



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

May 9, 2018

Mr. Bob Shires, Region Vice President
Waste Corporation of America
1550 Lamons Quarry Lane
Knoxville, TN 37932

RE: Technical Review – Proposed Major Permit Modification
Notice of Deficiency - Yarnell Road Demolition Landfill, DML 47-0069

Dear Mr. Shires:

In accordance with the Regulations Governing Solid Waste Processing and Disposal, Rule Chapter 0400-11-01, the application for vertical expansion of F-2 Area as a major permit modification has been reviewed for technical merit. Our review has determined the need for additional or revised information in the application text and plans in order to clarify, modify, or supplement the previously submitted material. Comments from the review are attached and the permit process will proceed when the information requested is received.

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

Sincerely,

Handwritten signature of Paula Plont in blue ink.

Paula Plont
Environmental Consultant
Division of Solid Waste Management

Handwritten signature of Revendra Awasthi in blue ink.

Revendra Awasthi
Environmental Field Office Manager
Division of Solid Waste Management

ATT: Review Comments

cc: DSWM NCO via electronic mail
Steve Lamb, P. E. SCS Engineers via electronic mail

Review Comments

Major Modification Yarnell Road Landfill, DML 47-0069

May 9, 2018

1. As this will be the last set of plans expected for the site, the Division considers the location of the leachate collection lines with where and how those lines transmit liquids down to the treatment and storage tank of value going forward and should be shown in either an independent page or combined in some manner with an existing sheet.
2. Sheet 8, detail 1 should specify the permeability of $1 * 10^{-6}$ cm/sec to match the operation manual in page 9 under section 4.1.3 of the Placement of Final Cover.
3. The down chute on Sheet 5 should have a detail provided. It is uncertain if this is open channel or a pipe.
4. Detail 5 on Sheet 8 says filter fabric or gravel bedding. Fabric must be included in the design.
5. Add some note on Sheet 9, Detail 2 or provide a view concerning the matting for the last 100 feet and 5% slope criteria where matting is intended to be placed.
6. Table 2 looks like the "[1]" is a footnote with it being raised superscript. Was this intended or is this Berm for drainage 1?
7. Leachate management section 4.1.6 page 10 notes summarily Knox County Sewer District. It would be preferable to use the actual utility districts in this application.
8. There is a section of the front slope (@ grid 9 E & 4.5 N) has a slope height of 42 feet with length of ~ 150 feet . Several other sections now also exceed the slope length (100 feet) and height desired (~ 35 feet) from an erosion control standpoint.
9. A portion of the lowest west berm (@grid N 4.7 & 8.5 E) runs directly downhill parallel to the flow more than cross slope and drops ~ 24 ft in 100 feet. This section would erode as in this section due to higher velocities and then drop that sediment in a lower section causing this berm's long-term function to be suspect. Use the steepest sections of each berm as the erosive velocity to check for each berm and armoring calculations or evaluate in sections and not an overall average.
10. Sheet 8, detail 5, note 4 has 0 feet? Is zero correct?
11. Emergency spillway depth looks to be 1 foot with a d50 of 12 inches. Where is this 12 inch rock size calculated? Typical total depth would be either 1.5 or 2 times d50. Also the entire slope to the 1110 should be shown with rock and this detail should show fabric under the rock.
12. Sheet 5 shows the waste boundary limit line into the road and the culvert CB-5 would be within the waste mass? Check with site folks to determine if waste would be expected as channelized flow off the footprint should not be brought back into footprint.
13. Leachate pre-treatment chemicals were not specifically identified in cost sheet. Also the third party costs for the labor time to perform this activity should be included.
14. Costs for spreading offsite topsoil in the final cover needs to be raised to be within \$1.75- \$2.00 range based costs the Division tracks from projects within Tennessee.
15. Costs for spreading off-site clay should be raised to ~ \$2.00 per cubic yard based upon costs the Division tracks from projects within Tennessee.

16. The site's most common temporary sediment detail employed is mulch berm. This would be an element to include as a detail.
17. An anti-seep collar and anti-vortex/trash rack should be included in the pond's design.
18. Sediment storage in calculations credit volume of the pond from elevation 1096 up to 1100 to produce 834 CY value. Holes identified on Sheet 10 at elevations of 1098 & 1100 so sediment storage can't be credited for volume above these holes.
19. What is dewater time of pond for 25 year 24 hour event?
20. BMP 7 pipes will be directed right into the pond under the sediment storage elevation ~ 1097 which will disturb sediment previously captured each subsequent rain event. It not be preferable to use a shorter pipe and run down rip rap so this flow causes less disturbance to the water?
21. Please show silt fences or other methods that would be used to control the storm water run-on /run-off around the borrow area in sheet 5.