

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Office of General Counsel, Region 8
6274 East Avon-Lima Road, Avon, NY 14414-9516
P: (585) 226-5311 | F: (585) 226-9485
www.dec.ny.gov

November 30, 2015

Danielle Mettler-LaFeir, Esq.
Barclay Damon
2000 HSBC Plaza
100 Chestnut Street
Rochester, New York 14604

Re: Lockwood Hills LLC Consent Order Case No. R8-20140710-47

Dear Ms. Mettler:

The Department has concluded its review of the Engineering Report for Leachate/Stormwater Segregation at the Lockwood Ash Disposal Site which was submitted as a condition of Consent Order R8-20140710-47. The submission was made by Ms. Bethany Acquisto of Daigler Engineering, PC on September 14, 2015. She is copied on this letter.

The proposed treatment surface impoundment would be a manually operated facility with limited process control. It would function similarly to the current settling surface impoundment that relies on stormwater inclusion to dilute leachate concentrations to achieve permit discharge limits. The proposal is not much more sophisticated than what is currently in place. The Engineering Report proposes to follow the design and operation procedures for another facility that treats coal combustion residuals (CCR) leachate at the Weber Ash Disposal Site Landfill, Town of Fenton, Broome County, New York. Department staff visited this site and reviewed documentation associated with it, since the facilities at Weber are the basis for the proposal at Lockwood.

The Weber treatment facility is primitive in terms of automation and controls. Everything is manually operated. Chemical addition is not metered. Mixing patterns appear to short circuit according to file photos, sampling is limited to only one grab sample prior to discharge, no samples are taken during the discharge, settled solids are not removed prior to discharge, solids carry over is not controlled or monitored, and the discharge has a bottom draw-off which will influence solids into the outfall. These are just some of the deficiencies that indicate that the operations are not the best treatment techniques available for physical chemical treatment of CCR wastewater. A wastewater treatment

process similar to that found at the Greenidge generating station is more representative of the current state of the art for treating this wastewater. The Engineering Report's proposed wastewater treatment facility appears to lack sufficient operational control to ensure compliance with permit limits.

Similarities between the Weber Landfill and Lockwood Landfill are overstated in the Engineering Report. Weber is approximately one-half of the acreage of Lockwood and it is closed. It has final cover and is not expected to be operated in the future. Under these circumstances, the leachate generation at Weber will be a much smaller volume than what is produced at Lockwood. The fact that Weber is closed means that its leachate volumes should be smaller and more predictable. That may make it allowable to be handled on a batch treatment basis with what appear to be rather casual controls.

On the contrary, the Lockwood Landfill has only received interim cover and the owner's plan is to reopen and operate again. During operation, the waste receiving cell will be open to precipitation and will generate a greater amount of leachate than the current rate. The leachate will likely be a higher strength waste because the dilution by mixing with stormwater will not be allowed. This dictates that a more structured collection, storage and treatment approach be employed to consistently achieve discharge permit requirements under varying loading conditions.

Department staff had anticipated that leachate would be collected in tanks and treated offsite in a SPDES permitted facility. If it is to be treated on-site, a process train similar to the Greenidge generating station wastewater and coal pile leachate treatment plant is needed. That facility has a recognizable and time proven physical chemical treatment process appropriate for reducing the chemicals present in the ash landfill leachate to SPDES effluent discharge limits.

In addition, the Engineering Report does not make provisions for maintaining a full level of leachate treatment during construction. It proposes to continue the commingling of leachate with stormwater as an interim measure in a newly constructed stormwater pond. This is not allowed by the SPDES regulations as dilution is not considered treatment. The construction detail for proposed Stormwater Basin 1 does not meet the technical requirements of a liner system for a CCR leachate impoundment. It can be used as a stormwater pond only.

Construction of the proposed Onsite Treatment System impoundment bottom would impinge upon the uppermost groundwater elevation. In order to meet necessary volume capacity, the depth of the impoundment retrofit must be deeper than the current Leachate Pond. For this installation to be approved by the Department, a variance from 6 NYCRR Part 360-6.5(a) would have to be granted. This regulation requires a minimum of five feet separation from the bottom of the liner system and the seasonally

Danielle Mettler-LaFeir, Esq.
November 30, 2015
Page 3

high groundwater table. The Engineering Report states that the bottom of the impoundment's two foot thick clay liner will be submerged below the water table. The Department will not approve the variance as it would violate federal regulation 40 CFR 257.60(a). That regulation states that CCR surface impoundments must be constructed with a base that is located no less than 1.52 meters (five feet) above the upper limit of the uppermost aquifer. There is no variance provision. The proposed project does not comply with location restrictions.

The current proposal is unacceptable and must be revised. A different plan is needed. Consider collecting leachate in storage tanks and investigate the possibilities for off-site treatment. Another alternative that you can evaluate is the potential to collect leachate in storage tanks and transport it by tanker truck or pipeline to the Greenidge generating station wastewater treatment facility for processing. You can also investigate package plants or mobile skid mounted physical chemical treatment plants to provide reliable, technically modern process control. Avoiding the use of an open air surface impoundment for leachate storage has the added advantage of flexibility for the placement of stormwater management features and preserving space for other activities.

There are additional issues associated with leachate and stormwater volume calculations, effluent sampling parameters, and groundwater monitoring locations that Department staff question. We can discuss these issues with you prior to or during your preparation of a revised Engineering Report. In any case, please submit an acceptable Engineering Report to the Department within 60 days of the date of this letter. Let me know if you have any questions.

Sincerely,



Dennis P. Harkawik
Regional Attorney

Cc: Ms. Bethany Acquisto, Daigler Engineering, PC