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State of Tennessee
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
KNOXVILLE ENVIRONMENTAL FIELD OFFICE
3711 MIDDLEBROOK PIKE
KNOXVILLE, TENNESSEE 37921-6538

December 17, 2013

Chairman Steve Field
Loudon County Solid Waste Disposal Board
100 River Road # 106
Loudon, Tennessee 37774

RE: Proposed Expansion of Loudon County Matlock Bend Landfill, SNL 53-0203
Notice of Deficiency

Dear Mr. Field:

In accordance with the Regulations Governing Solid Waste Processing and Disposal, Rule Chapter 0400-11-7, the application for a Major Permit Modification for the above facility has been reviewed for technical merit. Our review has determined the need for additional or revised information in the application text or plans in order to clarify, modify, or supplement the previously submitted material.

The permit process will proceed when the information requested is received which enables further review by the Knoxville Field Office with input from the Nashville's Central Office.

If you have any questions, please do not hesitate to contact me at (865) 594-5474.

Sincerely,

Paula Plont
Environmental Protection Specialist
Division of Solid Waste Management

Revendra Awasthi
Environmental Field Office Manager
Division of Solid Waste Management

cc: DSWM NCO
Santek - Ron Vail

Division of Solid Waste Management Comments
Class I Landfill Application
Loudon County Matlock Bend, SNL 53-0203

- The phased plans presented should include closure strategies/timelines. Please depict minimum closure areas (Rule 0400-11-.011-.03(2)(a)(b)2(i)(ii)) and fold such into the closure/post closure costs as developed. One improved element for the phasing sheets is to show the waste fill elevations and not the base liner grades for the applicable cells developed at each phase.
- In addition as the phases are developed, the site at some point will require a title V air permit. Please include supporting data (i.e. using EPA LandGem computer program) for predicting compliance year with the New Source Performance Standards.
- The stability analysis should include both short term (total stress-during operation) and long term stress (effective stress-after final closure) analysis.
- Stability calculations for intra-liner scenario (block failure) and intra-waste scenario (failure within the waste mass) are not included in the stability calculations.
- Critical cross section A-A geometry, chosen in analysis, does not agree with the proposed final elevation shown on sheet 9 and proposed base grade elevations shown on sheet 6 or 7. Please verify.
- The revised plan should include references/rationale used for input modeling parameters of waste and liner system. Use actual site specific shear strength data instead of published generic parameters, especially as this site's waste is dominated by industrial wastes.
- Clearly show/specify the details of the bottom liner used in stability computations and identify the critical failure plane.
- Sheet 10 A and Sheet 10 B: Plans show side slope benches of 50 to 60 vertical feet in height. The frequency of side slope swale or rather the vertical height distance should be based upon soil loss calculations on the final covered slope. We did not see any calculations to support this design choice. While spacing can extend towards 50 feet for MSW waste fills the Division considers swales spaced on 30 to 40 feet more appropriate in this instance where the waste stream is dominated by industrial wastes.
- Sheet 10 A does not clearly depict a perimeter ditch along the southern side of the lined fill area.
- Please reevaluate the size and number of let-down drainage pipes to ensure they have adequate design capacity, especially DS8 on Sheet 10 B.
- The roughness coefficient of the grass-lined side slope swale ditch (0.024) is incorrect as this value corresponds to corrugated metal pipe. It appears the ditch is undersized with this adjustment.
- Include for review the site's proposed watershed areas on a map and include networking route details through each proposed drainage structures.
- Include for review calculations for sediment pond #3 & pond # 4 the required and proposed storage volume.
- Pond # 3 calculation specifies the riser pipe as 24 inches whereas the plans show it to be 48 inches. Please verify.
- The chart on sheet 14 C outlines the distance between the bottom of the pond and the first orifice perforation as only 1 foot. This allows for very limited settling and the first orifice perforation should at a minimum start above the barrel pipe.
- The proposed storm water pumping discharge scenario does not slowly release waters off-site in similar manner as a gravity flow pond and is not considered sufficiently protective. Pond 4 should be built earlier or some version of that pond. The long term nature of waste permits and the existing Memorandum of Agreement with the Division of Water Resources dictates the Division of Solid Waste Management to fully incorporate storm water detention practices for this site now in this permitting phase and document.
- The numbering system for the Division's regulations has been changed from Rule 1200 to Rule 0400. Please correct all references.