

January 13, 2022

Kate Kornak
Deputy Regional Permit Administrator
New York State Department of Environmental Conservation
Division of Environmental Permits, Region 4
1130 North Westcott Road, Schenectady, NY 12306-2014

Subject: Permit Renewal and Modification (MSE Berm)
DEC #4-3899-00006/00006
Dunn Mine and C&D Facility, Rensselaer County

Dear Ms. Kornak:

On behalf of S.A. Dunn & Company, LLC (S.A. Dunn), Civil & Environmental Engineering, Land Survey, and Landscape Architects, PLLC (CEE) has prepared this permit renewal and modification application for the Dunn Mine and C&D Facility, located at 209 Partition Street Extension, Rensselaer, New York. The facility is currently permitted to operate under a Mined Land Reclamation and Solid Waste Management Permit initially issued on July 20, 2012, and renewed on October 4, 2019, with a stated expiration date of July 20, 2022. S.A. Dunn seeks a permit renewal for both its mining and construction and demolition debris (C&D) disposal operations, which will not change or expand existing operations. In connection with the permit renewal process and as required under the June 2019 Consent Order (R4-2019-0409-24), S.A. Dunn also proposes to modify the existing facility permit by incorporating construction of a mechanically stabilized earthen (MSE) perimeter berm on the northern portion of the site. The proposed MSE Berm modification represents a change in the existing approved plans requiring approval by the New York State Department of Environmental Conservation (NYSDEC). The proposed modification will not alter currently permitted facility operations, nor will it result in an increase in the total landfill footprint or volume of in-place waste.

The components of this application include:

- Part 360 Permit Renewal and Modification Application
 - Mining Permit Renewal Application. Note that this renewal application was initially submitted in August 2021, but is being resubmitted at this time to incorporate the MSE Berm and to facilitate administrative convenience for review of both renewal applications at the same time.
 - Public Participation Plan
 - Environmental Assessment Form
 - Stormwater Pollution Prevention Plan
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Background

The Dunn Mine and C&D Facility is an existing mine and C&D landfill located in Rensselaer, New York. The mining operations have been ongoing since the 1800s, and C&D disposal activities began in 2015. These operations are subject to stringent regulatory and permit requirements.

The facility regularly collects environmental samples in accordance with regulatory and permit requirements to ensure that its operations are protective of the health of its neighbors and the environment. In addition to these efforts, NYSDEC has independently been testing the air quality surrounding the facility since 2019, and in 2021 collected comprehensive surface water and groundwater samples both on the facility and from surrounding areas. The results from these samples affirm that the facility's operations are protective of human health and the environment.

S.A Dunn is proud of the contribution it has made to Rensselaer, the broader Capital Region and New York State as a whole, both in terms of providing a vital service and in expanding and improving economic conditions. A consultant was retained to estimate the annual economic and fiscal benefits of the Dunn Mine and C&D Facility. The full report (AKRF, January 2022) is available on the facility website (www.dunnminecd.com), and the key findings are summarized below:

- Annual operations support 73 jobs within New York State, including 55 jobs within Rensselaer County and 66 jobs in the four-county Capital Region.
- Total annual economic output generated by the facility's operations is estimated to be nearly \$18.7 million within New York State, including \$13.8 million within Rensselaer County and \$17.3 million within the Capital Region.
- The employment supported by the facility's operations generates nearly \$4.9 million annually in labor income within New York State, including approximately \$3.6 million in Rensselaer County and \$4.4 million in the Capital Region.
- In addition to host fees, economic activities associated with the facility's operations generate an estimated \$937,000 in tax revenues annually to jurisdictions within New York State. This includes approximately \$245,000 annually to local taxing jurisdictions (e.g., City of Rensselaer, Town of North Greenbush), \$242,000 in tax revenues to counties in New York State, and \$450,000 in New York State tax revenues.

Part 360 Permit Application

The Part 360 Permit Renewal and Modification Application has been prepared in accordance with the 6 NYCRR Part 360 and 363 Regulations.

Components of the application include the following:

- Part 360 Permit Application Form
- Record of Compliance
- Engineering Report
- Facility Manual
- CQA Manual (updated to incorporate the 2019 solid waste regulation requirements)
- Specifications (no revisions from most recently approved specifications)
- Financial Assurance
- Engineering Permit Drawings
- MSE Berm Design Drawings

A Record of Compliance is included as Appendix B. The Engineering Report details how the proposed design will comply with applicable components of Part 360 and 363. The CQA Manual includes the specific protocols that will be utilized during construction to ensure that the materials of construction will be installed in accordance with the regulatory requirements. The Facility Manual has been updated and includes the operations and maintenance procedures that have been implemented and will continue to be implemented to ensure continued compliance with the permit conditions and applicable requirements of the New York State Environmental Conservation Law (ECL) and Parts 360 and 363.

Consistency with ECL Section 27-0106

Section 27-016 of the ECL defines the State's solid waste management policy and lists the preferred hierarchy to reduce the dependence of land burial of raw wastes. The hierarchy is (in descending order):

- first, to reduce the amount of waste generated;
- second, to reuse material for the purpose for which it was originally intended or to recycle material that cannot be reused (For this purpose, composting and anaerobic digestion is considered a form of recycling.);
- third, to recover, in an environmentally acceptable manner, energy from solid waste that cannot be economically and technically reused or recycled; and

- fourth, to dispose of solid waste that is not being reused, recycled or from which energy is not being recovered, by land burial or other methods approved by the NYSDEC.

S.A. Dunn accepts only C&D waste. Incoming New York State waste will be accepted from municipalities that are included in a NYSDEC-approved comprehensive recycling analysis (CRA) or local solid waste management plan (LSWMP). Recyclable materials are not accepted at the facility. Site personnel visually inspect all incoming loads to confirm that the characterization of incoming waste materials are acceptable for disposal at the facility. Additionally, random load inspections are performed on a weekly basis.

Capacity, Construction, and Operation

The current C&D disposal footprint includes 9 phases of baseliner construction labelled as Phases 1 through 7A, which encompass approximately 37 acres. The total permitted waste footprint currently is 63.3 acres. By incorporating the proposed MSE Berm project, the total permitted waste disposal area acreage will be reduced by 1.2 acres (to 62.1 acres), and the total land disturbance will be reduced by approximately 0.66 acres based on the difference between the limit of grading presented on the previously approved Footprint Modification permit drawings and the limit of grading on the MSE Berm modification permit drawings. The project is anticipated to include 7 additional phases of baseliner construction, including Phase 10C which is currently under construction and anticipated to be completed in spring 2022. There are no changes to the approved subgrade elevations and slope on the floor of the landfill, with the exception of the northern portion of Phases 7 and 8. There are no changes to the permitted final elevations of the facility.

Overall, the design capacity of the landfill will be reduced by approximately 220,000 cubic yards. Based upon an average annual volume of incoming waste at 580,000 CY, the proposed modification will reduce site life by approximately four months.

As with all areas of the proposed development, the MSE Berm is located entirely within the currently permitted life of mine limits. No additional stormwater features will be needed to control runoff during development of the MSE Berm as stormwater will drain to the site interior. Overall traffic patterns on the site will not change as a result of the modification though the northern most portion of the landfill access road will be incorporated into the design of the MSE Berm.

The proposed MSE Berm will not affect the phased closure. Closure construction will be phased and as the disposal area phases reach approved capacity, closure cap construction will be implemented, meeting 6 NYCRR Part 360 requirements.

Leachate Collection System

The proposed MSE Berm will not affect the permitted conditions regarding leachate management. Collected leachate is and will continue to be pumped from five leachate sump locations, all of which are currently permitted and operational. The leachate collection pipe design will not be altered as a result of the proposed MSE Berm with the exception of the northern portion of Phases 7 and 8. In this area, the leachate collection pipe design has been altered to account for the revised subgrade elevations.

Stormwater Management

The MSE Berm requires minor revisions to the final proposed permitted stormwater management system based on the revised final grading plan. Stormwater is and will continue to be managed on-site to maintain peak discharge of runoff off-site less than the permitted conditions. Prior to the closing and capping of the facility, there will be no increase in stormwater leaving the site as a portion of the runoff will continue to be directed into the mined areas, where it will infiltrate. Stormwater runoff that is not directed to the mining areas will be collected in a series of stormwater channels and conveyed to existing on-site stormwater ponds. Temporary and permanent detention ponds will be constructed, as necessary, to maintain zero increase in runoff discharge from the site. The permanent north pond located in the northwest portion of the site would need to be constructed during the Phase 8B cell construction.

Landfill Gas Management System

The proposed MSE Berm results in minor changes to the landfill gas management system consistent with the proposed final grading plan. The existing landfill gas management system consists of an active system with extraction points installed at nine leachate cleanout locations as well as seven vertical gas extraction wells located in the existing waste mass. The collection system will be expanded as additional waste placement reaches permitted grades. All collected landfill gas is and will continue to be conveyed to an on-site gas flaring system.

Geotechnical Analysis

The proposed MSE Berm includes a revised final grading plan. The proposed grading plan was evaluated to determine the critical cross-sections, which were then analyzed. These cross-sections were modeled to encompass the critical combination of base and interim grades and utilized historical laboratory testing results from soils installed during the last several construction projects at the facility. Figures in the attached geotechnical report depict the cross-section location with respect to base and interim grading, respectively. A minimum FS of 1.5 is required by 6 NYCRR

363-4.3(c)(3)(iii) for the interim and final waste slopes. The proposed filling configuration will remain stable (i.e., $FS > 1.5$) based on each interface of the baseliner system meeting the minimum shear strength requirements. Results of the analyses as well as the slide outputs are included in the Engineering Report.

Mining Permit Application

The facility's Mining Permit Application and Mined Land Use Plan has been prepared in accordance with 6 NYCRR Part 422 to present the mining and reclamation methods for the mine, including proposed modifications to the Final Reclamation Plan, due to the proposed MSE Berm.

The proposed MSE Berm will minimally affect mining operations. Mining operations will continue within areas of future permitted cell construction prior to reclamation. All phases are within the currently permitted life of mine limits. The proposed MSE Berm will reduce the life of mine limit by 2.27 acres. Additionally, excavation grades will be modified to accommodate the footprint of the proposed MSE Berm while maintaining easements to adjacent properties and existing utilities.

Community Participation Plan and Full Environmental Assessment Form

The NYSDEC has determined that the permit renewal is subject to Commissioner Policy-29 (CP-29), Environmental Justice and Permitting based on updates the agency issued in May 2021 to Potential Environmental Justice Areas. CP-29 requires preparation of Part I of a full environmental assessment form (EAF) and a public participation plan, included with this application.

Stormwater Pollution Prevention Plan

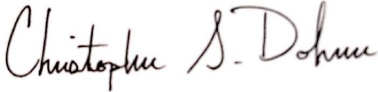
The facility's existing Stormwater Pollution Prevention Plan has been updated to incorporate construction of the proposed MSE Berm and to address current and future operations of the facility.

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If you have any questions on the information submitted, please do not hesitate to contact us.

Sincerely,

CIVIL & ENVIRONMENTAL ENGINEERING, LANDSCAPE ARCHITECTURE AND LAND SURVEYING, PLLC



Christopher S. Dohner, P.E.
Project Manager



Amy J. Knight, P.E.
Principal

Attachments: Attachment A – Part 360 Permit Application
Attachment B – Mining Permit Application
Attachment C – Community Participation Plan
Attachment D – Environmental Assessment Form
Attachment E – Stormwater Pollution Prevention Plan

cc: Curt Taylor, S.A. Dunn & Company, LLC
Jeff Burrier, S.A. Dunn & Company, LLC
Victoria Schmitt, P.E. (NYSDEC)
Brian Maglienti, P.E. (NYSDEC)
Jonathan Whitcomb (NYSDEC)