

APPENDIX E POND 3 CLOSURE

The Permit To Install Application shall provide for the closure of Pond 3 consistent with fully meeting/implementing the requirements set forth below:

1. Scotts shall land apply wastewater at a rate that does not exceed the nitrogen requirements of the crop to be grown on the application site (200 - 250 lb/acre grassland).
2. The following isolation distances shall be maintained during land application:
 - Wells, public or private - 300 feet
 - Neighbor occupied building - 300 feet
 - Ponds, ditches, streams - 100 feet
3. Nutrient waters shall not be land applied under any of the following conditions:
 - More than 0.5 inches of rainfall has occurred in the preceding 12 hours or can be reasonably expected to occur during the day.
 - More than 1.0 inch of snow cover or frozen ground.
 - Under any circumstances or weather conditions that will lead to runoff of the applied nutrient water.
4. Wastewaters generated through or in association with the Recycle I process wastewater treatment system shall not be land applied or disposed of in any of the recycle ponds.
5. Scotts shall maintain a record of the nutrient water management program. Records shall be kept for each application as noted below and made immediately available to Ohio EPA upon request:
 - Application site location.
 - Amount of land utilized for land application.
 - Date(s) of application
 - Crop to be grown
 - Any problems, permit deviations (include explanation) or general comments.
6. Appropriate erosion and sediment controls shall be installed prior to any construction at Pond 3. They shall be maintained until vegetation is established sufficient to control erosion.

7. Prior to construction, solidification tests shall be performed to determine the unconfined compressive strength of various mixtures of vermiculite waste and cement kiln dust (CKD) or other suitable material as approved by the Director of Ohio EPA. These tests shall be performed to determine the ratio of CKD and vermiculite waste that provides sufficient strength for compaction and suitable dewatering of the waste. The source of the cement kiln dust utilized in these tests shall be the same source selected by the contractor. The results of the solidification tests shall be submitted to and reviewed for acceptance by the Ohio EPA, Central District Office prior to construction.
8. Waste shall be moved back from the stream, a minimum distance of 10 feet, such that equipment can compact the soil into what will be referred to as the barrier wall between the waste and the stream.
9. Soil used to construct the cap and the barrier wall shall have the following particle size distribution:
 - 100 % of the material must pass a 10" screen with 98% of the material passing a 6" screen.
 - 95% of the material must pass a 3" screen.
 - 70% of the material must pass the #10 sieve.
10. Soils used to construct the cap and the barrier wall shall be tested for the following parameters at intervals of every 3000 cubic yards of soil used:
 - For particle size gradation using sieve and hydrometer testing (ASTM D-422)
 - For moisture/density relationship using either the Standard Proctor (ASTM-D-698) or Modified Proctor (ASTM D-1557) methods.
11. Soil used, for both the barrier wall and the cap, shall have an in-situ permeability of no greater than 1×10^{-5} centimeters per second or laboratory determined permeability of no greater than 1×10^{-6} when compacted to 95% of the maximum Standard Proctor Density or 90% of the maximum Modified Proctor Density. Results of the tests, on the soils to be used for construction, shall be submitted to Ohio EPA Central District Office at least 15 days prior to construction.
12. The barrier wall and cap shall be installed in loose lifts not to exceed 8 inches in thickness to facilitate uniform compaction. The lifts shall be compacted to at least 95% of the maximum Standard Proctor Density or at least 90% of the maximum Modified Proctor Density and, at a minimum,

have in-situ permeability of no greater than 1×10^{-5} centimeters per second or a laboratory determined permeability of 1×10^{-6} centimeters per second.

13. During construction of the cap and the barrier wall, compaction must be monitored to ensure that the proper specifications are met. The following methods may be used, nuclear method (ASTM D-2922), sand cone (ASTM D-1556), or rubber balloon (ASTM D-2167). The nuclear method, if used, should be performed at least five times per acre per lift. The sand cone or rubber balloon methods should be performed at least three times per acre per lift. The sampling rate for any other methods that might be used will be determined on an individual basis.
14. Upon completion of construction, the permeability of the cap and barrier wall must be determined. This can be accomplished through either field permeability testing (Boutwell two-stage permeameter, SDRI), a construction test pad or through laboratory testing of cap samples brought to the lab for analysis (Shelby tubes, soil blocks). The permeability requirements for each type of permeability determination are as follows:

-For field permeability tests (Boutwell, SDRI), the required permeability of the cap is 1×10^{-5} cm/sec.

-For laboratory permeability test (Shelby tubes, soil blocks), the required permeability of the cap is 1×10^{-6} . One permeability test shall be performed for every 10,000 cubic yards of clay fill with a minimum of 2 samples.

Any penetrations into the cap layer resulting from either compaction or permeability testing should be repaired using bentonite or a bentonite/soil mixture.

15. The cap shall be at least 2 feet thick and maintain a minimum slope of 4% to ensure runoff during rain events.
16. The cap shall be seeded with grasses or similar vegetation as many times as needed to establish a dense vegetative cover.
17. The testing results, both during and after construction, should be submitted to Ohio EPA, Central District Office, along with the as built drawings of the pond closure, within 60 days of completion of construction. At a minimum, the as built drawings shall include a survey of the following:

- the bottom elevation of the pond
- bottom elevation of the cap
- top elevation of compacted cap

- full delineation of the barrier wall and waste limits

18. The cap shall be maintained such that no ponding of water occurs and a good stand of vegetation is sustained.
19. Mowing of the cap should occur at a frequency that prevents the establishment of trees and shrubs.
20. Post-closure shall continue for 15 years.
 - (A) Any time during the post-closure period, the director may:
 - (1) Shorten the post-closure care period if a request has been made and the director finds that the reduced period is sufficient to protect human health and the environment, based on such factors as the inspections and monitoring results conducted in accordance with the PTI; or
 - (2) Extend the post-closure care period, if the director finds that the extended period is necessary to protect human health and the environment, based on such factors as the monitoring results required by the PTI.
 - (B) Post-closure care activities shall include, but are not limited to:
 - (1) Continuing operation and maintenance the surface water management system, and the ground water monitoring system; and
 - (2) Maintaining the integrity and effectiveness of the cap system, including making repairs to the cap system as necessary to correct the effects of settling, dead vegetation, subsidence, erosion, or other events, and preventing run-on and runoff from eroding or otherwise damaging the cap system; and
 - (3) Semi-annual inspections of the landfill facility during each year of the post-closure care period and submittal of a written summary to the appropriate Ohio EPA district office not later than fifteen days after the inspection date detailing the results of the inspection and a schedule of any actions to be taken to maintain compliance with the PTI. The director may either increase the frequency of inspections, or, upon the request of the permittee, decrease the frequency of inspections if the results of past inspections justify either action; and
 - (4) Fulfilling all monitoring and reporting requirements in accordance with the PTI.
21. Scotts shall develop a post closure groundwater monitoring plan, within 6 months from the date of entry of the Consent Order or within 6 months following the closure of Pond 3 (whichever date comes first), to assess the potential groundwater impacts resulting from the Pond 3 closure. The monitoring plan developed to assess Pond 3 may be included in the comprehensive/site wide groundwater monitoring plan being developed to address previously closed units and those units that will be closed through the RCRA Corrective Actions process. The plan shall provide for

implementation of ground water monitoring within 3 months following review and acceptance by the Ohio EPA.

22. If the ground water or surface water is found to be impacted by the waste in Pond 3, then corrective actions may be required to mitigate the contamination.