STATE OF MISSISSIPPI
OFFICE OF THE GOVERNOR

HALEY BARBOUR
GOVERNOR

August 25, 2010

Stan Meiburg
EPA Acting Regional Administrator
United States Environmental Protection Agency
Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Re: Non-compliant wastewater system by Mississippi Band of Choctaw Indians in Jones County, Mississippi

Dear Mr. Meiburg:

I am writing to request the Environmental Protection Agency take action to halt construction of a new gaming facility that is currently under construction by the Mississippi Band of Choctaw Indians' ("MBCI") in Jones County, Mississippi, due to the detrimental impact it will have on the environment and the public health and safety of our citizens.

As you know, Bob Freeman, P.E., USEPA Region 4 Atlanta, has reviewed MBCI's submissions for a wastewater treatment system for the Choctaw Bogue Homa slot parlor. Mr. Freeman found that the proposed wastewater system had several deficiencies, including failing to protect groundwater. His written comments and recommendations for redesigning the entire wastewater system are attached to this letter. Because the current design of the wastewater system jeopardizes the safety of the water supply in the area where both tribal members and Mississippi citizens live and work, I ask this agency to stand behind its August 11, 2010 comments and enforce all applicable environmental laws and regulations. Those comments make clear that the slot parlor as planned will not live up to federal environmental standards.

The Tribe is moving forward with construction of a 27,000 square foot metal building that is expected to house slot machines and a snack bar. The multi-acre site has been cleared and graded and concrete footings have been poured. Due to the fast pace of the construction of this slot parlor, I request that you, as acting Regional Administrator, address these environmental concerns and order that further construction cease in the meantime, in order to ensure that the environment is protected and that all public health and safety concerns are addressed. Please provide my office and the Mississippi

State Department of Health with copies of all required environmental and public health and safety documentation the MBCI has filed or will file with EPA. The Agency should not compromise its standards by allowing the Bogue Homa slot parlor to open unless it fully complies with federal environmental laws, including the Safe Drinking Water Act.

Thank you in advance for your consideration.

Sincerely,

Haley Barbour

Enclosure

cc: Administrator Lisa Jackson
The Honorable Beasley Denson
Tribal Miko

LATEST VERSION

Comments on Wastewater Treatment System Proposal for the Choctaw Bogue Homa Casino Project – August 11, 2010 – Bob Freeman, P.E.

The following comments are based on the information contained in the Bogue Homa Casino project submittals as follows:

1. Mechanical Site Plan, Atherton Consulting Engineers, Revised July 27, 2010
2. Boring Plan, Pritchard Engineering Inc., July 23, 2010
3. Geotechnical Report, Addendum No. 1, Pritchard Engineering, Inc., July 27, 2010
4. Package Steel Sewage Treatment Plant As Manufactured by Environmental Construction Corp./CWS.DIV. literature, undated

Comments:

- The proposed subsurface effluent dispersal system will be classified as a Class V Injection Well and subject to regulation by the Underground Injection Control Regulations promulgated by EPA in 1999. Compliance with those regulations will require the installation of one or more groundwater monitoring wells at the perimeter of the dispersal bed area, quarterly sampling of those wells, and reporting to EPA the groundwater concentration of nitrate (NO3) measured as N (other parameters may be required as evidence of proper plant operation). EPA regulations establish the groundwater protective limit of nitrate to be 10 mg/l which may not be exceeded. I do not believe the system as proposed will be able to comply with that groundwater nitrate level for the reasons listed below. Are there independent data to support the proposed treatment/effluent dispersal system's ability to comply with a groundwater concentration of 10 mg/l nitrate as N?

- The wastewater treatment plant design is based on a biological loading of 200 mg/l (BOD?). Most casino wastewater data I have been able to find stated that casino wastewater ranges from 250 mg/l BOD to 400 mg/l or more BOD. What data is available to support a 200 mg/l BOD loading?

- The dispersal bed distribution box appears to offer no control of the effluent discharge to the five dispersal beds. Without a control system, how can the dosing/resting cycles of the individual beds be controlled? How can an individual bed be taken out of service for maintenance, repair, or grass mowing (assuming the beds are to be grass covered)? How can uniform distribution of the flow to the five dispersal beds be assured?

- The dispersal beds are each served with a six-inch diameter header pipe, which conveys flow from the distribution box to the eleven four-inch diameter perforated dispersal pipes in each bed. Since the flow is by gravity, how can the eleven four-inch dispersal pipes each receive a proportionate volume of the flow from the header pipe – it is almost certain that the bulk, if not all, of the flow in the header pipe will only reach the first four or five dispersal pipes, resulting in all of the flow being dispersed in less than half of the bed. This would result in a bed loading significantly higher than design loading and would likely hinder the nitrogen removal that might occur in a bed with lower loading rates.

LATEST VERSION

- The wastewater treatment plant is proposed to be an extended aeration activated sludge process. That process is one of the highest (least efficient) energy using processes per volume of wastewater treated, which will lead to relatively high operation and maintenance requirements.

- The proposed extended air activated sludge plant will require biosolids disposal – what is the proposed management strategy for biosolids?

Recommendation:

Because of the above potential problems with the proposed wastewater treatment alternative for the Bogue Homa Casino project I recommend that the wastewater system be modified as follows:

- Conduct an evaluation of similar projects to verify the flow and loading for the casino wastewater.

- Consider a lower energy, simpler technology for the treatment system such as a large septic tank followed by a recirculating sand/gravel filter or recirculating textile media filter treatment system. This type of fixed film aerobic treatment system has greater ability to adapt to varying flows, can remove a significant amount of nitrogen from the wastewater, requires much less energy to operate, and is simple to operate & maintain. Effluent should be dispersed with a sub surface, low pressure distribution system. Sub-surface drip systems have been used successfully with these systems to meet the required groundwater standard for nitrate. The hydraulic loading for such sub-surface drip systems is typically 0.15-0.2 gal/ft2-day, depending on soil characteristics. A loading of 0.15 gal/ft2-day would require approximately 2.0 acres of sub-surface drip field for 13,000 gpd flow. There are numerous successful systems like this in the Mobile, AL area and in the Nashville and Murfreesboro, TN area. Specific contacts can be provided if desired.

- A system as described above may have a higher construction cost than the proposed alternative, but the operating cost would be less and the overall life cycle cost would likely be less. This type system would also have a much greater likelihood of being successful and complying with the groundwater protection requirement.

- Systems such as described above are available from several sources that have proven, successful experience including Adenus Wastewater Solutions (Tennessee Wastewater, Inc.) – Smyrna, TN; Orenco Systems Inc. - Sutherlin, OR; Quanics Inc. - Crestwood, KY; and Eco-Systems Inc. – Jackson, MS. Other suppliers offer similar systems that may be equal in performance and track record and could be considered as well.

Questions: Bob Freeman, P.E., USEPA Region 4 Atlanta – (404) 562-9244,
email: freeman.bob@epa.gov