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CERTIFIED MAIL
RETURN RECEIPT REQUESTED

September 19, 1995

Lynn Shelton
Senior Environmental Coordinator
Giant Refining Company
Ciniza Refinery
Route 3, Box 7
Gallup, New Mexico 87301

Dear Mr. Shelton:

RE: Notice of Deficiency
Proposed Land Treatment Area Closure/Post-closure Permit
EPA I.D. No. NMD 000333211

On October 25, 1994, the New Mexico Environment Department (NMED) Hazardous and Radioactive Materials Bureau (HRMB) received the Giant Refining Company-Ciniza (Giant) request to review a proposed amendment dated October 18, 1994, to the permitted closure/post-closure plan of November, 1988.

The HRMB has completed a review for administrative and technical completeness of the proposed closure/post-closure plan amendment requested. Technical comments are enclosed in Attachment 1, and Administrative comments are enclosed in Attachment 2. In general, the closure/post-closure procedures outlined in the amendment are sketchy and need more detail as specified in Attachment F (Closure and Post-closure Plan) of the operating permit. Additionally, if Giant intends to pursue clean closure, the issue must be addressed in the proposed closure plan. It must provide details of the types of activities and decision points to be used in the clean closure process. Also, reducing the length of proposed post-closure care will be based on a determination by NMED established by a demonstration of monitoring results by Giant. HRMB recommends that Giant submit a revised proposed closure/post-closure plan on a 3.5" floppy disk in Wordperfect 5.2 addressing the enclosed comments. Giant's revised closure/post-closure plan is due within thirty (30) days of receipt of this letter.

If after HRMB approval of the proposed closure/post-closure plan Giant wishes this document to replace Attachment F (Closure and Post-Closure Plan), 20 NMAC 4.1, Subpart IX, 40 CFR §270.42

Appendix I(k)(9), requires that the revised closure/post-closure plan be a Class III permit modification.

As specified in 20 NMAC 4.1 Subpart IX, 40 CFR §124.10(c)(ix), Giant would be required to send a notice of the modification request to all persons on the facility mailing list and to the appropriate units of state and local government, and must publish this notice in a major local newspaper of general circulation. This notice must be mailed and published within seven (7) days before or after the date of submission of the modification request, and the permittee must provide to the Director evidence of the mailing and publication.

After the conclusion of the sixty day comment period, the Director must grant or deny the permit modification request according to the permit modification procedures of 20 NMAC 4.1 Subpart IX, 40 CFR Part 124. In addition, the Director must consider and respond to all significant written comments received during the sixty-day comment period.

Should you wish to schedule a meeting to discuss the specifics of the regulatory requirements or to set a working schedule on the revised amendment request, please contact Ms. Barbara Hoditschek of my staff at (505) 827-1561.

Sincerely,

Benito J. Garcia
Bureau Chief
Hazardous and Radioactive Materials Bureau

Enclosures

cc: Ron Kern, HRMB Technical Compliance Program Manager
David Neleigh, EPA
File-Red 95
File-Reading

ATTACHMENT I

The following technical comments and recommendations from the Technical Compliance Program (TCP) of the Hazardous and Radioactive Materials Bureau (HRMB), New Mexico Environment Department (NMED), relate to the October 1994 document **"Closure/Contingency Post-Closure Plan"**. This document was prepared by Giant Refining Company (GRC) to comply with requirements of the Hazardous Waste Facility Permit (permit number NMD 000333211-2) issued for the Ciniza refinery facility's Land Treatment Unit (LTU) by NMED on November 4, 1988.

Language in bold print enclosed within parentheses is quoted directly from the text of the October 1994 document. TCP's comments follow the quotes.

ITEM

1. Section 1.2, 2nd paragraph. **("...the residual waste has degraded sufficiently...")** Please explain what is meant by sufficient degradation.

2. Section 1.2.1.2. **("The dike should contain approximately three times the annual rainfall for the area (11 inches) ...assuming the average dike height of 2.0 feet...")** The dike height will have to be increased if it is to hold three times the annual rainfall.

3. Section 1.2.1.2. **("Assuming that a 24 hour, 100 year storm event would not exceed the annual rainfall...")** What is the basis for the assumption?

4. Section 1.2.2.1, 1st paragraph. **("The sample is analyzed for the constituents shown in Table 1 of the Closure/ Contingency Post-closure Plan.")** Several constituents in Table III-1 and Attachment F, Table 4 of the Permit, are not included in, and should be added to, Table 1 of this Plan. They are Chloromethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethene, trans-1,2-Dichloroethene, Methylene chloride, Trichloroethene, Benzo(j)fluoranthene, 2-Chlorophenol, Indene, 2,4,6-Trichlorophenol, Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Mercury, Nickel, Selenium, and Vanadium.

   In addition, Xylene, Di-n-butyl phthalate, and Methyl chrysene are typical petroleum refining wastes included on the "Skinner List" and should be added to Table 1.

5. Section 1.2.2.1, 3rd paragraph. **("...if a sample...has no detectable constituents, then soil pore monitoring will be discontinued.")** Reword the sentence to indicate that monitoring will be discontinued only after the 90 day sampling is attempted.

6. Section 1.2.2.2, 4th paragraph. **("...soil core samples...will be...analyzed for the constituents in Table 1.")** The comments for Item 4 above apply here also.

7. Section 1.2.2.2, 4th paragraph. **("Sampling locations will be established by using a random numbers table.")** In the past, GRC has submitted multiple random number scenarios and HRMB has then modified one of the scenarios to arrive at an acceptable sampling location plan. The resulting locations are no longer "random". The location selection process can be simplified by GRC and HRMB agreeing to locations chosen through best judgement.

8. Section 1.2.2.2, 7th paragraph. **("If in-situ treatment has degraded hazardous constituents to corrective action levels or below, the treatment will be considered complete.")** The regulatory approved corrective action levels should be stated in the Plan.

9. Section 1.2.2.3, 2nd paragraph. **("Cell #3 was graded to a 1-2° dip to the west, but will likely be leveled...")** The surface of the cell needs to be leveled to assure even distribution of precipitation and irrigation water and to avoid pooling of liquids.

10. Section 1.2.2.3, 6th paragraph. **("There may be a lag time between evaluation and actual seeding...")** What is the estimated length of the lag time and how will GRC maintain the surface of the LTU during the lag period?

11. Section 1.2.2.5, 2nd paragraph. **("All analyses will be for Table 5 constituents.")** Table 5 includes Table 1. The deficiencies of Table 1, noted in Item 4 above, should be corrected.

12. Section 1.2.2.5, 3rd paragraph. **("If no hazardous constituents are detected in the shallow monitor wells... groundwater monitoring will be discontinued.)** Hazardous constituents in groundwater samples from the shallow monitor wells (i.e. samples from the Ciniza sand) were reported in the 1994 Annual Groundwater Report. The report indicates

the presence of xylene in well SMW-3 and chromium in SMW-3, SMW-5, and SMW-6. The chromium concentrations exceed the maximum concentration allowable under 20 NMAC 4.1 Subpart V, 40CFR264.94. Because the groundwater protection standards have been exceeded, GRC must institute a corrective action program in accordance with 20 NMAC 4.1 Subpart V, 40CFR264.91(a).

13. Section 1.2.2.5, 3rd paragraph. **("If hazardous constituents are ever detected in the shallow monitor wells, Giant will...commence sampling of groundwater from the Sonsela aquifer, for the constituents in Table 1...")** Hazardous constituents have already been detected in the shallow monitor wells (see Item 13 above). Also, table 5 is more inclusive than Table 1 and should be used for groundwater monitoring.

ATTACHMENT 2

NOTICE OF DEFICIENCY COMMENTS
Administrative Adequacy Review
for the

MODIFICATION TO CLOSURE/POST-CLOSURE PLAN
Giant-Ciniza Land Treatment Area
dated October, 1994

CLOSURE PLAN

(Note: The requirements of comments 1.1 through 1.3 may be satisfied by referencing the appropriate parts of the operating permit)

1. 40 CFR §264.111 - Closure performance standard

1.1 Comment: The closure plan lacks a facility description.

Requirement: The facility description should identify the political jurisdiction in which the facility is located and include a topographic map showing hazardous waste management areas, the location of each unit relative to other areas of the facility, buildings, floodplain locations, surface waters, surrounding land uses, and other key topographic features. The description and map should also indicate the location and nature of the security systems and traffic patterns.

1.2 Comment: The closure plan lacks hydrogeologic information.

Requirement: The closure plan must have a description of what is known about the hydrogeology of the immediate area, including a description of the underlying soil and ground-water conditions. Soil class, depth and permeability, depth to ground water, identification of aquifers and ground-water flow rate and direction are the principal pieces of information needed. A description of the ground-water monitoring systems and detection program at the facility should also be presented, including location of monitoring wells and sampling and analysis procedures.

1.3 Comment: The closure plan lacks a description of the Land Treatment Area

Requirement: The closure plan must have a description of the design and configuration of each unit at the facility and the identity of the types and quantities of hazardous wastes handled. The description should provide sufficient detail to support the proposed closure and post-closure procedures. Sufficient detail includes:

- EPA hazardous waste numbers;
- Physical state and principal chemical characteristics of the wastes:
- Size and dimensions of each area;
- Design capacity;
- Ancillary equipment associated with the area (e.g., trucks, tractors, tools, etc.);
- Types of monitoring and containment systems.

2. 40 CFR §264.112(b)(3)

2.1 Comment: The closure plan does not mention an estimate of maximum inventory including all hazardous wastes and residues ever on site at any time over the life of the facility.

Requirement: The closure plan must include the above-mentioned inventory.

2.2 Comment: Giant has stated that hazardous waste is no longer being applied to the treatment area. No mention is made of how Giant is handling it.

Requirement: The closure plan must include a detailed description of how all hazardous wastes will be handled during the final closure period. If off-site removal or disposal of hazardous waste inventory is planned, the plan should include:

- An estimate of the quantity of hazardous waste to be sent off-site;
- A description of any treatment to be performed prior to transport, if applicable;
- An estimate of the approximate distance to the final TSDF to support the estimate of the costs of off-site management; and
- A description of treatment or disposal methods at the final TSDF.

3. 40 CFR §264.112(b)(4)

(Note: The requirements of comments 3.1 through 3.4 may be fulfilled by referring to the appropriate parts of the operating permit.)

3.1 Comment: The closure plan does not address facility decontamination.

Requirement. The closure plan must identify all areas requiring decontamination and describe in detail all the steps necessary to decontaminate equipment, structures, and soils during final closure. The closure plan should include:

(1) A list of potentially contaminated areas and equipment;

(2) Criteria for determining the extent of decontamination needed to satisfy the closure performance standards;

(3) Procedures for cleaning, removing or disposing of contaminated equipment and structures; and

(4) Methods for sampling, testing and disposing of contaminated soils.

Further, the plan must identify the equipment or structures that will require decontaminating at closure. Examples include:

- Spill containment areas;
- Piping, pumps and valves;
- Floors and walls of buildings;
- Facility parking lots, roads, and truck staging areas;
- Earth moving equipment, such as trucks, forklifts, front-end loaders, bulldozers, etc.

3.2 Comment: The closure plan does not address criteria for evaluating decontamination.

Requirement: The closure plan must describe and document the procedures and

criteria that will be used in determining the extent of decontamination necessary to satisfy the closure performance standard. The closure performance standard requires the owner or operator to control, minimize or eliminate the post-closure escape of all hazardous constituents.

3.3 Comment: The closure plan does not address decontamination procedures.

Requirement: The cleaning methods will vary depending on what is being cleaned and on the type of contaminant. Information about decontamination methods and procedures can be found in the Guide for Decontaminating Building, Structures and Equipment at Superfund Sites, U.S. EPA, Office of Research and Development, March 1985. Until decontamination is achieved, all cleaning residues are hazardous wastes and must be disposed of as hazardous wastes, unless excluded by 20 NMAC 4.1 Sub-part 9, 40 CFR §261.3 (d).

3.4 Comment: The closure plan does not address soil contamination as a result of routine drips and spills.

Requirement: The closure plan must describe the procedures and criteria to be used for evaluating the extent of soil contamination and demonstrate that the level of decontamination will satisfy the closure performance standard.

The following information should be included in the closure plan:

- The location for background soil measurements and background ground-water and surface-water monitoring; and
- Sampling and analysis methods to be used to evaluate the extent of contamination.

Besides determining soil contamination levels, the closure plan must describe how contaminated soils will be managed at final closure. The plan should include the following:

- An estimate of contaminated soil;
- A description of on-site (if capacity is available) or off-site treatment or disposal of contaminated soils; and
- An estimate of the approximate distance to the off-site TSDF to support the cost estimate.

4. 40 CFR §264.112(b)(5)

4.1 Comment: The closure plan changes the frequency of ground-water monitoring.

Requirement: Giant must comply with Subpart F (Attachment G of the operating Permit) requirements during the final closure period. The closure plan must describe the types and frequency of analyses required during the final closure period and maintenance that may be required to ensure that the monitoring equipment is in working order for the start of the post-closure care period. Because the monitoring required during the closure period should be consistent with that conducted during the unit's operation, the closure plan may simply refer to the Permit.

5. 40 CFR §264.115

5.1 Comment: Closure certification is lacking in detail.

Requirement: Upon completion of closure activities, Giant will submit a Final Closure Report to the Director, NMED. The report will document the final closure and contain, at a minimum;

1. The certification described in section 1.5 of Giant's plan.
2. A tabular summary of all sampling results showing:
    a. the datum reported,
    b. the detection limit for each datum,
    c. a measure of analytical precision(e.g. uncertainty, range, variance),
    d. identification of analytical procedure, and
    e. identification of analytical laboratory.
3. A quality assurance/quality control statement on the adequacy of the analyses and the decontamination effort.
4. The location of the file of supporting documentation including:
    a. field logbooks,
    b. laboratory sample analysis reports,
    c. the quality assurance/quality control documentation, and
    d. chain of custody records.
5. Disposal location and quantities of all regulated and nonregulated materials.
6. A certification of the accuracy of the report.
7. A description of any variances from the approved closure plan.

POST-CLOSURE PLAN

6. 40 CFR §264.118(b)(1); §264.310(b); 264.90

6.1 Comment: The post-closure plan changes the ground-water monitoring activities required in the operating permit.

Requirement: The ground-water monitoring activities proposed for the post-closure care period should be consistent with current conditions at the unit. The plan should indicate:

- The number, location and depth of wells;
- The frequency and procedures for sampling;
- Types of analyses; and
- Party responsible for monitoring activities.

7. 40 CFR §264.118(B)(2)

7.1 Comment: Post-closure plan does not adequately address maintenance of the ground-water monitoring system.

Requirement: The post-closure plan states that the groundwater monitoring wells will be inspected for; "locked caps, concrete pad around casing, and general well condition". The post-closure plan should include maintenance provisions for any events that reasonably could be expected to occur over a thirty year period. In the case of monitoring wells the post-closure plan should include provisions for such things as:

- Monitoring well replacement/redrilling;
- Sampling pump replacement; and
- Replacing seals, piping and caps.

7.2 Comment: The post-closure inspections plan lacks detail.

Requirement: The plan must include a schedule of inspections for the containment dike, warning signs, and the ground-water monitoring wells. Also, surveyed benchmarks should be added to the components to be inspected. Further, the post-closure plan should explicitly address procedures for inspections after the facility has been closed when staff may no longer be available for inspections.

8. 40 CFR §264.280

8.1 Comment: The post-closure plan fails to address continuation of land-treatment processes.

Requirement: The post-closure care period for land treatment facilities operates in part as an extension of the operating life of the facility. Thus, during the post-closure care period, Giant must continue those activities necessary to enhance degradation and transformation, and sustain immobilization of hazardous constituents in the treatment zone. The post-closure plan should describe procedures for:

- Disking, fertilizing and irrigating;
- Liming to ensure proper ph balance;
- Controlling run-on and run-off from the treatment fields;
- Repairing erosion damage;
- Regrading and replanting as needed;
- Controlling wind dispersal of particulates; and
- Determining the level of hazardous constituents in the treatment zone; which should include procedures for:
    a. identifying the constituents;
    b. numbering and locating samples;
    c. determining the types of analyses.

Because these activities may be needed more frequently in the early years of the post-closure care period, the plan should include a schedule and a discussion of how the proposed schedule of activities will achieve the desired objectives of ensuring the continued degradation of hazardous constituents. The plan should also indicate the party responsible for conducting the activities.

9. 40 CFR §264.118

9.1 Comment: The post-closure plan lacks the name of the contact person or office.

Requirement: The post-closure plan must include the name, address and phone number of the person or office to contact about the land treatment area during the post-closure care period.

10. 40 CFR §264.120

10.1 Comment: Post-closure certification is lacking in detail.

Requirement: Upon completion of post-closure care activities, Giant will submit a Post-Closure report to the Director, NMED. The report will follow the guidelines put forth in section 5.1 of this Notice of Deficiency.