



The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES



Thomas S. Burack, Commissioner

November 6, 2009

Sharon Gauthier, Executive Director
Androscoggin Valley Regional Refuse Disposal District
15 Mt. Forist Street
P.O. Box 336
Berlin, NH 03570-0336

**SUBJECT: SUCCESS- MOUNT CARBERRY SECURE LANDFILL, AVR RDD, BEAN
BROOK ROAD**

**TYPE IA PERMIT MODIFICATION FOR SOLID WASTE LANDFILL FACILITY,
PREPARED BY SEVEE AND MAHER ENGINEERS, INC. DATED
SEPTEMBER 4, 2009, Doc WMD Log #s 200900133**

Dear Ms. Gauthier:

The New Hampshire Department of Environmental Services, Waste Management Division (Department) has completed a review of the above-cited standard permit application. In accordance with the requirements of the New Hampshire Solid Waste Rules (Rules) [ref. Env-Sw 304.03], the Department has determined that the application is incomplete.

To complete the application, the following information must be provided to satisfy the provisions of Env-Sw 315 and support a technical review of the completed application:

Application

- 1) Please verify that the design meets the requirements of Env-Sw 805.03(d) and 40 CFR 258.14 to (1) ensure stability of the landfill during all phases of construction, operation and closure and (2) demonstrate that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site.
- 2) Section III (4) and (5), the facility financial assurance, and operating and closure plan boxes were not checked. Please explain.
- 3) Although Section 3.3, Landfill Design Requirements, states that the financial assurance, and operating and closure plans will be submitted when new cells are planned for construction, these sections are required for the approval of this permit. Please submit.
- 4) In Section 3.4, please include a description of any components of the gas collection system (flare, treatment system, etc.) which would have to be upgraded to handle the additional gas flows from Phase III.
- 5) Section III (6) is checked, but the location of the information is not mentioned. Please explain.

DES Web Site: www.des.nh.gov

P.O. Box 95, 29 Hazen Drive, Concord, New Hampshire 03302-0095

Telephone: (603) 271-2925 Fax: (603) 271-2456 TDD Access: Relay NH 1-800-735-2964

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- 6) In Section IV, please include the schedule for the design, construction, and operation of Phase III and Phase III-North, including verification of 6 foot separation distance to groundwater and bedrock and monitoring well installation.
- 7) In Section IX, please include a list of the abutters. Please include a map of the abutters in the design plans.

Design Plans

- 1) On Sheet C105, the proposed culvert under the landfill perimeter road is not shown. Show all existing and proposed culverts.
- 2) Show road names on all plan sheets.
- 3) On Sheet C200, sections 1 and 2, the Phase III base grade is not 6' above the seasonal high water level. Please show the existing and proposed groundwater levels on sections 1 and 2.
- 4) Please show the location of the Typical Perimeter Ditch, Underdrain Pipe Trench, and Anchor Trench details shown on sheet C300, on the plan sheets.
- 5) On Sheet C300, Leachate Collection/Leak Detection System, please check sheet reference.
- 6) On Sheet C301, Valve & Pipe Assembly, please complete the labeling for the two sections.
- 7) On Sheets C301 and C302, please check all sheet references.
- 8) On Sheet C302, Liner to Pump Station Connection detail, what is an FS clamp? Please include detail. The secondary liner is shown as 40 mil, but Env-Sw 805.04(b) (1) requires that liners be 60 mil. Please revise.
- 9) On Sheet C303, Gas Extraction Well, please explain if the "2' min (typ)" refers to the geosynthetic clay liner.
- 10) Please explain if the details shown on Sheet C303 are typical details which are not specifically called out on any plan view.
- 11) Sheets C102 and C103 refer to Section 6 located on Sheet C304. However Section 6 does not appear on Sheet C304. Please correct.
- 12) Please show which roads on the plan sheet are represented by the Typical Access Road detail on Sheet C304.
- 13) Please show all proposed storm water detention ponds, structures, and culverts on Sheet C105. Please include a design table showing pipe sizes, flows, etc.
- 14) Sheet C305 shows erosion control details, however there is no erosion control plan. Please explain.

- 15) Please show on the plans where the Vibrating Wire Cable Trench detailed on Sheet C300 is located.
- 16) On Sheet C105, several of the outlet structure devices for the culverts are pointing in the wrong direction or not shown, and several of the culvert inlet devices detailed on Sheet C304 are not shown on Sheet C105. Please explain.
- 17) On Sheet C103 an inspection manhole is shown with a detail location referenced to Sheet C304. However, no inspection manhole detail is located on Sheet C304. Please explain.
- 18) A leachate force main inspection manhole is shown on Sheet C103, but there is no detail in plans. Please explain.
- 19) On Sheet C105, please show contour elevations.
- 20) On Sheet C103, no existing leachate line is shown connecting to existing leachate collection manhole II-2. Please explain. Please show existing leachate lines for LCMH II1B and II-1A also.
- 21) There is a Gas Transmission Pipe (Outside LF) detail on Sheet C303, but no gas transmission pipe actually shown outside of the landfill. Please explain.
- 22) On Sheet C103 what is the circle under "north leachate force main"? Please show the existing pipes connecting to it.
- 23) On Sheet C303 the detail for the gas transmission pipe says the pipe size is shown on the plans, however there is no pipe shown on Sheet C106. Please explain.
- 24) There is no leak detection piping shown on Sheet C103, but there is leak detection piping details shown on Sheet C300. Please explain.
- 25) Please show detail of capping system. The description in 3.3 Landfill Design Requirements, part Env-Sw 805.01, in the application lacks depths of layers. Please explain.
- 26) The Pipe Boot detail called out on the LD Cleanout detail, Sheet C300, as being shown on Sheet C301 is not shown. Please explain.
- 27) Please show the leachate transportation line and wastewater treatment plant on plans.
- 28) Please show a final grading plan with the contours and contour elevations shown for all three phases.

Drainage Report

- 1) Although a summary of pre-development drainage conditions is included in 4.1 Stormwater Management in the Application, a pre-development drainage plan and calculations are needed.

- 2) On Sheet C105 the drainage arrows don't always follow contour lines. Intermediate, diversion, and perimeter swales, and anchor trenches are also not shown on the plan. Please explain.
- 3) The existing contours are too light to read on the Stormwater Management Plan Post-Development Conditions in Appendix G of the Application. Please darken lines.

Hydrogeologic Evaluation

- 1) In Section 2.5.2, monitor well MW-106 is mentioned but the test boring/ monitor well log was not supplied. Additionally, it appears that monitor wells/piezometers B-116, B-122, B-808, and B-809 are shown on the exploration or phreatic surface plans but exploration logs are not provided unless the B and P designations have been interchanged. Consistency is requested between the log designations and the illustrated locations of the explorations. Please revise.
- 2) Sections 2.4.1 and 2.5.1 state that the seasonal high water table and depth to bedrock is less than the required 6 foot minimum. Therefore, prior to any Department approval to construct, measurements are needed to verify that the required minimum 6 foot separation distance to seasonal high groundwater and bedrock beneath the proposed grade of the secondary liner has been achieved. Please provide a schedule of work necessary to provide this verification.
- 3) Section 2.5.2 states that up to four new pairs of monitoring wells are proposed around the Phase III-North expansion area. However more wells are needed. Additional multi-level monitoring well locations shall be proposed and approved by NHDES in advance of installation. If approval to construct is granted, installation and a minimum of two full permit sampling rounds will need to be obtained from the new wells in advance of any waste placement. Initial sampling may take place no sooner than 14 days after installation and the second round no sooner than 14 days after the first.
- 4) If approval to construct is granted, proper decommissioning of all monitoring wells and piezometers within the Phase III and Phase III-North expansion areas will need to be fully documented and accomplished in accordance with Env-Or 700.
- 5) Please include plans, cross-sections, and the description of the hydrogeologic conditions anticipated by the retention and detention ponds proposed along Phase III & Phase III-North Expansion areas.
- 6) Please also include plans, cross-sections and description of the hydrogeologic conditions anticipated by the underdrains proposed along Phase III and Phase III-North Expansion areas and their connection with the adjacent existing Phase II underdrains.

Please address the above comments by submitting three copies of the required information at your earliest convenience. Be certain to note the revision date on each replacement page. Continued review of your applications will commence upon receipt of this information.

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Note that in accordance with the provisions of Env-Sw 304.05(d) of the Rules, an incomplete application that becomes a dormant application shall be deemed denied. As defined by Env-Sw 102.54 of the Rules, a dormant application is one that the applicant fails to complete within 12 months of the date the application is deemed to be incomplete by the Department.

If you have any questions, please contact me.

Sincerely,

A handwritten signature in black ink that reads "Paul M. Gildersleeve". The signature is written in a cursive, flowing style.

Paul M. Gildersleeve, P.E.
Solid Waste Management Bureau
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cc: Guy Cote, P.E., Sevee and Maher Engineers, Inc.
City of Berlin, City Manager
Sue Collins, Coos County Administrator