REGION 1
BOSTON, MA 02109

Via Electronic Mail

Dated as of the date signed below

Mr. Matthew Calacone
Global Operations, Environment, Health & Safety
General Electric Company
1 Plastics Avenue
Pittsfield, MA 01201

Re: Conditional Approval of General Electric's December 20, 2024 submittal titled *Revised Upland Disposal Facility Final Design Plan,* GE- Pittsfield/Housatonic River Site

Dear Mr. Calacone:

This letter contains the Environmental Protection Agency's (EPA) conditional approval of GE's *Revised Upland Disposal Facility Final Design Plan* (the "Revised Final Design Plan"). This Revised Final Design Plan is subject to the terms and conditions specified in the Consent Decree (CD) that was entered in U.S. District Court on October 27, 2000 and the Revised Final Design Plan dated December 16, 2020. EPA held a public input period regarding the Revised Final Design Plan from December 23, 2024 to February 10, 2025.

Pursuant to Section XV of the CD, EPA, after reasonable opportunity for review and comment by the Commonwealth of Massachusetts and the State of Connecticut, approves the Revised Final Design Plan subject to the following conditions.

GE shall address any proposed revisions to drawings and specifications contained in this letter in the Drawings and Specifications created for construction of the UDF. (These Drawings and Specifications shall be provided to EPA at bid solicitation for its information but will not involve EPA review and approval.). GE shall submit an initial Supplemental Information Package (SIP) to EPA covering UDF site preparation with the target that site preparation activities can commence in calendar year 2025.

1. Sections 3.2 and 3.4: In response to Condition #4 in EPA's 9/12/2024 Conditional Approval Letter (Design Plan CAL) in response to GE's 2/28/2024 Upland Disposal Facility Final Design Plan (Design Plan), GE added clarification in Section 3.2 that construction of the perimeter berm will include both excavation of existing soils and placement of excavated soils, and that the excavated soils will be evaluated during construction for suitability for use as backfill. Section 3.4 was modified to clarify that the drawings depict excavation and filling to construct the perimeter berm, access roads, and operations area. In Section 3.4, GE also added a statement for coordinating with the contractor to avoid double handling of soils and to determine uses for surplus excavated soils. The revised section language is appropriate; however, the technical

specifications do not coordinate with these statements, as described below, and the technical specifications shall be revised for construction.

Specification Section 31 05 13 includes testing frequency for general fill materials from on and off-site but does not address segregation of differing soil materials excavated from on-site to maintain soil fill suitable for reuse as general fill. GE is relying on gradation, classification, and shear testing to govern the reuse of on-site excavated materials. The pre-design geotechnical investigation identified some on-site Fine Sand and Silt Unit as soil classification ML, which is not an acceptable classification in Specification Section 31 05 13 and could exceed the criterion of 50% passing through the No. 200 sieve. Specification Section 31 23 00 Excavation and Fill does not require evaluation of or segregation of differing materials during excavation for suitability, whereas Section 3.2 of the report indicates that an evaluation will be completed. Part 1.04.A.1 Excavation and Backfilling Plan includes a requirement for the plan to address different procedures for different types of materials, but there is no requirement for testing or segregation of materials. While it would be in the contractor's interest to segregate and evaluate excavated soils for reuse, GE shall consider modifying Specification Section 31 23 00 to include a requirement for the contractor to segregate differing soil materials encountered, and conduct quality control testing of gradation, classification, permeability and shear testing, as appropriate, of excavated materials planned for use as general fill to demonstrate that they meet the project requirements in Section 31 05 13 for general fill, perimeter berm fill, and final cover soil layers, as appropriate.

2. Section 5.2, 2nd paragraph: Similar to CAL condition #17 for the UDF OM&M Plan, EPA notes that Specification 31 05 13 – Soils for Earthwork contains no information pertaining to consolidation materials. Requirements for placement of the consolidation material are provided in the UDF Revised Final Design Plan technical specification Section 31 22 00 – Grading, and Section 31 23 00.10 – Consolidation Material.

3. Appendix A, Drawing 14: To address Design Plan CAL Condition #46, GE has modified the detail of the leachate collection trench to remove the geotextile wrap from beneath the perforated pipe and gravel, so that they are in contact with the geotextile of the geocomposite, but did not specify that the upper geotextile of the geocomposite be removed for better communication. What is proposed provides a better connection of leachate in the geocomposite and the collection system than the previous design. On projects where there is potential for biological or chemical clogging of geotextile due to leachate characteristics, removing the portion of the geocomposite upper geotextile at the stone and pipe interface would provide enhanced connection between the leachate in the geocomposite geonet to the stone and perforated piping. GE shall consider modifying the detail to remove a portion of the upper geotextile below the pipe and stone column.

4. Appendix A, Drawing 17, Detail 2: In responding to Design Plan CAL Condition #52, GE revised the sump detail to remove the non-woven geotextile surrounding the sump stone, but did not specify that the upper geotextile of the geocomposite be removed for better communication. GE shall consider modifying the detail in the final construction documents to remove a portion of the upper geotextile below the pipe and stone column.

5. Appendix A, Drawing 17, Details 4 and 5: Details 4 and 5 for the Primary and Secondary Leachate Collection Sump Profiles depict the sump backfill stone extending beyond (i.e., upgradient of) the sump area. GE shall modify these details to better depict the transition from the sump stone to the granular drainage layer materials at the upgradient end of the sump by depicting the line types for the liner components (geocomposite drainage layer, 60 mil HDPE liner, and GCL) in the next design drawing update.

6. Appendix A, Drawing 22, Detail 1: GE shall add the electrical and control system conduits entering the manhole in the Section View in the final construction documents.

7. Appendix A, Drawing 26: In responding to Design Plan CAL Condition #67, GE has provided Detail 4 on Drawing 32 and profiles of the North Basin Emergency Spillway as Section A-A' to depict the extent of the geocell system installation. However, the callout for Detail 4/35 in Detail 4/32 should be named "GEOCELL SYSTEM." GE shall revise the detail callout accordingly in the final construction documents.

8. Appendix A, Drawing 31, Details 2 and 3: To resolve Design Plan CAL Condition #74, GE has revised the detail to remove the non-woven geotextile from beneath the stone so that water collected upstream in the geocomposite geonet only has to pass through one layer of geotextile (upper layer of geotextile on geocomposite) to drain into stone and perforated pipe. GE shall consider modifying the detail in the final construction documents to remove a portion of the upper geotextile fabric from the geocomposite drainage layer from immediately below the pipe and stone column.

9. Appendix C, General Comment: Certain material terms including Filter Stone, Sump Backfill, Final Cover Subbase, Graded Aggregate, and Granular Drainage Layer are used in the design drawings and/or design report but are not found in the material specifications. GE shall coordinate the use of these terms in the various design documents in the final construction documents

   Appendix C, Section 31 05 13.10, Part 3.03(D) and CAL condition #96: GE has not provided clarification about the "non-liner geotextile separator." GE shall provide clarification of this item or remove reference to it, if not appliable, in the final construction documents.

10. Appendix C, Section 31 22 00 and Design Plan CAL condition #103: GE did not revise Section 31 22 00 to address a different test method other than ASTM D1633 for testing the strength of the in-place consolidation materials where they may be non-cohesive. GE did include a new specification Section 31 23 00.10 for placement and testing of consolidation materials. This section includes the requirement for the Contractor to prepare and submit a Consolidation Material Filling Plan and requirements for in-place density and moisture content testing and fill progress topographic surveys. In place density requirements specified in 31 22 00 remain 90% of MDD per ASTM 698. GE shall consider revising Table 1 in Section 31 22 00 and the specification language to exclude cell consolidation materials, since it is better addressed in Section 31 23 00.10. GE shall review and include the appropriate laboratory strength test method of the consolidation fill in Section 31 23 00.10. GE shall revise the technical specifications to include the requirement for demonstrating that internal friction angle of 30

degrees with cohesion of 25 psf are achieved. GE shall revise the specifications accordingly in the final construction documents.

11. Appendix C, Section 35 20 23: Although GE has revised the specification in response to Design Plan CAL Condition #107 to include contractor submittals relating to vegetation removal, GE shall ensure that such submittals, including the possible use of EPA-approved herbicides to address phragmites, are included in the SIP for EPA review and approval.

12. Appendix D, Brief D-2 and CAL condition #111: GE has included additional information in Attachment D-2, Attachment C for the subgrade settlement effect on piping connections and membrane seams. The additional information includes settlement analysis at multiple locations on the final cover system and base liner system. EPA notes that the section at Inset 3 on Sheet 3B is not at the correct elevation, where existing subgrade should be at EL 981+/- as the landfill base grades slope down from Sta 7+50 to 4+50 and the inset shows the eastern elevation lower than the central base line. The supporting information otherwise demonstrated acceptable strain on the liner seams and that the settlement of the subgrade in a maximum at the low point of the leachate collection system, so leachate flow and collection piping connection are not negatively impacted.

13. Appendix H, Attachment I, Section 2.5: In addition to documenting vernal pool use by vernal pool-obligate species, the crews shall also record any observed activity by vernal pool-facultative species (spring peeper, gray treefrog, American toad, and Fowler's toad) per the MNHESP guidance.

14. Appendix H, Section 5.2, Monitoring of Hydrology: GE states monitoring will be conducted until the end of June. Monitoring of Hydrology shall extend as long as needed to document the full hydroperiod as well as vernal pool species emigration.

15. Appendix H, Section 5.2 and Drawing 10: The text states on Page 18 that the silt layer will have a vertical permeability of approximately 10^{-5} m/s; however Drawing 10 states that it will have a vertical permeability of no greater than 10^{-4}. While these two statements are not contradictory, GE shall consistently describe the target permeability of the silt layer in the final construction documents.

16. Appendix H, Section 5.2: With respect to the monitoring plan in this section, EPA notes that GE did not consider potential increases in precipitation amounts due to climate change as was considered in the overall stormwater management system for the UDF. Prior to construction, GE shall review existing and proposed grade elevations around the perimeter of the vernal pool and evaluate if long term potential increases of in-flow to the pool could detrimentally extend the hydroperiod of the pool or whether the perimeter grades would allow additional inflow to exit the vernal pool area without a significant detrimental impact on the pool's annual hydroperiod.

17. Appendix H, Drawing 10, Note 9: Note 9 refers to Drawing 4 when discussing the planting plan. EPA believes this reference should be to Figure 8. GE shall make this revision, if applicable, in the final construction documents.

18. Appendix H, Drawing 10, Note 13: Note 13 refers to Drawing 4 when discussing plant sizes. EPA believes this reference should be to Figure 9. GE shall make this revision, if applicable, in the final construction documents.

19. In the discussion on soil specifications in Section 5.2, it states that "imported topsoil samples will be analyzed for texture, organic matter content, nutrients, and pH." The specifications on Drawing 10 (note 8) do not include requirements for nutrients for the topsoil. GE shall revise accordingly, if applicable, in the final construction documents.

EPA reserves all of its rights under the Decree, including but not limited to, the right to perform and/or require additional sampling, or response actions, if necessary, to meet the requirements of the Consent Decree. If there is any conflict between the Performance Standards as stated in the submittal and the Performance Standards as stated in the Consent Decree or the Revised Final Permit, the Consent Decree and/or the Revised Final Permit shall control.

Sincerely,

RICHARD FISHER

Digitally signed by RICHARD FISHER
Date: 2025.03.10 12:22:33 -04'00'

Richard Fisher
Project Manager

cc:

Dean Tagliaferro, EPA
John Kilborn, EPA
Josh Fontaine, EPA
Christopher Smith, EPA
Christopher Ferry, ASRC (EPA electronic repository)
Lance Hauer, GE
Kevin Mooney, GE
Andrew Inglis, GE
Rachel Leary, GE
James Bieke, Counsel for GE
Thomas Czelusniak, HDR Inc.
Scott Campbell, Taconic Ridge Environmental
Izabela Zapisek, Taconic Ridge Environmental
Tamara Cardona-Marek, Massachusetts DEP
Ben Guidi, Massachusetts DEP
Jason Perry, Massachusetts DEP
Michael Gorski, Massachusetts DEP
Christine LeBel, Massachusetts DEP
Benjamin Ericson, Massachusetts DEP
Michelle Craddock, Lead Administrative Trustee, Massachusetts DEP
Betsy Harper, Massachusetts Attorney General's Office

Traci Iott, Connecticut DEEP
Susan Peterson, Connecticut DEEP
Carol Papp, Connecticut DEEP
Graham Stevens, Connecticut DEEP
Lori DiBella, Connecticut Attorney General's Office
Whitney Behr, Trustee, U.S. Fish. and Wildlife
James Turek, National Oceanic and Atmospheric Administration
Danielle Perry, National Oceanic and Atmospheric Administration Mayor Peter Marchetti, City of Pittsfield
Jim McGrath, City of Pittsfield
Andy Cambi, Pittsfield Health Director
Jim Wilusz, Tritown Board of Health
Michael Coakley, Pittsfield Economic Development Authority
Nate Joyner, City of Pittsfield
Jeffrey Mickelson, Massachusetts DEP
MAHousatonicSF@mass.gov, MassDFG/DFW
Melissa Provencher, Berkshire Regional Planning Commission
Town Manager, Lenox
Town Administrator, Lee
Town Manager, Great Barrington
Town Administrator, Stockbridge
Town Administrator, Sheffield
Bettina Washington, Wampanoag Tribe of Gay Head (Aquinnah)
Mark Andrews, Deputy THPO, Narragansett Tribe
Bonnie Hartley, SMC
Chuck Kilson, Schaghticoke Tribal Nation
Chairman Russell, Schaghticoke Indian Tribe
Jeffrey Bendremer, THPO, Stockbridge-Munsee Community
Brona Simon, Massachusetts Historical Commission
Edward L. Bell, Massachusetts Historical Commission
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