



01-0411

Corporate Environmental Programs  
General Electric Company  
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July 26, 2001

Bryan Olson  
EPA Project Coordinator  
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One Congress Street, Suite 1100  
Boston, Massachusetts 02114-2023

**Re: GE-Pittsfield/Housatonic River Site  
On-Plant Consolidation Areas (GEC210 and GEC220) –  
Consolidation of EPA-Generated Materials at OPCAs**

Dear Mr. Olson:

This letter responds to your inquiries regarding the use of the General Electric Company's (GE's) On-Plant Consolidation Areas for materials generated by the U.S. Environmental Protection Agency (EPA) as part of the 1½-Mile Reach Removal Action. In accordance with the October 2000 Consent Decree (CD), materials generated by EPA for that project (up to 50,000 cubic yards) may be consolidated at GE's Hill 78 OPCA and/or its Building 71 OPCA. In anticipation of this project and the potential consolidation of materials at the OPCAs, EPA has requested that GE identify the various criteria that will be applicable to the transport and consolidation of excavated materials to and at the OPCAs.

Information concerning the general types of materials that are acceptable for consolidation at the OPCAs has been described in numerous documents submitted by GE to EPA and correspondence between EPA and GE. Most notably, in a letter dated March 9, 2001, GE responded to EPA's conditional approval and recommendations related to several prior documents that are collectively referred to as the OPCA Work Plan.

The remainder of this letter provides information related to various aspects of material consolidation at the OPCAs. With respect to information concerning the physical condition of the materials subject to consolidation (Parts C through E below), this information should be viewed as the minimum requirements concerning material acceptance at the OPCAs. However, this information is subject to further definition and refinement in consideration of any future evaluations by GE and/or specific characteristics of the particular source(s) of materials subject to consolidation at the OPCAs. The contents of this letter have been formatted into several general topics related to various aspects of the OPCA consolidation activities.

**A. Determination of EPA Consolidation Volume**

To monitor the volume of EPA material consolidated at the OPCAs, GE proposes that a truck-based accounting system be implemented. Under this approach, the truckloads of material transported by EPA to the OPCAs would be monitored. Based on a pre-determined conversion factor agreed to by EPA and GE, an estimate of the materials consolidated at the OPCAs would be determined. The conversion factor used for this activity is anticipated to account for: 1) the volume of material contained within each truckload, and 2) potential volumetric changes that may occur during the placement and compaction of the trucked materials.

The approach described above should also facilitate OPCA operations at times when remediation wastes being transported to the OPCAs by both GE and EPA. It is anticipated that EPA will perform material transport in a manner similar to GE's approach over the last year -- i.e., "batch" transport and placement. As such, coordination of material off-loading and grading/compaction should be a manageable activity. Nevertheless, in the event that several consolidation activities are occurring simultaneously, the approach described above offers the simplest method of determining EPA consolidation volumes.

**B. General Conditions**

As indicated in the CD and the accompanying *Statement of Work for Removal Actions Outside the River* (Appendix E to the CD), as well as the June 1999 *Detailed Work Plan for On-Plant Consolidation Areas* (Detailed Work Plan), certain Performance Standards related to the OPCAs have been established. Regarding the materials subject to consolidation, the following Performance Standards are applicable:

- Materials to be consolidated within the Hill 78 OPCA shall be limited to materials that contain less than 50 ppm PCBs (as determined by an appropriate composite sampling technique) and are not classified as a hazardous waste under regulations issued pursuant to RCRA.
- Materials to be placed in the OPCAs shall not include free liquids, free product, intact drums and capacitors, other equipment that contains PCBs within its internal components, or asbestos-containing material required to be removed from structures prior to demolition.

Additional information concerning the characterization of materials subject to consolidation at the OPCAs has been provided in a document entitled *Waste Characterization Plan*, which was submitted to the EPA in December 2000 as part of the Project Operations Plan.

**C. Material Moisture Content**

Section 6.3 of the June 1999 Detailed Work Plan indicates that prior to transport of materials from their point of origin (i.e., the area within which the response actions are being undertaken), testing may be performed to confirm that the materials do not contain excess moisture; such testing will utilize the paint-filter test. As explained in GE's March 9, 2001 letter to EPA, GE recognizes that moisture content as a function of a material's density can be an important parameter in determining the long-term stability and integrity of the OPCAs. However, GE stresses that the moisture content considered in this type of evaluation is based on the final, in-situ materials once they have been placed (conditioned as necessary), graded and compacted. Therefore, establishing a specific moisture content as a material acceptance requirement is not appropriate and the paint-filter test has been established as the minimum requirement concerning moisture content of a given material.

There are some benefits in bringing materials to the OPCA for consolidation in as dry a state as possible, including potential reduction in the amount of compaction and soil conditioning that may be necessary, reduction in the amount of leachate that may be generated, and a decrease in the bulk weight of material subject to transport over public and GE-owned roadways. For these reasons, GE recommends that the materials be managed in such a manner to minimize the amount of moisture prior to transport and consolidation within the OPCAs. As indicated in GE's March 9, 2001 letter to EPA, GE may in the future perform testing to determine moisture content/density

relationships for certain materials to be placed in the OPCAs. The results of the testing would then be used to determine soil conditioning methods that may be necessary prior to and/or during consolidation activities to ensure that acceptable in-situ final conditions are achieved.

Based on the above, GE will require that EPA comply with the paint-filter test requirement. If GE develops other recommendations for EPA with respect to moisture content of the materials from the 1½-Mile Reach, GE will provide those recommendations to EPA.

**D. Material Size**

Currently, GE's requirements concerning the maximum size of materials subject to consolidation at the OPCAs have been established only for the initial placement of materials within a new OPCA "cell." Specifically, Section 6.8 of the June 1999 Detailed Work Plan indicates that the first lift of material placed onto the base liner system will consist of select soils or sediments that are free of sharp objects, materials greater than 6 inches in diameter, or any other deleterious materials that could potentially damage the underlying base liner of the OPCA. In addition, for that first layer, the thickness of the lift would be 2 feet to prevent damage to the underlying base layer due to the equipment placing and/or handling of the consolidation materials. In addition, in its May 2000 Request for Proposal for various OPCA activities (provided to EPA on June 2, 2000), GE indicated that the initial placement of materials within a new OPCA cell shall use a low-ground pressure dozer and compaction shall not be performed until four feet of material have been placed. Finally, related to the maximum size of materials subject to consolidation, GE concurs with EPA Condition 3 (from EPA's letter dated January 30, 2000) that large-dimension materials may be placed within the OPCA if sufficient separation distance both horizontally and vertically is maintained from the liner and cover system to enable compaction of soil on all sides, and that stacking or nesting of large debris will not be allowed.

GE anticipates that the information provided above will accommodate the types of material that EPA may be consolidating at the OPCAs. Under a potential future scenario, it is possible that the timing of EPA consolidation of materials at the OPCAs may coincide with the construction and initial use of a new Building 71 OPCA cell. In that event, EPA will be prohibited from consolidating materials within the first two feet that are greater than 6 inches in diameter, contain sharp objects, etc.

**E. Miscellaneous Debris**

Several types of miscellaneous debris may be subject to future consolidation at the OPCAs, including boulders, cobbles, concrete, building materials, tires, and organic materials (trees, stumps, vegetation). Miscellaneous debris that is inert in nature will be subject to the requirements described above concerning material sizing. For organic material not otherwise addressed by the above discussion, GE's disposition of such material within the OPCAs thus far has been minimal. Further, GE does not envision consolidating any significant volumes of such materials at the OPCAs in the future, and it requests that EPA also refrain from transporting any significant volumes of such organic materials to the OPCAs. On a volumetric basis, it is more cost-effective and thus in both parties' interests to send such lighter organic materials to off-site disposal facilities, while using the OPCAs for denser material (e.g., soils/sediments).

GE has identified consolidation requirements for smaller volumes of organic materials. Specifically, in its *Addendum to June 1999 Detailed Work Plan* (submitted to EPA on August 12, 1999), GE indicated that organic materials placed within the OPCAs will generally be limited to materials cleared during the response actions (trees, roots, etc.) and wood debris generated during

building demolition. To minimize the potential for gas generation due to decomposition of these materials, organic materials placed within the OPCAs will be placed in a such a manner as to avoid large areas/depths of organic matter. For example, the material would be placed in thin lifts (i.e., less than 3 inches thick) and spread out over the entire active area, and the size (diameter and/or length) of tree trunks and stumps will be minimized to the extent practicable.

Based on the information described above, GE requests that any organic material generated by EPA as part of remedial actions for the 1½ Mile Reach of the Housatonic River be chipped and/or cut up so that the maximum dimension of the materials is 6 inches.

We hope that the information presented in this letter is responsive to your recent inquiries. Please contact either John Novotny or me if you have any questions regarding this letter.

Sincerely,



Andrew T. Silfer, P.E.  
GE Project Coordinator

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