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NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

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RON CURRY
Secretary

JON GOLDSTEIN
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

March 31, 2008

Mr. Randy Schmaltz
Environmental Manager
Giant Refining Company
P.O. Box 159
Bloomfield, New Mexico 87413

**RE: NOTICE OF DISAPPROVAL
CLOSURE PLAN FOR THE AERATION LAGOONS
GIANT REFINING COMPANY, BLOOMFIELD REFINERY
EPA ID# NMD089416416
HWB-GRCB-07-006**

Dear Mr. Schmaltz:

The New Mexico Environment Department (NMED) has reviewed Bloomfield Refinery's (owned by San Juan Refining Company, operated by Giant Industries Arizona, Inc, a wholly owned subsidiary of Western Refining Company) (Giant) *Closure Plan North and South Aeration Lagoons* (Closure Plan), dated December 2007. Giant has not provided sufficient information to provide a complete technical review of the Closure Plan. NMED hereby issues this Notice of Disapproval (NOD). Giant must address all comments contained in this NOD.

Comment 1

Giant references the Clean Water Act (CWA) and "zero discharge." These phrases are not related to RCRA closure of the North and South Aeration Lagoons and have been applied incorrectly. Giant must revise the Closure Plan to remove all references to these terms. (See pages 3, 5, and 6)

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Comment 2

Giant states in Section 2.2 (ABT Unit Operations), page 6, paragraph 1, that “[t]he outflow from the North ABT-E goes to a sump, where the non-hazardous wastewater can be pumped for the final disposition. either in CWA zero discharge evaporation ponds or into an SDWA Class I permitted non-hazardous UIC well.”

The evaporation ponds are not CWA zero discharge ponds, but simply evaporation ponds. For clarity and consistency, Giant must revise the Closure Plan to remove reference to the evaporation ponds as CWA zero discharge. (See Comment 1)

Comment 3

Giant must revise Section 2.2 (ABT Unit Operations) to state where, within the wastewater treatment system, the benzene strippers are located (i.e., before or after the API separator).

Comment 4

Section 3.1 (Contingency Plan) discusses the use of the surge tank to hold wastewater in the event of a major failure. This Section must be revised to address how the surge tank will be cleaned and how residual sludge, potentially F037 and F038 listed waste, will be handled once the wastewater in the surge tank is removed. In addition, this Section must be revised to state that the wastewater from the surge tank will be routed through the wastewater treatment system upstream of the API separator.

Comment 5

In Section 4.1 (Closure Procedures), Giant states on page 9, paragraph 3 that, “[a]fter completion of the modified closure of the South ABT unit, the aggressive biological treatment system in the South ABT unit will become operational and the wastewater will be routed from the API separator/benzene stripper system back to the South ABT unit. Following appropriate aggressive biological treatment, the treated wastewater will then be routed from the South ABT unit directly for disposition via evaporation and/or UIC-permitted reinjection, bypassing the North ABT. After completion of the modified closure for the North ABT unit, it will be restored to service as an additional wastewater treatment unit.”

The term “modified closure” is not defined in the Closure Plan. The actions proposed in the Closure Plan could be described as “partial closure” of the aeration lagoons, where each aeration lagoon is removed from service, the existing water and sludge is removed and the liner is cleaned, inspected, and, if necessary, repaired before being returned to service. Giant must revise the Closure Plan to either define the term “modified closure” or instead define and use the term “partial closure” to describe the activities involved in closing the aeration ponds above the liners.

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Comment 6

In Section 4.1 (Closure Procedures), page 9, paragraph 3 and 4, Giant makes the following statements, respectively “[f]ollowing appropriate aggressive biological treatment, the treated wastewater will then be routed from the South ABT unit directly for disposition via evaporation and/or UIC-permitted reinjection, bypassing the North ABT” and “[s]uch aeration shall continue at a minimum long enough to prevent F037 and F038 formation.”

Giant must revise the Closure Plan to define “appropriate” aggressive biological treatment and define “what long enough is” to prevent the formation of F037 and F038 listed wastes.

Comment 7

In Section 4.1 (Closure Procedures), page 9, paragraph 4, Giant states “[e]ach ABT unit will be decontaminated following the procedures discussed below. After the flow of decharacterized wastewater to an ABT unit is shut off as part of the closure process, aggressive aeration of the nonhazardous wastewaters will continue. Such aeration shall continue at a minimum long enough to prevent F037 and F038 formation. After such residence time and aeration, and sufficient sampling to confirm the lack of benzene characteristic, this nonhazardous wastewater will be pumped to the evaporation units and/or UIC disposal well assuming confirmation of parameters appropriate for such nonhazardous wastewater disposition by injection.”

Giant must revise the Closure Plan as follows: once the wastewater flow is routed to the North ABT unit, the remaining wastewater in the South ABT unit must be rerouted back through the Wastewater Treatment Unit system (WWTU) upstream of the API separator, which will then enter the North ABT unit. This eliminates the need for sampling because the water will be treated through the WWTU system. This also removes the possibility of wastewater being potentially hazardous for benzene from entering the evaporation ponds and/or Underground Injection Control (UIC) wells for disposition.

Comment 8

In Section 4.1 (Closure Procedures), page 9, paragraph 5, Giant states “[t]he sludges (including some attendant watery solution entrained with the sludges) in the ABT unit above the liner will be sampled for hazardous characteristics. A representative number of samples will be collected sufficient to account for potential variability. If the sludges do not exhibit any hazardous characteristics, they will be removed from the ABT units by a vacuum truck for appropriate disposal. Additional wastes not amenable to vacuum removal may be removed through careful shovel or other similar small-scale operations in such a manner as to assure protection of the 100 mil liner. The remaining materials [after vacuum and other removal operations have occurred] and the entire top liner will then be powerwashed with water. This nonhazardous washwater will then be pumped to the evaporation units/UIC wells as appropriate for disposition.” NMED has the following comments:

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- a. Giant must revise this Section to identify all analytical methods to be performed on the sludge samples to determine if the sludge is hazardous (this must include EPA Method 8260, EPA Method 8270, metals, reactivity, ignitability, corrosivity, and toxicity),
- b. Giant must revise this Section to define and describe what a representative number of samples are in terms of unit volume,
- c. Giant must revise this Section to state that all washwater resulting from the top liner being powerwashed will be placed in the WWTU upstream of the API separator where it will be treated prior to discharge to the surface impoundment, evaporation ponds and /or UIC disposal well.

Comment 9

In Section 4.1 (Closure Procedures), page 10, paragraph 1, Giant states “[i]f wastes removed from the ABT units exhibit one or more hazardous characteristics, the wastes will be removed and placed in appropriate RCRA tanks, containers for disposal offsite as hazardous waste. All of the equipment used will then be appropriately decontaminated with any rinse waters being appropriately handled. In addition, the remaining materials (after vacuum and other removal operations have occurred) and the entire top liner then will be powerwashed with water. The liner/residue washwater will be collected in the impoundment and pumped back to the WWTU system for handling through the oil/water separator and benzene strippers, followed by aggressive biological treatment in the other ABT unit still in service. This procedure will be followed even if the washwaters do not exhibit a hazardous characteristic.”

Giant must revise the Closure Plan to describe how the equipment will be decontamination and identify how the rinse water will be “appropriately” handled.

Comment 10

In Section 4.1 (Closure Procedures), page 10, paragraph 2, Giant discusses the inspection of the liners and states if damage to the top liner is present, then the underlying liner will be checked for damage and repaired as necessary.

Giant must revise the Closure Plan to describe how the underlying liner will be checked for damage. For example, will the top liner be removed, and if so, how will it be removed, and if not, what procedures will be utilized to check for damage of the underlying liner.

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Comment 11

In Section 4.1 (Closure Procedures), page 10, paragraph 2, Giant states “[i]f the lowermost 100-mil liner is damaged, then the underlying environmental media (e.g., 6” layer of soil with 33 % bentonite and native soils) will be investigated to determine if mobile non-aqueous phase liquid (NAPL) hydrocarbons are present immediately beneath the ponds. Only if mobile NAPL is present immediately beneath the ponds, which could migrate to groundwater, will remediation of the underlying environmental media be conducted to remove the mobile NAPL. Otherwise, any impacts to the underlying media should not present a threat to human health or the environment due to the fact that multiple overlying liners will prevent any direct contact to or leaching of contaminants.”

If any contamination is discovered to the underlying environmental media beneath the ponds, (not just mobile NAPL) an investigation must be implemented to determine the best course of remedial action, if any. Giant must revise this Section to state that any contamination discovered beneath the evaporation ponds will be investigated and the extent defined.

Comment 12

In Section 4.1 (Closure Procedures), page 10, paragraph 3, Giant states “[a]fter all repairs are complete, the impacted leachate collection systems will be flushed with clean water. The collected flush water will be sampled. If it tests hazardous, it will be disposed of offsite and the flushing will be repeated. When the flush water tests non hazardous, then that first nonhazardous flush will be pumped back to the WWTU system for handling through the API separator and benzene strippers.”

Giant must revise the Closure Plan to describe the components of the leachate collection system. Giant must also revise Section 4.1 to state that all water used to flush the leachate collection system will be put back through the WWTU system upstream of the API separator. The only sampling necessary is to determine if the flush water from the leachate collection system is not hazardous. This Section must also be revised to state the analytical methods that will be used to analyze the flush water samples.

Comment 13

As a general rule, all washwater, rinse water, and flushwater generated during the closure process must be sent back through the WWTU system upstream of the API Separator. This must be revised throughout the Closure Plan where not already addressed by these comments.

Comment 14

As part of the Closure Plan, Giant must include a section for the installation of four monitoring wells and propose the locations. A monitoring well must be located on the western side of the South Aeration Lagoon. Another well must be located at the northern tip of the North Aeration Lagoon and two wells must be installed on the upgradient side of the ponds, downgradient from

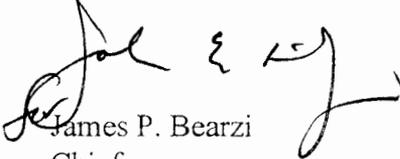
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the tank farm. A figure must be provided that depicts the proposed locations. Proposed well installation details such as the anticipated well depths and well construction must be included in the Revised Closure Plan.

GRCB must submit a revised Closure Plan and a response letter that details where the revisions have been made, cross-referencing NMED's numbered comments. The revised Closure Plan must be submitted to NMED on or before May 31, 2008.

If you have any questions regarding this letter, please contact Hope Monzeglio of my staff at (505) 476-6045.

Sincerely,



James P. Bearzi
Chief
Hazardous Waste Bureau

cc: J. Kieling, NMED HWB
D. Cobrain, NMED HWB
C. Frischkorn, NMED HWB
H. Monzeglio, NMED HWB
W. Price, OCD
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File: GRCB 2008 and Reading
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