plan Changes. The Permittee must revise, in accordance with HWMR-5, Part V, Section 264.142(c), the closure cost estimate whenever there is a change in the facility's Closure Plan.

N. FINANCIAL ASSURANCE FOR FACILITY CLOSURE

The Permittee shall demonstrate continuous compliance with HWMR-5, Part V, Section 264.143 by providing documentation of financial assurance, in the format required by HWMR-5, Part V, Section 264.151, in at least the amount of the cost estimates required by permit paragraph II.M. above. Changes in the financial assurance mechanism must be approved by the Director before they are effective. Any assurance method authorized by HWMR-5, Part V, Section 264.143 may be used.

O. POST CLOSURE

Module II: Original

1. Post-closure Plan. The Permittee shall maintain the Post-Closure Plan, Permit Attachment F, in accordance with HWMR-5, Part V, Sections 264.117, 264.118, 264.119 and 264.120.

2. Financial Assurance. The Permittee shall provide, in accordance with the HWMR-5, Part V, Sections 264.144 and 264.145, financial assurance for post-closure activities. Whenever the Post Closure Plan is amended, raising the Post-Closure cost estimate, the financial assurance shall be similarly adjusted, if necessary, to cover the cost estimate. Changes in the financial assurance mechanism must be approved by the Director before they are effective. Any assurance method authorized by HWMR-5, Part V, Section 264.145 may be used.

3. Implementation. The Post-Closure Plan shall be implemented upon closure completion by Giant and followed until final action on a post-closure care permit is taken by the Director.

P. LIABILITY REQUIREMENTS

The Permittee shall demonstrate continuous compliance with the requirements of HWMR-5, Part V, Section 264.147 and the documentation requirements of HWMR-5, Part V, Section 264.151, including the requirements to have and maintain liability coverage for sudden and non-sudden occurrences. Any assurance method authorized by HWMR-5, Part V, Section 264.147 may be used.

Q. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS.

The Permittee shall comply with HWMR-5, Part V, Section 264.148 whenever necessary.

R. GROUND WATER PROTECTION

The Permittee shall follow the ground water protection program described in Permit Attachment G.

1. Hazardous Constituents. The Permittee shall monitor at the indicated frequency the constituents given in Tables G-2 and G-3 of Permit Attachment G.

2. Ground Water Protection Standard. The maximum concentrations of hazardous constituents in the ground water at the point of compliance shall not exceed the values provided in Tables G-2 and G-3 of Permit Attachment G or as measured at the upgradient well MW-4.

3. Point of Compliance. The ground water protection standard in permit paragraph II.R.2. above shall apply at an imaginary vertical intercept with the first aquifer (the Sonsela, which is approximately 100 feet deep) along a line drawn through wells MW-1, MW-2 and MW-5.

4. Compliance Period. The compliance period shall begin when the detection monitoring program indicates an increase above background

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1. Post-closure Plan. The Permittee shall maintain the Post-Closure Plan, Permit Attachment F, in accordance with HWMR-5, Part V, Sections 264.117, 264.118, 264.119 and 264.120.

2. Financial Assurance. The Permittee shall provide, in accordance with the HWMR-5, Part V, Sections 264.144 and 264.145, financial assurance for post-closure activities. Whenever the Post Closure Plan is amended, raising the Post-Closure cost estimate, the financial assurance shall be similarly adjusted, if necessary, to cover the cost estimate. Changes in the financial assurance mechanism must be approved by the Director before they are effective. Any assurance method authorized by HWMR-5, Part V, Section 264.145 may be used.

3. Implementation. The Post-Closure Plan shall be implemented upon closure completion by Giant and followed until final action on a post-closure care permit is taken by the Director.

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The Permittee shall demonstrate continuous compliance with the requirements of HWMR-5, Part V, Section 264.147 and the documentation requirements of HWMR-5, Part V, Section 264.151, including the requirements to have and maintain liability coverage for sudden and non-sudden occurrences. Any assurance method authorized by HWMR-5, Part V, Section 264.147 may be used.

Q. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS.

The Permittee shall comply with HWMR-5, Part V, Section 264.148 whenever necessary.

R. GROUND WATER PROTECTION

The Permittee shall follow the ground water protection program described in Permit Attachment G.

1. Hazardous Constituents. The Permittee shall monitor at the indicated frequency the constituents given in Tables G-2 and G-3 of Permit Attachment G.

2. Ground Water Protection Standard. The maximum concentrations of hazardous constituents in the ground water at the point of compliance: 1) shall not exceed the limits listed in Tables G-2 and G-3 of Permit Attachment G, **for total metals and 2) shall not exceed the U.S.EPA promulgated maximum contaminant limits (MCLs) or the State of New Mexico Water Quality Control Commission drinking water standards, whichever is lower, for organic contaminants.**

designed and installed according to the procedure as described in EPA/530-SW-86-040.

3. Duration. Throughout the operating life of the unit, the Permittee shall continue to determine the soil-pore liquid quality of the soil below the treatment zone. For purposes of this paragraph, the operating life shall end on the 91st day after the last waste application is made or after the Permittee has designed a date for implementation of Closure Plan, whichever is later.

   a. Soil-pore liquid samples shall be collected quarterly from the lysimeter if moisture is present. The Permittee may determine the specific timing of sample collection based upon the permeability of the soil horizons within the treatment zone and information obtained from the tensiometer(s).

   b. Soil-pore liquid samples shall be analyzed for the parameters specified in Table 3-2.

   c. The Permittee shall maintain aerobic conditions within each lysimeter by weekly removing any accumulated liquid in the bottom of the lysimeter.

   d. The sample collected from multiple lysimeters installed at one location may be composited. If a sufficient volume of soil-pore liquid cannot be generated from a lysimeter array for analysis after a waste application or 0.5 inch precipitation event, the ability of that lysimeter to collect a leachate sample shall be determined within 30 calendar days of the attempted sampling event. The result of any testing shall be reported to the Director within 7 calendar days.

4. Lysimeter Replacement. If a lysimeter array is determined to be nonfunctional, a new location shall be selected and a new installation made, as in permit paragraph III.H.2. above, in time for the next sampling cycle.

I. GROUNDWATER MONITORING

The Permittee shall conduct groundwater monitoring in accordance with Permit Attachment G.

J. CHAIN OF CUSTODY

The Permittee shall assure through a chain of custody program that the possession and handling of ground water, soil-core and soil pore-liquid monitoring samples can be traced from the time of collection through analysis and final disposition. At a minimum, the program shall conform to the chain of custody program details described in Section 1.3 (Documentation of Chain of Custody) of Test Methods of Evaluating Solid Waste (SW-846) published by the EPA. The chain of custody program shall include the use of: sample labels, sample seals, a field log book, a chain

Modified

designed and installed according to the procedure as described in EPA/530-SW-86-040.

3. Duration. Throughout the operating life of the unit, the Permittee shall continue to determine the soil-pore liquid quality of the soil below the treatment zone. For purposes of this paragraph, the operating life shall end on the 91st day after the last waste application is made or after the Permittee has designed a date for implementation of Closure Plan, whichever is later.

   a. Soil-pore liquid samples shall be collected quarterly from the lysimeter if moisture is present. The Permittee may determine the specific timing of sample collection based upon the permeability of the soil horizons within the treatment zone and information obtained from the tensiometer(s).

   b. Soil-pore liquid samples shall be analyzed for the parameters specified in Table **G-2**.

   c. The Permittee shall maintain aerobic conditions within each lysimeter by weekly removing any accumulated liquid in the bottom of the lysimeter.

   d. The sample collected from multiple lysimeters installed at one location may be composited. If a sufficient volume of soil-pore liquid cannot be generated from a lysimeter array for analysis after a waste application or 0.5 inch precipitation event, the ability of that lysimeter to collect a leachate sample shall be determined within 30 calendar days of the attempted sampling event. The result of any testing shall be reported to the Director within 7 calendar days.

4. Lysimeter Replacement. If a lysimeter array is determined to be nonfunctional, a new location shall be selected and a new installation made, as in permit paragraph III.H.2. above, in time for the next sampling cycle.

I. GROUNDWATER MONITORING

The Permittee shall conduct groundwater monitoring in accordance with Permit Attachment G.

J. CHAIN OF CUSTODY

The Permittee shall assure through a chain of custody program that the possession and handling of ground water, soil-core and soil pore-liquid monitoring samples can be traced from the time of collection through analysis and final disposition.

of custody record, samples analysis request sheets, and a laboratory log book.

K. QUALITY ASSURANCE/QUALITY CONTROL

The Permittee shall assure that the analyses required by this permit are performed in a laboratory which uses a quality control/quality assurance program which ensures that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. A knowledgeable person who is not directly involved in the sampling or analysis must be assigned the responsibility of ensuring that the program details are properly implemented. At a minimum, the laboratory shall conform to the quality control/quality assurance program details described in Section Ten (Quality Control/Quality Assurance) of Test Methods for Evaluating Solid waste (SW-846) published by the U. S. Environmental Protection Agency (EPA) and the specific analytical methods refereed by this permit. The Permittee shall maintain a copy of the quality control/quality assurance program at the facility. This program shall be updated to include current EPA-approved programs or techniques as they are developed.

L. STATISTICAL METHODS

1. Frequency. The Permittee shall determine whether there has been a statistically significant change over background values for any hazardous constituent identified in Table III-2 or III-3, either in the ground water or below the treatment zone each time soil-core, soil pore liquid, and ground water sampling and analysis is conducted.

2. Approved Method. In determining whether a statistically significant increase has occurred, the Permittee shall use the Cochran's approximation to the Behrens-Fisher Student's T-test, HWMR-5, Part V, Appendix IV. In addition, data from an individual well or lysimeter shall be deemed to show a significant trend if four consecutive sampling events show an increase in concentration of any specific parameter, even if the t-test criterion above is not met.

M. PERMIT MODIFICATION

1. Modification for Cause. If the Permittee determines that there has been a statistically significant increase of any hazardous constituent in the unsaturated zone below the treatment zone, he shall notify the Director of this finding in writing within seven days of such determination. The notification must indicate which constituents have shown statistically significant increases. Within ninety (90) calendar days of the determination he shall submit to the Director an application for a permit modification to modify the operating practices at the facility in order to facilitate the success of degradation, transformation, and immobilization processes within the treatment zone.

2. Alternative demonstration. If the Permittee determines, pursuant to

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of custody record, samples analysis request sheets, and a laboratory log book.

K. QUALITY ASSURANCE/QUALITY CONTROL

The Permittee shall assure that the analyses required by this permit are performed in a laboratory which uses a quality control/quality assurance program which ensures that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. A knowledgeable person who is not directly involved in the sampling or analysis must be assigned the responsibility of ensuring that the program details are properly implemented. At a minimum, the laboratory shall conform to the quality control/quality assurance program details described in Section Ten (Quality Control/Quality Assurance) of Test Methods for Evaluating Solid waste (SW-846) published by the U. S. Environmental Protection Agency (EPA) and the specific analytical methods refereed by this permit. The Permittee shall maintain a copy of the quality control/ quality assurance program at the facility. This program shall be updated to include current EPA-approved programs or techniques as they are developed.

L. STATISTICAL METHODS

1. Frequency. The Permittee shall determine whether there has been a statistically significant **increase for total Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium and Silver, or an identification of any organic parameter listed in Tables G-2 or G-3 above the MDL,** either in the groundwater or below the treatment zone each time soil-core or soil-pore liquid, and groundwater sampling and analysis are conducted.

2. Approved Method. In determining whether a statistically significant increase **for metals has occurred the Permittee shall use the Tolerance Interval Approach, Statistical Interim Final Guidance, April 1989. A significant increase for organics would be indicated by any detection exceeding the MDL.**

M. PERMIT MODIFICATION

1. Modification for Cause. If the Permittee determines that there has been a statistically significant increase of any hazardous constituent in the unsaturated zone below the treatment zone, he shall notify the Director of this finding in writing within seven days of such determination. The notification must indicate which constituents have shown statistically significant increases. Within ninety (90) calendar days of the determination he shall submit to the Director an

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permit paragraph III.K.2. above, that a statistically significant increase of hazardous constituents in the ground water below the treatment zone has occurred, he may demonstrate that a source other than the regulated unit caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. In making this demonstration, the Permittee shall follow HWMR-5, Part V, Sections 264.98(i) or 264.99(j), as appropriate.

Add

Add

a. The times for reports shall be in calendar days.

b. The start date for report suspenses shall be the date of the determination by the Permittee of a significant change in any parameter.

c. The Permittee shall continue to monitor the groundwater in accordance with this permit.

Modified

permit paragraph III.K.2. above, that 1) a statistically significant increase of hazardous **inorganic** constituents, **or 2) that an exceedance of the MDL for organics** in the groundwater below the treatment zone has occurred, he may demonstrate that a source other than the regulated unit has caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. In making this demonstration, the Permittee shall follow HWMR-5, Part V, Sections 264.98(i) or 264.99(j), as appropriate.

a. The times for reports shall be in calendar days.

b. The start date for report suspenses shall be the date of the determination by the Permittee of a significant change in any parameter.

c. The Permittee shall continue to monitor the groundwater in accordance with this permit.

GIANT REFINING COMPANY

PERMIT NMD000333211-2

ATTACHMENT H

ADDITIONAL DATA SUBMITTAL SCHEDULE

ORIGINAL

GIANT REFINING COMPANY
ATTACHMENT H
COMPLIANCE SCHEDULE

Entire Attachment has been modified

I. Installation of facility background well.

A. Within sixty days of the effective date of this permit the Permittee shall identify to the EID a proposed location for a background well designed to monitor the Sonsela formation aquifer unaffected by the Permittee's facility. Facility includes all sites of generation, disposal, solid waste management units and waste handling.

B. Within thirty days of receipt of EID's comments on the proposed location, the Permittee shall commence installation of the well if a suitable well is not already in place. At a minimum, commencement shall mean the execution of a contract to install the well.

C. Within sixty days of commencement, the well shall be completed and developed. The well shall be installed in accordance with the requirements of this permit.

D. Upon well installation completion, the Permittee shall sample, taking four replicate samples, and analyze in accordance with Permit Attachment G for the parameters in Tables G-3 and G-4. Four quarterly sample events, each taken in a similar manner, shall be used to establish a representative background value for each parameter.

II. Interim status data organization.
(HWMR-5, Part IX, Section 270.14(c))

Within 120 days from the effective date of this permit, the Permittee shall submit a summary, in tabular form, of the groundwater monitoring data up to the date of submittal, for MW-1, MW-2, MW-4, MW-5, SMW-1, SMW-2, SMW-3, SMW-4, SMW-5, and SMW-6.

1. Data for each well shall be grouped separately.

2. Sampling date and analysis value shall be indicated.

3. Original laboratory analytical reports will be used as source documents, when available.

4. Each table will include the parameters in HWMR-6, Part VI, Section 265.92(b).

5. The accuracy of each table shall be certified by a responsible individual.

Modified

GIANT REFINING COMPANY
ATTACHMENT H
COMPLIANCE SCHEDULE

I. Installation of facility background well.

A. **Observation well OW-11 has been accepted as the background water quality well to monitor the Sonsela formation aquifer so long as it continues to be unaffected by the Permittee's facility. The facility includes all sites of generation, disposal, solid waste management units and waste handling. Four sequential quarterly sample events, each taken in a similar manner and in accordance with Permit Attachment G, shall be used to establish a representative background value for total metals shown in Tables G-3 and G-4 of Attachment G to the facility permit.**

B. **Monitoring well MW-4 will continue to be used in fulfilling the permit requirements in Attachment G, 2.C. Monitoring well MW-4 will cease to be used in groundwater quality analysis.**

C. **Any additional background wells submitted for approval must meet the requirements of HWMR-6, Part V, Subpart F and the requirements in Permit Attachment G. Upon installation and completion of additional background wells, the Permittee shall sample such wells, taking four sequential quarterly samples, and analyze them in accordance with Permit Attachment G for the complete list of groundwater monitoring parameters contained in Appendix IX to 40 CFR Section 264. The four sequential quarterly sample events shall be used to establish a representative background value for total metals shown in Tables G-3 and G-4 of Attachment G to the facility permit.**