



RHODE ISLAND  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

May 12, 2006

**CERTIFIED MAIL**

Mr. Michael S. Healey, P.G.  
Director of Environmental Affairs  
Charbert, Division of NFA Corp.  
299 Church Street  
Alton, RI 02894

Re: Proposal to Construct Two Rapid Infiltration Beds for the Disposal of Process Wastewater at Charbert, Division of NFA Corp., 299 Church Street, Richmond

Dear Mr. Healey:

The Department has received your April 14, 2006 proposal to construct two Rapid Infiltration Beds (RIBs) at the above referenced site. Based upon UIC Program review of the submittal, the following items must be addressed in order to complete evaluation of the proposal.

1. The last sentence, bottom of page 1 states "These proposed RIBs are a part of the wastewater treatment options Charbert is currently evaluating and would be used for disposal of treated wastewater when the treatment plant is constructed." As discussed in the March 23, 2006 meeting between representatives of Charbert and its consultants GZA and Acheron, and the Department, it is the Department's understanding that the two proposed RIBs are part of a long-term plan for wastewater treatment and disposal that includes the creation of a wastewater treatment plant and a larger series of RIBs. Please provide as much detail as possible with regards to the long-term wastewater treatment and disposal plan, its anticipated timeline for completion, and how the two proposed RIBs fit into the plan.
2. To date the Department has received three varying proposals for the installation of Rapid Infiltration Beds (RIBs) to be used for the discharge of process wastewater at the Charbert Facility.

The first proposal, "Background Information, Modification of UIC Order of Approval, Charbert Facility, Richmond, Rhode Island", dated January 21, 2005 proposed the installation of four RIBs (each 50 ft X 150 ft X 4 ft deep for a total of 30,000 ft<sup>2</sup>) to be installed side by side south of existing lagoon #3. Additionally, the four proposed RIBs were to be used for the discharge of the process water with one or more of the lagoons being used for temporary storage of treated wastewater during the cold winter months, when the cold temperatures might result in less effective infiltration of wastewater through the RIBs.

The second proposal, "Hydrogeologic Study, Charbert Facility, Alton, Rhode Island" dated March 21, 2006 proposed the installation of three RIBs (Area 1, 300 ft X 80 ft, south of lagoon #3; Area 2, 600 ft X 40 ft, east of the lagoons; and Area 3, 250 ft X 50 ft, west of the lagoons, for a total of 60,500 ft<sup>2</sup>). Additionally, it was recommended that lagoon #3 be kept available for backup and additional infiltration capacity.

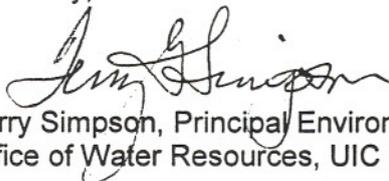
The third and most recent proposal, "Proposal to Construct a Rapid Infiltration Bed for the Disposal of Process Wastewater, Charbert Division of NFA Corp., Alton, Rhode Island", dated April 14, 2006 proposes the installation of two RIBs south of lagoon #3 (each 2 ft deep with a total leaching area of 65,000 square feet) and the continued utilization of lagoons #1, #2 and #3. Please explain why the design of the RIBs has changed frequently over the past 15 months? Why has the most recent design been chosen? What advantages does the most recent design have over its predecessors? Why is the plan now to keep all three current lagoons active?

3. Please provide two updated site plans. The first site plan should be similar to Figure No. 4 submitted with the March 21, 2006 "Hydrogeologic Study", but must also include: the two RIBs proposed in the April 14, 2006 proposal, seasonal high groundwater table, groundwater flow direction and existing and proposed contours. The second site plan should show the entire Charbert property including facility buildings, process wells, public well, all on and off site monitoring wells, existing lagoons and temporary holding pond, proposed RIBs, on-site ISDS, groundwater flow, abutting roadways, private residences south of Church Street, private residence drinking water well locations, and Wood and Pawcatuck Rivers.
4. Provide the expected peak ground water mound elevation beneath each of the two RIBs based on the estimated discharge rate of 1.8 gallons per day per square foot of area.
5. What if any, are the anticipated impacts to water quality of the Wood and Pawcatuck Rivers from use of the proposed RIBs?
6. Provide a proposal to address the elevated chromium levels found in the pumphouse effluent.
7. Provide any information related to the analytical characterization of the soil and groundwater (shallow and deep) in the area of the proposed RIBs.
8. Provide information on confirmed wetland delineation in the area of the proposed RIBs either by DEM, OC&I or Charbert consultants.
9. Provide the Department with available case studies where RIBs have been utilized for the discharge of industrial wastewater. This information should include a description of the waste stream(s) being discharged, any pre-treatment utilized prior to discharge, locations and surrounding areas where the RIBs are being used, system performance monitoring, and any other pertinent information that demonstrates that this technology has been used successfully elsewhere and would be successful at this facility in its proposed location.
10. The number of wells proposed to monitor groundwater in the area of the RIBs appears inadequate. Please be aware that if this proposal and any associated modification

progresses to approval, an adequate network of groundwater monitoring wells will be required to ensure protection of groundwater resources.

If you have any questions regarding this matter, please contact me at 222-4700, ext. 7602.

Sincerely,



Terry Simpson, Principal Environmental Scientist  
Office of Water Resources, UIC Program

Xc: A.: Good, DEM, OWR  
R: Chateaufneuf, DEM, OWR  
T. Pavilonis, DEM, Legal  
D. Chopy, DEM, OC&I  
C. Roy, DEM, OWR  
file