### HAZARDOUS WASTE FACILITY PERMIT

In compliance with the provisions of the Vermont Waste Management Act, as amended, (10 V.S.A. Chapter 159)

### General Electric 270 Windcrest Road North Clarendon/ Rutland, Vermont EPA ID: VTD001075894

is authorized to perform post-closure care and corrective action at the above location in accordance with the conditions and requirements set forth in this permit.

This permit shall become effective on the date of signing.

Signed this 30th day of September, 2013

David K. Mears, Commissioner Department of Environmental Conservation

By \_

George Desch, Director

Waste Management & Prevention Division Department of Environmental Conservation

One National Life Drive, Davis 1 Montpelier, Vermont 05620-3704

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# State of Vermont Agency of Natural Resources

### HAZARDOUS WASTE FACILITY PERMIT

## 10 V.S.A. Chapter 159 Vermont Hazardous Waste Management Regulations § 7-504

**Applicant:** General Electric

270 Windcrest Road

North Clarendon/Rutland, Vermont

**EPA ID No:** VTD001075894

**Facility:** General Electric

270 Windcrest Road

North Clarendon/Rutland, Vermont

**Permit Period:** Ten (10) years from date of signing

### FINDINGS OF FACT

- 1. The General Electric Plant 2 facility (hereafter called GE) is a manufacturing facility located at 270 Windcrest Road in North Clarendon/Rutland (the facility property is located on the town line). The regulated unit is a closed metal hydroxide sludge landfill (hereafter called landfill). A site map is provided in Appendix A of this permit.
- 2. The GE facility manufactures turbine gas engine components, including vanes and blades, and associated tooling, from various metal alloys.

GE operated a landfill at this location for metal hydroxide sludge generated by this facility from 1979 to 1986. The landfill received wastes defined as hazardous by the Vermont Hazardous Waste Management Regulations (VHWMR) as an F006 waste. On February 23, 1986, the Vermont Agency of Natural Resources (ANR) determined that the sludge was not hazardous and delisted it as hazardous waste. The landfill was closed and capped in October of 1987 in accordance with the October 1986 Post-Closure Certification, and a paved parking lot was built upon it. The February 23, 1986 non-hazardous determination was subsequently rescinded in March of 1989, and the sludge was relisted as hazardous. The Post-Closure Certification was amended in May of 1990 to incorporate Alternative Concentration Limits (ACLs) for compounds detected in the groundwater beneath the landfill area. The Certification was re-issued on July 20, 1993, and again on December 12, 1998 with the addition of corrective action requirements for releases from the landfill, solid waste management units and areas of concern. The December 12, 1998 permit was scheduled to expire December 12, 2003. Through GE's submittal of a timely and

- administratively complete application, the permit issued on December 12, 1998 was continued in full force and effect pursuant to VHWMR §7-504(h).
- 3. This permit will govern post-closure and corrective action activities at GE pursuant to 10 V.S.A. Chapter 159 and the VHWMR.
- 4. Vermont was authorized by EPA (pursuant to Section 3006 of RCRA) for regulation of post closure activities on January 21, 1985 and corrective action activities on August 6, 1993.
- 5. A groundwater monitoring and response program in accord with 40 CFR §264 Subpart F has been conducted since closure of the landfill in 1987. The 1990 amendment to the original Certification established ACLs for hazardous constituents required to be monitored as part of the Certification. The 1993 renewal of the Certification established the groundwater protection standard for post-closure care of the landfill using ACLs for Point of Compliance wells around the landfill, and Maximum Contaminant Levels (MCLs) for Point of Exposure (POE) wells at the facility boundary downgradient of the landfill. Since sampling at POE well 17S began in 1989, the MCLs for trichloroethene and 1,1-dichloroethene in groundwater have been exceeded. Therefore, in accordance with 40 CFR §264.99, this permit implements a corrective action program meeting the requirements of 40 CFR §264.100. The corrective action program for the landfill is described in Section 8 of this Certification.
- 6. In 1992, the Secretary conducted a RCRA Facility Assessment (RFA) of the facility on behalf of U.S. EPA. The RFA report identified sixteen Solid Waste Management Units (SWMUs) at the Facility. The RFA concluded that the following SWMUs warranted further investigation in the form of a RCRA Facility Investigation (RFI): an old storage area, and two surface impoundments known as the east and west settling basins (considered as one SWMU). The RFA also identified two Areas of Concern (AOCs): the fire training area and the stormwater retention basin. The RFA called for continuing investigation of the landfill under the terms and conditions of the facility's RCRA Post-Closure Certification while two SWMUs and the two AOCs were to be addressed in the RFI.
- 7. GE conducted an RFI that incorporated studies undertaken between 1986 and 1993 to characterize the nature and extent of releases of hazardous waste or hazardous constituents from the two SWMUs and two AOCs selected for further investigation in the RFA. The RFI report is dated June, 1994. The conclusion of the RFI report was that none of the studied SWMUs or AOCs released hazardous wastes or constituents into the environment in concentrations which warranted further action. Further, the RFI report stated that the groundwater contamination detected onsite was the result of historical releases rather than ongoing conditions. The RFI did recommend that a Corrective Measures Study be conducted to investigate some groundwater contamination detected in the vicinity of one of the SWMUs (the Southern Area of Concern near the old Storage Area).
- 8. Investigations at the site showed that groundwater contamination had been detected downgradient and offsite from the facility.
- 9. GE conducted a Corrective Measures Study (CMS) and submitted a CMS report dated June 1994.

- 10. The results of these investigations(discussed in items (8) and (9) above) are set forth in the following documents, all of which have been submitted to the Secretary and are in the record within the Waste Management & Prevention Division's Sites Management Section file number 77045:
  - *Draft Closure/Post-Closure Plan by General Electric (July 1986);*
  - Planning Report for Closure of Existing (Metal Hydroxide) Sludge Landfill for the General Electric Company by DuBois & King (July 1986);
  - *Preliminary Assessment by the NUS Corporation (November 1987);*
  - Results of the Short-Term Pump Test and Aquifer Analyses for the General Electric Clarendon, Vermont Facility by Wehran Engineering Corp. (March 22, 1989);
  - Alternate Concentration Limit Demonstration for the General Electric North Clarendon Metal Hydroxide Sludge Landfill by Chas T. Main, Inc. (November 1989);
  - Report on the Evaluation of the Fire Training Area at GE Plant #2 by Wehran Engineering Corp. (January 1990);
  - Evaluation of the Soils Under the West Impoundment by Wehran Engineering Corp. (February 1990);
  - Report on the Soil Evaluation of the GE Plant #2 Stormwater Retention Basin by Wehran Engineering Corp. (March 1990);
  - Hydrogeology of GE Clarendon Plant #2 Facility by Wehran Engineering Corp. (October 1990);
  - Analytical Soil Sampling Results, GE Clarendon Plant #2 by Wehran Engineering Corp. (March 1991);
  - RCRA Facility Assessment by Agency of Natural Resources (1992 undated);
  - *Soil Gas Investigation by Wehran Engineering Corp. (October 1992);*
  - West Basin Investigation by Wehran Engineering Corp. (December 1992);
  - Subsurface Investigation in the Vicinity of the Low Barn by Wehran Engineering (August 1993);
  - Report on Plume Containment Analyses by HMM Associates (October 29, 1993);
  - *Lagoon Closure and Stormwater Project (undated);*
  - RCRA Facility Investigation Report (June, 1994); and
  - *Corrective Measures Study (CMS) (June, 1994).*
  - *GE has also submitted data from periodic groundwater monitoring from 1987 through the current date.*
- 11. Based on the above investigations, ANR found that no further action was necessary to ensure that the following SWMUs and AOCs pose no threat to human health or the environment in the future (that the risks posed did not warrant the selection of a remedy):
  - Storm Water Retention Basin (AOC)

- Fire Training Area (AOC)
- East and West Settling Basin (SWMU)
- 12. Based on the above investigations, ANR found that the following required corrective action:
  - Landfill (regulated unit)
  - Old Storage Area (Low Barn) (SWMU)
  - Southern Area of Concern Near the Old Storage Area (AOC)

Based on the 1994 CMS and subsequent investigations, ANR established monitored natural attenuation as the selected remedy in the Certification issued in 1998.

13. Results of the corrective action monitoring program from 1998 to 2013 indicate that low levels of contamination remain present in the groundwater at MW-17S, the point of compliance. A 2013 review of the data show that continued corrective action for the Old Storage Area (Low Barn) and Southern Area of Concern Near the Old Storage Area is not warranted. A review of the data also show that no cause exists for an expanded corrective action program for the landfill, but that continuation of corrective action monitoring for the landfill is warranted. Corrective action monitoring requirements for the landfill at the GE Windcrest Road facility are referenced in Section 8 of this Certification.

### **CONDITIONS**

### **Section 1: General Conditions**

- 1.1 For the purposes of this permit, the terms used herein shall have the same meaning as those in the VHWMR and 40 CFR Parts 124, 264, 266, 268 and 270, unless this permit specifically states otherwise. Where terms are not defined in the VHWMR, 40 CFR, or the permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.
- 1.2 As used in this permit, the term "permit" has the same meaning as "certification" as used in the VHWMR and 10 VSA § 6606.
- 1.3 As used in this permit, the term "Director" means: Division Director Waste Management & Prevention Division, Department of Environmental Conservation, Vermont Agency of Natural Resources or his or her duly authorized representative.
- 1.4 "Secretary" means the Secretary of the Vermont Agency of Natural Resources or his or her duly authorized representative. When implementing the provisions of **10 V. S. A. §§ 6608a** and **6608b** relating to economic poisons and low-level radioactive wastes, the term Secretary includes the Secretary of Agriculture, Food & Markets and the Commissioner of Health.

- 1.5 "RCRA" means Resource Conservation and Recovery Act (RCRA) of 1976, (42 USC 6901 et seq.).
- 1.6 As used in this permit, "days" means calendar days unless otherwise specified.
- 1.7 GE shall maintain compliance with the VHWMR as amended. GE shall modify the permit according with Condition 2.5 if an amendment to the VHWMR results in conflict between the permit and the amended VHWMR.
- 1.8 The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, such a determination shall not have any effect on the validity of the remainder of the permit, or on the application of the provision to other circumstances.
- 1.9 The permit does not convey any property rights of any sort, or any exclusive privilege.
- 1.10 This permit is not transferable to any person except after notice to the Secretary. The Secretary may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under 40 CFR § 270.40.
- 1.11 GE shall comply with all applicable statutes, rules, and regulations of any federal, state, or local authority as may be amended. This permit shall not be a shield to the continued conformance to regulatory requirements.
- 1.12 The Secretary may require GE to establish and maintain an information repository at any time, based on the factors set forth in 40 § CFR 124.33(b). The information repository will be governed by the provisions in 40 CFR §§ 124.33(c) through (f).

# Section 2: Duration, Modification and Renewal of Permit

- 2.1 This permit shall be effective for 10 years from the date of signing.
- 2.2 If GE wishes to continue an activity regulated by this permit after the expiration date of this permit, GE must apply for and obtain a new permit.
- 2.3 If GE wishes to continue an activity regulated by this permit after the expiration date of this permit, GE shall submit a new application at least 180 days before the expiration date of this permit, unless permission for a later date has been granted by the Secretary. (see 40 CFR § 270.10(h))
- 2.4 This permit and all conditions will remain in effect beyond the permit's expiration date, if GE has submitted a timely, administratively complete application for a renewed permit, and, through no fault of GE, the Secretary has not issued a new permit. Permits continued under this section remain fully effective and enforceable.

- 2.5 If any of the causes for modification found in **VHWMR §7-507(e)(1)** apply, GE shall seek a permit modification prior to making physical alterations or operational changes. Class I modifications for which prior approval is not required under **40 CFR § 270.42** may be implemented without prior notice or approval by the Secretary if notice of the modification is submitted to the Director within seven days after the change is put into effect.
- 2.6 This permit may be modified, revoked and reissued, or terminated for cause pursuant to VHWMR §§ 7-507, 7-508 and 7-509. The filing of a request by GE for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

# **Section 3: Compliance and Enforcement**

- 3.1 GE shall allow the Secretary, upon the presentation of credentials and other documents as may be required by law to:
  - (a) Enter at reasonable times upon the GE premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
  - (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
  - (d) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location.
- 3.2 GE shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. GE may not treat, store, or dispose of hazardous waste in any modified portion of the facility except as provided in 40 CFR § 270.42, until:
  - (a) GE has submitted to the Director by certified mail or hand delivery a letter signed by GE and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and
  - (b) (i) The Director has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or
    - (ii) Within 15 days of the date of submission of the letter in paragraph (a) of this condition, GE has not received notice from the Director of his or her intent to inspect, prior inspection is waived and GE may commence treatment, storage, or disposal of hazardous waste.

- 3.3 Notwithstanding any other provisions of this permit, enforcement actions may be brought pursuant to 10 V.S.A. Chapters 159, 201, and 211.
- 3.4 It shall not be a defense for GE in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- 3.5 Compliance with the terms of this permit does not constitute a defense to any order issued or any action brought under 10 V.S.A. Chapters 159, 201, or 211, or Sections 3008(a), 3008(h), 3013, or 7003 of the Resource Conservation and Recovery Act (RCRA) of 1976, (42 USC 6901 et seq.) or § 106(a), 104 or 107 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 (42 U.S.C. 9601 et seq.), or any other law providing for protection of public health or the environment.
- 3.6 In the event that the land on which the facility is located is transferred to a new owner, any actions or inactions of the new land owner, or refusal by the new land owner to provide access to GE or the Secretary, shall not be a defense for GE for any non-compliance with this permit or the VHWMR.

# **Section 4: Duties of the Permit Holder**

- 4.1 GE must comply with all conditions of this permit, except that GE need not comply with the conditions of this permit to the extent and for the duration such noncompliance is authorized in an emergency permit. Any permit noncompliance, except under the terms of an emergency permit, constitutes a violation of the appropriate Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
- 4.2 In the event of noncompliance with the permit, GE shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.
- 4.3 GE shall furnish to the Secretary, within a reasonable time, any relevant information which the Secretary may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. GE shall also furnish to the Secretary, upon request, copies of records required to be kept by this permit.
- 4.4 GE shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.
- 4.5 GE shall retain copies of all reports required by the terms and conditions of this permit and records of all data used to complete its permit application for at least three (3) years from the date of the report or the submission of the application. This retention period and other retention periods required by the terms and conditions of this permit shall be automatically extended during the pendency of any unresolved enforcement action involving this permit.

- 4.6 GE shall maintain a written operating record, either at the facility or at an alternative location approved by the Secretary, which includes all applicable requirements of **40 CFR § 264.73** and any additional requirements listed below. The following information shall be maintained, as it becomes available, in the operating record until the post-closure care period is completed in accordance with Section 7 of this permit.
  - (a) Records and results of inspections (except these data need be kept only 3 years);
  - (b) Monitoring, testing or analytical data and corrective action where required by 40 CFR § 264.191, § 264.193, § 264.195 and § 264.1064; and
  - (c) The post-closure plan and amendments, the initial post-closure and corrective action cost estimate, and all subsequent post-closure and corrective action cost estimates prepared under Conditions 7.4 and 8.2, respectively.
- 4.7 All sampling, monitoring, and/or analysis performed in relation to activities covered by this permit shall be performed according to the appropriate method specified in the latest edition of "Test Methods for Evaluating Solid Waste, SW-846, Standard Methods of Wastewater Analysis", or an equivalent method, such as those developed by the American Society for Testing and Materials (ASTM). If other methods are to be used, GE shall receive approval from the Secretary prior to utilizing the methods. The Secretary may reject any data that does not meet the requirements of EPA analytical methods and may require re-sampling and additional analysis.
- 4.8 GE shall document the name(s), address(es), and telephone number(s) of any consultant(s) and/or analytical laboratory(ies) used to perform sampling, monitoring, and/or analysis activities related to this permit.
- 4.9 GE shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, the certification required by 40 CFR § 264.73(b)(9), and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, certification, or application. This period may be extended by request of the Secretary at any time. GE shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.

Records for monitoring information shall include:

- (a) The date, exact place, and time of sampling or measurements;
- (b) The individual(s) who performed the sampling or measurements;
- (c) The date(s) analyses were performed;
- (d) The individual(s) who performed the analyses;

- (e) The analytical techniques or methods used; and
- (f) The results of such analyses.
- 4.10 GE shall submit to the Director, upon request, the results of all sampling and/or tests or other data generated pursuant to Section 8 (Corrective Action) of this permit.

# **Section 5: Facility Design and Operation**

- 5.1 GE shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by GE to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.
- 5.2 GE shall design, maintain and operate the facility in a manner which minimizes the possibility of a fire, explosion, or any unplanned, sudden or non-sudden release of a hazardous waste or hazardous waste constituents to air, soil, surface waters or groundwater which could threaten human health or the environment.
- 5.3 In the event of a fire, explosion, or any unplanned or non-sudden release of a hazardous waste or its constituents to air, soil, surface waters or groundwater which could threaten human health or the environment, GE shall take all actions necessary to minimize the threat.
- 5.4 GE shall inspect the facility for malfunctions and deterioration, operator errors, and discharges which may be causing, or may lead to, release of hazardous waste constituents to the environment, or a threat to human health. GE shall conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment. At a minimum, GE shall follow the facility inspection schedules contained in Appendix B, the Post-Closure Plan.
- 5.6 GE shall remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard.
- 5.7 Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- 5.8 All monitoring equipment required by this permit shall be properly installed, used and maintained and the appropriate monitoring methods used.
- 5.9 Hazardous waste treatment, storage, or disposal activities other than those specified in this permit are prohibited.

- 5.10 GE shall prevent the unknowing entry of, and minimize the possibility for unauthorized entry of, persons or livestock onto any portion of the facility. GE shall maintain security devices and warning signs in accordance with the Post-Closure Plan contained in Appendix B of this permit.
- 5.11 Any work plans developed for the purposes of post-closure or corrective action shall be approved by the Secretary prior to implementation.
- 5.12 Post-closure use of property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the integrity of the final cover, liner, or any other components of the containment system, or the function of the facility's monitoring systems, unless the Secretary finds that the disturbance:
  - (a) Is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or
  - (b) Is necessary to reduce a threat to human health or the environment.

# **Section 6: Reporting Requirements**

- All applications, reports, or information submitted to the Director shall be signed and certified in accordance with VHWMR § 7-108.
- 6.2 Unless otherwise explicitly stated in the Post-Closure Plan or Environmental Monitoring Plan approved by the Secretary, all reports, notifications, and submissions required by this permit shall be sent by certified mail with shipment tracking and receipt documentation, or given to

Division Director
Waste Management & Prevention Division
Vermont Agency of Natural Resources
1 National Life Drive - Davis 1
Montpelier, Vermont 05620-3704

- 6.3 Monitoring results shall be reported at the intervals specified elsewhere in this permit.
- 6.4 Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- 6.5 Reporting noncompliance.
  - (a) GE shall orally report any noncompliance which may endanger health or the environment immediately upon discovery of the noncompliance, including:

- (i) Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.
- (ii) Any information of a release or discharge of hazardous waste or of a fire or explosion at the facility, which could threaten the environment or human health outside the facility.
- (b) The description of the occurrence and its cause shall include:
  - (i) Name, address, and telephone number of the owner or operator;
  - (ii) Name, address, and telephone number of the facility;
  - (iii) Date, time, and type of incident;
  - (iv) Name and quantity of material(s) involved;
  - (v) The extent of injuries, if any;
  - (vi) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and
  - (vii) Estimated quantity and disposition of recovered material that resulted from the incident.
- (c) A written submission shall also be provided within five (5) days of the time GE becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Secretary may waive the five (5) day written notice requirement in favor of a written report within 15 days.
- 6.6 GE shall report all instances of noncompliance not reported under conditions 6.3, 6.4, and 6.5 of this permit, at the time monitoring reports are submitted. The reports shall contain the information listed in condition 6.5 of this permit.
- 6.7 Where GE becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

### **Section 7: Post-Closure Permit Conditions**

7.1 Post-closure care of the facility, in accordance with the Post-Closure Plan which is included as Appendix B, must continue for 30 years after the date of completing closure. Closure was achieved in October 1987. The Secretary may reduce the post-closure care period to

less than 30 years if he/she finds that the reduced period is sufficient to protect human health and the environment. Prior to the time that the post-closure care period is due to expire, the Secretary may extend the post-closure care period if he/she finds that the extended period is necessary to protect human health and the environment.

- 7.2 The post-closure care period was extended by the Secretary for the duration of this permit.
- 7.3 GE may amend the Post-Closure Plan at any time during the active life of the disposal facility or during the post-closure care period following the permit modification process detailed in 40 CFR 270.42. The plan must be amended whenever changes in operating plans or facility design, or events which occur during the active life of the facility or during the post-closure care period, affect the Post-Closure Plan. A copy of the Post-Closure Plan shall be kept onsite at the facility until the post-closure care period has been completed.
- 7.4 In accordance with the requirements of 40 CFR 264.144, GE shall maintain a written estimate of the cost of post-closure care and shall amend the estimate whenever there is an amendment to the existing Post-Closure Plan that increases the cost of post-closure care. In addition, within 90 days after the close of GE's fiscal year, for the duration of this Permit, GE shall adjust and amend the latest post-closure cost estimate by an inflation factor and submit to the Secretary. The current post-closure cost estimate is included in Appendix C.
- 7.5 GE shall keep a copy of the initial post-closure cost estimate and all amendments at the facility until post-closure care has been completed.
- 7.6 GE shall maintain a record of the landfill position and install and maintain monuments at the surface to mark the corners of the landfill.

### **Section 8: Corrective Action**

- 8.1 GE shall implement a corrective action groundwater monitoring program for the landfill.
- 8.2 GE shall maintain a written estimate of the cost of corrective action and shall amend the estimate whenever there is an amendment to the existing approved Environmental Monitoring Plan that increases the cost of corrective action. In addition, within 90 days after the close of GE's fiscal year, for the duration of this permit, GE shall adjust and amend the latest corrective action cost estimate by an inflation factor and submit to the Secretary. The current corrective action cost estimate is included in Appendix C.
- 8.3 GE shall perform corrective action groundwater monitoring as specified in an Environmental Monitoring Plan that has been approved by the Secretary. The Environmental Monitoring Plan shall specify the following: the number and location of wells to be sampled; the analytes to be sampled; analytical methods; the sampling frequency; the sampling procedures and quality assurance/quality control procedures.
- 8.4 The Environmental Monitoring Plan shall be completed and approved within 30 days of the effective date of this permit.

- 8.5 At all times for the duration of this permit, GE shall maintain an approved Environmental Monitoring Plan.
- 8.6 If the results of corrective action monitoring performed under the approved Environmental Monitoring Plan meet the following conditions, GE shall perform the additional actions indicated:
  - (a) If concentrations of 1,1-DCE in B-17S exceed three times the 7  $\mu$ g/l enforcement standard (21  $\mu$ g/l) for four consecutive samples:
    - (i) GE will conduct an assessment of the site conceptual model and determine whether or not natural attenuation is successfully addressing the groundwater contamination. This assessment must be submitted to the Secretary for review and approval within 90 days of the receipt of the fourth set of monitoring data that demonstrates four consecutive 1,1-DCE concentrations of 21 μg/l or higher in B-17S.
    - (ii) GE will develop a plan to assess the potential for continued down gradient migration. This plan should include assessment of the need to install more monitoring wells. This plan must be submitted to the Secretary for review and approval within 90 days of the receipt of the fourth set of monitoring data that demonstrate four consecutive 1,1-DCE concentrations of 21 μg/l or higher in B-17S. The plan shall include proposed schedules to conduct any further work recommended in the plan.
  - (b) If concentrations of 1,1-DCE in B-27 exceed two times the 7  $\mu$ g/l enforcement standard (14  $\mu$ g/l) for four consecutive samples:
    - (i) GE will conduct an assessment of the site conceptual model and whether or not natural attenuation is successfully addressing the groundwater contamination. This assessment must be submitted to the Secretary for review and approval within 90 days of the receipt of the fourth set of monitoring data that demonstrates four 1,1-DCE concentrations of 14 μg/l or higher on B-27. The plan shall include proposed schedules to conduct any further work recommended in the plan.
    - (ii) GE will develop a plan to assess the potential for continued down gradient migration. This plan should include assessment of the need to install more monitoring wells. This plan must be submitted to the Secretaryfor review and approval within 90 days of the receipt of the fourth set of monitoring data that demonstrates four 1,1-DCE concentrations of 14 μg/l or higher in B-27.

- (c) If concentrations of TCE in B-17S exceed two times the 5  $\mu$ g/l enforcement standard (10  $\mu$ g/l) for four consecutive samples:
  - (i) GE will conduct an assessment of the site conceptual model and whether or not natural attenuation is successfully addressing the groundwater contamination. This assessment must be submitted to the Secretary for review and approval within 90 days of the receipt of the fourth set of monitoring data that demonstrates four consecutive TCE concentrations of  $10 \,\mu\text{g/l}$  or higher in B-17S.
  - (ii) GE will develop a plan to assess the potential for continued down gradient migration. This plan should include assessment of the need to install more monitoring wells. This plan must be submitted to the Secretary for review and approval within 90 days of the receipt of the fourth set of monitoring data that demonstrate four consecutive TCE concentrations of 10 μg/l or higher in B-17S. The plan shall include proposed schedules to conduct any further work recommended in the plan.
- (d) If concentrations of TCE in B-27 exceed two times the 5  $\mu$ g/l enforcement standard (10  $\mu$ g/l) for four consecutive samples:
  - (i) GE will conduct an assessment of the site conceptual model and whether or not natural attenuation is successfully addressing the groundwater contamination. This assessment must be submitted to the Secretary for review and approval within 90 days of the receipt of the fourth set of monitoring data that demonstrates four consecutive TCE concentrations of  $10 \,\mu\text{g/l}$  or higher in B-27.
  - (ii) GE will develop a plan to assess the potential for continued down gradient migration. This plan should include assessment of the need to install more monitoring wells. This plan must be submitted to the Secretary for review and approval within 90 days of the receipt of the fourth set of monitoring data that demonstrate four consecutive TCE concentrations of 10 μg/l or higher in B-27. The plan shall include proposed schedules to conduct any further work recommended in the plan.
- (e) If concentrations of 1,1-DCE and/or TCE in B-28 exceed the 1,1-DCE 7 μg/l or TCE 5 μg/l enforcement standard for four consecutive samples:
  - (i) GE will conduct an assessment of the site conceptual model and whether or not natural attenuation is successfully addressing the groundwater contamination. This assessment must be submitted to the Secretary for review and approval

- within 90 days of the receipt of the fourth set of monitoring data that demonstrates four consecutive 1,1-DCE concentrations of 7  $\mu$ g/l or TCE concentrations of 5  $\mu$ g/l or higher in B-28.
- (ii) GE will develop a plan to assess the potential for continued down gradient migration. This plan should include assessment of the need to install more monitoring wells. This plan must be submitted to the Secretary for review and approval within 90 days of the receipt of the fourth set of monitoring data that demonstrate four consecutive 1,1-DCE concentrations of 7 μg/l or TCE concentrations of 5 μg/l or higher in B-28.
- 8.7 If the assessments submitted as required by Condition 8.6 indicate that monitored natural attenuation is not sufficiently preventing migration of contamination off-site, GE shall conduct an assessment of other remedial alternatives (including but not limited to institutional controls, continued monitored natural attenuation, and other active remediation).

## **Section 9: Financial Requirements**

- 9.1 GE shall maintain liability coverage for claims arising from sudden and non-sudden accidental occurrences, which occur as a result of the operations of the facility, in an amount of at least four million dollars (\$4,000,000) per occurrence with an annual aggregate of at least eight million dollars (\$8,000,000), exclusive of legal defense costs, until the post-closure care period has been completed. This liability coverage must be equivalent to the coverage held by GE at the time of issuance of this permit, as evidenced by the documents included in Appendix C of this permit.
- 9.2 GE shall demonstrate liability coverage for claims arising from sudden and non-sudden accidental occurrences, which occur as a result of the operations of the facility in an amount of at least four million dollars (\$4,000,000) per occurrence with an annual aggregate of at least eight million dollars (\$8,000,000), exclusive of legal defense costs, until the post-closure care period has been completed. This liability coverage shall be demonstrated using one of the financial assurance instruments specified in 40 CFR 264.147. Documentation of proof of insurance shall be included in Appendix C of this permit.
- 9.3 GE shall maintain financial assurance provisions for proper post-closure care of the facility which are:
  - (a) Equivalent to the post-closure cost estimate prepared as required under Section 7 of this permit; and
  - (b) In accordance with the requirements of **40 CFR § 264.145** maintained until the post-closure care period has been completed.

Documentation of financial assurance for post-closure care in place at the time of the issuance of this permit can be found in Appendix C of this permit.

- 9.4 GE shall maintain financial assurance provisions for corrective action which are equivalent to the corrective action cost estimate prepared as required by Section 8 of this permit.

  Documentation of the financial assurance provisions in place at the time of issuance of this permit are contained in Appendix C of this permit.
- 9.5 GE shall keep a copy of the initial post-closure and corrective action cost estimates and all amendments at the facility until post-closure care and corrective action has been completed.
- 9.6 Any changes in the financial assurance mechanism must be approved by the Secretary.
- 9.7 GE must notify the Director by overnight/express mail of the commencement of any voluntary or involuntary proceeding under the United States Bankruptcy Code (Title 11, U.S. Code), naming the owner or operator as debtor, within 10 business days after commencement of the proceeding.
- 9.8 In the event of the bankruptcy of or suspension of issuing authority of the trust fund trustee or trustee institution issuing any surety bond, letter of credit or insurance policy required by this permit, GE must establish other financial assurance or liability coverage within 60 days after the event and in accordance with Condition 9.6 of this permit.

# **APPENDICES**

APPENDIX A: Site Map

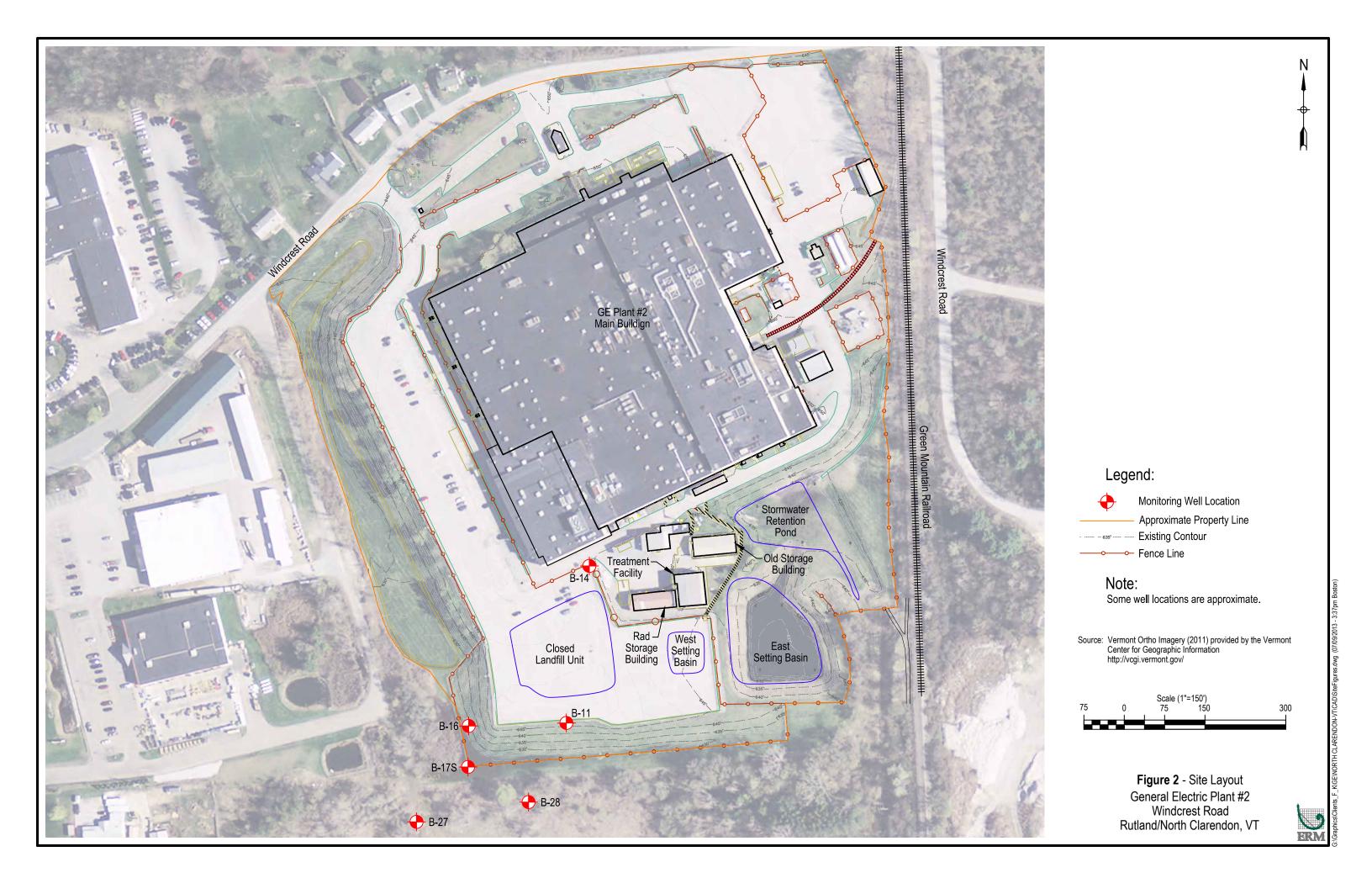
APPENDIX B: Post-Closure Plan

APPENDIX C: Post-Closure and Corrective Action Cost Estimates and Financial Assurance

Documents

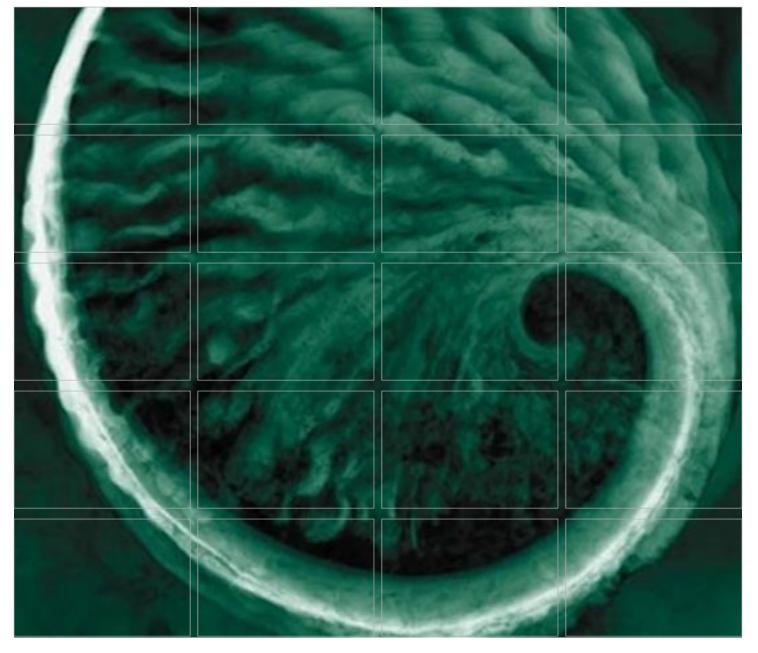
# **APPENDIX A**:

**Site Map** 



# **APPENDIX B**:

**Post-Closure Plan** 



**General Electric Aviation** 

# **Post-Closure Plan**

General Electric Plant #2 270 Windcrest Road North Clarendon, Vermont 05759

5 August 2013 Revised 18 September 2013 Revised 30 September 2013

www.erm.com



### General Electric Aviation

# Post-Closure Plan

General Electric Plant #2 270 Windcrest Road North Clarendon, Vermont 05759

5 August 2013 Revised 18 September 2013 Revised 30 September 2013

OC Sisin

R. Joseph Fiacco, Jr., P.G. *Principal–in-Charge* 

Catherine E. Regan, P.E.

Project Manager

**Environmental Resources Management** 

One Beacon Street, 5<sup>th</sup> Floor Boston, MA 02108 T: 617-646-7800

F: 617-267-6447

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APPENDIX A INSPECTION LOG

### 1.0 INTRODUCTION

This Post-Closure Plan has been prepared in accordance with 40 CFR part 264, subpart G, sections 264.117, 264.118, 264.119, and 264.120, for the General Electric Company (GE) facility at Windcrest Road in North Clarendon, Vermont (Site). A Site Location Map is presented as Figure 1 and a Site Layout is presented as Figure 2.

The GE facility manufactures gas turbine engine components, including vanes and blades, and associated tooling from various metal alloys. GE operated a regulated landfill unit (Landfill) at this Site for metal hydroxide sludge generated by this facility from 1976 to 1986. The Landfill received wastes defined as hazardous (i.e., F006 waste) by the Vermont Hazardous Waste Management Regulations (Regulations) under §7-210. The Site is subject to Resource Conservation and Recovery Act (RCRA) corrective action provisions due to the presence of the closed-in-place Landfill, solid waste management units (SWMUs) and areas of concern (AOCs).

The Landfill was closed in accordance with the report prepared by DuBois & King entitled Planning Report for Closure of Existing (Metal Hydroxide) Sludge Landfill for the General Electric Company submitted to VT DEC in July 1986.

Post-closure activities will be conducted at the Site to preserve the integrity and maintain compliance with the closure performance standards of the closed Landfill.

These activities will consist of:

- Continuation of groundwater monitoring of selected monitoring wells;
- Inspection and maintenance of the landfill cover and security system; and,
- Maintenance, as necessary, of required monitoring wells.

### 2.0 POST-CLOSURE CARE

Closure of the Landfill was completed in 1987. GE will continue postclosure care under the terms of a renewed post-closure certificate issued by the State of Vermont.

Section 264.117(a)(1)(i) states that post-closure care must consist of monitoring and reporting in accordance with relevant subparts F, K, L, M, and N of 40 CFR part 264. These subparts define requirements for Groundwater Protection at Solid Waste Management Units, Surface Impoundments, Waste Piles, Land Treatment, and Landfills, respectively. GE will follow subparts F and N, which are the two subparts applicable to this Site. A groundwater monitoring system is in place and will be utilized to monitor the condition of the groundwater at the point of compliance (POC) in accordance with an Environmental Monitoring Plan approved by VT DEC.

### 3.0 POST-CLOSURE PLAN

Section 264.118(b) requires that the owner or operator of a disposal facility have a written post-closure plan, which identifies the activities that will be carried on after closure as well as a description of these activities and their frequency.

### 3.1 DESCRIPTION OF PLANNED MONITORING ACTIVITIES

GE will maintain and operate a groundwater monitoring system and groundwater monitoring will be conducted as described in the VT DEC-approved Environmental Monitoring Plan. Inspection of the required monitoring well system is described below in Section 3.2.1.

### 3.2 DESCRIPTIONS OF PLANNED INSPECTION ACTIVITIES

The Landfill inspection program consists of two levels: (1) inspection of the condition of the groundwater monitoring well system, and (2) inspection of the condition of the closed Landfill (cap and security systems). These are described more fully below.

# 3.2.1 Inspection of Required Groundwater Monitoring Well System

As an initial task for each sampling event outlined in the Environmental Monitoring Plan, the monitoring well sampling crew will conduct a physical evaluation of the conditions of the required monitoring well system. This evaluation will include the groundwater monitoring wells outlined in the VT DEC-approved Environmental Monitoring Plan. The inspection will occur quarterly unless a reduction in frequency is approved by VT DEC. The types of problems to be noted include: cover/cap damage, structural deformation (due to soil shifting) and other physical damage to the well structure. In the event a well is found damaged or otherwise not as expected, this will be reported to the Site Project Manager within 24 hours and a plan to evaluate and remedy the problem will be developed. If the damage is such that the well cannot be sampled due to physical damage, the Site Project Manager will make a report to VT DEC within 14 days. Well inspection will include the following:

Groundwater Monitoring Well System

Торіс	Type of Potential Problem
Well casing protection	Casing damaged, rusted, broken
Well cap	Cap missing or not in place, broken
Area around well	Soil displaced, well casing damaged
Well identification	Identification information is legible

A copy of the Inspection Log is included as Appendix A of this document.

If required wells are damaged beyond repair, they may be decommissioned or replaced if necessary with approval from VT DEC. Well decommissioning will consist of using tremie pipe to fill the well with grout starting at the bottom of the well. The standpipe, if any, will be removed from the area and a concrete plug will be poured on top of the grout to create a cap that is larger than the diameter of the well. The concrete will be covered with native material to restore the natural ground surface. A revised Environmental Monitoring Plan will be submitted for VT DEC approval to reflect modifications in the required well network.

# 3.2.2 Inspection of the Landfill Cap

The integrity of the cap for the Landfill will be inspected for the following attributes:

- Asphalt surface is still able to protect the upper surface of the landfill synthetic cover: no large cracks or holes, no deterioration of the edges, and no winter plowing damage. No excessive accumulation of storm water.
- Earthen side surfaces maintain integrity to cover the buried waste and shed surface water runoff: no large areas of erosion, cover vegetation remains viable; no trees or large bushes are growing on the side slopes.
- Landfill markers signifying the boundary of the landfill cap on the asphalt are in place and not damaged.

The cap inspections will be conducted annually, no earlier than 1 June and no later than 1 August of each year. The inspection will also coincide with one of the quarterly groundwater sampling events (i.e. 2<sup>nd</sup> quarter or 3<sup>rd</sup>

quarter) detailed in the Environmental Monitoring Plan. This timing allows for the inspection to view the Site following the winter and spring seasons, when there is the greatest potential for weather related damage. It also allows for repairs to be made during the typical construction season.

Cap inspection will include the following:

Closed Landfill Cap

Торіс	Type of Potential Problem
Asphalt surface	Large cracks, pot holes, plow damage, edge crumble, sink holes, pooled water
Earthen sides	Significant erosion, exposed synthetic cap, stressed vegetation, growth of trees and large bushes
Landfill markers	Markers are damaged by snow plow, marker missing

Remediation of inspection findings will depend on the type of condition found. If the findings indicate substantial damage to the Landfill, VT DEC will be notified within 14 days and a remediation program will be developed in conjunction with VT DEC. VT DEC will also be notified of any immediate actions already completed. If the conditions indicate normal maintenance is required, such as recoating or resurfacing of the asphalt-parking surface, this will be remedied on a schedule consistent with other plant maintenance activities. A copy of the Inspection Log to be used is included as Appendix A.

## 3.2.3 Security Inspections

Security system inspections will be completed annually, using the same schedule as cap inspections. The Site security system will be inspected to ensure it is functional and maintains the ability to prevent unknowing and minimize unauthorized access to the Landfill.

The Landfill is on a portion of the GE facility that is within the perimeter fencing (minimum 8 feet tall chain link with barbed wire top) of the GE property. Access to the GE property is through either a guarded location or a locked pedestrian gate used by employees only.

Annual security inspection will include:

- Inspection of the perimeter fence to check for chain link breaks or fallen barbed wire; and,
- Inspection of warning signs on perimeter fence indicating prohibition of entry.

Topic	Type of Potential Problem	
	Fence damaged, guard system not in	
Security system	place.	

If the conditions indicate maintenance is required, such as fence repair or sign replacement, this will be remedied on a schedule consistent with other plant maintenance activities. A copy of the Inspection Log to be used is included as Appendix A.

### 3.3 LANDFILL BOUNDARY

The GE property was surveyed by a Vermont registered land surveyor in January 2007. The Landfill liner location is based on the report prepared by DuBois & King entitled General Electric Company, Town of Rutland, North Clarendon Plant Landfill Closure and Parking Lot Site Grading Plan submitted to VT DEC in October 1986. A copy of the survey map indicating the location of the Landfill liner has been provided to the Town of Rutland, Town Clerk for filling with the property deed. The boundary of the landfill cap will be delineated by markers placed by a surveyor at the corners of the cap.

### 4.0 REPORTING

Inspection Logs and documentation of post-closure care activities will be provided to VT DEC on an annual basis. Information will be submitted to VT DEC concurrently with the annual report described in the VT DEC-approved Environmental Monitoring Plan.

All reports will be addressed to:

Division Director Waste Management and Prevention Division Vermont Agency of Natural Resources 1 National Life Drive – Davis 1 Montpelier, VT 05620-3704

Reports will be sent using courier delivery service with shipment tracking and receipt documentation. In addition, electronic copies will be placed on VT DEC's ftp site and notification will be emailed to the VT DEC Hazardous Sites Project Manager.

### 5.0 FINANCIAL ASSURANCE

In accordance with 40 CFR sections 264.140 through 264.151, GE will provide financial assurance for the required post-closure care and corrective action activities. The original 30-year post-closure period is being extended by VT DEC in the renewed post-closure certification, and the post-closure period for financial assurance will extend to expiration of the certification. GE currently satisfies the financial assurance requirements by demonstrating passage of the financial test for post-closure care specified in 40 CFR section 264.145(f)(1). GE will continue to satisfy financial assurance in accordance with this section by sending updated financial assurance documentation, including an updated post-closure care cost estimate to VT DEC within 90 days after the close of GE's fiscal year. In addition, GE will send an updated post-closure care cost estimate to VT DEC if warranted based on any changes to the Post-Closure Plan or Environmental Monitoring Plan approved by VT DEC.

### 6.0 POST-CLOSURE CONTACT

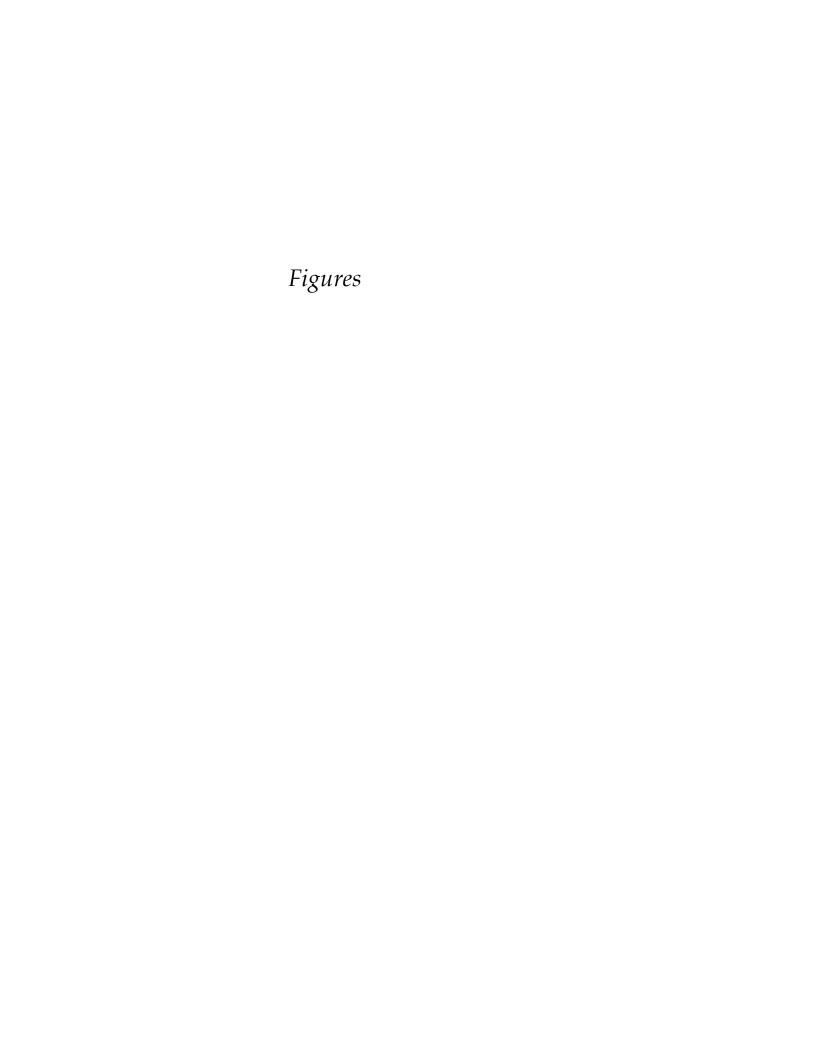
Section 264.118(3) requires the name, telephone number, and address of a person or office to contact about the disposal facility during the post-closure period. The responsible person/office is currently:

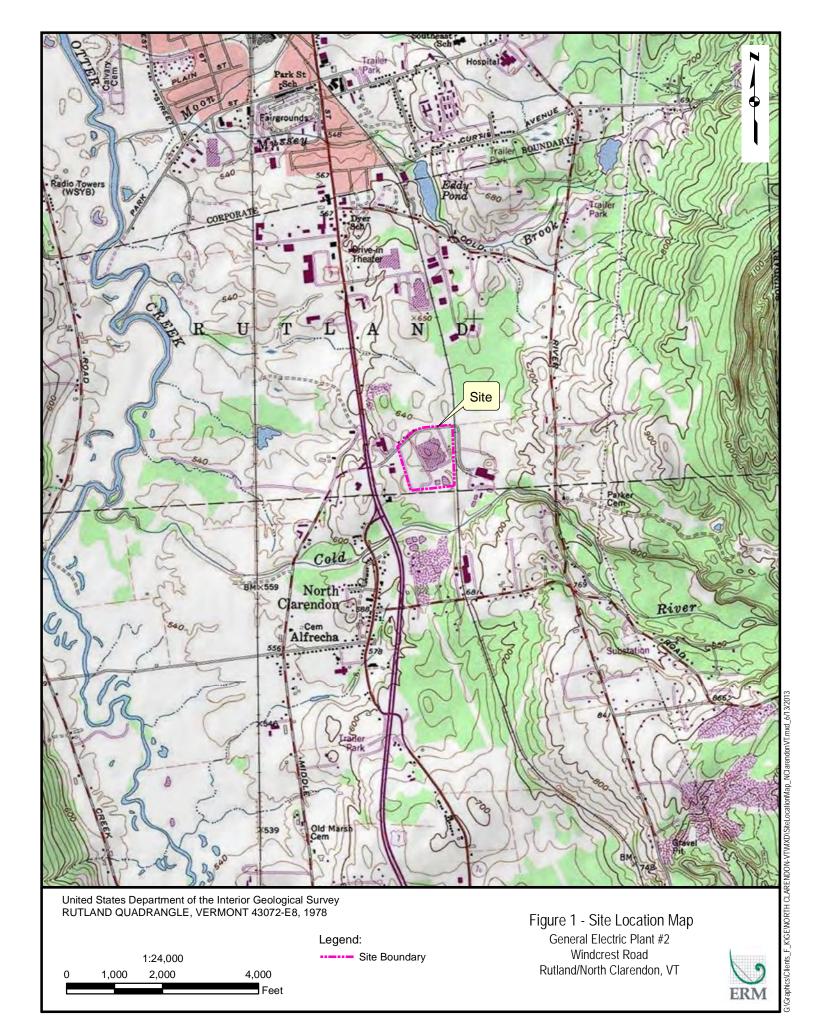
Paul Hare, Program Manager, Northeast/Midwest Regions

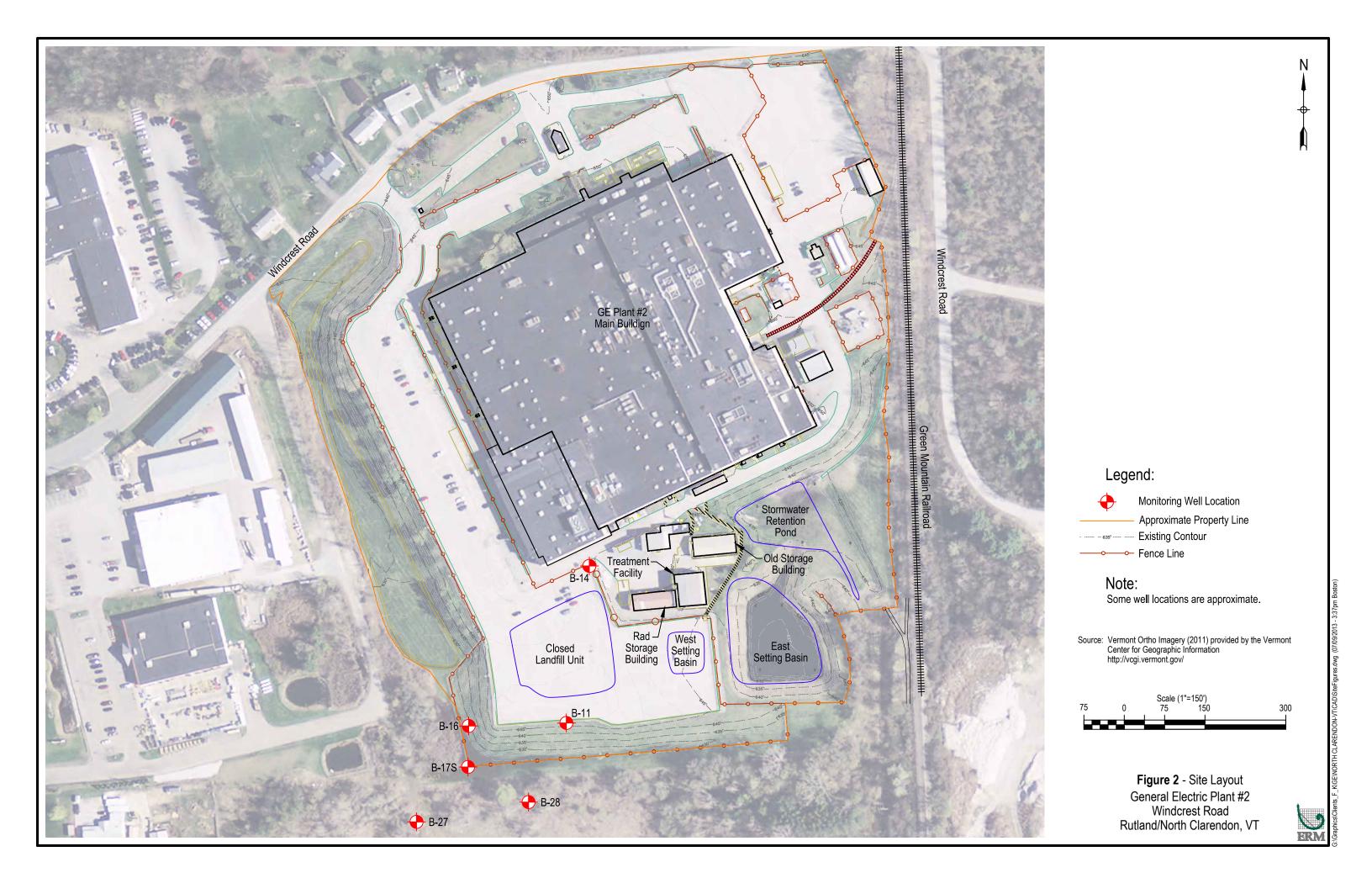
General Electric Company 319 Great Oaks Blvd.

Phone: 518-862-2713

Albany, NY 12203







Appendix A Post-Closure Inspection Log

### POST-CLOSURE INSPECTION LOG GENERAL ELECTRIC AVIATION NORTH CLARENDON SITE US EPA ID NO. VT001075894

pect	or	_Signature		_ I	Date	
ure	of Inspection (circle):		Scheduled Quarterly Scheduled Annual Other/Additional	У		
	REQUIRED GROUNDW Groundwater monitorin					spections)
			(Cir	cle One	a)	
Γ	Damage to Caps or Locks	÷	Yes		No	
	Evidence of Tampering		Yes		No	
	Apron Damage		Yes		No	
	Concrete Collar Damage		Yes		No	
	Vell ID No. not Present		Yes		No	
	Other Problems		Yes		No	
Is	f Yes to any of the above	, describe the lo	cation and extent of th	ne prob	lem(s).	
_						
Is	s maintenance of the gro	undwater moni	toring system require	d?	Yes	No
	f Yes, describe the maint and date of completion.	enance action re	equired. If an action w	vas alre	ady taken, de	escribe the acti
_						
_ _ <u>S</u>	ITE SECURITY (Annual	Inspections)		(C: 1	0 )	
	,	Inspections)		(Circle	•	
F	ence Damage	Inspections)		Yes	No	
F S	ence Damage iignage Damage	• ,	uandod)	Yes Yes	No No	
F S	ence Damage lignage Damage Access Gates Secured (Lo	• ,	uarded)	Yes Yes Yes	No No No	
F S A E	ence Damage iignage Damage	• ,	uarded)	Yes Yes	No No	

### POST-CLOSURE INSPECTION LOG GENERAL ELECTRIC AVIATION NORTH CLARENDON SITE US EPA ID NO. VT001075894

Is maintenance to security measures required?		Yes	No
If Yes, indicate the maintenance action required. If an and date of completion.	action was alrea	dy taken, de	escribe the
ACDIVALE CAD (A			
ASPHALT CAP (Annual Inspections)	(Circle	One)	
Cracking	Yes	No	
Settling	Yes	No	
Damage to Curbing	Yes	No	
Overweight Vehicles Present	Yes	No	
Other Problems	Yes	No	
Damage to Surveyed Boundary Markers	Yes	No	
If Yes to any of the above, describe the location and ex	tent of the probl	em(s).	
			N
Is maintenance to the asphalt surface required?		Yes	No
If Yes, indicate the maintenance action required. If an and date of completion.	action was alrea	dy taken, de	escribe the

### **APPENDIX C**:

### Post-Closure and Corrective Action Cost Estimates and Financial Assurance Documents

### DRAFT Hazardous Waste Facility Permit General Electric, North Clarendon/Rutland, Vermont VTD001075894

### Appendix C – Cost Estimate for Post-Closure Care and Corrective Action

## Detailed Cost Estimate Activities Under the Environmental Monitoring Plan and Post-Closure Plan General Electric Plant 2 North Clarendon, VT

			2013		2014	2015	2016	2017	2018		2019		2020		2021
			Cost		Cost	Cost	Cost	Cost	Cost		Cost		Cost		Cost
		E	stimate	I	Estimate	Estimate	Estimate	Estimate	Estimate	]	Estimate	F	Estimate	E	stimate
Environmental Monitoring Plan (EMP)		\$	12,500	\$	30,000	\$ 27,500	\$ 30,000	\$ 27,500	\$ 30,000	\$	27,500	\$	30,000	\$	27,500
Quarterly Groundwater Monitoring: B-16, B-17S and B-27															
Analysis for 1,1-Dichlorothene															
Biennial Groundwater Monitoring of B-11, B-14 and B-28															
Analysis for 1,1-Dichlorothene															
Biennial Groundwater Monitoring of B-16 and B-17s															
Analysis for Nickel															
Subtotal		\$	12,500	\$	30,000	\$ 27,500	\$ 30,000	\$ 27,500	\$ 30,000	\$	27,500	\$	30,000	\$	27,500
Post-Closure Plan (PCP)		\$	-	\$	1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$	1,000	\$	1,000	\$	1,000
Inspection of Groundwater Monitoring Well Network															
Inspection of Landfill Cap															
Inspection of Security System															
Subtotal		<b>\$</b>	-	\$	1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$	1,000	\$	1,000	\$	1,000
Cap Maintenance - Routine		\$	3,000	\$	3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$	3,000	\$	3,000	\$	3,000
Summer Mowing															
Pavement Patching (small holes and cracks)															
Subtotal		<b>\$</b>	3,000	\$	3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000	\$	3,000	\$	3,000	\$	3,000
Cap Maintenance - Non Routine												\$	100,000		
Pavement Replacement (if necessary)															
80,000 square foot area															
(estimate \$1.20 per square foot)															
Subtotal		\$	-	<i>\$</i>	-	\$ -	\$ -	\$ -	\$ -	\$	-	\$	100,000	\$	-
	TOTAL	\$	15,500	\$	34,000	\$ 31,500	\$ 34,000	\$ 31,500	\$ 34,000	\$	31,500	\$	134,000	\$	31,500

Notes:

Cost estimates for the EMP and PCP are based on activities outlined in the respective plans.

All costs shown reflect current estimates: no inflation and/or discounting has been applied.

ERM 1 of 2 General Electric

Detailed Cost Estimate
Activities Under the Environmental Monitoring Plan and Post-Closure Plan
General Electric Plant 2
North Clarendon, VT

				2022	2023		
				Cost	Cost		
			]	Estimate	Estimate	10	Year Total
Environmental Monitoring Plan (EMP)			\$	30,000	\$ 27,500		
Quarterly Groundwater Monitoring: B-16, B-17S and B-27							
Analysis for 1,1-Dichlorothene							
Biennial Groundwater Monitoring of B-11, B-14 and B-28							
Analysis for 1,1-Dichlorothene							
Biennial Groundwater Monitoring of B-16 and B-17s							
Analysis for Nickel							
	Subtotal		\$	30,000	\$ 27,500	\$	300,000
Post-Closure Plan (PCP)			\$	1,000	\$ 1,000		
Inspection of Groundwater Monitoring Well Network							
Inspection of Landfill Cap							
Inspection of Security System							
	Subtotal		\$	1,000	\$ 1,000	\$	10,000
Cap Maintenance - Routine			\$	3,000	\$ 3,000		
Summer Mowing							
Pavement Patching (small holes and cracks)							
	Subtotal		\$	3,000	\$ 3,000	\$	33,000
Cap Maintenance - Non Routine							
Pavement Replacement (if necessary)							
80,000 square foot area							
(estimate \$1.20 per square foot)							
	Subtotal		\$	-	\$ -	\$	100,000
		TOTAL	\$	34,000	\$ 31,500	\$	443,000

Notes:

Cost estimates for the EMP and PCP are based on activities outlined in the respective plans.

All costs shown reflect current estimates: no inflation and/or discounting has been applied.

ERM 2 of 2 General Electric

### DRAFT Hazardous Waste Facility Permit General Electric, North Clarendon/Rutland, Vermont VTD001075894

### Appendix C-2013 Financial Assurance for Post-Closure Care and Corrective Action



Jonathan F. Masi

GE 3135 Easton Turnpike Fairfield, CT 06828-0001

T (203) 373-2374 F (203) 373-3342 Jonathan,Masi@ge,com

Department of Environmental Conscription

MAR 2 5 2013

Commissioner's Office

RECEIVED

MAR 2 6 13

March 2013

Waste Mgmt. & Prevention Div.

Financial Assurance

Dear Sir/Madam:

Enclosed please find documents relating to financial assurance for the General Electric Company. In the interest of the environment, GE is "Going Green" by not including a printed copy of the Company's <u>252</u> page 2012 10K in this package. The web address is provided below for your convenience. A printed copy will be mailed to you upon request.

http://www.ge.com/ar2012/pdf/10K-2012.pdf

Please direct all inquiries and responses related to it to:

Jonathan F. Masi Corporate Environmental Programs General Electric Company 3135 Easton Turnpike Fairfield, CT 06828

Jonathan.Masi@ge.com (203) 373-2374 Phone (203) 373-3342 Fax

Thank you. Smartan Mari



GE 3135 Easton Turnpike Fairfield, CT 06828 USA

### Letter from Chief Financial Officer

March 13, 2013

Jeffrey Wennberg, Commissioner Vermont Department of Environmental Conservation 103 South Main Street Waterbury, VT 05676-0404

I am the chief financial officer of the General Electric Company, 1 River Road, Schenectady, New York 12345. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage and closure and/or post-closure care as specified in Subpart H of 40 CFR Parts 264 and 265.

The firm identified above is the owner or operator of the following facilities for which liability coverage for both sudden and nonsudden accidental occurrences is being demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265: SEE SCHEDULE A.

The firm identified above guarantees, through the guarantee specified in Subpart H of 40 CFR Parts 264 and 265, liability coverage for both sudden and nonsudden accidental occurrences at the following facilities owned or operated by the following: NONE. The firm identified above is the direct or higher-tier parent corporation of the owner or operator.

- 1. The firm identified above owns or operates the following facilities for which financial assurance for closure or post-closure care or liability coverage is demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimate covered by the test are shown for each facility: SEE SCHEDULE C.
- 2. The firm identified above guarantees, through the guarantee specified in Subpart H of 40 CFR Parts 264 and 265, the closure and post-closure care or liability coverage of the following facilities owned or operated by the guaranteed party. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: NONE.

### Page Two

- 3. In States where EPA is not administering the financial requirements of Subpart H of 40 CFR Parts 264 and 265, this firm is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure or post-closure cost estimates covered by such a test are shown for each facility: SEE SCHEDULE E.
- 4. The firm identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanisms specified in Subpart H of 40 CFR Parts 264 and 265 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: NONE.
- 5. This firm is the owner or operator or guarantor of the following UIC facilities for which financial assurance for plugging and abandonment is required under part 144 and is assured through a financial test. The current closure cost estimates as required by 40 CFR 144.62 are shown for each facility: NONE.

This firm is required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on December 31. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended December 31, 2012.

### Part B. Closure or Post-Closure Care and Liability Coverage.

### Alternative II

	(Dollars in thousands)
1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above)	\$39,380
2. Amount of annual aggregate liability coverage to be demonstrated.	\$16,000
3. Sum of lines 1 and 2.	\$55,380

4. Current bond rating of most recent issuance and name of rating service	AA+ - Sta	andard & Poor's Aa3 - Moody's
5. Date of issuance of bond	10/09/12	
6. Date of maturity of bond	10/09/42	
*7. Tangible net worth	\$37,592,000	)
*8 Total assets in the U.S.	\$356,930,00	00
	<u>YES</u>	<u>NO</u>
9. Is line 7 at least \$10 million?	X	
10. Is line 7 at least 6 times line 3?	X	
*11. Are at least 90% of assets located in the U.S.? If not, complete line 12.		X
12. Is line 8 at least 6 times line 3?	X	

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 264.151(g) as such regulations were constituted on the date shown immediately below.

Keith S. Sherin
Vice Chairman and
Chief Financial Officer

March 13, 2013

## Schedule A

# Financial Test for Liability, Closure, Post-closure Coverage

EPA ID #	FACILITY	STREET	CITY	ST
VTD001075894	Rutland, VT	270 Windcrest Road	N. CLARENDO	N Vermont

CONTINGENCY

Total # of Facilities:

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Schedule C

# Financial Test for Liability, Closure, Post-closure Coverage

Total # of Facilities:	<b>EPA ID #</b> VTD001075894	VTD001075894	
	FACILITY Rutland, VT	Rutland, VT	
<b></b>	STREET 270 Windcrest Road	270 Windcrest Road	
	CITY ST  N. CLARENDON Vermont	N. GLARENDO	
	ST N Vermont	N Vermont	
7	CLOSURE 0	CLOSURE 0	
904,940	POST CLOSURE	POST CLOSURE 904,940	
904,940	TOTAL 904,940	904,940	

Schedule E

## Financial Test for Liability, Closure, Post-closure Coverage

26,797,881 38,475,184	26,797,881	11,677,303	ı			26	Total # of Facilities:
10,000,000	10,000,000	ť				CONTINGENCY	
18,305	0	18,305	Texas	Dallas	3202 Manor Way	SO - Dallas, TX, USA (Service Center)	1 XD064114242
55,165	55,165	0	Texas	Ranger	P.O. 115, TIFFIN ROAD	Ranger Rail	1XD061382206
2,735,467	0	2,735,467	Texas	Houston	8800 Wallisville Road	SO - Houston, TX, USA (Service Center)	TXD060718269
586,485	586,485	0	South Carolina	FLORENCE	3001 W. RADIO DRIVE	Florence SC, HCS	SCD067002147
4,737,697	4,737,697	0	South Carolina	GREENVILLE	300 GARLINGTON ROAD	Greenville, SC, USA	SCD049126097
143,063	143,063	0	Puerto Rico	Barceloneta	PR RD #2, KM 59.5	GE / RCA DEL CARIBE (BARCELONETA, PR)	PRD090370537
1,693,265	1,332,977	360,288	Pennsylvania	ERIE .	2901 E LAKE RD, BLDG 9-201	Erie, PA	PAD005033055
3,725,589	3,725,589	0	Pennsylvania	LANCASTER	NEW HOLLAND AVENUE	GE PROPERTY (LANCASTER, PA)	PAD003026903
280,000	C	280,000	Ohio	JEFFERSON	85 W. ASTUBULA	GE LIGHTING (JEFFERSON, OH)	OHD048111090
1,155,962	0	1,155,962	New York	Niskayuna	1 Research Circle	Niskayuna, NY	NYD071094197
1,528,500	0	1,528,500	New York	Tonawanda	175 Milens Road	SO - Buffalo, NY, USA (Service Center)	NYD067539940
3,611,369	3,611,369	0	North Carolina		1223 FAIRGROVE CHURCH RD	Hickory, NC	NCD003237948
750,529	750,529	0	Missouri	Grain Valley	2712 S. Dillingham Rd	Grain Valley, MO	MOD000298398
2,000,000	0	2,000,000	Kentucky		3050 Nebo Road	Madisonville, Ky	KYD074047556
,	0	0	Kentucky	Lexington	200 West Loudon Avenue	GE KENTUCKY GLASS (LEXINGTON, KY)	KYD006386395
78,226	0	78,226	Indiana	FORT WAYNE	1701 COLLEGE STREET	Fort Wayne - STO, IN	IND004557815
186,198	٥	186,198	Illinois	Chicago	6045 S. Nottingham	SO - Chicago, IL, USA (Service Center)	ILD070015714
255,795	255,795	0	lowa	W.BURLINGTON	1404-1418 W. PLEASANT ST.	IS - Burlington, IA	IAD000678037
383,775	0	383,775	Georgia	ROME	1935 REDMOND CIRC.	GE ELECTRICAL DISTR. AND CONTROL (ROME, GA)	GAD003308145
435,429	0	435,429	Georgia	Chamblee	5035 Peachtree Industrial Blvd	SO - Atlanta, GA, USA (Service Center)	GAD003300878
396,509	396,509	0	Florida	Mulberry	1.5 miles east of Hwy. 37 on CR 640	UNC MULBERRY	FLD984166942
927,703	927,703	0	Connecticut	Bridgeport	1285 Boston Avenue	Bridgeport, CT	CTD001453711
2,101,353	275,000	1,826,353	Connecticut	PLAINVILLE	41 WOODFORD ROAD	IS - Plainville - HQ, CT	CTD000842492
31,782	0	31,782	California	Fremont	1055 Mission Court	MCS - Fremont, CA	CAR000145631
606,292	0	606,292	California	ANAHEIM	3601 E. LaPALMA AVENUE	SO - Los Angeles, CA, USA (Service Center)	CAD030584502
50,728	0	50,728	California	Oakland	5441 International Blvd.	GE INDUSTRIAL AND POWER SYS SER. (Oakland, C.5441 International Blvd	CAID009208075
TOTAL	POST CLOSURE	CLOSURE	ST	CITY	STREET	FACILITY	EPA ID #



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### Independent Accountants' Report on Applying Agreed-upon Procedures

The Board of Directors General Electric Company:

We have performed the procedures enumerated below, which were agreed to by management of General Electric Company (the "Company"), solely to assist you in the filing of selected financial information included in "Alternative II" of your letter (the "Letter") dated March 13, 2013 to the Addressees listed in Attachment 1 to this report. The Company's management is responsible for the selected financial information. This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of management of General Electric Company. Consequently, we make no representations regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose.

The procedures and associated findings are as follows:

- 1) Tangible Net Worth We recalculated the dollar amount of the Company's tangible net worth at December 31, 2012, \$37,592,000,000, as the difference between Total GE Shareowners' Equity at December 31, 2012, \$123,026,000,000, and the sum of Goodwill, \$73,447,000,000, and Other Intangible Assets, \$11,987,000,000, at December 31, 2012, each reflected in the Statement of Financial Position on page 72 of the Company's 2012 Annual Report. We then compared the dollar amount of the Company's tangible net worth at December 31, 2012, to the amount shown in Item 7 of the Letter and found them to be in agreement.
- 2) Total Assets in the United States We compared the Company's Total Assets in the United States at December 31, 2012, \$356,930,000,000, as shown in Item 8 of the Letter, to a schedule prepared by the Company entitled "OS 10 GEO Assets GE," and found them to be in agreement.
- 3) Are At Least 90% of the Company's Assets Located in the United States We divided the Company's Total Assets in the United States at December 31, 2012, \$356,930,000,000, as shown in Item 8 of the Letter, by the Company's Total Assets at December 31, 2012, \$685,328,000,000, reflected in the Statement of Financial Position on page 72 of the Company's 2012 Annual Report, and found that the Company's Total Assets in the United States were less than 90% of the Company's Total Assets. Accordingly, we agree with the Company's response of "No" in Item 11 of the Letter.

We were not engaged to, and did not, conduct an examination, the objective of which would be the expression of an opinion on the selected financial information included in the Letter.



Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the use of management of the Company, and is not intended to be and should not be used by anyone other than these specified parties.

KPMG LLP

March 13, 2013



### Addressees:

- 1. California Environmental Protection Agency's Department of Toxic Substances Control
- 2. Georgia Department of Natural Resources
- 3. Illinois Environmental Protection Agency
- 4. Indiana Department of Environmental Management
- 5. New York State Department for Environmental Conservation
- 6. North Carolina Department of Environment and Natural Resources
- 7. Pennsylvania Department of Environmental Protection (Letter from Chief Financial Officer)
- 8. State of Ohio Environmental Protection Agency
- √ 9. Vermont Department of Environmental Conservation
- 10. United States Environmental Protection Agency (to Demonstrate Liability Coverage and Assurance of Closure for TSCA PCB Permits) at the following regions/locations:
  - U.S. Environmental Protection Agency
  - U.S. Environmental Protection Agency, Region 2
- 11. United States Environmental Protection Agency (regarding Closure and/or Post-closure Care) at the following regions/locations:
  - U.S. Environmental Protection Agency
  - U.S. Environmental Protection Agency, Region 1
  - U.S. Environmental Protection Agency, Region 2
  - U.S. Environmental Protection Agency, Region 3
  - U.S. Environmental Protection Agency, Region 4
  - U.S. Environmental Protection Agency, Region 5
  - U.S. Environmental Protection Agency, Region 6
  - U.S. Environmental Protection Agency, Region 7
  - U.S. Environmental Protection Agency, Region 8
  - U.S. Environmental Protection Agency, Region 9
  - U.S. Environmental Protection Agency, Region 10