

PERMIT MODULE I GENERAL PERMIT CONDITIONS

I.A. EFFECT OF PERMIT

The permittee is allowed to dispose solid waste on-site in accordance with the conditions of this permit. Any disposal of solid waste not authorized by this permit is prohibited. Compliance with the terms of this permit does not constitute a defense to any order issued or any action brought under Sections 10.1-1402(18), 10.1-1402(19), or 10.1-1402(21) of the Virginia Waste Management Act (Chapter 14, Title 10.1, Code of Virginia (1950), as amended); or any other law or regulation for protection of public health or the environment. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby. For purposes of this permit, terms used herein shall have the same meaning as those in the Virginia Waste Management Act, and Part I and other pertinent parts of the Virginia Solid Waste Management Regulations (VSWMR, 9VAC20-81), unless this permit specifically provides otherwise; where terms are not defined in the regulations or the permit, the meaning associated with such terms shall be defined by the generally accepted scientific or industrial meaning of the term or a standard dictionary reference. "Director" means the Director of the Department of Environmental Quality, or his designated or authorized representative.

I.B. DUTIES AND REQUIREMENTS

The permittee shall comply with all conditions of this permit and 9VAC20-81. The effect of this permit is detailed in 9VAC20-81-490, and it shall be the duty of the permittee to ensure the applicable requirements are met. Additionally, the permittee is subject to the recording and reporting requirements detailed in 9VAC20-81-530. In addition to these requirements, the following additional conditions are invoked per 9VAC20-81-430, and shall be complied with:

I.B.1. Noncompliance may be authorized by a schedule of compliance [9VAC20-81-490.D. and 9VAC20-81-490.H.]. Any other permit noncompliance constitutes a violation of Virginia Waste Management Act and is grounds for enforcement action, or for permit revocation, revocation and reissuance, or modification [9VAC20-81-570 and 9VAC20-81-600].

I.B.2 The permittee shall comply with the requirements of this permit and any provisions of RCRA Subtitle D (Title 40, Code of Federal Regulations, Section 258) requirements as they become applicable upon their effective date. This permit may not act as a shield against compliance with any part of RCRA or any other applicable federal regulation, state regulation or state law.

- I.B.3. In an enforcement action, it shall not be a defense for the permittee that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- I.B.4. In the event of noncompliance with this permit, the permittee shall take all reasonable steps to minimize releases of solid wastes or waste constituents to the environment and shall carry out measures to prevent substantial adverse impacts on human health or the environment.
- I.B.5. The permittee shall at all times properly operate and maintain all units (and related appurtenances) which are installed or used by the permittee to achieve compliance with the operations manual and the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing, and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of back-up or auxiliary equipment only when necessary to achieve compliance with the conditions of this permit.
- I.B.6. The permittee shall furnish to the Director, within a reasonable time, any relevant information that the Director may request to determine compliance with this permit, regulations or the Act. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit by the date specified in the request.
- I.B.7. The permittee shall allow the Director, or an authorized representative, at a reasonable time, upon the presentation of appropriate credentials, to:
 - I.B.7.a. Enter the permitted facility where a regulated unit or activity is located or conducted, or where records must be kept under the conditions of this permit;
 - I.B.7.b. Have access to and copy any records that must be kept under the conditions of this permit;
 - I.B.7.c. Inspect any unit, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and,
 - I.B.7.d. Sample or monitor, for the purposes of assuring permit compliance or as otherwise authorized by Virginia Waste Management Act, any substances or parameters at any location within his control.
- I.B.8. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample to be analyzed must be the appropriate method from the latest edition of Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846, if available.

Laboratory samples shall be analyzed in accordance with 1 VAC 30-45, Certification for Noncommercial Environmental Laboratories, or 1 VAC 30-46, Accreditation for Commercial Environmental Laboratories.

- I.B.9. This permit is not transferable to any person, unless approved by the Director. The Director may require modification or revocation and reissuance of the permit pursuant to 9VAC20-81-490.G. Before transferring ownership or operation of the facility during its operational life, the permittee shall notify the new owner or operator in writing of the requirements of Parts III and V, of the Virginia Solid Waste Management Regulations, the Financial Assurance Regulations, 9VAC20-70, and this permit.
- I.B.10. In accordance with § 10.1-1408.2, all facilities must have a Certified Operator as required by the Board of Waste Management Facility Operators-Licensing Regulations, 18 VAC 155-20.
- I.B.11. Specifications for all drainage media should specify that the material shall contain no greater than 15% calcium carbonate equivalent. Department literature regarding research on leachate collection media indicates that weight loss greater than 15% results in an unacceptable loss of performance. If a greater percentage is specified or allowed, a demonstration that performance is not adversely affected must be provided to the Department for review and approval.
- I.B.12. Recirculation of collected leachate shall not be allowed, in accordance with 9VAC20-81-210.D.3., except when the area to be irrigated is underlain by a composite liner system. Furthermore, in accordance with 9VAC20-81-200.C.3.c., decomposition gas condensate may be recirculated into the landfill provided the facility complies with the composite liner requirement and the leachate control system requirements of Part III of VSWMR. A composite liner system is a system designed to meet the requirements of 9VAC20-81-130.J.1.
- I.B.13. The closure cost estimate must reflect the maximum cost of closure at all times. The owner has the responsibility to maintain the closure and post closure cost estimate and associated financial assurance funding as conditions change.
- The facility shall maintain additional financial assurance and/or environmental liability insurance that has been reviewed and approved by the Department until the landfill is released from postclosure care to cover the costs of remediation and clean up in the event of failure of the MSE berm. The facility shall not alter the amount or mechanism without prior approval by the Department.
- I.B.14. Land-clearing, excavation, and construction activities that involve the disturbance of wetlands or streams shall not commence without authorization from the Virginia Water Protection (VWP) Program and/or Army Corps of Engineers.

I.B.15. Blasting operations shall be conducted to avoid changes in the hydrogeologic character of the remaining underlying formations, and to avoid creation of instabilities or irregularities in these that might potentially lead to damage to the impermeable membrane to be installed. It shall be ensured that adjacent landfill facilities not be damaged, which includes the geosynthetic landfill liner and gas and groundwater compliance monitoring locations.

I.B.16. The facility shall maintain and follow an approved Erosion & Sediment Control Plan for all land-disturbing activities in accordance with the Erosion and Sediment Control Regulations, 9 VAC 25-840.

I.C. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The permittee shall maintain a complete copy of the Solid Waste Permit and incorporated Permit Documents at the facility, or another location approved by the director, until post-closure is complete and certified by a professional engineer, and shall maintain amendments, revisions, and modification to these documents. In addition, the facility shall maintain the following additional documents:

I.C.1. Operations Manual with annual certification by Responsible Official

I.C.2. Detailed, written estimate, in current dollars, of the cost of closing the facility, post-closure care and corrective action measures

I.C.3. All other documents/records required and applicable from the following:

I.C.3.a. Monitoring records from leachate, gas, and groundwater monitoring.

I.C.3.b. Inspection records as required from construction/installation, operational, closure, post-closure inspection requirements.

I.C.3.c. Personnel training records

I.C.3.d. Daily operational records (i.e., solid waste received and processed, fill area records, records of special wastes accepted, a logbook which is a daily narrative account of the activities at the landfill).

I.C.3.e. Construction quality assurance reports, record drawings and engineers certifications for all new liner and/or final cover construction

I.C.4. An approved copy of the complete Part A permit application

I.C.5. Documentation of the authorization to discharge leachate into the publicly/privately owned treatment works, leachate volumes sent to the POTW, and periodic leachate sampling analytical results

I.C.6. Research, Development, and Demonstration Plan documentation and testing data, if applicable.

I.D. DOCUMENTS TO BE SUBMITTED

In addition to the documents/records/reports to be submitted per the requirements of this permit or 9VAC20-81, the permittee shall also submit the following documents to the Director according to indicated schedules:

I.D.1. Prior to expansion into each new phase, the permittee shall submit all required certification documents per 9VAC20-81-490.A., and:

I.D.1.a. Authorization from Chesterfield County to discharge the increased volume of leachate and wastewater to the sewerage system and treatment works only after leachate has been directed to on-site pre-treatment.

I.D.1.b. Report and supporting documents resulting from quality control/quality assurance activities performed during construction and installation of the liner/drainage systems, including the installation contractor's written acceptance of the surfaces to be lined, synthetic liner manufacturer and installer warranties, laboratory test results of the permeability of the clay liner and the drainage media overlying the liner, and representative copies (sufficient to demonstrate responsible control) of the accumulated inspection schedules resulting from the professional engineer's oversight of the construction.

I.D.2. In accordance with 9VAC20-81-490.A., certification from a design engineer, who must be a professional engineer licensed to practice in the Commonwealth, that the construction of the facility has been completed in accordance with the permit, approved plans and specifications and is ready to begin operation. A certification will be required for each lined phase of development.

I.D.3. Certification (separate from I.D.2, above) from the Construction Quality Assurance (CQA) officer that the approved CQA plan has been successfully carried out and that the constructed unit meets all requirements of the permitted CQA plan, in accordance with 9VAC20-81-130.Q. A certification will be required for each lined phase of development. The CQA officer must be a professional engineer licensed to practice in Virginia.

I.D.4. The as-built plans of all groundwater and gas monitoring wells shall be submitted as these wells are installed or modified. Information to be included on the as-built plans shall include, but is not limited to, the total depth of the well, the surveyed elevations of the top of casing and ground surface (or apron), and the length and location of the screened interval and annular space seal. All dimensions are to be shown on well construction schematics.

I.E. REPORTS, NOTIFICATIONS, AND SUBMISSIONS TO THE DIRECTOR

All reports, notifications, or other submissions which are required by this permit to be sent or given to the Director should be sent to:

Virginia Department of Environmental Quality
Division of Land Protection & Revitalization
Piedmont Regional Office
4949-A Cox Road
Glen Allen, Virginia 23060

I.F. SITE SPECIFIC CONDITIONS

The provisions of this section are in addition to the permit conditions and regulatory requirements and are specifically developed for this facility. The permittee shall comply with all conditions of this section, as follows:

- I.F.1. The permittee shall inform the Department at least 2 weeks in advance of any new cell construction.
- I.F.2. The permittee shall submit to the Department any proposed design changes prior to construction for review and approval. The changes must be confirmed with "as-built" drawings.
- I.F.3. Leachate will not be recirculated into the landfill when there is greater than 10 inches of head on the liner system.
- I.F.4. The permittee shall submit to the Department appropriate documentation and as-built drawings of the active gas management system after construction of the gas management system is complete.
- I.F.5. Any disturbance or filling in the 100-year flood plan will require documentation of local government approval prior to initiating construction activities in those areas.
- I.F.6. The hydraulic head on the liner system must be measured using appropriate devices and technology (and records kept in the operating log) on a monthly basis, and within 24 hours after a two-inch or greater storm event. Within 30 days after the second year following the construction of geonet drainage layer, all head on the liner data, and a proposed plan for continued monitoring the head in the liner during the remaining operating life, must be submitted for review and approval by the Department. The Department must be notified within 10 business days in the event the hydraulic head exceeds 12 inches. If the measured hydraulic head exceeds 12-inches at any time during operation of the first cell of Phase I, this will be taken as evidence that the geonet drainage layer along with the 18" drainage layer ($k > 1 \times 10^{-3}$ cm/sec) on top of the geonet is no longer functioning as designed, and the subsequent cells in Phase I must be constructed utilizing a geonet drainage layer

with more permeable 18" granular drainage layer ($k > 1.0 \times 10^{-1}$ cm/sec) on top of geonet.

- I.F.7. If the project disturbs more than 10,000 square feet of land, an erosion and sediment control plan must be submitted to and approved by the Department of Environmental Quality prior to any land disturbing activity. Plan submittal and review should be requested by the County of Chesterfield. A separate stormwater management plan may also be required, dependent on local requirements.
- I.F.8. A new plan showing the waste tire piles and grinding operation area shall be developed and submitted to the Department of Environmental Quality at least 60 days prior to relocation of the area along with a permit amendment application, if required.
- I.F.9. The daily intake rate shall not exceed 5,350 tons per day. A major permit modification addressing the site infrastructure, operational conditions and the facility closure plan will be necessary prior to exceeding 5,350 tons per day.
- I.F.10. The facility has the option of using two types of base liner systems, either a Subtitle D liner or an approved alternate liner system, for Cells 22 through 27. The facility has the option of using multiple types of liner systems for the base, sidewalls, and benches for Cell 28. All liner systems for Cell 28 are either a Subtitle D liner or an approved alternate liner system. The facility shall notify the Department (DEQ) 90 days prior to construction of a new cell as to which liner system will be used.
- I.F.11. As required by the permit modification No. 7, the permittee shall maintain an Odor Management and Control Plan that describes the practices and technology that will be used to minimize offsite odors and to address odor complaints that may occur. The plan shall incorporate the use of best available odor control technology that is appropriate for this landfill. The plan shall also describe procedures that will be implemented in response to citizen odor complaints or the detection of significant off-site odors by DEQ staff, including progressive steps that will be taken to reduce odors. A log of all odor complaints received and actions taken shall be kept and made available by authorized Federal, State or Local officials. The Odor Management and Control Plan shall be reviewed annually by the permittee and evaluated for the need and feasibility of new or modified odor control technology or practices. Results of the annual plan review, a modified plan (if applicable) and a copy of the logs shall be submitted to the Director, DEQ Piedmont Regional Office by March 1st of each year.
- I.F.12. As required by the permit modification No. 7, the permittee shall maintain a Noise Control and Measurement Plan that describes the practices and technology that will be used to measure the noise at the facility boundary, The plan shall incorporate the type of instrument that will be implemented in case noise at the facility boundary exceeds the regulatory limit and address citizen noise complaints. A log of all noise complaints receive and actions taken shall be kept and made available for inspection by authorized Federal, State and Local officials.
- I.F.13. No later than December 31, 2014, and in each calendar year thereafter, the permittee shall perform a topographic survey of the facility; this survey shall be

certified by a professional engineer or certified landfill surveyor licensed in the Commonwealth of Virginia. The survey results shall be submitted to the Department no later than March 31 of the year following the survey. The submittal shall specify the volume of in place waste.

- I.F.14. No waste shall be placed in Cells 19, 20 and 21. Effective with the approval of permit modification no. 14, the landfill is no longer permitted for the volume (2,739,592 CY) in Cells 19, 20, and 21. The submission and approval of a revised Part A application is necessary to reclaim this volume.
- I.F.15. Construction of Phase 1 of the MSE berm (as shown on Drawing No. 11 of 43 in the Construction Plans and Drawing 11 of 43 in the County Site Plan) is authorized upon issuance of permit modification No. 14. Construction of Phases 2 and 3 cannot begin until a site plan is approved by Chesterfield County for these portions of the berm. If approval of the site plan by Chesterfield County requires any alterations of the design plans, technical specifications, design report, or any other permit documents then those alterations must also be approved by the Department prior to any construction.
- I.F.16. This facility includes an underdrain system as part of the landfill design. The purpose of the underdrain system is to provide temporary or intermittent relief of hydrostatic pressure that may build up beneath the landfill liner. Further description and permit-specific requirements regarding the underdrain system sampling and analysis can be found in Permit Module III.E. of this Permit.
- I.F.17. This facility includes a groundwater inward gradient control system as part of the landfill design for the quarry disposal unit. The purpose of the inward gradient pumping system is to eliminate any upward pressure from the groundwater potentiometric head on the landfill liner. The groundwater gradient control system for the quarry disposal unit consists of one gradient control sampling point (GC-1), and four "mezzanine" collection sampling points (GC-2m, GC-3m, GC-4m, and GC-5m) located at varied elevations along the quarry benches. Further description and permit-specific requirements regarding the inward gradient control and mezzanine collection system sampling and analysis can be found in Permit Module III.F of this Permit. Sampling of the appropriate gradient control points will be required for as long as the liquid collected in the gradient control system is discharged to surface water.
- I.F.18. The Quarry disposal unit will employ an inward gradient pumping system to eliminate any upward pressure from the groundwater potentiometric head on the landfill liner. The individual tiers of the pumping system may be turned off once the upward pressure from the groundwater is balanced by a sufficient mass of landfilled waste. Within one year of turning off the tiers of the inward gradient pumping system, the facility shall submit to the Department a report evaluating whether or not the aquifer system has returned to equilibrium, and assessing the impact on leachate production. Within one year of turning of ALL pumps and tiers of the inward gradient system, a final report shall be submitted to the Department which includes an evaluation of the equalized potentiometric surface and the need for additional perimeter groundwater monitoring wells, both shallow and deep.

- I.F.19. The groundwater monitoring program includes compliance monitoring well MW-8R2, which is downgradient and deeper than MW-8R. MW-8R is not a compliance well under this permit. However, MW-8R shall be renamed SP-8R (Sentinel Point 8R) and the facility shall continue to sample SP-8R during the routine monitoring events at the facility, but only for those constituents which have previously exceeded the GPS in SP-8R (cobalt and 1,3-dichlorobenzene). The surface water in the stream directly downgradient of SP-8R shall also be monitored during the routine monitoring events at the facility. The stream shall be monitored for those constituents that have exceeded the GPS in SP-8R (cobalt and 1,3-dichlorobenzene). When the facility can demonstrate that there is at least three consecutive years of no GPS exceedances in SP-8R, then the facility may petition the Department to discontinue monitoring of SP-8R and the adjacent stream. Upon Department approval, the facility may cease routine monitoring of SP-8R and the adjacent stream.
- I.F.20. Prior to operation of the quarry disposal unit, the facility shall submit to the Department a request to discharge stormwater and groundwater off-site and/or through the facility's stormwater detention ponds. The Department will evaluate the need for a new or revised VPDES or Water Permit at that time. The facility may also be subject to additional MS4 requirements from Chesterfield County.
- I.F.21. In order to protect public safety and the liner itself during liner construction, a temporary or permanent rockfall attenuator system will be required prior to any quarry landfill liner or other construction/operation that will take place within 15 feet of the quarry wall.
- I.F.22. In the event that the Virginia Solid Waste Management Regulations are revised prior to the commencement of construction of the quarry cell, and the more recent VSWMR contain requirements which are not satisfied by the proposed quarry design, the facility shall resubmit the Part B application and conform to the most recent VSWMR.
- I.F.23. The final permit is based on permit application submittals (drawings and reports) that may contain the word "proposed" and similarly tentative language. The documents that are incorporated into Permit No. 587 have been evaluated for administrative and technical adequacy and have been approved as proposed. Therefore, any references to a design, construction, operation, monitoring or closure criteria are considered to be approved as proposed.
- I.F.24. The facility is subject to the conditions listed in the Part A approval letter dated August 10, 2009.
- I.F.25. The facility shall be operated in a manner so as to not affect or impact the MSE berm unless needed to address berm movement, bulging, or blowout. The facility shall not alter, amend, or change the MSE berm without prior approval of the Department except as needed to respond to a blowout or similar emergency.
- I.F.26. The Operations Manual, Emergency Contingency Plan, shall be revised to address actions and procedures to be followed by facility personnel in the event of a MSE

berm failure. Berm failure should consider both excessive berm deformation and berm collapse.

I.F.27. The Operations Manual, Inspection Plan, shall be revised to address self-inspection items applicable to the MSE berm (see Permit Condition II.G.).

I.F.28. The MSE berm shall be inspected annually to assess berm movement and certified by a qualified professional engineer. The annual inspections shall continue through the post closure care period and be submitted to the Department no later than December 31 of each year. The facility shall take corrective measures immediately to address any movement of the wall as identified during the inspection or otherwise.

I.G. PERMIT MODIFICATIONS

I.G.1. The permit was modified by a major modification on November 22, 1994.

I.G.2 The permit was modified by a major modification on May 27, 1995.

I.G.3 The permit was modified by a minor modification on December 6, 1995. The modification was to change the Permit Number from 211 to 587.

I.G.4 The permit was modified by a major modification on May 20, 1999. The modification approved a variance for use of alternate concentration limits (health-based levels) in lieu of background data for established groundwater protections standards. This modification also approved the Part B design for the Phase I expansion area.

I.G.5 The permit was modified by a minor modification on March 1, 2000. The modification removed permit condition I.F.11, which stated "Please revise drawings showing all applicable and relevant components of the existing landfill area that affect or are included in Phase I expansion".

I.G.6 The permit was modified by a minor modification on February 21, 2003, that was requested on October 15, 2002. The modification addressed the utilization of tire shreds/chips in the construction of landfill gas system and leachate recirculation system components and relocations of gas monitoring probe GP-10, which was inappropriately positioned since it was not located at the facility property boundary. The probe GP-10 was replaced with GP-10R. The modification also addressed the relocation of downgradient groundwater monitoring wells MW-8 and MW-16 as they contain insufficient water column for sampling and the installation of a new monitoring well MW-20. The wells MW-8 and MW-16 were replaced in April 2002 with monitoring well MW-8R and MW-16R. The modification further addressed the storing of waste tires and grinding operations for processing of waste tires to produce tire shreds/chips of 95 percent 6-inch minus size product with nominal surface area of < 40 square inches using a Diamond Z 1463B tub grinder equipped with a tire-grinding conversion package.

- I.G.A A temporary authorization was issued on November 6, 2004, per a request dated September 30, 2004. The temporary authorization allowed the construction of the reconfigured Cell 22 with an alternate liner system. The construction must be consistent with the following submittals:
1. Drawing No. 1 dated 9/9/2004 and signed by Mr. Robert E. Dick, P.E. that shows the layout of Cell 22;
 2. Drawing No. 15A and 15B dated 9/9/2004 and signed by Mr. Robert E. Dick, P.E. that show the layout and details of the alternate liner system.
 3. Construction Quality Assurance Plan dated September 9, 2004; and
 4. Technical Specifications dated September 9, 2004.
- I.G.7 The permit was modified by a major modification on February 18, 2005, that was requested on September 10, 2003. The modification approved a reconfiguration of the previously permitted cells 22 through 26 and cells 22 through 25, a variance from the requirements of 9 VAC 20-80-250.B.9, use of alternate bottom liner system for the reconfigured cells 22 through 25, and changes in the facility infrastructure associated with the daily intake rate up to a maximum of 5,350 tons per day.
- I.G.B. The permit was modified by a minor modification on September 25, 2006, to change the frequency of observing the leachate head on the liner in cell 22.
- I.G.9. The permit was modified by a minor modification on July 25, 2008, to use industrial wastewater treatment plant sludge as Alternate Daily Cover.
- I.G.10. The permit was modified by a minor modification on June 29, 2009, to automate the leachate collection system by constructing pump station and force mains which discharge into the POTW system. Soil/Sludge mixture was added as an approved ADC. Specification Section 02610 was updated. The Landfill Gas management Plan was updated to reflect the sale of the two auxiliary maintenance shop buildings. The Operations Manual was revised to include the use of a portable trailer tipper.
- I.G.11. The permit as modified by a minor modification on November 9, 2009, that was originally requested on October 5, 2009. The modification increased the service area to include the states of Connecticut, Massachusetts, Rhode Island, and Tennessee.
- I.G.12. The permit was modified by a major modification on March 28, 2011, that was originally requested on July 16, 2009. The modification approved the design of two new Cells 26 and 27 and a variance from the requirements on §9 VAC 20-80-250B.9 to use an alternate bottom liner system for Cells 26 and 27.
- I.G.13. This permit was modified by a major modification on February 11, 2016, to incorporate the design of Cell 28 (Quarry Cell). The modification allows 31,927,000 cubic yards of capacity in the quarry. The design incorporates a vertical liner support system (VLSS) designed to support the liner components oriented vertically on the sidewall vertical element and sidewall benches. The VLSS will be constructed with concrete, vinyl sheet piles, and/or soil. The design also includes a

gradient control system and a mezzanine collection pipe network which may intercept and isolate groundwater or surface water under the liner system and between the quarry sidewall and the vertical liner support system. The bottom liner system will be the Subtitle D or the pre-approved alternate liner.

- I.G.14. The permit was modified by a major modification on January 9, 2014, that was originally requested on September 21, 2012. The major modification requested a landfill reconfiguration. The modification is a net-zero reconfiguration in which a portion of Cells 19, 20, and 21's total permitted capacity will be re-allotted to the existing Cells 9,15,16, 17, and 18 while maintaining the permitted 3:1 slopes via an MSE berm. The MSE berm will be configured around the perimeter of the southwest peninsula of the landfill. The reconfiguration is not an increase in capacity.
- I.G.15. The permit was modified by a minor modification on May 16, 2013, which allowed the facility to upgrade the leachate conveyance system. The modification offered improvements including installation of new HDPE manholes, new HDPE leachate lift stations, and new forcemain and gravity pipes. The leachate pipes were 3" diameter forcemain or 8" diameter gravity pipes.
- I.G.16. The permit was modified by a minor modification on March 12, 2014, to allow ProGuard SB2, a spray applied alternate daily cover to be used at the facility in accordance with the conditions identified in the March 12, 2014, approval letter.
- I.G.17. The permit was modified by a minor permit modification on May 9, 2014, which adjusted the basegrades in Cell 26 to accommodate facility short term airspace needs and facilitate overall site logistics. This modification also revised the limits of Phase 1 to coincide with the boundary of Cells 17 and 18; the lengthening of phase 1 resulted in the shortening of phase 2. Additionally, clarifications to Technical Specifications Section 02075 were made pertaining to geosynthetic seaming at the berm facing.
- I.G.18. The permit was modified by a minor permit modification on September 10, 2014, which replaced monitoring wells MW-101, MW-19, and MW-8R with monitoring wells MW-101R, MW-19R, and MW-8R2. This minor amendment also includes provisions for conditional monitoring of MW-8R (re-named SP-8R), and incorporates the findings of the investigation to determine which wells are installed in granite, and which wells are installed in saprolite.
- I.G.19. The permit was modified by a minor permit modification on June 1, 2015, which adjusted the basegrades in Cell 23, 25, and 26 in accordance with the CTO letter dated December 4, 2014. Additionally, clarifications have been added to the Technical Specifications Section 13302 (Geocomposite), 13312 (GCL), 13320 (Geomembrane), and 13400 (Interface Friction Testing).
- I.G.20. The permit was modified by a director initiated minor permit modification on April 12, 2016, which included a revision of the Conditional Approval for ProGuard SB2 Alternate Daily Cover (ADC). This modification incorporates an additional condition which limits the use of the spray applied ADC when a rain event is occurring or when a rain event is forecasted at 75% or greater with an accumulation of 0.1 inches within 12 hours of cover application. Cover integrity

evaluation on previously applied ProGuard will be assessed after rain events and 6 inches of soil will be placed on compromised areas.

- I.G.21. The permit was modified by a minor permit modification on August 6, 2018, which approved the use of the RusFoam alternative daily cover (ADC). RusFoam shall not be applied as an ADC during, or prior to, forecasted rain events. A forecasted rain event shall be one in which the National Oceanic and Atmospheric Administration (NOAA) National Weather Service predicts a greater than seventy-five percent chance of rainfall totaling greater than one quarter of an inch occurring within twelve hours. Any areas previously receiving RusFoam as daily cover shall be inspected following a rain event. Additional daily cover shall be applied to any area in which the RusFoam is observed to be compromised.
- I.G.22. The permit was modified by a minor permit modification on September 7, 2018, which approved modifications to the leachate Management Plan to revise ambiguous language to clearly state that all leachate collected at the facility will be directed to on-site pretreatment prior to discharge to the Chesterfield County Sanitary Sewer. Plan Sheet 53 was updated with an added note requiring the facility to obtain approval from the Chesterfield County Department of Public Utilities prior to relocation of any on-site sanitary sewer manholes. The Operations Manual language has been updated to reflect these changes.

END OF MODULE I