The CCR material at the Landfill will be closed in-place. The final cover will be sloped to promote drainage and the stormwater runoff will be discharged through the existing NPDES permitted outfall. Closure operations will involve: (i) regrade fill to create acceptable grades for closure and (ii) install final cover. The existing quarry bedrock side walls, which laterally contain the CCR material will remain intact and the final cover system will tie-in to these features. In accordance with 257.102(b)(3), this initial written closure plan will be amended to provide additional details after the final engineering design for the grading and cover system is completed. This initial closure plan reflects the best information available to date.

The permeability of the final cover will be equal to or less than 1x10⁻⁷ cm/sec and will be graded with a minimum 2% slope.

The unit is and will continue to be dewatered via pumping from the sump at the base of the Quarry, thus maintaining water level below the limits of CCR and final cover. The final cover will be installed with a minimum 2% slope. Benches will have a maximum width of 300', as needed across the unit. The final cover will have a minimum 2% slope. Final slope of the cover will meet the stability requirements to prevent sloughing or movement of the final cover system using geotechnical analysis. The final cover will be vegetated to minimize erosion and maintenance. Closure design and construction phasing will be developed in a manner so as to complete closure in the shortest amount of time consistent with recognized and generally accepted good engineering practices. The unit is and will continue to be dewatered via pumping from the sump at the base of the Quarry, thus maintaining water level below the limits of CCR and final cover. Dewatering and regrading of existing in-place CCR will sufficiently stabilize the waste such that the final cover will be supported. The final cover will consist of a minimum 24” infiltration layer with a permeability of no greater than 1x10⁻⁷ cm/sec. Erosion will be minimized with an erosion layer no less than 6” of earth material capable of sustaining native plant growth. The final cover surface will be seeded and vegetated.

Minimum final cover system design requirements are included herein. When the final design of the final cover system is completed, the written closure plan will be amended to include the detailed final design. The permeability of the final cover will be no greater than 1x10⁻⁷ cm/sec. This will be verified during construction per the construction quality assurance plan to be developed in conjunction with the detailed amended closure plan.

The final cover will include a minimum 24” of compacted earthen material with a permeability no greater than 1x10⁻⁷ cm/sec (infiltration layer). The final cover will include a minimum 6” of a soil erosion layer that is capable of sustaining native plant growth (erosion layer). The final cover will be seeded and vegetated. The final cover will be installed with a minimum 2% slope and will incorporate calculated settlement as well as differential settling and subsidence.
Certification Statement 40 CFR § 257.102(b)(4) – Initial Written Closure Plan for a CCR Landfill

CCR Unit: DTE Energy Sibley Quarry Landfill

I, Scott G. Hutsell, being a Registered Professional Engineer in good standing in the State of Michigan, do hereby certify, to the best of my knowledge, information, and belief, that the information contained in this certification has been prepared in accordance with the accepted practice of engineering. I certify, for the above-referenced CCR Unit, that the information contained in the initial written closure plan dated October 17, 2016, revised August 28, 2019, meets the requirements of 40 CFR § 257.102.

Scott G. Hutsell
Printed Name

08/30/19
Date