GE
159 Plastics Avenue
Pittsfield, MA 01201
USA

Transmitted via Overnight Courier

September 9, 2005

Mr. Dean Tagliaferro
U.S. Environmental Protection Agency
Region I – New England
10 Lyman Street, Suite 2
Pittsfield, MA 01201

Ms. Susan Steenstrup
Bureau of Waste Site Cleanup
Department of Environmental Protection
436 Dwight Street
Springfield, MA 01103

Re: GE-Pittsfield/Housatonic River Site
Monthly Status Report Pursuant to Consent Decree for August 2005 (GECD900)

Dear Mr. Tagliaferro and Ms. Steenstrup:

Enclosed are copies of General Electric's (GE's) monthly progress report for August 2005 activities conducted by GE at the GE-Pittsfield/Housatonic River Site. This monthly report is submitted pursuant to Paragraph 67 of the Consent Decree (CD) for this Site, which was entered by the U.S. District Court on October 27, 2000.

The enclosed monthly report includes not only the activities conducted by GE under the CD, but also other activities conducted by GE at the GE-Pittsfield/Housatonic River Site (as defined in the CD). The report is formatted to apply to the various areas of the Site as defined in the CD, and to provide for each area, the information specified in Paragraph 67 of the CD. The activities conducted specifically pursuant to or in connection with the CD are marked with an asterisk. GE is submitting a separate monthly report to the Massachusetts Department of Environmental Protection (MDEP), with a copy to the United States Environmental Protection Agency (EPA), describing the activities conducted by GE at properties outside the CD Site pursuant to GE's November 2000 Administrative Consent Order from MDEP.

The enclosed monthly report includes, where applicable, tables that list the samples collected during the subject month, summarize the analytical results received during that month from sampling or other testing activities, and summarize other groundwater monitoring and oil recovery information obtained during that month. Also, enclosed for each of you (and for Weston) is a CD-ROM that contains these same tables of the analytical data and monitoring information in electronic form.

Please call Andrew Silfer or me if you have any questions.

Sincerely,

John F. Novotny /NME

John F. Novotny, P.E.
Manager - Facilities and Brownfields Programs

Enclosure
V:\GE_Pittsfield_General\Reports and Presentations\Monthly Reports\2005\08-05 CD Monthly\Letter.doc

cc: Robert Cianciarulo, EPA (cover letter only)
Tim Conway, EPA (cover letter only)
Sharon Hayes, EPA
William Lovely, EPA (Items 7, 8, 9, 10, 11, 12, 16/17, 22, 23, and 25 only)
Rose Howell, EPA (cover letter only)
Holly Inglis, EPA (hard copy and CD-ROM of report)
Susan Svirsky, EPA (Items 7, 15, and 20 only)
K.C. Mitkevicius, USACE (CD-ROM of report)
Thomas Angus, MDEP (cover letter only)
Robert Bell, MDEP (cover letter only)
Anna Symington, MDEP (cover letter only)
Nancy E. Harper, MA AG
Susan Peterson, CT DEP
Field Supervisor, US FWS, DOI
Kenneth Finkelstein, Ph.D., NOAA (Items 13, 14, and 15 only)
Dale Young, MA EOEA
Mayor James Ruberto, City of Pittsfield
Thomas Hickey, Director, Pittsfield Economic Development Authority
Linda Palmieri, Weston (hard copy of report, CD-ROM of report, CD-ROM of data)
Richard Nasman, P.E., Berkshire Gas (CD-ROM of report)
Michael Carroll GE (CD-ROM of report)
Andrew Silfer, GE (cover letter only)
Rod McLaren, GE (CD-ROM of report)
James Nuss, BBL
James Bieke, Goodwin Procter
Jim Rhea, QEA (narrative only)
Teresa Bowers, Gradient
Public Information Repositories (1 hard copy, 5 copies of CD-ROM)
GE Internal Repository (1 hard copy)

(w/o separate CD-ROM, except where noted)

AUGUST 2005

MONTHLY STATUS REPORT

PURSUANT TO CONSENT DECREE FOR GE-PITTSFIELD/HOUSATONIC RIVER SITE

GENERAL ELECTRIC COMPANY

PITTSFIELD, MASSACHUSETTS

Background

The General Electric Company (GE), the United States Environmental Protection Agency (EPA), the Massachusetts Department of Environmental Protection (MDEP), and other governmental entities have entered into a Consent Decree (CD) for the GE-Pittsfield/Housatonic River Site, which was entered by the U.S. Court on October 27, 2000. In accordance with Paragraph 67 of the CD, GE has prepared this monthly report, which summarizes the status of activities conducted by GE at the GE-Pittsfield/ Housatonic River Site ("Site") (as defined in the CD).

This report covers activities in the areas listed below (as defined in the CD and/or the accompanying Statement of Work for Removal Actions Outside the River [SOW]). Only those areas that have had work activities for the month subject to reporting are included. The specific activities conducted pursuant to or in connection with the CD are noted with an asterisk.

General Activities (GECD900)

GE Plant Area (non-groundwater)

1. 20s, 30s, 40s Complexes (GECD120)
2. East Street Area 2 – South (GECD150)
3. East Street Area 2 – North (GECD140)
4. East Street Area 1 – North (GECD130)
5. Hill 78 and Building 71 Consolidation Areas (GECD210/220)
6. Hill 78 Area – Remainder (GECD160)
7. Unkamet Brook Area (GECD170)

Former Oxbow Areas (non-groundwater)

8. Former Oxbow Areas A & C (GECD410)
9. Lyman Street Area (GECD430)
10. Newell Street Area I (GECD440)
11. Newell Street Area II (GECD450)
12. Former Oxbow Areas J & K (GECD420)

Housatonic River

13. Upper ½-Mile Reach (GECD800)
14. 1½-Mile Reach (only for activities, if any, conducted by GE) (GECD820)
15. Rest of the River (GECD850)

Housatonic River Floodplain

16. Current Residential Properties Adjacent to 1½-Mile Reach (Actual/Potential Lawns) (GECD710)
17. Non-Residential Properties Adjacent to 1½-Mile Reach (excluding banks) (GECD720)
18. Current Residential Properties Downstream of Confluence (Actual/Potential Lawns) (GECD730)

Other Areas

19. Allendale School Property (GECD500)
20. Silver Lake Area (GECD600)

Groundwater Management Areas (GMAs)

21. Plant Site 1 (GECD310)
22. Former Oxbows J & K (GECD320)
23. Plant Site 2 (GECD330)
24. Plant Site 3 (GECD340)
25. Former Oxbows A&C (GECD350)

GENERAL ACTIVITIES
GE-PITTSFIELD/HOUSATONIC RIVER SITE
(GECD900)
AUGUST 2005

a. Activities Undertaken/Completed

Continued GE-EPA electronic data exchanges for the Housatonic River Watershed and Areas Outside the River.*

b. Sampling/Test Results Received

- Sample results were received for routine sampling conducted pursuant to GE's NPDES Permit for the GE facility. Sampling records and results are provided in Attachment A to this report.

- NPDES Discharge Monitoring Reports (DMRs) for the period of July 1 through July 30, 2005, are provided in Attachment B to this report.

- A report titled *Toxicity Evaluation of Wastewaters Discharged from the General Electric Plant; Pittsfield, Massachusetts (Samples Collected in August 2005)* was prepared for GE by SGS Environmental Services, Inc. (SGS). A copy of that report is provided in Attachment C.

c. Work Plans/Reports/Documents Submitted

None

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

- Continue discussions with Western Massachusetts Electric Company (WMECo) regarding subordination agreements for WMECo easements on GE properties that will be subject to Grants of Environmental Restrictions and Easements (EREs).*

- Continue NPDES sampling and monitoring activities.

- Attend public, Citizens Coordinating Council (CCC), and Pittsfield Economic Development Authority (PEDA) meetings, as appropriate.

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

None

ITEM 1
PLANT AREA
20s, 30s, 40s COMPLEXES
(GECD120)
AUGUST 2005

a. Activities Undertaken/Completed

- Continued demolition activities at Buildings 42 and 43.
- Conducted wipe sampling as identified in Table 1-1.
- Conducted air monitoring for particulates and PCBs, as identified in Table 1-1
- Collected and tankered approximately 2,500 gallons of water from the Building 31W oil/water separator to Building 64 G for treatment.

b. Sampling/Test Results Received

See attached tables.

c. Work Plans/Reports/Documents Submitted

None

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

Continue demolition activities at Buildings 42 and 43.

e. General Progress/Unresolved Issues/Potential Schedule Impacts

None

f. Proposed/Approved Work Plan Modifications

Received EPA conditional approval of the Supplemental Building Characterization Report and Building Debris Stockpile Proposal for 40s Complex (August 18, 2005).

TABLE 1-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

20s, 30s, 40s COMPLEX
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
Building 31 VAC Truck Wipe Sampling	Bldg.31-VAC-W1	8/17/05	Wipe	SGS	PCB	8/22/05
Building 31 VAC Truck Wipe Sampling	Bldg.31-VAC-W10	8/17/05	Wipe	SGS	PCB	8/19/05
Building 31 VAC Truck Wipe Sampling	Bldg.31-VAC-W11	8/17/05	Wipe	SGS	PCB	8/19/05
Building 31 VAC Truck Wipe Sampling	Bldg.31-VAC-W2	8/17/05	Wipe	SGS	PCB	8/22/05
Building 31 VAC Truck Wipe Sampling	Bldg.31-VAC-W3	8/17/05	Wipe	SGS	PCB	8/19/05
Building 31 VAC Truck Wipe Sampling	Bldg.31-VAC-W4	8/17/05	Wipe	SGS	PCB	8/19/05
Building 31 VAC Truck Wipe Sampling	Bldg.31-VAC-W5	8/17/05	Wipe	SGS	PCB	8/19/05
Building 31 VAC Truck Wipe Sampling	Bldg.31-VAC-W6	8/17/05	Wipe	SGS	PCB	8/19/05
Building 31 VAC Truck Wipe Sampling	Bldg.31-VAC-W7	8/17/05	Wipe	SGS	PCB	8/19/05
Building 31 VAC Truck Wipe Sampling	Bldg.31-VAC-W8	8/17/05	Wipe	SGS	PCB	8/19/05
Building 31 VAC Truck Wipe Sampling	Bldg.31-VAC-W9	8/17/05	Wipe	SGS	PCB	8/19/05
Building 31 VAC Truck Wipe Sampling - Truck 489	Bldg.31-VAC489-W1	8/18/05	Wipe	SGS	PCB	8/22/05
Building 31 VAC Truck Wipe Sampling - Truck 490	Bldg.31-VAC489-W2	8/18/05	Wipe	SGS	PCB	8/22/05
Building 31 VAC Truck Wipe Sampling - Truck 491	Bldg.31-VAC489-W3	8/18/05	Wipe	SGS	PCB	8/22/05
Building 31 VAC Truck Wipe Sampling - Truck 492	Bldg.31-VAC489-W4	8/18/05	Wipe	SGS	PCB	8/22/05
Building 31 VAC Truck Wipe Sampling - Truck 493	Bldg.31-VAC489-W5	8/18/05	Wipe	SGS	PCB	8/22/05
Building 31 VAC Truck Wipe Sampling - Truck 494	Bldg.31-VAC489-W6	8/18/05	Wipe	SGS	PCB	8/22/05
Building 31 VAC Truck Wipe Sampling - Truck 495	Bldg.31-VAC489-W7	8/18/05	Wipe	SGS	PCB	8/22/05
Building 31W Bucket Wipe Sampling	BLDG-31W-BUCKETWIPE1	8/29/05	Wipe	SGS	PCB	8/31/05
Building 31W Bucket Wipe Sampling	BLDG-31W-BUCKETWIPE2	8/29/05	Wipe	SGS	PCB	8/31/05
Building 31W Bucket Wipe Sampling	BLDG-31W-BUCKETWIPE3	8/29/05	Wipe	SGS	PCB	8/31/05
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/2/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/2/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/2/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/2/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Background Location	8/2/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/3/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/3/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/3/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/3/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Background Location	8/3/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/4/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/4/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/4/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/4/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Background Location	8/4/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/5/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/5/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/5/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/5/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Background Location	8/5/05	Air	Berkshire Environmental	Particulate Matter	8/9/05

TABLE 1-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

20s, 30s, 40s COMPLEX
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/8/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/8/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/8/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/8/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Background Location	8/8/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/9/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/9/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/9/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/9/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Background Location	8/9/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/10/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/10/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/10/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/10/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Background Location	8/10/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/11/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/11/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/11/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/11/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Background Location	8/11/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/15/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/15/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/15/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/15/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Background Location	8/15/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/16/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/16/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/16/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/16/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Background Location	8/16/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/17/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/17/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/17/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/17/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Background Location	8/17/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/18/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/18/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/18/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/18/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Background Location	8/18/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/19/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/19/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/19/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/19/05	Air	Berkshire Environmental	Particulate Matter	8/24/05

TABLE 1-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

20s, 30s, 40s COMPLEX
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
Ambient Air Particulate Matter Sampling	Background Location	8/19/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/22/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/22/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/22/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/22/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Background Location	8/22/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/23/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/23/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/23/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/23/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Background Location	8/23/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/24/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/24/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/24/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/24/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Background Location	8/24/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	W3 - West of 40s Complex	8/25/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/25/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/25/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/25/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Background Location	8/25/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
PCB Ambient Air Sampling	W3 - West of 40s Complex	7/19-20/05	Air	Berkshire Environmental	PCB	8/7/05
PCB Ambient Air Sampling	S2 - Woodlawn Avenue	7/19-20/05	Air	Berkshire Environmental	PCB	8/7/05
PCB Ambient Air Sampling	M2 - South of Bldg. 5	7/19-20/05	Air	Berkshire Environmental	PCB	8/7/05
PCB Ambient Air Sampling	MC3 - Near Bldg. 16 & 19	7/19-20/05	Air	Berkshire Environmental	PCB	8/7/05
PCB Ambient Air Sampling	MC3-CO-Colocated - Near Bldgs. 16 & 19	7/19-20/05	Air	Berkshire Environmental	PCB	8/7/05
PCB Ambient Air Sampling	BK3-Background - North of Bldg 9B, b/w 9B & NY Avenue	7/19-20/05	Air	Berkshire Environmental	PCB	8/7/05
PCB Ambient Air Sampling	W3 - West of 40s Complex	8/25-26/05	Air	Berkshire Environmental	PCB	9/2/05
PCB Ambient Air Sampling	S2 - Woodlawn Avenue	8/25-26/05	Air	Berkshire Environmental	PCB	9/2/05
PCB Ambient Air Sampling	M2 - South of Bldg. 5	8/25-26/05	Air	Berkshire Environmental	PCB	9/2/05
PCB Ambient Air Sampling	MC3 - Near Bldg. 16 & 19	8/25-26/05	Air	Berkshire Environmental	PCB	9/2/05
PCB Ambient Air Sampling	MC3-CO-Colocated - Near Bldgs. 16 & 19	8/25-26/05	Air	Berkshire Environmental	PCB	9/2/05
PCB Ambient Air Sampling	BK3-Background - East of Building 9B	8/25-26/05	Air	Berkshire Environmental	PCB	9/2/05

TABLE 1-2
PCB DATA RECEIVED DURING AUGUST 2005

BUILDING 31 VAC TRUCK WIPE SAMPLING
20s, 30s, 40s COMPLEX
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in µg/100cm^2)

Sample ID	Date Collected	Aroclor-1016, -1221, -1232, -1242, -1248	Aroclor-1254	Aroclor-1260	Total PCBs
BLDG.31-VAC489-W1	8/18/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG.31-VAC489-W2	8/18/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG.31-VAC489-W3	8/18/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG.31-VAC489-W4	8/18/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG.31-VAC489-W5	8/18/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG.31-VAC489-W6	8/18/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG.31-VAC489-W7	8/18/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG.31-VAC-W1	8/17/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG.31-VAC-W2	8/17/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG.31-VAC-W3	8/17/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG.31-VAC-W4	8/17/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG.31-VAC-W5	8/17/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG.31-VAC-W6	8/17/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG.31-VAC-W7	8/17/2005	ND(1.0)	1.4	0.95 J	2.35
BLDG.31-VAC-W8	8/17/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG.31-VAC-W9	8/17/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG.31-VAC-W10	8/17/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG.31-VAC-W11	8/17/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)

Notes:
1. Samples were collected by Blasland, Bouck & Lee, Inc., and submitted to SGS Environmental Services, Inc. for analysis of PCBs.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

Data Qualifiers:

J - Indicates an estimated value less than the practical quantitation limit (PQL).

TABLE 1-3
PCB DATA RECEIVED DURING AUGUST 2005

BUILDING 31W BUCKET WIPE SAMPLING
20s, 30s, 40s COMPLEX
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in µg/100cm^2)

Sample ID	Date Collected	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
BLDG-31W-BUCKETWIPE1	8/29/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG-31W-BUCKETWIPE2	8/29/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
BLDG-31W-BUCKETWIPE3	8/29/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)

Notes:
1. Samples were collected by Blasland, Bouck & Lee, Inc., and submitted to SGS Environmental Services, Inc. for analysis of PCBs.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

TABLE 1-4
AMBIENT AIR PCB DATA RECEIVED DURING AUGUST 2005

40s COMPLEX DEMOLITION ACTIVITIES
20s, 30s, 40s COMPLEX
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Date	W3 - West of 40s Complex (µg/m3)	S2 - Woodlawn Avenue (µg/m3)	M2 - South of Bldg. 5 (µg/m3)	MC3 - Near Bldg. 16 & 19 (µg/m3)	MC3-CO Colocated - near Bldgs. 16 & 19 (µg/m3)	BK3-Background - North of Bldg 9B, b/w 9B & NY Avenue (µg/m3)	BK3-Background - East of Building 9B (µg/m3)
07/19 - 07/20/05	0.0034	0.0056	0.0089	0.0212	0.0029	0.0118	NA
08/25 - 08/26/05	0.0064	0.0046	0.0049	0.0034	0.0014[1]	NA	0.0018
Notification Level	0.05	0.05	0.05	0.05	0.05	0.05	0.05

Note: The Laboratory Control Sample and Blank Spike Duplicate associated with samples from July 19 and 20, 2005 at all locations exhibited recoveries less than the control limits.

[1] Surrogate spike recoveries associated with this sample exhibited recoveries outside of the control limits.

NA - Not Analyzed.

ITEM 2
PLANT AREA
EAST STREET AREA 2-SOUTH
(GECD150)
AUGUST 2005

a. Activities Undertaken/Completed

Performed sludge sampling at Building 64T (see Table 2-1).

b. Sampling/Test Results Received

See attached tables.

c. Work Plans/Reports/Documents Submitted

Submitted Addendum to Interim Letter Report – Proposed Additional RD/RA-Related Investigations (August 15, 2005).*

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

- Continue routine process sampling at Buildings 64G and/or 64T.
- Initiate additional sampling activities proposed in GE's October 22, 2004 Interim Letter Report (approved by EPA on August 2, 2005).*
- Continue development of Final Completion Report for City Recreational Area.*
- Initiate and complete the additional RD/RA-related sampling activities proposed in GE's August 15, 2005 Addendum to Interim Letter Report.*

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

Received EPA conditional approval of the October 22, 2004 Interim Letter Report – Proposed Additional RD/RA-Related Investigations (August 2, 2005).*

TABLE 2-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

EAST STREET AREA 2 - SOUTH
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
Building 64T Filter Cake Sampling	H5-64T-01	8/3/05	Solid	SGS	PCB	8/15/05

TABLE 2-2
PCB DATA RECEIVED DURING AUGUST 2005

BUILDING 64T FILTER CAKE SAMPLING
EAST STREET AREA 2 - SOUTH
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)

Sample ID	Date Collected	Aroclor-1016, -1221, -1232, -1242, -1248	Aroclor-1254	Aroclor-1260	Total PCBs
H5-64T-01	8/3/2005	ND(1.2)	10	5.0	15

Notes:
1. Sample was collected by General Electric Company and submitted to SGS Environmental Services, Inc. for analysis of PCBs.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

ITEM 3
PLANT AREA
EAST STREET AREA 2-NORTH
(GECD140)
AUGUST 2005

a. Activities Undertaken/Completed

- Completed equipment draining and dismantling activities at Buildings 1, 2, and 3.
- Conducted sampling of oil and/or other liquids from equipment in Buildings 1, 2, and 3, as identified in Table 3-1.
- Completed demolition of Buildings 4, 5, and 6.
- Continued asbestos removal activities at Buildings 15, 15A, 15B, and 15W.
- Initiated asbestos removal activities at Buildings 1, 2, 3, and 3B.
- Conducted air monitoring for PCBs and particulate matter as identified in Table 3-1.
- Distributed a Request for Proposal (RFP) to prospective contractors for the performance of demolition and site restoration activities at Buildings 15, 15A, 15B, and 15W (August 5, 2005).
- Collected and tankered approximately 100 gallons of water from the Building 14H water main cutoff, and 5,000 gallons from Building 9 (groundwater) to Building 64G for treatment.

b. Sampling/Test Results Received

See attached tables.

c. Work Plans/Reports/Documents Submitted

Submitted a letter to EPA and accompanying figure notifying EPA of the approximate PCB and particulate ambient air monitoring station locations at Buildings 15, 15A, 15B, and 15W (August 15, 2005).

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

- Complete site restoration activities at Buildings 4, 5, and 6.
- Continue asbestos removal activities at Buildings 15, 15A, 15B, and 15W.
- Initiate equipment/liquids removal activities at Buildings 15, 15A, 15B, and 15W.

ITEM 3
(cont'd)
PLANT AREA
EAST STREET AREA 2-NORTH
(GECD140)
AUGUST 2005

d. Upcoming Scheduled and Anticipated Activities (next six weeks) (cont'd)

- Continue asbestos removal activities at Buildings 1, 2, 3, and 3B.
- Award contract for the demolition of Buildings 15, 15A, 15B, and 15W.
- Initiate preparation of, and potentially distribute, an RFP to prospective contractors for the performance of demolition and site restoration activities at Buildings 1, 2, 3, and 3B.

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

Received EPA approval to continue to provide verbal notification, followed by written notification, of all TSCA exceedances encountered during the equipment draining activities at Buildings 1, 2, and 3.

TABLE 3-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

EAST STREET AREA 2 - NORTH
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
Buildings 1, 2, 3 Oil Sampling	71173	8/3/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71374	8/3/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71375	8/3/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71376	8/3/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71377	8/3/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71379	8/3/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71380	8/3/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71381	8/3/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71482	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71483	8/3/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71484	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71485	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71486	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71487	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71488	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71489	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	715100	8/3/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	715101	8/2/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	715102	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	715103	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	715104	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71590	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71591	8/3/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71592	8/2/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71593	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71594	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71595	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71596	8/2/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71597	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71598	8/2/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	71599	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	718105	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	718106	8/2/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	718107-1	8/2/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	718107-2	8/2/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	718108	8/10/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	718109	8/10/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	718110	8/10/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	718111	8/2/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	718112	8/2/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	718113	8/10/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	718114	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	718115-1	8/2/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	718115-2	8/2/05	Oil	SGS	PCB	

TABLE 3-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

EAST STREET AREA 2 - NORTH
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
Buildings 1, 2, 3 Oil Sampling	718116	8/2/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	718118	8/1/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	718118	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	718119	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	719120	8/5/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	719121	8/5/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	720122	8/5/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	720123	8/5/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	720124	8/5/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	720125	8/5/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	720126	8/10/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	720127	8/5/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	720128	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	720129	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	720130	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	720131	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	720132	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	720133	8/10/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	720134	8/10/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	720135	8/10/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	720137	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	721138	8/10/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	721139	8/10/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	721140	8/10/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	721141	8/10/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	722142	8/3/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	722143	8/3/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	723144	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	723145	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	723146	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	725147	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	725148	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	725149	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	725150	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	725151	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	725152	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	725153	8/3/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	725154	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	725155	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	725156	8/4/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	725157	8/5/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	726158	8/5/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	726159	8/5/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	726160	8/5/05	Oil	SGS	PCB	

TABLE 3-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

EAST STREET AREA 2 - NORTH
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
Buildings 1, 2, 3 Oil Sampling	726161	8/5/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	726162	8/10/05	Oil	SGS	PCB, VOC, SVOC, RCRA Metals, Flashpoint	8/24/05
Buildings 1, 2, 3 Oil Sampling	C1060-OIL-1	8/9/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	C1366-1	8/3/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	F1734-1	8/22/05	Oil/Liquid	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	F1734-2	8/22/05	Oil/Liquid	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	F1734-3	8/22/05	Oil/Liquid	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	F1734-4	8/22/05	Oil/Liquid	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	F1735-1	8/22/05	Water/Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	F1735-2	8/22/05	Water/Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	F1735-3	8/22/05	Water/Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	72605-LQ-1	8/25/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	72705-OIL-1	8/25/05	Oil	SGS	PCB, VOC, SVOC, Metals	
Buildings 1, 2, 3 Oil Sampling	728168-OIL-1	8/24/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	729170-OIL-1	8/25/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	801171-OIL-1	8/25/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	802173-OIL-1	8/25/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	802174-OIL-1	8/25/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	802175-OIL-1	8/25/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	80402-OIL-1	8/25/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	810176-OIL-1	8/24/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	816178-OIL-1	8/24/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	C0333-C0343-OIL-1	8/24/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	C1067-OIL-1	8/25/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	C1074-OIL-1	8/25/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	C1091-OIL-1	8/25/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	C1365-OIL-1	8/24/05	Oil	SGS	PCB	
Buildings 1, 2, 3 Oil Sampling	C1370-OIL-1	8/24/05	Oil	SGS	PCB	
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/2/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/2/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/2/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Background Location	8/2/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/3/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/3/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/3/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Background Location	8/3/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/4/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/4/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/4/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Background Location	8/4/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/8/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/8/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/8/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Background Location	8/8/05	Air	Berkshire Environmental	Particulate Matter	8/18/05

TABLE 3-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

EAST STREET AREA 2 - NORTH
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/9/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/9/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/9/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Background Location	8/9/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/10/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/10/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/10/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Background Location	8/10/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/11/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/11/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/11/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Background Location	8/11/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/22/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/22/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/22/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Background Location	8/22/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/23/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/23/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/23/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Background Location	8/23/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/24/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/24/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/24/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Background Location	8/24/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	MC3 - Near Bldg. 16 & 19	8/25/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	M2 - South of Bldg. 5	8/25/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	S2 - Woodlawn Avenue	8/25/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Background Location	8/25/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
PCB Ambient Air Sampling	S2 - Woodlawn Avenue	8/25-26/05	Air	Berkshire Environmental	PCB	9/6/05
PCB Ambient Air Sampling	M2 - South of Bldg. 5	8/25-26/05	Air	Berkshire Environmental	PCB	9/6/05
PCB Ambient Air Sampling	MC3 - Near Bldg. 16 & 19	8/25-26/05	Air	Berkshire Environmental	PCB	9/6/05
PCB Ambient Air Sampling	MC3-CO-Colocated - Near Bldgs. 16 & 19	8/25-26/05	Air	Berkshire Environmental	PCB	9/6/05
PCB Ambient Air Sampling	BK3-Background - East of Building 9B	8/25-26/05	Air	Berkshire Environmental	PCB	9/6/05

TABLE 3-2
DATA RECEIVED DURING AUGUST 2005

BUILDINGS 1, 2, 3 OIL SAMPLING
EAST STREET AREA 2 - NORTH
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm)

Parameter / Sample ID: / Date Collected:	726162 08/10/05
Volatile Organics	
None Detected	--
PCBs-Unfiltered	
Aroclor-1254	0.000054 J
Aroclor-1260	0.000069
Total PCBs	0.000123
Semivolatile Organics	
None Detected	--
Inorganics-Unfiltered	
Barium	0.0170
Mercury	0.00210
Conventional Parameters	
Flash Point (^{o}F)	>180

Notes:

1. Sample was collected by Blasland, Bouck & Lee, Inc., and submitted to SGS Environmental Services, Inc. for analysis of PCBs, volatiles, semivolatiles, metals, and flash point.
2. Only detected constituents are summarized.
3. -- Indicates that all constituents for the parameter group were not detected.

Data Qualifiers:

Organics (volatiles, PCBs, semivolatiles)

J - Indicates an estimated value less than the practical quantitation limit (PQL).

TABLE 3-3
AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING AUGUST 2005

BUILDINGS 4, 5, AND 6 DEMOLITION ACTIVITIES
EAST STREET AREA 2 - NORTH
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Date	Sampler Location	Average Site Concentration (mg/m^3)	Background Site Concentration (mg/m^3)	Average Period (Hours:Min)	Predominant Wind Direction
08/01/05[1]	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	NA	NA	NA	NA
08/02/05	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	0.022* 0.047* 0.050	0.013*	11:45 11:45 11:45	WNW
08/03/05	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	0.024* 0.037* 0.050	0.032*	11:30 11:30 11:30	WNW
08/04/05	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	0.029* 0.041* 0.060	0.051*	11:15 11:00 11:00	Variable
08/05/05[2]	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	NA	NA	NA	NA
08/08/05	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	0.052* 0.070* 0.097	0.064*	10:45 10:30 11:15	SSW
08/09/05	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	0.037* 0.051* 0.070	0.055*	11:45 11:45 12:00	SSW
08/10/05	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	0.030* 0.047* 0.058	0.011*	11:15 11:15 11:15	Variable, SSW
08/11/05	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	0.035* 0.066* 0.059	0.069*	11:00 11:00 11:00	WNW
08/12/05[2]	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	NA	NA	NA	NA
08/15/05 - 08/19/05[2]	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	NA	NA	NA	NA
08/22/05	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	0.009* 0.024* 0.013	0.032*	10:00 10:00 10:30	NNW
08/23/05	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	0.009* 0.017* 0.009	0.033*	11:45 11:45 11:45	WNW
08/24/05	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	0.012* 0.016* 0.012	0.006*	12:00 12:00 12:00	NNW
08/25/05	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	0.010* 0.019* 0.024	0.027*	10:30 10:15 11:00	NNE
08/26/05[2]	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	NA	NA	NA	NA
08/29/05[1]	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	NA	NA	NA	NA
08/30/05[1]	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	NA	NA	NA	NA

TABLE 3-3
AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING AUGUST 2005

BUILDINGS 4, 5, AND 6 DEMOLITION ACTIVITIES
EAST STREET AREA 2 - NORTH
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Date	Sampler Location	Average Site Concentration (mg/m^3)	Background Site Concentration (mg/m^3)	Average Period (Hours:Min)	Predominant Wind Direction
08/31/05[1]	MC3 - Near Bldg. 16 & 19 M2 - South of Bldg. 5 S2 - Woodlawn Avenue	NA	NA	NA	NA
Notification Level		0.120			

Notes:
NA - Not Available.
* Measured with DR-2000 or DR-4000. All others measured with pDR-1000.
Background monitoring location east of Building 9B, between Building 9B and New York Avenue.
Predominant wind direction determined using hourly wind direction data from the Pittsfield Municipal Airport Weather Station.
[1] Sampling was not performed due to precipitation/threat of precipitation.
[2] Sampling was not performed due to lack of site activity.

TABLE 3-4
AMBIENT AIR PCB DATA RECEIVED DURING AUGUST 2005

BUILDINGS 4, 5, AND 6 DEMOLITION ACTIVITIES
EAST STREET AREA 2 - NORTH
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Date	S2-Woodlawn Avenue (µg/m3)	M2-South of Bldg. 5 (µg/m3)	MC3-Near Bldgs. 16 & 19 (µg/m3)	MC3-CO-Colocated - near Bldgs. 16 & 19 (µg/m3)	BK3-Background - East of Building 9B (µg/m3)
08/25 - 08/26/05	0.0046	0.0049	0.0034	0.0014[1]	0.0018
Notification Level	0.05	0.05	0.05	0.05	0.05

[1] Surrogate spike recoveries associated with this sample exhibited recoveries outside of the control limits.

ITEM 4
PLANT AREA
EAST STREET AREA 1-NORTH
(GECD130)
AUGUST 2005

*** All activities described below for this item were conducted pursuant to the Consent Decree.**

a. Activities Undertaken/Completed

- Conducted oil sampling, as identified in Table 4-1.
- Executed ERE for GE-owned properties (August 22, 2005).
- Submitted executed ERE for GE-owned properties, together with survey plans, final title commitment, and releases and terminations from easement holders, to EPA and MDEP (August 24, 2005).
- Discussed draft of Final Completion Report with EPA.

b. Sampling/Test Results Received

See attached tables.

c. Work Plans/Reports/Documents Submitted

None

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

- Participate in pre-certification inspection (on September 7, 2005).
- Following EPA approval and MDEP acceptance of ERE, record ERE.
- Submit Final Completion Report after ERE is recorded and pre-certification inspection is held.

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

None

TABLE 4-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

EAST STREET AREA 1 - NORTH
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
East St. Area 1 North and South Oil Sampling	Bldg.78-081705-OIL-C1	8/17/05	Oil	SGS	PCB, VOC, SVOC, RCRA Metals, Flashpoint	8/25/05

TABLE 4-2
DATA RECEIVED DURING AUGUST 2005

OIL SAMPLING
EAST STREET AREA 1 - NORTH
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm)

Parameter / Sample ID: / Date Collected:	BLDG.78-081705-OIL-C1 08/17/05
Volatile Organics	
None Detected	--
PCBs	
Aroclor-1260	200
Total PCBs	200
Semivolatile Organics	
None Detected	--
Inorganics	
Arsenic	0.380 B
Barium	3.50
Chromium	1.80
Lead	0.490 B
Selenium	2.40 B
Conventional Parameters	
Flash Point (^{o}F)	>180

Notes:

1. Sample was collected by Blasland, Bouck & Lee, Inc., and submitted to SGS Environmental Services, Inc. for analysis of PCBs, volatiles, semivolatiles, metals, and flash point.
2. Only detected constituents are summarized.
3. -- Indicates that all constituents for the parameter group were not detected.

Data Qualifiers:

Inorganics

B - Indicates an estimated value between the instrument detection limit (IDL) and practical quantitiation limit (PQL).

ITEM 5
PLANT AREA
HILL 78 & BUILDING 71 CONSOLIDATION AREAS
(GECD210/220)
AUGUST 2005

*** All activities described below for this item were conducted pursuant to the Consent Decree.**

a. Activities Undertaken/Completed

- Initiated construction of the baseliner system for the third cell of the Building 71 OPCA, including performance of testing as identified in Table 5-1.

- Conducted ambient air monitoring for particulates and PCBs.

- Continued transfer of leachate from Building 71 OPCA to Building 64G for treatment. The total amount transferred in August 2005 was 55,000 gallons (see Table 5-4).

- Transferred to the OPCAs soils and sediments from removal activities at the 1½ Mile Reach and 1½ Mile floodplain properties; demolition materials from the 40s Complex and Buildings 4, 5, and 6; excavated materials from Newell Street Area I (Moldmaster property) and Newell Street Area II removal activities; and various facility-related materials.

- Initiated construction of the Building 71 OPCA final cover system for Cells 1 and 2.

- Conducted direct shear interface friction testing of the cover system components for a portion of the Building 71 OPCA final cover. A copy of the technical results is provided as Attachment E to this report consistent with the August 12, 2005 letter to EPA.

b. Sampling/Test Results Received

See attached tables.

c. Work Plans/Reports/Documents Submitted

Submitted revised technical specifications and drawings for the proposed 2005 Building 71 OPCA cover construction activities (August 12, 2005).

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

Continue transfer to the OPCAs of building demolition debris from various ongoing demolition projects, excavated material from removal activities in the 1½ Mile Reach and 1½ Mile floodplain properties, and excavated materials from Newell Street Area II removal activities.

ITEM 5
(cont'd)
PLANT AREA
HILL 78 & BUILDING 71 CONSOLIDATION AREAS
(GECD210/220)
AUGUST 2005

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

Received EPA conditional approval of the proposed 2005 Building 71 OPCA cover construction activities (August 25, 2005).

TABLE 5-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
Cell 3 Construction 71 OPCA	1645018-A	8/9/05	Solid	Geotesting	Shear Testing	
Cell 3 Construction 71 OPCA	1645018-B	8/9/05	Solid	Geotesting	Ply Adhesion & Transmissivity Testing	
Cell 3 Construction 71 OPCA	7633	8/9/05	Solid	Geotesting	Shear Testing	
Cell 3 Construction 71 OPCA	GenFill-A	8/9/05	Solid	Geotesting	Shear Testing	
Cell 3 Construction 71 OPCA	GenFill-B	8/9/05	Solid	Geotesting	Shear Testing	
Cell 3 Construction 71 OPCA	GT-6-05-0795-5A	8/9/05	Solid	Geotesting	Shear Testing	
Cell 3 Construction 71 OPCA	GT-6-05-0795-5B	8/9/05	Solid	Geotesting	Conformance Testing	
Cell 3 Construction 71 OPCA	Subgrade -A	8/9/05	Solid	Geotesting	Shear Testing	
Cell 3 Construction 71 OPCA	Subgrade-B	8/9/05	Solid	Geotesting	Shear Testing	
Ambient Air Particulate Matter Sampling	North of OPCAs	8/2/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/2/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/2/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/2/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/2/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Background Location	8/2/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/3/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/3/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/3/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/3/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/3/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Background Location	8/3/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/4/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/4/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/4/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/4/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/4/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Background Location	8/4/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/5/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/5/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/5/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/5/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/5/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	Background Location	8/5/05	Air	Berkshire Environmental	Particulate Matter	8/9/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/8/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/8/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/8/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/8/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/8/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Background Location	8/8/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/9/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/9/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/9/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/9/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/9/05	Air	Berkshire Environmental	Particulate Matter	8/18/05

TABLE 5-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
Ambient Air Particulate Matter Sampling	Background Location	8/9/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/10/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/10/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/10/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/10/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/10/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Background Location	8/10/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/11/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/11/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/11/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/11/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/11/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Background Location	8/11/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/12/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/12/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/12/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/12/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/12/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Background Location	8/12/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/15/05	Air	Berkshire Environmental	Particulate Matter	8/18/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/15/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/15/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/15/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/15/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Background Location	8/15/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/16/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/16/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/16/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/16/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/16/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Background Location	8/16/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/17/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/17/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/17/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/17/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/17/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Background Location	8/17/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/18/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/18/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/18/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/18/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/18/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Background Location	8/18/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/19/05	Air	Berkshire Environmental	Particulate Matter	8/24/05

TABLE 5-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/19/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/19/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/19/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/19/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	Background Location	8/19/05	Air	Berkshire Environmental	Particulate Matter	8/24/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/22/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/22/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/22/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/22/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/22/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Background Location	8/22/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/23/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/23/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/23/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/23/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/23/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Background Location	8/23/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/24/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/24/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/24/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/24/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/24/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Background Location	8/24/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/25/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/25/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/25/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/25/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/25/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Background Location	8/25/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	North of OPCAs	8/26/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Pittsfield Generating Co.	8/26/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Southeast of OPCAs	8/26/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Southwest of OPCAs	8/26/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	West of OPCAs	8/26/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
Ambient Air Particulate Matter Sampling	Background Location	8/26/05	Air	Berkshire Environmental	Particulate Matter	8/31/05
PCB Ambient Air Sampling	Southwest of OPCAs	08/2-3/05	Air	Berkshire Environmental	PCB	8/11/05
PCB Ambient Air Sampling	Southwest of OPCAs Co-located	08/2-3/05	Air	Berkshire Environmental	PCB	8/11/05
PCB Ambient Air Sampling	West of OPCAs	08/2-3/05	Air	Berkshire Environmental	PCB	8/11/05
PCB Ambient Air Sampling	North of OPCAs	08/2-3/05	Air	Berkshire Environmental	PCB	8/11/05
PCB Ambient Air Sampling	Southeast of OPCAs	08/2-3/05	Air	Berkshire Environmental	PCB	8/11/05
PCB Ambient Air Sampling	Pittsfield Generating (PGE)	08/2-3/05	Air	Berkshire Environmental	PCB	8/11/05
PCB Ambient Air Sampling	Background East of Building 9B	08/2-3/05	Air	Berkshire Environmental	PCB	8/11/05

TABLE 5-2
AMBIENT AIR PCB DATA RECEIVED DURING AUGUST 2005

PCB AMBIENT AIR CONCENTRATIONS
HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Date	Southwest of OPCAs (µg/m^3)	Southwest of OPCAs colocated (µg/m^3)	West of OPCAs (µg/m^3)	North of OPCAs (µg/m^3)	Southeast of OPCAs (µg/m^3)	Pittsfield Generating (PGE) (µg/m^3)	Background East of Building 9B (µg/m^3)
08/02 - 08/03/05	0.0037	0.0030	0.0029	0.0010	0.0097	0.0050[1]	0.0012
Notification Level	0.05	0.05	0.05	0.05	0.05	0.05	0.05

[1] Surrogate spike recoveries associated with this sample exhibited recoveries outside of the control limits.

TABLE 5-3
AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING AUGUST 2005

PARTICULATE AMBIENT AIR CONCENTRATIONS
HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Date	Sampler Location	Average Site Concentration (mg/m^3)	Background Site Concentration (mg/m^3)	Average Period (Hours:Min)	Predominant Wind Direction
08/01/05[1]	North of OPCAs	NA	NA	NA	NA
	Pittsfield Generating Co.				
	Southeast of OPCAs				
	Southwest of OPCAs				
	West of OPCAs				
08/02/05	North of OPCAs	0.043	0.013*	11:45	WNW
	Pittsfield Generating Co.	0.035*		11:45	
	Southeast of OPCAs	0.040		11:45	
	Southwest of OPCAs	0.026*		11:45	
	West of OPCAs	0.025		11:45	
08/03/05	North of OPCAs	0.049	0.032*	11:30	WNW
	Pittsfield Generating Co.	0.033*		11:30	
	Southeast of OPCAs	0.055		9:45[2]	
	Southwest of OPCAs	0.034*		11:30	
	West of OPCAs	0.026		11:30	
08/04/05[3]	North of OPCAs	0.050	0.051*	12:00	Variable
	Pittsfield Generating Co.	0.035*		11:30	
	Southeast of OPCAs	0.052		8:45[4]	
	Southwest of OPCAs	0.066*		11:15	
	West of OPCAs	0.032		12:00	
08/05/05[3]	North of OPCAs	0.107	0.111*	10:45	WNW
	Pittsfield Generating Co.	0.051*		10:15	
	Southeast of OPCAs	0.086		10:45	
	Southwest of OPCAs	0.106*		10:00	
	West of OPCAs	0.063		10:45	
08/08/05	North of OPCAs	NA[5]	0.064*	NA[5]	SSW
	Pittsfield Generating Co.	0.050*		10:45	
	Southeast of OPCAs	0.068		10:45	
	Southwest of OPCAs	0.119*		10:15	
	West of OPCAs	0.082		7:45	
08/09/05[3]	North of OPCAs	NA[5]	0.055*	NA[5]	SSW
	Pittsfield Generating Co.	0.040*		11:00	
	Southeast of OPCAs	0.053		11:15	
	Southwest of OPCAs	0.087*		10:45	
	West of OPCAs	0.069		11:15	
08/10/05	North of OPCAs	NA[5]	0.011*	NA[5]	Variable, SSW
	Pittsfield Generating Co.	0.034*		11:15	
	Southeast of OPCAs	0.043		11:15	
	Southwest of OPCAs	0.059*		9:00[6]	
	West of OPCAs	0.046		8:45[6]	
08/11/05	North of OPCAs	0.022	0.069*	11:15	WNW
	Pittsfield Generating Co.	0.035*		11:00	
	Southeast of OPCAs	0.068		11:00	
	Southwest of OPCAs	0.065*		10:45	
	West of OPCAs	0.059		11:15	
08/12/05	North of OPCAs	0.023	0.031*	10:45	Variable, SSW
	Pittsfield Generating Co.	0.029*		10:30	
	Southeast of OPCAs	0.044		10:00	
	Southwest of OPCAs	0.046*		10:45	
	West of OPCAs	0.045		10:45	

TABLE 5-3
AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING AUGUST 2005

PARTICULATE AMBIENT AIR CONCENTRATIONS
HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Date	Sampler Location	Average Site Concentration (mg/m^3)	Background Site Concentration (mg/m^3)	Average Period (Hours:Min)	Predominant Wind Direction
08/15/05	North of OPCAs	0.018	0.044*	11:00	Variable
	Pittsfield Generating Co.	0.020*		11:00	
	Southeast of OPCAs	0.018		11:00	
	Southwest of OPCAs	0.025*		10:45	
	West of OPCAs	0.020		11:15	
08/16/05	North of OPCAs	0.030	0.024*	11:00	Variable
	Pittsfield Generating Co.	0.021*		11:00	
	Southeast of OPCAs	0.030		11:00	
	Southwest of OPCAs	0.034*		11:00	
	West of OPCAs	0.027		11:00	
08/17/05	North of OPCAs	0.039	0.017*	11:00	WNW
	Pittsfield Generating Co.	0.025*		11:15	
	Southeast of OPCAs	0.038		11:00	
	Southwest of OPCAs	0.022*		11:00	
	West of OPCAs	0.025		11:00	
08/18/05	North of OPCAs	0.033	0.058*	10:45	Variable
	Pittsfield Generating Co.	0.013*		11:00	
	Southeast of OPCAs	0.044		11:00	
	Southwest of OPCAs	0.014*		10:45	
	West of OPCAs	0.012		11:00	
08/19/05	North of OPCAs	0.026	0.023*	9:45[7]	Variable
	Pittsfield Generating Co.	0.023*		10:00[7]	
	Southeast of OPCAs	0.038		9:45[7]	
	Southwest of OPCAs	0.023*		10:00[7]	
	West of OPCAs	0.017		9:45[7]	
08/22/05	North of OPCAs	0.065	0.032*	10:30	NNW
	Pittsfield Generating Co.	0.017*		10:15	
	Southeast of OPCAs	0.081		10:30	
	Southwest of OPCAs	0.012*		10:00	
	West of OPCAs	0.014		10:30	
08/23/05	North of OPCAs	0.005	0.033*	10:45	WNW
	Pittsfield Generating Co.	0.019*		11:00	
	Southeast of OPCAs	0.052		11:00	
	Southwest of OPCAs	0.012*		11:00	
	West of OPCAs	0.012		11:00	
08/24/05	North of OPCAs	0.024	0.006*	11:30	NNW
	Pittsfield Generating Co.	0.018*		11:45	
	Southeast of OPCAs	0.046[8]		10:45[8]	
	Southwest of OPCAs	0.008*		11:45	
	West of OPCAs	0.040		11:45	
08/25/05	North of OPCAs	0.030	0.027*	11:15	NNE
	Pittsfield Generating Co.	0.017*		11:30	
	Southeast of OPCAs	0.053[8]		10:00[8]	
	Southwest of OPCAs	0.010*		10:45	
	West of OPCAs	0.054		11:15	
08/26/05	North of OPCAs	0.020	0.044*	10:30	Variable
	Pittsfield Generating Co.	0.015*		10:30	
	Southeast of OPCAs	0.045		10:30	
	Southwest of OPCAs	0.014*		10:15	
	West of OPCAs	0.014		10:30	

TABLE 5-3
AMBIENT AIR PARTICULATE MATTER DATA RECEIVED DURING AUGUST 2005

PARTICULATE AMBIENT AIR CONCENTRATIONS
HILL 78/BUILDING 71 ON PLANT CONSOLIDATION AREAS
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

Date	Sampler Location	Average Site Concentration (mg/m^3)	Background Site Concentration (mg/m^3)	Average Period (Hours:Min)	Predominant Wind Direction
08/29/05[1]	North of OPCAs Pittsfield Generating Co. Southeast of OPCAs Southwest of OPCAs West of OPCAs	NA	NA	NA	NA
08/30/05[1]	North of OPCAs Pittsfield Generating Co. Southeast of OPCAs Southwest of OPCAs West of OPCAs	NA	NA	NA	NA
08/31/05[1]	North of OPCAs Pittsfield Generating Co. Southeast of OPCAs Southwest of OPCAs West of OPCAs	NA	NA	NA	NA
Notification Level		0.120			

Notes:

NA - Not Available.

* Measured with DR-2000 or DR-4000. All others measured with pDR-1000.

Background monitoring location east of Building 9B, between Building 9B and New York Avenue.

Predominant wind direction determined using hourly wind direction data from the Pittsfield Municipal Airport Weather Station.

[1] Sampling was not performed due to precipitation/threat of precipitation.

[2] Sampling data were modified to delete invalid recordings due to interference from an insect.

[3] Site activity limited to landfill capping and cell construction. Sampling performed at request of BBL.

[4] Sampling period was shortened due to equipment re-calibration.

[5] Data not valid due to equipment malfunction. The data from 8/8 and 8/9 appeared high and inconsistent with other values around the site, so a duplicate pDR-1000 was placed at the OPCA N site during the day on 8/10. The duplicate monitor recorded values substantially lower than the values indicated by the original, and more consistent with data being recorded at other locations. The original faulty pDR was removed and sent in for repairs.

[6] Sampling period was shortened due to technician error.

[7] Sampling period was shortened due to precipitation/threat of precipitation.

[8] Sampling data were modified to delete invalid recordings in the morning.

TABLE 5-4
BUILDING 71 CONSOLIDATION AREA LEACHATE TRANSFER SUMMARY
PLANT AREA - HILL 78 & BUILDING 71 CONSOLIDATION AREAS

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Month / Year	Total Volume of Leachate Transferred (Gallons)
August 2004	214,000
September 2004	230,000
October 2004	177,000
November 2004	138,000
December 2004	146,000
January 2005	136,000
February 2005	116,500
March 2005	174,500
April 2005	192,000
May 2005	89,500
June 2005	130,000
July 2005	127,500
August 2005	55,000

Leachate is transferred from the Building 71 On-Plant Consolidation Area to Building 64G for treatment.

ITEM 6
PLANT AREA
HILL 78 AREA - REMAINDER
(GECD160
AUGUST 2005

*** All activities described below for this item were conducted pursuant to the Consent Decree.**

a. Activities Undertaken/Completed

- Continued compilation and validation of pre-design investigation analytical results for Pre-Design Investigation Report.

- Conducted preliminary evaluation of City of Pittsfield storm drains and sewer lines extending beneath Hill 78. Results will be included in Pre-Design Investigation Report.

b. Sampling/Test Results Received

None

c. Work Plans/Reports/Documents Submitted

None

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

Submit Pre-Design Investigation Report (due September 8, 2005).

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

None

ITEM 7
PLANT AREA
UNKAMET BROOK AREA
(GECD170)
AUGUST 2005

a. Activities Undertaken/Completed

- Completed demolition of GE Advanced Materials Plant Site 1 buildings.
- Completed off-site disposal of waste materials associated with demolition of GE Advanced Materials Plant Site 1 buildings.
- Conducted shear wipe sampling (see Table 7-1).
- Collected and tankered approximately 2,500 gallons of water from the Building 119W oil/water separator cleanout to Building 64G for treatment.

b. Sampling/Test Results Received

See attached tables.

c. Work Plans/Reports/Documents Submitted

Submitted letter to EPA summarizing investigations conducted and data obtained at Parcel L12-1-2 and adjacent portion of Merrill Road easement, which were previously and are again in use as a gasoline service station, and proposing to exclude that property from the Unkamet Brook Area under the CD and from pre-design investigations under the CD (August 15, 2005).*

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

Submit Pre-Design Investigation Report (due September 7, 2005).*

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

None

TABLE 7-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

UNKAMET BROOK AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
GE Advanced Materials SABRE Shear Wipe Sampling	GEAM-SHEAR-W1	8/23/05	Wipe	SGS	PCB	8/26/05
GE Advanced Materials SABRE Shear Wipe Sampling	GEAM-SHEAR-W2	8/23/05	Wipe	SGS	PCB	8/26/05
GE Advanced Materials SABRE Shear Wipe Sampling	GEAM-SHEAR-W3	8/23/05	Wipe	SGS	PCB	8/26/05
GE Advanced Materials SABRE Shear Wipe Sampling	GEAM-SHEAR-W4	8/23/05	Wipe	SGS	PCB	8/26/05
GE Advanced Materials SABRE Shear Wipe Sampling	GEAM-SHEAR-W5	8/23/05	Wipe	SGS	PCB	8/26/05
GE Advanced Materials SABRE Shear Wipe Sampling	GEAM-SHEAR-W6	8/23/05	Wipe	SGS	PCB	8/26/05
GE Advanced Materials SABRE Shear Wipe Sampling	GEAM-SHEAR-W7	8/23/05	Wipe	SGS	PCB	8/26/05
GE Advanced Materials SABRE Shear Wipe Sampling	GEAM-SHEAR-W8	8/23/05	Wipe	SGS	PCB	8/26/05
GE Advanced Materials SABRE Shear Wipe Sampling	GEAM-SHEAR-W9	8/23/05	Wipe	SGS	PCB	8/26/05

TABLE 7-2
PCB DATA RECEIVED DURING AUGUST 2005

GE ADVANCED MATERIALS SABRE SHEAR WIPE SAMPLING
UNKAMET BROOK AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in µg/100cm^2)

Sample ID	Date Collected	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
GEAM-SHEAR-W1	8/23/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
GEAM-SHEAR-W2	8/23/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
GEAM-SHEAR-W3	8/23/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
GEAM-SHEAR-W4	8/23/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
GEAM-SHEAR-W5	8/23/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
GEAM-SHEAR-W6	8/23/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
GEAM-SHEAR-W7	8/23/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
GEAM-SHEAR-W8	8/23/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
GEAM-SHEAR-W9	8/23/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)

Notes:
1. Samples were collected by Blasland, Bouck & Lee, Inc., and submitted to SGS Environmental Services, Inc. for analysis of PCBs.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

ITEM 8
FORMER OXBOW AREAS A & C
(GECD410)
AUGUST 2005

*** All activities described below for this item were conducted pursuant to the Consent Decree.**

a. Activities Undertaken/Completed

None

b. Sampling/Test Results Received

None

c. Work Plans/Reports/Documents Submitted

None

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

Prepare an addendum to the Final RD/RA Work Plan and submit to EPA (due to EPA on or before September 27, 2005).

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

Received EPA's conditional approval letter for Final RD/RA Work Plan (August 30, 2005).

ITEM 9
LYMAN STREET AREA
(GECD430)
AUGUST 2005

*** All activities described below for this item were conducted pursuant to the Consent Decree.**

a. Activities Undertaken/Completed

Continued preparation of Final RD/RA Work Plan.

b. Sampling/Test Results Received

None

c. Work Plans/Reports/Documents Submitted

None

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

Submit Final RD/RA Work Plan (due to EPA on or before September 2, 2005).

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

None

ITEM 10
NEWELL STREET AREA I
(GECD440)
AUGUST 2005

*** All activities described below for this item were conducted pursuant to the Consent Decree.**

a. Activities Undertaken/Completed

Initiated remediation on Parcel J9-23-13.

b. Sampling/Test Results Received

None

c. Work Plans/Reports/Documents Submitted

None

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

- Record ERE and Notice of Completion for Parcel J9-23-24 following receipt of EPA approval and MDEP acceptance of same.

- Initiate remediation of Parcels J9-23-19, -20, and -21 following resolution of issues with property owner.

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

None

ITEM 11
NEWELL STREET AREA II
(GECD450)
AUGUST 2005

a. Activities Undertaken/Completed

- Continued soil remediation.*

- During soil removal activities, encountered drums in subsurface soil at Parcel J9-23-8, some of which were crushed or in pieces and some of which appeared to be intact or partially intact. In response, GE: (1) properly removed the drums; (2) sent the crushed drums and drums containing solid material to GE's OPCAs for disposition there; and (3) overpacked the intact or partially intact drums that contained liquid material, sent those drums to GE's on-plant TSCA storage area, and implemented a program to characterize their contents to facilitate the appropriate off-site disposition of these drums.

- Conducted auger wipe sampling and topsoil sampling, as identified in Table 11-1.

b. Sampling/Test Results Received

See attached tables.

c. Work Plans/Reports/Documents Submitted

Submitted analytical results for proposed backfill source (August 15, 2005).*

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

- Submit analytical results for proposed topsoil source once received from the laboratory.*

- Based on sampling results for liquid contents of drums from Parcel J9-23-8 that contained liquid, arrange for appropriate off-site disposal of those drums.

- Submit plan for geophysical survey to identify other areas within Parcel J9-23-8 where buried drums may potentially be present. Based on results, discuss further activities with EPA.

e. General Progress/Unresolved Issues/Potential Schedule Impacts

Issues relating to drums at Parcel J9-23-8 are under discussion with EPA.

f. Proposed/Approved Work Plan Modifications

None

TABLE 11-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

NEWELL STREET AREA II
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
SJB Auger Wipe Sampling	SJBA-Wipe-1	8/16/05	Wipe	SGS	PCB	8/18/05
SJB Auger Wipe Sampling	SJBA-Wipe-1-R1	8/25/05	Wipe	SGS	PCB	8/30/05
SJB Auger Wipe Sampling	SJBA-Wipe-2	8/16/05	Wipe	SGS	PCB	8/18/05
SJB Auger Wipe Sampling	SJBA-Wipe-2-R1	8/25/05	Wipe	SGS	PCB	8/30/05
SJB Auger Wipe Sampling	SJBA-Wipe-3	8/16/05	Wipe	SGS	PCB	8/18/05
SJB Auger Wipe Sampling	SJBA-Wipe-3-R1	8/25/05	Wipe	SGS	PCB	8/30/05
Top Soil Sampling	NSAII-TOPSOIL-1	8/24/05	Soil	SGS	PCB, VOC, SVOC, Metals	

TABLE 11-2
DATA RECEIVED DURING AUGUST 2005

SJB AUGER WIPE SAMPLING
NEWELL STREET AREA II
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in µg/100cm^2)

Sample ID	Date Collected	Aroclor-1016, -1221, -1232, -1242, -1248	Aroclor-1254	Aroclor-1260	Total PCBs
SJBA-WIPE-1	8/16/2005	ND(1.0)	28	14	42
SJBA-WIPE-1-R1	8/25/2005	ND(1.0)	4.3	ND(1.0)	4.3
SJBA-WIPE-2	8/16/2005	ND(1.0)	4.7	1.5	6.2
SJBA-WIPE-2-R1	8/25/2005	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)
SJBA-WIPE-3	8/16/2005	ND(1.0)	21	5.1	26.1
SJBA-WIPE-3-R1	8/25/2005	ND(1.0)	14	ND(1.0)	14

Notes:
1. Samples were collected by Blasland, Bouck & Lee, Inc., and submitted to SGS Environmental Services, Inc. for analysis of PCBs.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

ITEM 12
FORMER OXBOW AREAS J & K
(GECD420)
AUGUST 2005

*** All activities described below for this item were conducted pursuant to the Consent Decree.**

a. Activities Undertaken/Completed

Continued preparation of Final RD/RA Work Plan.

b. Sampling/Test Results Received

None

c. Work Plans/Reports/Documents Submitted

None

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

Submit Final RD/RA Work Plan (due to EPA on or before September 14, 2005).

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

None

ITEM 13
HOUSATONIC RIVER AREA
UPPER ½ MILE REACH
(GECD800)
AUGUST 2005

*** All activities described below for this item were conducted pursuant to the Consent Decree.**

a. Activities Undertaken/Completed

Conducted fall 2005 restored bank vegetation inspection and 2005 aquatic habitat structures inspection.

b. Sampling/Test Results Received

None

c. Work Plans/Reports/Documents Submitted

Submitted draft proposal for modification of restored bank vegetation monitoring program.

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

- Submit draft trip reports detailing results of fall 2005 restored bank vegetation inspection and 2005 aquatic habitat structures inspection.

- Submit revised draft proposal for modification of restored bank vegetation monitoring program incorporating Trustee comments.

e. General Progress/Unresolved Issues/Potential Schedule Impacts

- Seepage meter monitoring has not occurred due to increased water levels. EPA and GE have agreed to postpone installation of seepage meters until after the completion of EPA activities in the 1½ Mile Reach.

- Issues relating to total organic carbon (TOC) content in isolation layer remain unresolved. EPA and GE have agreed that GE's report on those issues will be deferred until after the seepage meter data are available. The Final Completion Report for Upper ½ Mile Reach Removal Action will be submitted following resolution of those issues.

f. Proposed/Approved Work Plan Modifications

None

ITEM 14
HOUSATONIC RIVER AREA
1½-MILE REACH
(GECD820)
AUGUST 2005

(Note: This item is limited to activities conducted by GE and does not include EPA's work on the 1½-Mile Reach Removal Action)

a. Activities Undertaken/Completed

On August 30, 2005, BBL (on GE's behalf) performed a round of water column monitoring at nine locations along the Housatonic River between Coltsville, MA and Great Barrington, MA. Two of these locations are situated in the 1½-Mile Reach: Lyman Street Bridge (Location 4) and Pomeroy Avenue Bridge (Location 6A). A composite grab sample was collected at each location and submitted to Northeast Analytical for analysis of PCBs (total), TSS, POC, and chlorophyll-a (see Table 14-1). (The other seven locations are discussed under Item 15 below.)

b. Sampling/Test Results Received

See attached tables.

c. Work Plans/Reports/Documents Submitted

None

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

Continue Housatonic River monthly water column monitoring.

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

None

TABLE 14-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

HOUSATONIC RIVER - 1 1/2 MILE REACH
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
Monthly Water Column Sampling	LOCATION-4	8/30/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	LOCATION-4	7/28/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/12/05
Monthly Water Column Sampling	LOCATION-6A	8/30/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	

TABLE 14-2
SAMPLE DATA RECEIVED DURING AUGUST 2005

MONTHLY WATER COLUMN SAMPLING
HOUSATONIC RIVER - 1 1/2 MILE REACH
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm)

Sample ID	Location	Date Collected	Aroclor-1016, -1221, -1232, -1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs	POC	TSS	Chlorophyll (a)
LOCATION-4	Lyman Street Bridge	07/28/05	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	0.621	3.60	0.0034

Notes:

1. Sample was collected by Blasland, Bouck & Lee, Inc. and submitted to Northeast Analytical, Inc. for analysis of unfiltered PCBs, total suspended solids (TSS), particulate organic carbon (POC), and chlorophyll (a).
2. Sampling methods involved the collection of composite grab samples at each location, representative of three stations (25, 50, and 75 percent of the total river width at each location) at 50 percent of the total river depth at each station.
3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

ITEM 15
HOUSATONIC RIVER AREA
REST OF THE RIVER
(GECD850)
AUGUST 2005

a. Activities Undertaken/Completed

- On August 30, 2005, BBL (on GE's behalf) performed a round of water column monitoring at nine locations along the Housatonic River between Coltsville and Great Barrington, MA. Two locations are situated in the 1½-Mile Reach of the Housatonic River and were discussed in Item 14. Of the remaining seven locations, two are located upstream of the 1½-Mile Reach: Hubbard Avenue Bridge (Location 1) and Newell Street Bridge (Location 2). The five remaining locations are situated in the Rest of the River: Holmes Road Bridge (Location 7); New Lenox Road Bridge (Location 9); Woods Pond Headwaters (Location 10); Schweitzer Bridge (Location 12); and Division Street Bridge (Location 13). Sampling activities were performed at all these locations on August 30, 2005 from downstream to upstream. Composite grab samples were collected at each location sampled and submitted to Northeast Analytical for analysis of PCBs (total), TSS, POC, and chlorophyll-a (see Table 15-1).

- Continued work on development of Interim Media Protection Goals (IMPG) Proposal.*

- Performed routine maintenance activities at Woods Pond Dam.*

- Continued work on repairs to gate stem at Rising Pond Dam.*

- In conjunction with EPA, collected cross-section (geometry) data for numerous transects located on the Housatonic River between Woods Pond Dam and Rising Pond Dam. These data will be used to expand EPA's current model of the Housatonic River from Woods Pond Dam downstream to Rising Pond Dam.*

b. Sampling/Test Results

See attached tables.

c. Work Plans/Reports/Documents Submitted

None

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

- Continue Housatonic River monthly water column monitoring.

- Submit IMPG Proposal (due September 6, 2005).*

ITEM 15
(cont'd)
HOUSATONIC RIVER AREA
REST OF THE RIVER
(GECD850)
AUGUST 2005

d. Upcoming Scheduled and Anticipated Activities (next six weeks) (cont'd)

- Submit report from Academy of Natural Sciences of Philadelphia (on GE's behalf) on 2004 fish sampling and 2005 benthic insect sampling in Connecticut portion of River.

- Complete additional routine maintenance activities at Woods Pond Dam.*

- Continue work on repairs to gate stem at Rising Pond Dam.*

- Continue work with EPA to collect cross-section (geometry) data for transects located on the Housatonic River between Woods Pond Dam and Rising Pond Dam, for use in expanding EPA's current model of the Housatonic River from Woods Pond Dam downstream to Rising Pond Dam.* (The data from this work will be reported in the monthly status report for September 2005.)

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

None

TABLE 15-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

HOUSATONIC RIVER - REST OF RIVER
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
Monthly Water Column Sampling	HR-D1 (LOCATION-12)	7/28/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/12/05
Monthly Water Column Sampling	HR-D1 (LOCATION-12)	8/30/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	LOCATION-1	8/30/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	LOCATION-1	7/28/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/12/05
Monthly Water Column Sampling	LOCATION-10	7/28/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/12/05
Monthly Water Column Sampling	LOCATION-10	8/30/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	LOCATION-12	8/30/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	LOCATION-12	7/28/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/12/05
Monthly Water Column Sampling	LOCATION-13	7/28/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/12/05
Monthly Water Column Sampling	LOCATION-13	8/30/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	LOCATION-2	7/28/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/12/05
Monthly Water Column Sampling	LOCATION-2	8/30/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	LOCATION-7	8/30/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	LOCATION-7	7/28/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/12/05
Monthly Water Column Sampling	LOCATION-9	8/30/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	
Monthly Water Column Sampling	LOCATION-9	7/28/05	Water	NEA	PCB, TSS, POC, Chlorophyll-A	8/12/05

Note:
1. Field duplicate sample locations are presented in parenthesis.

TABLE 15-2
SAMPLE DATA RECEIVED DURING AUGUST 2005

MONTHLY WATER COLUMN SAMPLING
HOUSATONIC RIVER - REST OF RIVER
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm)

Sample ID	Location	Date Collected	Aroclor-1016, -1221, -1232, -1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs	POC	TSS	Chlorophyll (a)
LOCATION-1	Hubbard Avenue Bridge	7/28/2005	ND(0.0000230)	ND(0.0000230)	ND(0.0000230)	ND(0.0000230)	ND(0.0000230)	0.134	3.94	0.0015
LOCATION-2	Newell Street Bridge	7/28/2005	ND(0.0000240)	ND(0.0000240)	ND(0.0000240)	ND(0.0000240)	ND(0.0000240)	0.456	3.35	0.0064
LOCATION-7	Holmes Road Bridge	7/28/2005	ND(0.0000240)	ND(0.0000240)	ND(0.0000240)	ND(0.0000240)	ND(0.0000240)	0.452	7.79	0.0019
LOCATION-9	New Lenox Road Bridge	7/28/2005	ND(0.0000230)	0.0000330 PE	0.0000370 AF	0.0000710	0.000141	0.607	6.60	0.0061
LOCATION-10	Headwaters of Woods Pond	7/28/2005	ND(0.0000220)	0.0000420 PE	0.0000480 AF	0.0000760	0.000166	0.130	3.70	0.0062
LOCATION-12	Schweitzer Bridge	7/28/2005 7/28/2005	ND(0.0000230) [ND(0.0000230)]	0.0000250 PE [0.0000300 PE]	0.0000270 AF [0.0000300 AF]	0.0000470 [0.0000490]	0.0000990 [0.000109]	0.540 [0.123]	6.20 [4.10]	0.0051 [0.0044]
LOCATION-13	Division Street Bridge	7/28/2005	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	ND(0.0000220)	0.332	7.20	0.0024

Notes:

1. Samples were collected by Blasland, Bouck & Lee, Inc. and submitted to Northeast Analytical, Inc. for analysis of unfiltered PCBs, total suspended solids (TSS), particulate organic carbon (POC), and chlorophyll (a).
2. Sampling methods involved the collection of composite grab samples at each location, representative of three stations (25, 50, and 75 percent of the total river width at each location) at 50 percent of the total river depth at each station.
3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
4. Field duplicate sample results are presented in brackets.

Data Qualifiers:

AF - Aroclor 1254 is being reported as the best Aroclor match. The sample exhibits an altered PCB pattern.
PE - Aroclor 1248 is being used to report an altered PCB pattern exhibited by the sample. Actual Aroclor 1248 is not present in the sample, but is reported to more accurately quantify PCBs present in a sample that has undergone environmental alteration.

ITEMS 16 & 17
HOUSATONIC RIVER FLOODPLAIN RESIDENTIAL AND NON-RESIDENTIAL PROPERTIES ADJACENT TO 1½-MILE REACH (GECD710 AND GECD720)
AUGUST 2005

*** All activities described below for this item were conducted pursuant to the Consent Decree.**

a. Activities Undertaken/Completed

- Continued remediation at the Group 3A/3B floodplain properties.
- Selected Sevenson Environmental Services, Inc. as the Remediation Contractor for the Group 3C and 3D floodplain properties.
- Initiated remediation at the Group 3D floodplain properties.

b. Sampling/Test Results Received

None

c. Work Plans/Reports/Documents Submitted

- Submitted Supplemental Information Package for the Group 3C and 3D floodplain properties (August 16, 2005).
- Submitted the RD/RA Work Plan for the Phase 4 Floodplain Properties (August 26, 2005).

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

- Continue remediation at Group 3A, 3B, and 3D properties.
- Initiate remediation at the Group 3C properties.
- Select Remediation Contractor for Phase 4 properties.

e. General Progress/Unresolved Issues/Potential Schedule Impacts

GE will discuss with EPA a schedule for pre-certification inspection and submittal of a Final Completion Report for Phase 1 and Phase 2 properties and ERE for City property in Phase 2.

ITEMS 16 & 17
(cont'd)
HOUSATONIC RIVER FLOODPLAIN RESIDENTIAL AND NON-RESIDENTIAL PROPERTIES ADJACENT TO 1½-MILE REACH (GECD710 AND GECD720)
AUGUST 2005

f. Proposed/Approved Work Plan Modifications

- Received conditional approval from EPA of the *Supplemental Pre-Design Investigation Report – Phase 4 Floodplain Properties, Group 4A* (August 3, 2005).

- Received EPA approval of GE's Supplemental Information Package for the Group 3C and 3D floodplain properties (letter dated August 19, 2005, received by GE August 30, 2005)

ITEM 18
HOUSATONIC RIVER FLOODPLAIN
CURRENT RESIDENTIAL PROPERTIES
DOWNSTREAM OF CONFLUENCE
(ACTUAL/POTENTIAL LAWNS)
(GECD730)
AUGUST 2005

a. Activities Undertaken/Completed

None

b. Sampling/Test Results Received

None

c. Work Plans/Reports/Documents Submitted

None

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

None

e. General Progress/Unresolved Issues/Potential Schedule Impacts

Awaiting EPA approval of GE's Pre-Design Investigation Work Plan (submitted on February 26, 2002). (Based on discussions with EPA, it appears that this pre-design sampling will be deferred for some period of time.)*

f. Proposed/Approved Work Plan Modifications

None

ITEM 20
OTHER AREAS
SILVER LAKE AREA
(GECD600)
AUGUST 2005

*** All activities described below for this item were conducted pursuant to the Consent Decree.**

a. Activities Undertaken/Completed

- Performed water level monitoring at Silver Lake staff gauge and monitoring wells surrounding the lake (see Item 21.a).

- Continued performance of Stage 3 of the Bench-Scale study for sediments in accordance with the Bench-Scale Study Work Plan.

- Conducted monthly bench-scale overburden water sampling for PCB analysis (see Table 20-1).

b. Sampling/Test Results Received

See attached tables.

c. Work Plans/Reports/Documents Submitted

None

d. Upcoming Scheduled Activities (next six weeks)

- Continue water level monitoring at well pairs surrounding the lake.

- Continue Bench-Scale study for sediments in accordance with the Bench-Scale Study Work Plan.

- Initiate supplemental soil sampling at certain properties adjacent to lake in accordance with GE's Second Interim Pre-Design Investigation Report for Soils Adjacent to Silver Lake, as conditionally approved by EPA.

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

Received conditional approval from EPA for GE's Second Interim Pre-Design Investigation Report for Soils Adjacent to Silver Lake (August 30, 2005)

TABLE 20-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

SILVER LAKE AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
Silver Lake Bench Scale Study	SL-BS-D10-1	8/17/05	Water	NEA	PCB	8/24/05
Silver Lake Bench Scale Study	SL-BS-D11-1	8/17/05	Water	NEA	PCB	8/24/05
Silver Lake Bench Scale Study	SL-BS-D12-1	8/17/05	Water	NEA	PCB	8/24/05
Silver Lake Bench Scale Study	SL-BS-D14-1	8/17/05	Water	NEA	PCB	8/24/05
Silver Lake Bench Scale Study	SL-BS-D16-1	8/17/05	Water	NEA	PCB	8/24/05

TABLE 20-2
PCB DATA RECEIVED DURING AUGUST 2005

SILVER LAKE BENCH SCALE STUDY
SILVER LAKE AREA
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm)

Sample ID	Date Collected	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260	Total PCBs
SL-BS-D10-1	8/17/2005	ND(0.000031)	ND(0.000031)	ND(0.000031)	ND(0.000031)	ND(0.000031)	ND(0.000031)	ND(0.000031)	ND(0.000031)
SL-BS-D11-1	8/17/2005	ND(0.000031)	ND(0.000031)	ND(0.000031)	ND(0.000031)	ND(0.000031)	ND(0.000031)	ND(0.000031)	ND(0.000031)
SL-BS-D12-1	8/17/2005	ND(0.000026)	ND(0.000026)	ND(0.000026)	ND(0.000026)	ND(0.000026)	ND(0.000026)	ND(0.000026)	ND(0.000026)
SL-BS-D14-1	8/17/2005	ND(0.000031)	ND(0.000031)	ND(0.000031)	ND(0.000031)	ND(0.000031)	ND(0.000031)	ND(0.000031)	ND(0.000031)
SL-BS-D16-1	8/17/2005	ND(0.000027)	ND(0.000027)	ND(0.000027)	ND(0.000027)	ND(0.000027)	ND(0.000027)	ND(0.000027)	ND(0.000027)

Notes:
1. Samples were collected by Blasland, Bouck & Lee, Inc., and submitted to Northeast Analytical, Inc. for analysis of PCBs.
2. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

ITEM 21
GROUNDWATER MANAGEMENT AREAS
PLANT SITE 1 (GMA 1)
(GECD310)
AUGUST 2005

*** All activities described below for this item were conducted pursuant to the Consent Decree.**

a. Activities Undertaken/Completed

General

- Conducted routine groundwater elevation and NAPL monitoring.

- Finalized the Spring 2005 NAPL Monitoring Report.

East Street Area 1-North and South:

- Continued automated groundwater and NAPL pumping at North Side and South Side Caissons. Approximately 1 gallon of LNAPL was recovered from the North Side Caisson, and approximately 1 gallon of LNAPL was recovered from the South Side Caisson in August.

- Collected approximately 0.056 liter (0.015 gallon) of LNAPL from wells in this area in August.

- Performed inspection of stormwater and sanitary sewer lines along East Street, Newell Street, Fasce Street, and Lombard Street. No signs of NAPL observed.

East Street Area 2-South:

- Continued automated groundwater and LNAPL removal activities. A total of approximately 3,732,008 gallons of groundwater was recovered from pumping systems 64R, 64S, 64V, 64X, RW-1(S), RW-1(X), and RW-2(X). In addition, approximately 1,101 gallons of LNAPL were removed from pumping systems 64R, 64V, RW-1(S), RW-1(X), 64X, and 64S Caisson.

- Continued automated DNAPL removal activities. Removed approximately 51 gallons of DNAPL from pumping system RW-3(X).

- Continued routine well monitoring and manual NAPL removal activities. Approximately 9.15 liters (2.41 gallons) of LNAPL were removed from wells in this area during August.

- Treated/discharged 3,135,051 gallons of water through 64G Groundwater Treatment Facility.

ITEM 21
(cont'd)
GROUNDWATER MANAGEMENT AREAS
PLANT SITE 1 (GMA 1)
(GECD310)
AUGUST 2005

a. Activities Undertaken/Completed (cont'd)

East Street Area 2-North:

- Continued routine well monitoring and NAPL removal activities. Recoverable quantities of NAPL were not encountered in this area during August.

20s, 30s, and 40s Complexes:

- Continued routine well monitoring and manual NAPL removal activities. Recoverable quantities of NAPL were not encountered in this area during August.

Lyman Street Area:

- Continued automated groundwater and NAPL removal activities. No LNAPL was removed from System RW-3 during August.

- Continued routine well monitoring and manual NAPL removal activities. Approximately 1.32 liters (0.35 gallon) of DNAPL were removed from wells in this area.

Newell Street Area II:

- The automated DNAPL recovery systems for Newell Street Area II were shut down on July 25, 2005 pursuant to EPA approval of GE's June 7, 2005 and June 23, 2005 proposals. Each system has been disconnected from the associated recovery wells and the System 1 control shed has been removed. Pipelines scheduled for replacement have been drained and removed. Two replacement recovery wells (N2SC-1I(R) and N2SC-3I(R)) have been installed and developed. The upgraded recovery system will be completed and activated approximately 2 to 3 months after completion of the EPA-approved soil remediation activities in this area.

- Continued routine well monitoring and manual NAPL removal activities. Approximately 0.099 liter (0.026 gallon) of DNAPL was removed from wells in this area during August.

Silver Lake Area:

- Continued routine monitoring of monitoring well pairs around lake and staff gauge in lake.

ITEM 21
(cont'd)
GROUNDWATER MANAGEMENT AREAS
PLANT SITE 1 (GMA 1)
(GECD310)
AUGUST 2005

b. Sampling/Test Results Received

See attached tables.

c. Work Plans/Reports/Documents Submitted

Submitted the Spring 2005 NAPL Monitoring Report (August 30, 2005).

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

- Continue routine monitoring activities.

- Continue upgrades to the automated DNAPL recovery system at Newell Street Area II, including incorporation of replacement wells N2SC-1I(R) and N2SC-3I(R).

- Conduct NAPL bailing round prior to fall 2005 semiannual NAPL monitoring event.

- Conduct fall 2005 groundwater elevation/NAPL monitoring event.

- Initiate fall 2005 interim groundwater quality monitoring activities, including pre-sampling inspection and repair of wells, where necessary.

- Following EPA approval of proposed activities contained in GE's Spring 2005 NAPL Monitoring Report, GE will:

    - Install LNAPL monitoring wells GMA1-22, GMA1-23, and GMA1-24 in East Street Area 2-South.
    - Remove oil skimmer from well 40R and place it in well GMA1-17W.
    - Decommission 31 wells at the Lyman Street Area.

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

Several program modifications were proposed in the Spring 2005 NAPL Monitoring Report (see Item 21.d above).

TABLE 21-1
AUTOMATED LNAPL & GROUNDWATER RECOVERY SYSTEMS MONTHLY SUMMARY
EAST STREET AREA 1 - NORTH & SOUTH
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Caisson	Month	Vol. LNAPL Collected (gallon)	Vol. Water Recovered (gallon)	Percent Downtime
Northside	August 2004	2.0	16,300	
	September 2004	4.0	24,300	
	October 2004	0.0	25,000	0.30
	November 2004	0.0	18,300	0.31 - Power Outage
	December 2004	35.0	32,200	
	January 2005	2.0	32,600	
	February 2005	3.0	24,700	
	March 2005	1.0	34,700	
	April 2005	0.0	37,100	1.72 - Power Outage
	May 2005	20.0	16,300	
	June 2005	22.0	21,000	8.57 - Maintenance
	July 2005	0.0	16,600	
	August 2005	1.0	16,000	
Southside	August 2004	0.0	67,300	
	September 2004	0.0	102,700	
	October 2004	2.0	82,700	0.30
	November 2004	2.0	69,600	0.31 - Power Outage
	December 2005	4.0	98,300	
	January 2005	1.0	77,400	
	February 2005	1.0	76,500	
	March 2005	1.0	98,200	
	April 2005	0.0	99,900	1.72 - Power Outage
	May 2005	0.0	86,600	
	June 2005	2.0	100,300	
	July 2005	0.0	45,800	
	August 2005	1.0	37,100	

TABLE 21-2
MEASUREMENT AND REMOVAL OF RECOVERABLE LNAPL
EAST STREET AREA 1 - NORTH & SOUTH
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Well Name	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	LNAPL Removed (liters)	August 2005 Removal (liters)
34	8/31/2005	6.79	6.78	0.01	0.006	0.006
72	8/31/2005	7.78	7.70	0.08	0.049	0.049

Total Manual LNAPL Removal for August 2005: 0.056 liters
0.015 gallons

Note:

1. ft BMP - feet Below Measuring Point.

TABLE 21-3
ROUTINE WELL MONITORING
EAST STREET AREA 1 - NORTH & SOUTH
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
GMA 1 - East Street Area 1 - North									
North Caisson	997.84	8/2/2005	18.32	18.29	0.03	---	19.80	0.00	979.55
North Caisson	997.84	8/10/2005	17.36	17.35	0.01	---	19.80	0.00	980.49
North Caisson	997.84	8/16/2005	16.95	16.93	0.02	---	19.80	0.00	980.91
North Caisson	997.84	8/24/2005	17.58	17.57	0.01	---	19.80	0.00	980.27
North Caisson	997.84	8/31/2005	18.50	18.45	0.05	---	19.80	0.00	979.39
GMA 1 - East Street Area 1 - South									
31R	1,000.23	8/31/2005	10.5	---	0.00	---	15.05	0.00	989.73
33	999.50	8/31/2005	8.21	---	0.00	---	21.35	0.00	NA
34	999.90	8/31/2005	6.79	6.78	0.01	---	21.05	0.00	993.12
37R	988.79	8/31/2005	10.54	---	0.00	---	17.48	0.00	978.25
72	1000.62	8/31/2005	7.78	7.70	0.08	---	21.98	0.00	992.91
72R	1000.92	8/31/2005	7.50	---	0.00	---	13.30	0.00	993.42
80	989.98	8/31/2005	7.80	---	0.00	---	24.80	0.00	982.18
89	993.89	8/31/2005	6.24	---	0.00	---	9.09	0.00	987.65
90	987.65	8/31/2005	5.80	---	0.00	---	12.35	0.00	981.85
139R	986.91	8/31/2005	12.98	---	0.00	---	14.18	0.00	973.93
ES1-13	999.93	8/31/2005	7.50	---	0.00	---	7.50	---	992.43
ES1-23R	989.94	8/31/2005	14.00	---	0.00	---	14.00	---	975.94
ES1-24	990.61	8/31/2005	12.48	---	0.00	---	12.48	---	978.13
GMA1-7	985.81	8/31/2005	12.10	---	0.00	---	14.86	0.00	973.71
GMA1-18	998.29	8/31/2005	9.99	---	0.00	---	13.58	0.00	988.30
South Caisson	1001.11	8/2/2005	10.20	10.18	0.02	---	15.00	0.00	990.93
South Caisson	1001.11	8/10/2005	11.28	11.26	0.02	---	15.00	0.00	989.85
South Caisson	1001.11	8/16/2005	13.40	13.38	0.02	---	15.00	0.00	987.73
South Caisson	1001.11	8/24/2005	13.90	13.84	0.06	---	15.00	0.00	987.27
South Caisson	1001.11	8/31/2005	14.42	14.38	0.04	---	15.00	0.00	986.73

Notes:

1. ft BMP - feet Below Measuring Point.
2. --- indicates LNAPL or DNAPL was not present in a measurable quantity.
3. NA indicates information not available.

TABLE 21-4
AUTOMATED LNAPL/DNAPL & GROUNDWATER RECOVERY SYSTEMS
EAST STREET AREA 2 - SOUTH
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS
August 2005

Recovery System Location	Month	Oil Collected (gallon)	Water Recovered (gallon)	Percent Downtime
40R	August 2004	0		
	September 2004	0		
	October 2004	0		0.30 - Power Outage
	November 2004	0		0.31 - Power Outage
	December 2004	0		
	January 2005	0		
	February 2005	0		
	March 2005	0		
	April 2005	0		1.72 - Power Outage
	May 2005	0		0.96 - Maintenance
	June 2005	0		0.36 - Power Outage
	July 2005	0		
	August 2005	0		
64R	August 2004	250	330,800	
	September 2004	350	675,600	
	October 2004	175	472,200	0.30 - Power Outage
	November 2004	150	566,100	0.31 - Power Outage
	December 2004	350	630,500	
	January 2005	575	357,900	
	February 2005	400	228,400	
	March 2005	175	292,400	
	April 2005	575	1,071,000	1.72 - Power Outage
	May 2005	550	931,300	0.96 - Maintenance
	June 2005	325	643,200	0.36 - Power Outage
	July 2005	225	260,800	
	August 2005	250	73,300	
64S System	August 2004	230	240,781	
	September 2004	479	681,275	
	October 2004	324	1,034,272	0.30 - Power Outage
	November 2004	625	902,053	0.31 - Power Outage
	December 2004	91	1,147,526	
	January 2005	75	844,225	
	February 2005	97	821,010	
	March 2005	282	905,525	
	April 2005	499	1,039,179	1.72 - Power Outage
	May 2005	300	660,761	0.96 - Maintenance
	June 2005	275	527,949	0.36 - Power Outage
	July 2005	10	330,937	
	August 2005	218	271,691	13.73 - Maintenance
64V [1]	August 2004	772	875,900	
	September 2004	1,170	1,385,900	
	October 2004	920	1,221,100	0.30 - Power Outage
	November 2004	551	1,108,200	0.31 - Power Outage
	December 2004	832	1,460,100	
	January 2005	747	1,103,300	
	February 2005	622	1,095,400	
	March 2005	675	1,342,900	
	April 2005	785	1,221,000	1.72 - Power Outage
	May 2005	254	996,400	0.96 - Maintenance
	June 2005	515	1,177,700	0.36 - Power Outage
	July 2005	465	922,700	
	August 2005	581	993,100	

TABLE 21-4
AUTOMATED LNAPL/DNAPL & GROUNDWATER RECOVERY SYSTEMS
EAST STREET AREA 2 - SOUTH
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS
August 2005

Recovery System Location	Month	Oil Collected (gallon)	Water Recovered (gallon)	Percent Downtime
64X	August 2004	31	388,800	
	September 2004	51	518,400	
	October 2004	5	403,200	0.30 - Power Outage
	November 2004	10	388,800	0.31 - Power Outage
	December 2004	10	518,400	
	January 2005	5	388,800	
	February 2005	5	403,200	
	March 2005	5	532,800	
	April 2005	0	417,600	1.72 - Power Outage
	May 2005	0	374,400	0.96 - Maintenance
	June 2005	5	504,000	3.21 - Maint. & Power Outage
	July 2005	15	417,600	3.45 - Maintenance
	August 2005	20	489,600	
RW-2(X)	August 2004	0	1,020,000	
	September 2004	0	1,138,800	0.93
	October 2004	0	911,800	0.30 - Power Outage
	November 2004	0	836,300	0.31 - Power Outage
	December 2004	0	1,111,700	
	January 2005	0	822,500	
	February 2005	0	825,200	
	March 2005	0	1,019,600	
	April 2005	0	859,500	1.72 - Power Outage
	May 2005	0	730,600	0.96 - Maintenance
	June 2005	0	972,100	3.21 - Maint. & Power Outage
	July 2005	0	747,100	
	August 2005	0	982,100	
RW-1(S) [2]	August 2004	158	709,815	
	September 2004	159	914,647	9.72
	October 2004	1	1,092,740	0.30 - Power Outage
	November 2004	0	977,271	0.31 - Power Outage
	December 2004	11	1,362,634	0.35 - Maintenance
	January 2005	50	998,655	
	February 2005	41	934,203	
	March 2005	43	1,117,949	
	April 2005	1	864,198	22.41 - Maint. & Power Outage
	May 2005	0	912,416	0.96 - Maintenance
	June 2005	0	1,107,860	0.36 - Power Outage
	July 2005	17	813,490	
	August 2005	32	780,217	1.96 - Maintenance
RW-1(X)	August 2004	0	473,200	
	September 2004	10	500,500	
	October 2004	0	501,400	0.30 - Power Outage
	November 2004	0	402,900	0.31 - Power Outage
	December 2004	0	443,700	4.17 - Maintenance
	January 2005	0	389,000	
	February 2005	0	330,400	
	March 2005	0	399,300	
	April 2005	0	354,700	1.72 - Power Outage
	May 2005	0	233,700	0.96 - Maintenance
	June 2005	0	328,300	3.21 - Maint. & Power Outage
	July 2005	0	109,800	
	August 2005	0	142,000	

TABLE 21-4
AUTOMATED LNAPL/DNAPL & GROUNDWATER RECOVERY SYSTEMS
EAST STREET AREA 2 - SOUTH
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS
August 2005

Recovery System Location	Month	Oil Collected (gallon)	Water Recovered (gallon)	Percent Downtime
RW-3(X)	August 2004	47		
	September 2004	67		
	October 2004	52		0.30 - Power Outage
	November 2004	46		0.31 - Power Outage
	December 2004	66		
	January 2005	53		
	February 2005	37		
	March 2005	64		
	April 2005	53		1.72 - Power Outage
	May 2005	51		0.96 - Maintenance
	June 2005	62		0.36 - Power Outage
	July 2005	44		
	August 2005	51		11.76 - Maintenance

Summary of Total Automated Removal		
Water:	**3,732,008**	**Gallons**
LNAPL:	**1,101**	**Gallons**
DNAPL:	**51**	**Gallons**

Notes:

1. The flow meter at recovery well 64V was reset in December 2004.
2. The flow meter at recovery well RW-1(S) was reset in February 2005.

TABLE 21-5
WELL MONITORING AND RECOVERY OF LNAPL
EAST STREET AREA 2 - NORTH & SOUTH / 20s, 30s, & 40s COMPLEXES
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Well Name	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	LNAPL Removed (liters)	August 2005 Removal (liters)
13	8/23/2005	18.30	18.22	0.08	0.049	0.049
14	8/23/2005	18.80	18.25	0.55	0.339	0.339
25R	8/23/2005	23.30	22.08	1.22	0.753	0.753
26RR	8/23/2005	24.6	23.55	1.05	0.648	0.648
48	8/23/2005	18.22	16.34	1.88	1.160	1.160
55	8/23/2005	18.10	16.90	1.20	0.740	0.740
95-04	8/23/2005	17.30	15.20	2.10	0.326	0.326
95-07	8/23/2005	23.35	20.45	2.90	0.450	0.450
GMA1-15	8/23/2005	15.91	15.55	0.36	0.222	0.222
GMA1-17E	8/23/2005	16.95	16.64	0.31	0.191	0.191
GMA1-17W	8/23/2005	20.65	16.55	4.10	2.530	2.530
GMA1-19	8/4/2005	11.95	11.15	0.80	0.494	1.740
	8/11/2005	12.30	11.58	0.72	0.444	
	8/18/2005	12.60	11.68	0.92	0.568	
	8/23/2005	11.43	11.25	0.18	0.111	
	9/1/2005	11.35	11.15	0.20	0.123	

Total LNAPL Removal East Street Area 2 - South for August 2005: 9.148 liters
2.414 gallons

Total LNAPL Removal East Street Area 2 - North for August 2005: 0.000 liters
0.000 gallons

Total LNAPL Removal 20's, 30's & 40's Complexes for August 2005: 0.000 liters
0.000 gallons

Total LNAPL Removal for August 2005: 9.148 liters
2.414 gallons

Note:
1. ft BMP - feet Below Measuring Point.

TABLE 21-6
64G TREATMENT PLANT DISCHARGE DATA
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Date	Housatonic River Discharge (gallons)	Recharge Pond Discharge (gallons)	Total Discharge (gallons)
August 2004	4,844,107	310,199	5,154,306
September 2004	5,075,190	248,505	5,323,695
October 2004	6,097,384	260,847	6,358,231
November 2004	5,521,300	180,462	5,701,762
December 2004	5,656,177	152,428	5,808,605
January 2005	5,650,380	112,791	5,763,171
February 2005	4,576,005	195,380	4,771,385
March 2005	5,005,313	235,153	5,240,466
April 2005	5,759,380	172,867	5,932,247
May 2005	4,962,650	288,751	5,251,401
June 2005	4,057,780	318,355	4,376,135
July 2005	3,212,250	389,015	3,601,265
August 2005	2,778,090	356,961	3,135,051

After treatment, the majority of the water processed at GE's Building 64G groundwater treatment facility is discharged to the Housatonic River through NPDES-permitted Outfall 005. However, as part of GE's overall efforts to contain NAPL within the site and to optimize NAPL recovery operations, a portion of the treated water discharged from the 64G facility is routed to GE's on-site recharge pond located in East Street Area 2-South.

TABLE 21-7
ROUTINE WELL MONITORING
EAST STREET AREA 2 - NORTH & SOUTH / 20s, 30s, & 40s COMPLEXES
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
30's Complex									
95-15	986.38	8/25/2005	8.92	---	0.00	---	16.70	0.00	977.46
GMA1-10	984.86	8/25/2005	8.41	---	0.00	---	19.80	0.00	976.45
GMA1-12	992.26	8/25/2005	16.50	---	0.00	---	22.13	0.00	975.76
RF-02	982.43	8/25/2005	6.61	---	0.00	---	18.29	0.00	975.82
RF-03	985.40	8/25/2005	8.96	---	0.00	---	18.44	0.00	976.44
RF-03D	985.31	8/25/2005	8.36	---	0.00	---	36.00	0.00	976.95
RF-16	987.91	8/25/2005	10.20	---	0.00	---	20.70	0.00	977.71
40s Complex									
95-17	1,007.67	8/25/2005	24.55	---	0.00	---	28.35	0.00	983.12
RF-4	1,011.99	8/25/2005	16.02	---	0.00	---	23.99	0.00	995.97
East Street Area 2 - South									
13	990.88	8/23/2005	18.30	18.22	0.08	---	22.45	0.00	972.65
14	991.61	8/23/2005	18.80	18.25	0.55	---	25.70	0.00	973.32
19	983.59	8/4/2005	10.98	---	0.00	---	19.90	0.00	972.61
19	983.59	8/11/2005	11.55	---	0.00	---	19.95	0.00	972.04
19	983.59	8/18/2005	11.64	---	0.00	---	19.95	0.00	971.95
19	983.59	8/23/2005	10.80	---	0.00	---	19.92	0.00	972.79
19	983.59	9/1/2005	10.86	---	0.00	---	19.89	0.00	972.73
25R	998.31	8/23/2005	23.30	22.08	1.22	---	30.80	0.00	976.14
26RR	1,000.58	8/23/2005	24.60	23.55	1.05	---	28.54	0.00	976.96
40R	991.60	8/2/2005	18.40	---	0.00	---	NM	0.00	973.20
40R	991.60	8/10/2005	18.75	---	0.00	---	NM	0.00	972.85
40R	991.60	8/16/2005	17.45	17.40	0.05	---	NM	0.00	974.20
40R	991.60	8/24/2005	17.50	P	< 0.01	---	NM	0.00	974.10
40R	991.60	8/31/2005	17.80	17.70	0.10	---	NM	0.00	973.89
48	992.39	8/23/2005	18.22	16.34	1.88	---	22.68	0.00	975.92
49R	988.71	8/23/2005	16.15	---	0.00	---	24.90	0.00	972.56
49RR	989.80	8/23/2005	17.31	---	0.00	---	23.08	0.00	972.49
55	989.45	8/23/2005	18.10	16.90	1.20	---	30.05	0.00	972.47
64R	993.37	8/2/2005	16.92	P	< 0.01	---	19.00	0.00	976.45
64R	993.37	8/10/2005	17.15	17.14	0.01	---	19.00	0.00	976.23
64R	993.37	8/16/2005	17.10	17.09	0.01	---	19.00	0.00	976.28
64R	993.37	8/24/2005	17.25	17.24	0.01	---	19.00	0.00	976.13
64R	993.37	8/31/2005	17.20	17.19	0.01	---	19.00	0.00	976.18
64S	984.48	8/2/2005	20.25	P	< 0.01	---	28.70	0.00	964.23
64S	984.48	8/10/2005	20.55	---	0.00	---	28.70	0.00	963.93
64S	984.48	8/16/2005	20.58	---	0.00	---	28.70	0.00	963.90
64S	984.48	8/24/2005	19.90	P	< 0.01	---	28.70	0.00	964.58
64S	984.48	8/31/2005	19.72	P	< 0.01	---	28.70	0.00	964.76
64S Caisson	NA	8/2/2005	9.80	P	< 0.01	---	14.55	0.00	NA
64S Caisson	NA	8/10/2005	10.20	P	< 0.01	---	14.55	0.00	NA
64S Caisson	NA	8/16/2005	10.71	10.70	0.01	---	14.55	0.00	NA
64S Caisson	NA	8/24/2005	10.38	10.36	0.02	---	14.55	0.00	NA
64S Caisson	NA	8/31/2005	10.40	10.29	0.11	---	14.55	0.00	NA
64V	987.29	8/2/2005	22.10	21.60	0.50	P	29.60	< 0.01	965.66
64V	987.29	8/10/2005	21.90	21.50	0.40	---	29.60	0.00	965.76
64V	987.29	8/16/2005	21.90	21.60	0.30	P	29.60	< 0.01	965.67
64V	987.29	8/24/2005	22.00	21.40	0.60	P	29.60	< 0.01	965.85
64V	987.29	8/31/2005	21.90	21.30	0.60	---	29.60	0.00	965.95
64X(N)	984.83	8/2/2005	12.56	12.55	0.01	---	15.85	0.00	972.28
64X(N)	984.83	8/10/2005	13.12	13.10	0.02	---	15.85	0.00	971.73
64X(N)	984.83	8/16/2005	12.80	12.78	0.02	---	15.85	0.00	972.05
64X(N)	984.83	8/24/2005	11.60	11.59	0.01	---	15.85	0.00	973.24

TABLE 21-7
ROUTINE WELL MONITORING
EAST STREET AREA 2 - NORTH & SOUTH / 20s, 30s, & 40s COMPLEXES
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
64X(N)	984.83	8/31/2005	12.91	12.90	0.01	---	15.85	0.00	971.93
64X(S)	981.56	8/2/2005	15.27	15.25	0.02	---	23.82	0.00	966.31
64X(S)	981.56	8/10/2005	15.95	15.90	0.05	---	23.82	0.00	965.66
64X(S)	981.56	8/16/2005	15.80	15.74	0.06	---	23.82	0.00	965.82
64X(S)	981.56	8/24/2005	14.15	P	< 0.01	---	23.82	0.00	967.41
64X(S)	981.56	8/31/2005	15.59	15.57	0.02	---	23.82	0.00	965.99
64X(W)	984.87	8/2/2005	18.46	18.43	0.03	---	24.35	0.00	966.44
64X(W)	984.87	8/10/2005	19.12	19.10	0.02	---	24.35	0.00	965.77
64X(W)	984.87	8/16/2005	18.96	18.92	0.04	---	24.35	0.00	965.95
64X(W)	984.87	8/24/2005	17.45	17.38	0.07	---	24.35	0.00	967.49
64X(W)	984.87	8/31/2005	18.88	18.79	0.09	---	24.35	0.00	966.07
95-01	983.77	8/23/2005	10.90	---	0.00	---	17.20	0.00	972.87
95-04	988.70	8/23/2005	17.30	15.20	2.10	---	21.75	0.00	973.35
95-07	994.91	8/23/2005	23.35	20.45	2.90	---	29.50	0.00	974.26
3-6C-EB-22	986.94	8/23/2005	13.51	---	0.00	---	20.01	0.00	973.43
E2SC-23	992.07	8/23/2005	18.25	---	0.00	---	21.15	0.00	973.82
E2SC-24	987.90	8/23/2005	15.08	---	0.00	---	21.60	0.00	972.82
ES2-06	986.00	8/23/2005	12.78	---	0.00	---	34.30	0.00	973.22
GMA1-13	991.41	8/23/2005	18.85	---	0.00	---	27.15	0.00	972.56
GMA1-14	997.43	8/23/2005	20.70	---	0.00	---	23.48	0.00	976.73
GMA1-15	988.59	8/23/2005	15.91	15.55	0.36	---	17.83	0.00	973.01
GMA1-16	986.82	8/23/2005	13.90	13.72	0.18	---	20.02	0.00	973.09
GMA1-17E	993.03	8/23/2005	16.95	16.64	0.31	---	17.30	0.00	976.37
GMA1-17W	992.63	8/23/2005	20.65	16.55	4.10	---	23.25	0.00	975.79
GMA1-19	984.28	8/4/2005	11.95	11.15	0.80	---	17.13	0.00	973.07
GMA1-19	984.28	8/11/2005	12.30	11.58	0.72	---	17.13	0.00	972.65
GMA1-19	984.28	8/18/2005	12.60	11.68	0.92	---	17.13	0.00	972.54
GMA1-19	984.28	8/23/2005	11.43	11.25	0.18	---	17.14	0.00	973.02
GMA1-19	984.28	9/1/2005	11.35	11.15	0.20	---	17.13	0.00	973.12
GMA1-20	983.49	8/4/2005	10.63	---	0.00	---	17.30	0.00	972.86
GMA1-20	983.49	8/11/2005	11.15	---	0.00	---	17.30	0.00	972.34
GMA1-20	983.49	8/18/2005	11.22	---	0.00	---	17.30	0.00	972.27
GMA1-20	983.49	8/23/2005	10.30	---	0.00	---	17.30	0.00	973.19
GMA1-20	983.49	9/1/2005	Area flooded could not gauge			---	17.30	0.00	NA
GMA1-21	985.68	8/4/2005	12.80	---	0.00	---	19.54	0.00	972.88
GMA1-21	985.68	8/11/2005	13.30	---	0.00	---	19.52	0.00	972.38
GMA1-21	985.68	8/18/2005	13.38	---	0.00	---	19.53	0.00	972.30
GMA1-21	985.68	8/23/2005	12.76	---	0.00	---	19.53	0.00	972.92
GMA1-21	985.68	9/1/2005	12.71	---	0.00	---	19.53	0.00	972.97
HR-G2-MW-1	982.60	8/23/2005	9.25	---	0.00	---	18.25	0.00	973.35
HR-G2-MW-2	981.39	8/23/2005	9.05	---	0.00	---	17.67	0.00	972.34
HR-G2-MW-3	987.14	8/23/2005	14.01	---	0.00	---	22.00	0.00	973.13
HR-G2-RW-1	976.88	8/23/2005	4.37	---	0.00	---	18.70	0.00	973.62
RW-1(S)	987.23	8/2/2005	19.45	19.30	0.15	---	28.60	0.00	967.92
RW-1(S)	987.23	8/10/2005	19.90	19.20	0.70	---	28.60	0.00	967.98
RW-1(S)	987.23	8/16/2005	19.40	19.00	0.40	---	28.60	0.00	968.20
RW-1(S)	987.23	8/24/2005	18.70	18.68	0.02	---	28.60	0.00	968.55
RW-1(S)	987.23	8/31/2005	19.30	19.15	0.15	---	28.60	0.00	968.07
RW-1(X)	982.68	8/2/2005	12.00	---	0.00	---	20.80	0.00	970.68
RW-1(X)	982.68	8/10/2005	14.15	---	0.00	---	20.80	0.00	968.53
RW-1(X)	982.68	8/16/2005	14.20	---	0.00	---	20.80	0.00	968.48
RW-1(X)	982.68	8/24/2005	14.20	---	0.00	---	20.80	0.00	968.48
RW-1(X)	982.68	8/31/2005	14.02	---	0.00	---	20.80	0.00	968.66
RW-2(X)	985.96	8/2/2005	14.85	---	0.00	---	15.30	0.00	971.11

TABLE 21-7
ROUTINE WELL MONITORING
EAST STREET AREA 2 - NORTH & SOUTH / 20s, 30s, & 40s COMPLEXES
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
RW-2(X)	985.96	8/10/2005	16.65	---	0.00	---	15.30	0.00	969.31
RW-2(X)	985.96	8/16/2005	15.55	---	0.00	---	15.30	0.00	970.41
RW-2(X)	985.96	8/24/2005	13.72	---	0.00	---	15.30	0.00	972.24
RW-2(X)	985.96	8/31/2005	15.75	---	0.00	---	15.30	0.00	970.21
RW-3(X)	980.28	8/2/2005	9.10	---	0.00	41.78	44.40	2.62	971.18
RW-3(X)	980.28	8/10/2005	9.55	---	0.00	42.10	44.40	2.30	970.73
RW-3(X)	980.28	8/16/2005	9.69	---	0.00	41.90	44.40	2.50	970.59
RW-3(X)	980.28	8/24/2005	8.20	---	0.00	41.80	44.40	2.60	972.08
RW-3(X)	980.28	8/31/2005	8.25	---	0.00	41.75	44.40	2.65	972.03
Housatonic River									
SG-HR-1	990.73	8/4/2005	18.78	See Note 7 regarding depth to water					971.95
SG-HR-1	990.73	8/11/2005	19.92	See Note 7 regarding depth to water					970.81
SG-HR-1	990.73	8/18/2005	19.99	See Note 7 regarding depth to water					970.74
SG-HR-1	990.73	8/25/2005	16.10	See Note 7 regarding depth to water					974.63
SG-HR-1	990.73	8/31/2005	18.50	See Note 7 regarding depth to water					972.23

Notes:

1. ft BMP - feet Below Measuring Point.
2. --- indicates LNAPL or DNAPL was not present in a measurable quantity.
3. NA indicates information not available.
4. NM indicates information not measured.
5. P indicates that LNAPL is present at a thickness that is < 0.01 feet, the corresponding thickness is recorded as such.
6. Well HR-G2-RW-1 is constructed at an angle of 41.67 degrees from vertical. Depth to water data reflect measurements collected along the angled well casing. Groundwater elevations are corrected to account for the angle of the well casing.
7. A survey reference point (SG-HR-1) was established on the Newell Street Bridge. The "Depth to Water" value(s) provided in the above table refer to the vertical distance from the surveyed reference point to the water surface.
8. A weighted bailer has been installed at this location to remove accumulations of DNAPL. The DNAPL thickness reported is that measured within the bailer upon the initial retrieval.

TABLE 21-8
ACTIVE RECOVERY SYSTEMS MONTHLY SUMMARY
LYMAN STREET AREA
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Month / Year	Volume Water Pumped (gallon)	RW-1 DNAPL Recovered (gallon)	RW-1R LNAPL Recovered (gallon)	RW-3 LNAPL Recovered (gallon)
July 2003	244,776	--	--	10
August 2003	290,984	--	--	10
September 2003	309,162	--	--	20
October 2003	485,653	--	--	20
November 2003	363,979	--	--	10
December 2003	490,517	--	--	--
January 2004	299,584	--	--	--
February 2004	305,485	--	--	--
March 2004	409,514	--	--	--
April 2004	344,707	--	--	1
May 2004	307,361	--	--	--
June 2004	410,230	--	--	--
July 2004	328,363	--	--	--
August 2004	310,473	--	--	--
September 2004	499,209	--	1	20
October 2004	426,078	--	--	--
November 2004	421,409	--	--	12
December 2004	539,528	--	--	10
January 2005	443,634	--	--	10
February 2005	409,113	--	--	5
March 2005	455,192	--	--	5
April 2005	425,145	--	--	5
May 2005	357,497	--	--	--
June 2005	422,006	--	--	10
July 2005	310,647	--	5	10
August 2005	302,572	--	--	--

Notes:
1. Volume of water pumped is total from Wells RW-1R, RW-2, and RW-3.
2. -- indicates LNAPL or DNAPL was not recovered by the system.
3. There was no downtime during August 2005.

TABLE 21-9
MEASUREMENT AND REMOVAL OF RECOVERABLE DNAPL
LYMAN STREET AREA
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Well Name	Date	Depth to Water (ft BMP)	Depth to DNAPL (ft BMP)	DNAPL Thickness (feet)	DNAPL Removed (liters)	August 2005 Removal (liters)
LS-30	8/29/2005	13.80	21.65	0.57	0.352	0.352
LS-38	8/29/2005	15.08	25.02	0.03	0.019	0.019
LSSC-07	8/4/2005	10.18	24.70	0.38	0.234	0.925
	8/11/2005	10.74	24.8	0.28	0.173	
	8/18/2005	10.81	24.7	0.38	0.234	
	8/25/2005	8.25	24.8	0.28	0.173	
	8/29/2005	10.24	24.9	0.18	0.111	
LSSC-08I	8/11/2005	12.18	23.34	0.02	0.012	0.025
	8/25/2005	8.70	23.36	0.02	0.012	

Total Manual DNAPL Removal for August 2005: 1.320 liters
0.348 gallons

Note:
1. ft BMP - feet Below Measuring Point.

TABLE 21-10
ROUTINE WELL MONITORING
LYMAN STREET AREA
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
E-07	982.87	8/29/2005	8.04	---	0.00	---	19.70	0.00	974.83
EPA-01	983.04	8/29/2005	10.96	---	0.00	---	22.65	0.00	972.08
LS-24	986.58	8/29/2005	Unable to gauge; pile of bricks on well			---	15.10	0.00	NA
LS-30	986.440	8/29/2005	13.80	---	0.000	21.65	22.22	0.57	972.64
LS-31	987.090	8/29/2005	13.72	---	0.000	22.92	23.32	0.40	973.37
LS-38	986.95	8/29/2005	15.08	---	0.00	25.02	25.05	0.03	971.87
LS-44	980.78	8/29/2005	8.71	---	0.00	---	24.80	0.00	972.07
LSSC-07	982.48	8/4/2005	10.18	---	0.00	24.70	25.08	0.38	972.30
LSSC-07	982.48	8/11/2005	10.74	---	0.00	24.8	25.08	0.28	971.74
LSSC-07	982.48	8/18/2005	10.81	---	0.00	24.7	25.08	0.38	971.67
LSSC-07	982.48	8/25/2005	8.25	---	0.00	24.8	25.08	0.28	974.23
LSSC-07	982.48	8/29/2005	10.24	---	0.00	24.9	25.08	0.18	972.24
LSSC-08I	983.13	8/4/2005	11.42	---	0.00	---	23.39	0.00	971.71
LSSC-08I	983.13	8/11/2005	12.18	---	0.00	23.34	23.36	0.02	970.95
LSSC-08I	983.13	8/18/2005	12.18	---	0.00	---	23.36	0.00	970.95
LSSC-08I	983.13	8/25/2005	8.70	---	0.00	23.36	23.38	0.02	974.43
LSSC-08I	983.13	8/29/2005	11.44	---	0.00	---	23.38	0.00	971.69
LSSC-08S	983.11	8/29/2005	11.22	---	0.00	---	14.68	0.00	971.89
LSSC-16I	980.88	8/29/2005	8.62	---	0.00	---	28.53	0.00	972.26
LSSC-18	987.32	8/29/2005	14.64	---	0.00	---	18.57	0.00	972.68
LSSC-32	980.68	8/29/2005	8.36	---	0.00	---	35.24	0.00	972.32
LSSC-33	980.49	8/29/2005	8.20	---	0.00	---	29.75	0.00	972.29
MW-6R	985.14	8/29/2005	11.94	---	0.00	---	13.93	0.00	973.20
RW-1	984.88	8/2/2005	12.41	---	0.00	P	21.00	< 0.01	972.47
RW-1	984.88	8/10/2005	12.78	---	0.00	P	21.00	< 0.01	972.10
RW-1	984.88	8/16/2005	12.60	---	0.00	---	21.00	0.00	972.28
RW-1	984.88	8/24/2005	12.15	---	0.00	P	21.00	< 0.01	972.73
RW-1	984.88	8/31/2005	12.40	---	0.00	P	21.00	< 0.01	972.48
RW-1 (R)	985.07	8/2/2005	15.65	---	0.00	P	20.42	< 0.01	969.42
RW-1 (R)	985.07	8/10/2005	15.55	---	0.00	P	20.42	< 0.01	969.52
RW-1 (R)	985.07	8/16/2005	15.92	---	0.00	---	20.42	0.00	969.15
RW-1 (R)	985.07	8/24/2005	15.80	---	0.00	20.32	20.42	0.10	969.27
RW-1 (R)	985.07	8/31/2005	15.90	---	0.00	P	20.42	< 0.01	969.17
RW-2	987.82	8/2/2005	14.45	---	0.00	---	21.75	0.00	973.37
RW-2	987.82	8/10/2005	15.00	---	0.00	---	21.75	0.00	972.82
RW-2	987.82	8/16/2005	15.00	---	0.00	---	21.75	0.00	972.82
RW-2	987.82	8/24/2005	13.60	---	0.00	---	21.75	0.00	974.22
RW-2	987.82	8/31/2005	14.41	---	0.00	---	21.75	0.00	973.41
RW-3	984.08	8/2/2005	16.60	16.55	0.05	---	21.57	0.00	967.53
RW-3	984.08	8/10/2005	16.50	16.45	0.05	---	21.57	0.00	967.63
RW-3	984.08	8/16/2005	16.20	16.19	0.01	---	21.57	0.00	967.89
RW-3	984.08	8/24/2005	16.30	16.28	0.02	---	21.57	0.00	967.80
RW-3	984.08	8/31/2005	16.60	16.49	0.11	---	21.57	0.00	967.58

TABLE 21-10
ROUTINE WELL MONITORING
LYMAN STREET AREA
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
Housatonic River (Lyman Street Bridge)									
BM-2A	986.32	8/4/2005	14.25	See Note 5 regarding depth to water					972.07
BM-2A	986.32	8/11/2005	15.90	See Note 5 regarding depth to water					970.42
BM-2A	986.32	8/18/2005	15.82	See Note 5 regarding depth to water					970.50
BM-2A	986.32	8/25/2005	11.51	See Note 5 regarding depth to water					974.81
BM-2A	986.32	8/31/2005	13.76	See Note 5 regarding depth to water					972.56

Notes:

1. ft BMP - feet Below Measuring Point.
2. --- indicates LNAPL or DNAPL was not present in a measurable quantity.
3. NA indicates information not available.
4. P indicates that LNAPL is present at a thickness that is < 0.01 feet, the corresponding thickness is recorded as such.
5. A survey reference point (BM-2A) was established on the Lyman Street Bridge. The "Depth to Water" value(s) provided in the above table refer to the vertical distance from the surveyed reference point to the water surface.

TABLE 21-11
ACTIVE DNAPL RECOVERY SYSTEMS MONTHLY SUMMARY
NEWELL STREET AREA II
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Recovery System	Date	Total Gallons Recovered
System 1 [1]	August 2004	14.6
	September 2004	16.5
	October 2004	11.0
	November 2004	15.4
	December 2004	15.4
	January 2005 [3]	8.8
	February 2005	13.2
	March 2005	17.3
	April 2005	24.2
	May 2005	9.9
	June 2005	18.7
	July 2005	14.3
	August 2005	--[4]
System 2 [2]	August 2004	226.0
	September 2004	129.6
	October 2004	78.2
	November 2004	81.0
	December 2004	64.8
	January 2005 [3]	157.2
	February 2005	126.9
	March 2005	16.2
	April 2005	16.2
	May 2005	145.8
	June 2005	32.4
	July 2005	48.6
	August 2005	--[4]
Total Automated DNAPL Removal for August 2005:		**0.0 Gallons**

Notes:
1. System 1 wells are NS-15, NS-30, and NS-32.
2. System 2 wells are N2SC-01I, N2SC-03I, and N2SC-14.
3. In January 2005, System 2 malfunctioned during weeks 2 and 3 pumping mostly water. The volume reported for those two weeks is an estimated quantity that was included in the total volume removed.
4. The DNAPL recovery systems for the Newell Street Area II were shut down on July 25, 2005. The upgraded systems will be completed and activated approximately 2 to 3 months after completion of the EPA-approved soil remediation activities in this area.

TABLE 21-12
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

CONSENT DECREE MONTHLY STATUS REPORT
GROUNDWATER MANAGEMENT AREA 1 - NEWELL STREET AREA II
MEASUREMENT AND REMOVAL OF RECOVERABLE DNAPL
August 2005

Well Name	Date	Depth to Water (ft BMP)	Depth to DNAPL (ft BMP)	DNAPL Thickness (feet)	DNAPL Removed (liters)	August 2005 Removal (liters)
N2SC-02	8/29/2005	13.45	---	0.00	0.006	0.006
N2SC-07	8/29/2005	12.70	38	0.15	0.093	0.093
N2SC-08	8/29/2005	12.95	40.5	2.08	1.283	1.283

Total DNAPL Removal for August 2005: 0.099 liters
0.026 gallons

Note:
1. ft BMP - feet Below Measuring Point.

TABLE 21-13
ROUTINE WELL MONITORING
NEWELL STREET AREA II
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
N2SC-01I(R)	NA	8/12/2005	13.77	---	0.00	---	39.12	0.00	NA
N2SC-01I(R)	NA	8/26/2005	11.75	---	0.00	---	38.62	0.00	NA
N2SC-02	985.56	8/29/2005	13.45	---	0.00	---	40.52	0.00	972.11
N2SC-03I(R)	NA	8/12/2005	14.02	---	0.00	P	39.90	< 0.01	NA
N2SC-03I(R)	NA	8/29/2005	13.69	---	0.00	---	39.21	0.00	NA
N2SC-07	984.61	8/29/2005	12.70	---	0.00	38	38.15	0.15	971.91
N2SC-08	986.07	8/29/2005	12.95	---	0.00	40.5	42.58	2.08	973.12

Note:
1. ft BMP - feet Below Measuring Point.

TABLE 21-14
ROUTINE WELL MONITORING
SILVER LAKE AREA
GROUNDWATER MANAGEMENT AREA 1

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
Monitoring Wells Adjacent to Silver Lake									
SLGW-01D	983.13	8/31/2005	5.46	---	0.00	---	36.9	0.00	977.67
SLGW-01S	982.94	8/31/2005	7.00	---	0.00	---	16.24	0.00	975.94
SLGW-02D	985.10	8/31/2005	8.10	---	0.00	---	36.84	0.00	977.00
SLGW-02S	985.39	8/31/2005	Dry at 8.35 ft		0.00	---	---	0.00	NA
SLGW-03D	979.14	8/31/2005	2.30	---	0.00	---	32.05	0.00	976.84
SLGW-03S	980.21	8/31/2005	4.21	---	0.00	---	14.61	0.00	976.00
SLGW-04D	983.51	8/31/2005	7.10	---	0.00	---	37.1	0.00	976.41
SLGW-04S	984.02	8/31/2005	8.11	---	0.00	---	16.68	0.00	975.91
SLGW-05D	979.30	8/31/2005	3.56	---	0.00	---	34.9	0.00	975.74
SLGW-05S	979.12	8/31/2005	3.70	---	0.00	---	11.66	0.00	975.42
SLGW-06D	981.63	8/31/2005	6.52	---	0.00	---	34.96	0.00	975.11
SLGW-06S	981.66	8/31/2005	5.80	---	0.00	---	13.75	0.00	975.86
Staff Gauge within Silver Lake									
Silver Lake Gauge	NA	8/4/2005	4.72	See Note 4 regarding depth to water					NA
Silver Lake Gauge	NA	8/11/2005	4.71	See Note 4 regarding depth to water					NA
Silver Lake Gauge	NA	8/18/2005	4.62	See Note 4 regarding depth to water					NA
Silver Lake Gauge	NA	8/25/2005	4.71	See Note 4 regarding depth to water					NA
Silver Lake Gauge	NA	8/31/2005	4.38	See Note 4 regarding depth to water					NA

Notes:

1. ft BMP - feet Below Measuring Point.
2. --- indicates LNAPL or DNAPL was not present in a measurable quantity.
3. NA indicates information not available.
4. A new Silver Lake Gauge has been installed and will be surveyed to obtain a new horizontal datum. "Depth to Water" values provided refer to feet above the datum, rather than feet below the measuring point.
5. Additional groundwater elevation data was collected from wells near Silver Lake that are located in the 30s Complex and at the Lyman Street Area. Those results are presented in the monitoring tables for those Removal Action Areas.

ITEM 22
GROUNDWATER MANAGEMENT AREAS
FORMER OXBOWS J & K (GMA 2)
(GECD320)
AUGUST 2005

*** All activities described below for this item were conducted pursuant to the Consent Decree.**

a. Activities Undertaken/Completed

Conducted monthly river elevation monitoring.

b. Sampling/Test Results Received

See attached table.

c. Work Plans/Reports/Documents Submitted

None

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

- Conduct monthly river elevation monitoring.
- Conduct annual interim groundwater monitoring in October 2005.

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

None

TABLE 22-1
ROUTINE WELL MONITORING
GROUNDWATER MANAGEMENT AREA 2

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
Housatonic River (Foot Bridge)									
GMA2-SG-1	989.82	8/31/2005	17.25	See Note 1 regarding depth to water					972.57

Note:

1. A survey reference point was established on the Oxbow J & K foot bridge. The "Depth to Water" value(s) provided in the above table refer to the vertical distance from the surveyed reference point to the water surface.

ITEM 23
GROUNDWATER MANAGEMENT AREAS
PLANT SITE 2 (GMA 3)
(GECD330)
AUGUST 2005

*** All activities described below for this item were conducted pursuant to the Consent Decree.**

a. Activities Undertaken/Completed

- Conducted routine groundwater elevation monitoring and NAPL monitoring/removal activities, including completion of summer 2005 quarterly monitoring round. Approximately 70.5 liters (18.6 gallons) of LNAPL were removed by the automatic skimmer located in well 51-21 and 12.3 additional liters (3.2 gallons) of LNAPL were manually removed from the wells in this area (see Table 23-1).

- Inspected existing surface water staff gauges.

- Finalized Spring 2005 Baseline Groundwater Quality and NAPL Monitoring Interim Report.

b. Sampling/Test Results Received

See attached tables.

c. Work Plans/Reports/Documents Submitted

Submitted Spring 2005 Baseline Groundwater Quality and NAPL Monitoring Interim Report (August 30, 2005).

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

- Redevelop well 16C-R.

- Inspect wells 39D, 51-17, GMA3-6, OBG-2, UB-PZ-1, and UB-PZ-2, which were not located or were found to be damaged during recent monitoring rounds.

- Repair/replace monitoring wells and staff gauges, as necessary.

- Continue ongoing groundwater and NAPL monitoring and recovery activities.

- Conduct NAPL bailing round prior to fall 2005 semiannual monitoring event.

- Conduct fall 2005 groundwater elevation/NAPL monitoring event.

- Conduct fall 2005 baseline groundwater sampling activities.

ITEM 23
(cont'd)
GROUNDWATER MANAGEMENT AREAS
PLANT SITE 2 (GMA 3)
(GECD330)
AUGUST 2005

d. Upcoming Scheduled and Anticipated Activities (next six weeks) (cont'd)

- Following EPA approval of proposed activities contained in GE's Spring 2005 Baseline Groundwater Quality and NAPL Monitoring Interim Report:

  - Sample wells 30B-R and 114A as part of the fall 2005 sampling round.
  - Collect a groundwater sample from well 51-8 and, if necessary, a NAPL-saturated soil sample.
  - Perform desktop modeling of the potential volatilization of constituents observed at well 51-8.

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

Several program modifications were proposed in the Spring 2005 Baseline Groundwater Quality and NAPL Monitoring Interim Report (see Item 23.d above).

TABLE 23-1
MEASUREMENT AND REMOVAL OF RECOVERABLE LNAPL
GROUNDWATER MANAGEMENT AREA 3

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Well Name	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	LNAPL Removed (liters)	August 2005 Removal (liters)
51-05	8/24/2005	12.10	11.18	0.92	0.568	0.568
51-08	8/4/2005	12.60	11.24	1.36	0.839	3.497
	8/11/2005	12.80	11.40	1.40	0.864	
	8/18/2005	12.90	11.50	1.40	0.869	
	8/24/2005	13.10	11.60	1.50	0.925	
51-09	9/1/2005	13.20	11.74	1.46	0.901	0.901
51-15	8/24/2005	11.45	10.98	0.47	0.290	0.290
51-16R	8/24/2005	11.76	10.97	0.79	0.487	0.487
51-19	8/24/2005	12.40	11.10	1.30	0.802	0.802
51-21	8/2/2005	15.75	P	< 0.01	4.548	70.494
	8/10/2005	15.95	P	< 0.01	12.507	
	8/16/2005	16.03	16.01	0.02	11.370	
	8/24/2005	16.18	16.16	0.02	5.685	
	8/31/2005	16.21	P	< 0.01	36.384	
59-03R	8/24/2005	13.03	12.13	0.90	0.555	0.555
GMA3-10	8/4/2005	12.30	11.60	0.70	0.432	1.783
	8/11/2005	12.26	11.70	0.56	0.345	
	8/18/2005	12.30	11.80	0.50	0.308	
	8/24/2005	12.53	11.90	0.63	0.389	
	9/1/2005	12.55	12.05	0.50	0.308	
GMA3-12	8/4/2005	12.24	11.97	0.27	0.667	3.337
	8/24/2005	12.65	12.30	0.35	0.865	
	9/1/2005	13.10	12.37	0.73	1.804	
GMA3-13	8/11/2005	11.91	11.90	0.01	0.006	0.012
	8/18/2005	12.01	12.00	0.01	0.006	
UB-PZ-3	8/24/2005	13.10	12.80	0.30	0.047	0.047

Total Automated LNAPL Removal at well 51-21 for August 2005: 70.494 liters
18.60 Gallons

Total Manual LNAPL Removal at all other wells for August 2005: 12.279 liters
3.24 Gallons

Total LNAPL Removed for August 2005: 82.773 liters
21.84 Gallons

Notes:

1. ft BMP - feet Below Measuring Point.
2. P indicates that LNAPL or DNAPL is present at a thickness that is < 0.01 feet. The corresponding thickness is recorded as such.

TABLE 23-2
ROUTINE WELL MONITORING
GROUNDWATER MANAGEMENT AREA 3

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
51-05	996.44	8/24/2005	12.10	11.18	0.92	---	12.53	0.00	985.20
51-06	997.36	8/24/2005	11.60	---	0.00	---	14.64	0.00	985.76
51-07	997.08	8/24/2005	Dry at 11.24 ft	---	0.00	---	---	0.00	NA
51-08	997.08	8/4/2005	12.60	11.24	1.36	---	14.66	0.00	985.74
51-08	997.08	8/11/2005	12.80	11.40	1.40	---	14.66	0.00	985.58
51-08	997.08	8/18/2005	12.90	11.50	1.40	---	14.66	0.00	985.48
51-08	997.08	8/24/2005	13.10	11.60	1.50	---	14.66	0.00	985.38
51-09	997.70	8/24/2005	Dry at 11.60 ft	---	0.00	---	---	0.00	NA
51-09	997.70	9/1/2005	13.20	11.74	1.46	---	14.66	0.00	985.86
51-11	994.37	8/24/2005	9.62	---	0.00	---	13.52	0.00	984.75
51-12	996.55	8/24/2005	8.00	---	0.00	---	13.31	0.00	988.55
51-13	997.42	8/24/2005	Dry at 10.04 ft	---	0.00	---	---	0.00	NA
51-14	996.77	8/24/2005	11.62	---	0.00	---	14.97	0.00	985.15
51-15	996.43	8/24/2005	11.45	10.98	0.47	---	14.50	0.00	985.42
51-16R	996.39	8/24/2005	11.76	10.97	0.79	---	14.54	0.00	985.36
51-17	996.43	8/24/2005	Well has been paved over		---	---	---	---	NA
51-18	997.12	8/24/2005	11.75	---	0.00	---	12.56	0.00	985.37
51-19	996.43	8/24/2005	12.40	11.10	1.30	---	14.02	0.00	NA
51-21	1001.49	8/2/2005	15.75	P	< 0.01	---	NM	0.00	985.74
51-21	1001.49	8/10/2005	15.95	P	< 0.01	---	NM	0.00	985.54
51-21	1001.49	8/16/2005	16.03	16.01	0.02	---	NM	0.00	985.48
51-21	1001.49	8/24/2005	16.18	16.16	0.02	---	NM	0.00	985.33
51-21	1001.49	8/31/2005	16.21	P	< 0.01	---	NM	0.00	985.28
59-01	997.52	8/24/2005	Dry at 11.40 ft	---	0.00	---	---	0.00	NA
59-03R	997.64	8/24/2005	13.03	12.13	0.90	---	17.05	0.00	985.45
59-07	997.96	8/24/2005	12.46	12.44	0.02	---	23.52	0.00	985.52
GMA3-10	997.54	8/4/2005	12.30	11.60	0.70	---	18.00	0.00	985.89
GMA3-10	997.54	8/11/2005	12.26	11.70	0.56	---	18.00	0.00	985.80
GMA3-10	997.54	8/18/2005	12.30	11.80	0.50	---	18.02	0.00	985.71
GMA3-10	997.54	8/24/2005	12.53	11.90	0.63	---	18.02	0.00	985.60
GMA3-10	997.54	9/1/2005	12.55	12.05	0.50	---	18.00	0.00	985.46
GMA3-11	997.25	8/24/2005	11.42	---	0.00	---	18.38	0.00	985.83
GMA3-12	997.84	8/4/2005	12.24	11.97	0.27	---	21.24	0.00	985.85
GMA3-12	997.84	8/11/2005	12.30	12.06	0.24	---	21.20	0.00	985.76
GMA3-12	997.84	8/18/2005	12.40	12.20	0.20	---	21.24	0.00	985.63
GMA3-12	997.84	8/24/2005	12.65	12.30	0.35	---	21.24	0.00	985.52
GMA3-12	997.84	9/1/2005	13.10	12.37	0.73	---	21.25	0.00	985.42
GMA3-13	997.73	8/4/2005	11.78	---	0.00	---	17.80	0.00	985.95
GMA3-13	997.73	8/11/2005	11.91	11.90	0.01	---	17.82	0.00	985.83
GMA3-13	997.73	8/18/2005	12.01	12.00	0.01	---	17.80	0.00	985.73
GMA3-13	997.73	8/24/2005	12.11	---	0.00	---	17.81	0.00	985.62
GMA3-13	997.73	9/1/2005	12.71	---	0.00	---	17.81	0.00	985.02
GMA3-14	997.42	8/24/2005	11.10	---	0.00	---	17.05	0.00	986.32
UB-MW-10	995.99	8/24/2005	10.60	---	0.00	---	15.30	0.00	985.39
UB-PZ-3	998.15	8/24/2005	13.10	12.80	0.30	---	13.40	0.00	985.33

Notes:

1. ft BMP - feet Below Measuring Point.
2. --- indicates LNAPL or DNAPL was not present in a measurable quantity.
3. NA indicates information not available.
4. NM indicates information not measured.
5. P indicates that LNAPL is present at a thickness that is < 0.01 feet, the corresponding thickness is recorded as such.

ITEM 24
GROUNDWATER MANAGEMENT AREAS
PLANT SITE 3 (GMA 4)
(GECD340)
AUGUST 2005

*** All activities described below for this item were conducted pursuant to the Consent Decree.**

a. Activities Undertaken/Completed

- Conducted routine groundwater elevation monitoring at well GMA4-3.
- Finalized Spring 2005 Groundwater Quality Monitoring Interim Report.

b. Sampling/Test Results Received

See attached table.

c. Work Plans/Reports/Documents Submitted

Submitted Spring 2005 Groundwater Quality Monitoring Interim Report (August 30, 2005).

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

- Continue routine monitoring at well GMA4-3.
- Conduct fall 2005 groundwater elevation monitoring event.
- Conduct fall 2005 interim groundwater quality sampling activities (see Item 24.f).

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

In the Spring 2005 Groundwater Quality Monitoring Interim Report, GE proposed that wells GMA4-5 and H78B-13R no longer be sampled under the interim groundwater monitoring program.

TABLE 24-1
ROUTINE WELL MONITORING
GROUNDWATER MANAGEMENT AREA 4

CONSENT DECREE MONTHLY STATUS REPORT
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
August 2005

Well Name	Measuring Point Elev. (feet)	Date	Depth to Water (ft BMP)	Depth to LNAPL (ft BMP)	LNAPL Thickness (feet)	Depth to DNAPL (ft BMP)	Total Depth (ft BMP)	DNAPL Thickness (feet)	Corrected Water Elev. (feet)
GMA4-3	1,003.95	8/24/2005	18.32	---	0.00	---	26.25	0.00	985.63

Notes:

1. ft BMP - feet Below Measuring Point.
2. --- indicates LNAPL or DNAPL was not present in a measurable quantity.

ITEM 25
GROUNDWATER MANAGEMENT AREAS
FORMER OXBOWS A & C (GMA 5)
(GECD350)
AUGUST 2005

*** All activities described below for this item were conducted pursuant to the Consent Decree.**

a. Activities Undertaken/Completed

None

b. Sampling/Test Results Received

None

c. Work Plans/Reports/Documents Submitted

None

d. Upcoming Scheduled and Anticipated Activities (next six weeks)

Conduct semi-annual groundwater elevation monitoring in October 2005.

e. General Progress/Unresolved Issues/Potential Schedule Impacts

No issues

f. Proposed/Approved Work Plan Modifications

EPA's November 10, 2004 letter to GE states that interim groundwater quality sampling activities are to be postponed until groundwater elevation monitoring data demonstrate that groundwater flow is not being artificially influenced by the temporary dam that is being maintained as part of the remediation along the 1 and ½ Mile Reach of the Housatonic River. Since those remediation activities are ongoing, and the temporary dam is still in place, no groundwater sampling will be conducted at GMA5 in fall 2005.

Attachment A

NPDES Sampling Records and Results
August 2005

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engineers, scientists, economists

TABLE A-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

NPDES PERMIT MONITORING
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
NPDES Sampling	001-A6648	8/1/05	Water	SGS	Oil & Grease	8/11/05
NPDES Sampling	001-A6650	8/1/05	Water	SGS	PCB	8/11/05
NPDES Sampling	001-A6651	8/1/05	Water	SGS	TSS	8/11/05
NPDES Sampling	005-A6646/A6647	7/26/05	Water	SGS	PCB	8/2/05
NPDES Sampling	005-A6654/A6657	8/1/05	Water	SGS	PCB, TSS, BOD	8/9/05
NPDES Sampling	005-A6662/A6665	8/8/05	Water	SGS	PCB	8/23/05
NPDES Sampling	005-A6678/A6679	8/15/05	Water	SGS	PCB	
NPDES Sampling	005-A6699/A6700	8/23/05	Water	SGS	PCB	
NPDES Sampling	005-A6706/A6709	8/29/05	Water	SGS	PCB	
NPDES Sampling	06A-A6711	8/30/05	Water	SGS	Oil & Grease	
NPDES Sampling	06A-A6713	8/30/05	Water	SGS	PCB	
NPDES Sampling	09B-A6658	8/4/05	Water	SGS	TSS, BOD	8/23/05
NPDES Sampling	09B-A6666	8/8/05	Water	SGS	TSS, BOD	8/23/05
NPDES Sampling	09B-A6682	8/15/05	Water	SGS	TSS, BOD	
NPDES Sampling	09B-A6710	8/29/05	Water	SGS	TSS, BOD	
NPDES Sampling	09C-A6673	8/14/05	Water	SGS	Oil & Grease	
NPDES Sampling	09C-A6701	8/28/05	Water	SGS	Oil & Grease	
NPDES Sampling	64G-A6643	7/25/05	Water	SGS	Oil & Grease	8/2/05
NPDES Sampling	64G-A6655	8/1/05	Water	SGS	Oil & Grease	8/9/05
NPDES Sampling	64G-A6663	8/8/05	Water	SGS	Oil & Grease	8/23/05
NPDES Sampling	64G-A6680	8/15/05	Water	SGS	Oil & Grease	
NPDES Sampling	64G-A6691	8/19/05	Water	SGS	Oil & Grease	8/24/05
NPDES Sampling	64G-A6696	8/22/05	Water	SGS	Oil & Grease	
NPDES Sampling	64G-A6707	8/29/05	Water	SGS	Oil & Grease	
NPDES Sampling	64T-A6641	7/25/05	Water	SGS	Oil & Grease	8/2/05
NPDES Sampling	64T-A6652	8/1/05	Water	SGS	Oil & Grease	8/9/05
NPDES Sampling	64T-A6660	8/8/05	Water	SGS	Oil & Grease	8/23/05
NPDES Sampling	64T-A6676	8/15/05	Water	SGS	Oil & Grease	
NPDES Sampling	64T-A6688	8/19/05	Water	SGS	Oil & Grease	8/24/05
NPDES Sampling	64T-A6694	8/22/05	Water	SGS	Oil & Grease	
NPDES Sampling	64T-A6704	8/29/05	Water	SGS	Oil & Grease	
NPDES Sampling	A6667R	8/15/05	Water	SGS	Acute Toxicity Test	8/31/05
NPDES Sampling	A6667R	8/15/05	Water	SGS	Chronic Toxicity Test	8/31/05
NPDES Sampling	A6667RCN	8/15/05	Water	SGS	CN	
NPDES Sampling	A6667RTM	8/15/05	Water	SGS	Metals (10)	

TABLE A-1
DATA RECEIVED AND/OR SAMPLES COLLECTED DURING AUGUST 2005

NPDES PERMIT MONITORING
GENERAL ELECTRIC COMPANY - PITTSFIELD MASSACHUSETTS

Project Name	Field Sample ID	Sample Date	Matrix	Laboratory	Analyses	Date Received
NPDES Sampling	A6668C	8/15/05	Water	SGS	Acute Toxicity Test	8/31/05
NPDES Sampling	A6668C	8/15/05	Water	SGS	Chronic Toxicity Test	8/31/05
NPDES Sampling	A6668CCN	8/15/05	Water	SGS	CN	
NPDES Sampling	A6668CDM	8/15/05	Water	SGS	Filtered Metals (8)	
NPDES Sampling	A6668CTM	8/15/05	Water	SGS	Metals (10)	
NPDES Sampling	A6669R	8/17/05	Water	SGS	Chronic Toxicity Test	8/31/05
NPDES Sampling	A6669RCN	8/17/05	Water	SGS	CN	8/23/05
NPDES Sampling	A6669RTM	8/17/05	Water	SGS	Metals (10)	8/23/05
NPDES Sampling	A6670C	8/17/05	Water	SGS	Chronic Toxicity Test	8/31/05
NPDES Sampling	A6670CCN	8/17/05	Water	SGS	CN	8/23/05
NPDES Sampling	A6670CDM	8/17/05	Water	SGS	Filtered Metals (8)	8/23/05
NPDES Sampling	A6670CTM	8/17/05	Water	SGS	Metals (10)	8/23/05
NPDES Sampling	A6671R	8/19/05	Water	SGS	Chronic Toxicity Test	8/31/05
NPDES Sampling	A6671RCN	8/19/05	Water	SGS	CN	8/24/05
NPDES Sampling	A6671RTM	8/19/05	Water	SGS	Metals (10)	8/24/05
NPDES Sampling	A6672C	8/19/05	Water	SGS	Chronic Toxicity Test	8/31/05
NPDES Sampling	A6672CCN	8/19/05	Water	SGS	CN	8/24/05
NPDES Sampling	A6672CDM	8/19/05	Water	SGS	Filtered Metals (8)	8/24/05
NPDES Sampling	A6672CTM	8/19/05	Water	SGS	Metals (10)	8/24/05
NPDES Sampling	AUG05WK1	8/1/05	Water	SGS	Cu, Pb, Zn	8/9/05
NPDES Sampling	AUG05WK2	8/8/05	Water	SGS	Cu, Pb, Zn	8/23/05
NPDES Sampling	AUG05WK4	8/23/05	Water	SGS	Cu, Pb, Zn	
NPDES Sampling	JUL05WK5	7/26/05	Water	SGS	Cu, Pb, Zn	8/2/05
NPDES Sampling	SEP05WK1	8/29/05	Water	SGS	Cu, Pb, Zn	

TABLE A-2
DATA RECEIVED DURING AUGUST 2005

NPDES PERMIT MONITORING SAMPLING
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm)

Parameter / Sample ID: / Date Collected:	001-A6648 08/01/05	001-A6650 08/01/05	001-A6651 08/01/05	005-A6646/A6647 07/26/05	005-A6654/A6657 08/01/05	005-A6662/A6665 08/08/05	09B-A6658 08/04/05
PCBs-Unfiltered							
Aroclor-1254	NA	0.000024 J	NA	ND(0.000065)	ND(0.000065)	ND(0.000065)	NA
Total PCBs	NA	0.000024 J	NA	ND(0.000065)	ND(0.000065)	ND(0.000065)	NA
Inorganics-Unfiltered							
Aluminum	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA
Cyanide	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered							
Aluminum	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA
Conventionals							
Biological Oxygen Demand (5-day)	NA	NA	NA	NA	ND(2.0)	NA	2.8
Oil & Grease	1.7 B	NA	NA	NA	NA	NA	NA
Total Suspended Solids	NA	NA	8.00	NA	ND(5.00)	NA	7.00

TABLE A-2
DATA RECEIVED DURING AUGUST 2005

NPDES PERMIT MONITORING SAMPLING
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm)

Parameter / Sample ID: / Date Collected:	09B-A6666 08/08/05	64G-A6643 07/25/05	64G-A6655 08/01/05	64G-A6663 08/08/05	64G-A6691 08/19/05	64T-A6641 07/25/05	64T-A6652 08/01/05	64T-A6660 08/08/05
PCBs-Unfiltered								
Aroclor-1254	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Unfiltered								
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA
Cyanide	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Filtered								
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NA	NA	NA	NA	NA	NA	NA	NA
Copper	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	NA	NA	NA	NA	NA	NA	NA	NA
Conventionals								
Biological Oxygen Demand (5-day)	ND(2.0)	NA	NA	NA	NA	NA	NA	NA
Oil & Grease	NA	ND(5.0)	1.6 B	0.60 B	0.50 B	0.50 B	3.0 B	1.9 B
Total Suspended Solids	9.00	NA	NA	NA	NA	NA	NA	NA

TABLE A-2
DATA RECEIVED DURING AUGUST 2005

NPDES PERMIT MONITORING SAMPLING
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm)

Parameter / Sample ID: / Date Collected:	64T-A6688 08/19/05	A6669RCN 08/17/05	A6669RTM 08/17/05	A6670CCN 08/17/05	A6670CDM 08/17/05	A6670CTM 08/17/05	A6671RCN 08/19/05	A6671RTM 08/19/05
PCBs-Unfiltered								
Aroclor-1254	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics-Unfiltered								
Aluminum	NA	NA	ND(0.100)	NA	NA	0.120	NA	ND(0.100)
Cadmium	NA	NA	ND(0.00100)	NA	NA	ND(0.00100)	NA	ND(0.00100)
Calcium	NA	NA	38.0	NA	NA	49.0	NA	41.0
Chromium	NA	NA	ND(0.00500)	NA	NA	0.000900 B	NA	ND(0.00500)
Copper	NA	NA	0.00310 B	NA	NA	0.0270	NA	ND(0.00500)
Cyanide	NA	0.00620 B	NA	0.0390	NA	NA	0.00520 B	NA
Lead	NA	NA	ND(0.00500)	NA	NA	0.00310 B	NA	ND(0.00500)
Magnesium	NA	NA	13.0	NA	NA	19.0	NA	14.0
Nickel	NA	NA	ND(0.00500)	NA	NA	0.00210 B	NA	ND(0.00500)
Silver	NA	NA	ND(0.00500)	NA	NA	ND(0.00500)	NA	ND(0.00500)
Zinc	NA	NA	0.00860 B	NA	NA	0.0280	NA	0.00470 B
Inorganics-Filtered								
Aluminum	NA	NA	NA	NA	ND(0.100)	NA	NA	NA
Cadmium	NA	NA	NA	NA	ND(0.00100)	NA	NA	NA
Chromium	NA	NA	NA	NA	0.000950 B	NA	NA	NA
Copper	NA	NA	NA	NA	0.0230	NA	NA	NA
Lead	NA	NA	NA	NA	ND(0.00500)	NA	NA	NA
Nickel	NA	NA	NA	NA	ND(0.00500)	NA	NA	NA
Silver	NA	NA	NA	NA	ND(0.00500)	NA	NA	NA
Zinc	NA	NA	NA	NA	0.0250	NA	NA	NA
Conventionals								
Biological Oxygen Demand (5-day)	NA	NA	NA	NA	NA	NA	NA	NA
Oil & Grease	0.80 B	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids	NA	NA	NA	NA	NA	NA	NA	NA

TABLE A-2
DATA RECEIVED DURING AUGUST 2005

NPDES PERMIT MONITORING SAMPLING
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in parts per million, ppm)

Parameter / Sample ID: / Date Collected:	A6672CCN 08/19/05	A6672CDM 08/19/05	A6672CTM 08/19/05	AUG05WK1 08/01/05	AUG05WK2 08/08/05	JUL05WK5 07/26/05
PCBs-Unfiltered						
Aroclor-1254	NA	NA	NA	NA	NA	NA
Total PCBs	NA	NA	NA	NA	NA	NA
Inorganics-Unfiltered						
Aluminum	NA	NA	0.0430 B	NA	NA	NA
Cadmium	NA	NA	ND(0.00100)	NA	NA	NA
Calcium	NA	NA	72.0	NA	NA	NA
Chromium	NA	NA	ND(0.00500)	NA	NA	NA
Copper	NA	NA	0.0120	0.00880	0.0140	0.00770
Cyanide	0.0520	NA	NA	NA	NA	NA
Lead	NA	NA	ND(0.00500)	ND(0.00500)	ND(0.00500)	ND(0.00500)
Magnesium	NA	NA	29.0	NA	NA	NA
Nickel	NA	NA	ND(0.00500)	NA	NA	NA
Silver	NA	NA	ND(0.00500)	NA	NA	NA
Zinc	NA	NA	0.0120 B	0.0170 B	0.0120 B	0.0100 B
Inorganics-Filtered						
Aluminum	NA	ND(0.100)	NA	NA	NA	NA
Cadmium	NA	ND(0.00100)	NA	NA	NA	NA
Chromium	NA	ND(0.00500)	NA	NA	NA	NA
Copper	NA	0.0100	NA	NA	NA	NA
Lead	NA	ND(0.00500)	NA	NA	NA	NA
Nickel	NA	ND(0.00500)	NA	NA	NA	NA
Silver	NA	ND(0.00500)	NA	NA	NA	NA
Zinc	NA	0.0230	NA	NA	NA	NA
Conventionals						
Biological Oxygen Demand (5-day)	NA	NA	NA	NA	NA	NA
Oil & Grease	NA	NA	NA	NA	NA	NA
Total Suspended Solids	NA	NA	NA	NA	NA	NA

Notes:
1. Samples were collected by General Electric Company and submitted to SGS Environmental Services, Inc. for analysis of PCBs, cyanide, TSS, BOD, oil & grease, and metals (filtered and unfiltered).
2. NA - Not Analyzed.
3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
4. With the exception of inorganics and conventional parameters, only those constituents detected in one or more samples are summarized.

Data Qualifiers:
Organics
J - Indicates an estimated value less than the practical quantitation limit (PQL).
Inorganics and Conventional Parameters
B - Indicates an estimated value between the instrument detection limit (IDL) and PQL.

Attachment B

NPDES Discharge Monitoring Reports
July 2005

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if Different)*
NAME GENERAL ELECTRIC CORPORATION
ADDRESS ATTN: JEFFREY G. RUEBESAM
100 WOODLAWN AVENUE
PITTSFIELD MA 01201
FACILITY GENERAL ELECTRIC COMPANY
LOCATION PITTSFIELD MA 01201
ATTN: MICHAEL T CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved.
OMB No. 2040-0004

MA0003891	005 1
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	05	07	01	TO	05	07	31

MAJOR
(SUBR W)
F - FINAL
WATERS TO HOUSATONIC RIVER

*** NO DISCHARGE ( ) ***
NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
BOD, 5-DAY (20 DEG C) 00310 T 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	0	0	(26) LBS/DY	******	******	******		0	01/30	CP
	PERMIT REQUIREMENT	70 MO AVG	135 DAILY MX	LBS/DY	******	******	******	**** ****		INCL/ MONTH	COMPOS
SOLIDS, TOTAL SUSPENDED 00530 T 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	0	0	(26) LBS/DY	******	******	******		0	01/30	CP
	PERMIT REQUIREMENT	189 MO AVG	270 DAILY MX	LBS/DY	******	******	******	**** ****		INCL/ MONTH	COMPOS
OIL & GREASE 00556 T 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	******	6.1	(26) LBS/DY	******	******	1.6	(19) MG/L	0	01/07	GR
	PERMIT REQUIREMENT	******	135 DAILY MX	LBS/DY	******	******	15 DAILY MX	MG/L		WEEKLY	GRAB
POLYCHLORINATED BIPHENYLS (PCBS) 39516 T 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	0.00001	0.00004	(26) LBS/DY	******	******	******		0	01/07	CP
	PERMIT REQUIREMENT	0.01 MO AVG	0.03 DAILY MX	LBS/DY	******	******	******	**** ****		WEEKLY	COMPOS
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 T 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	0.139	0.368	(03) MGD	******	******	******		0	99/99	RC
	PERMIT REQUIREMENT	2.09 MO AVG	2.09 DAILY MX	MGD	******	******	******	**** ****		CONTIN UOUS	RECORDR
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE	DATE		
Michael T. Carroll Mgr. Pittsfield Remediation Prog.	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	M. T. Carroll	413 448-5902	2005	8	28
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE / NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*
SEE PAGE 8 + 9 OF PERMIT FOR SAMPLING REQUIREMENTS. SEE DMR(S) 0649 + 064T FOR FURTHER PARAMETERS.

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if Different)*
NAME GENERAL ELECTRIC CORPORATION
ADDRESS ATTN: JEFFREY G. RUEBESAM
100 WOODLAWN AVENUE
PITTSFIELD MA 01201
FACILITY GENERAL ELECTRIC COMPANY
LOCATION PITTSFIELD MA 01201
ATTN: MICHAEL T CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved.
OMB No. 2040-0004

MA0003891	064 0
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	05	07	01	TO	05	07	31

MAJOR
(SUBR W)
F - FINAL
GROUNDWATER TREATMENT (005)

*** NO DISCHARGE | | ***
NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
PH	SAMPLE MEASUREMENT	******	******		7.3	******	7.5	(12) SU	0	99/99	RCDR
00400 T 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	******	******	*** ****	6.0 MINIMUM	******	9.0 MAXIMUM	SU		WEEKLY	RANG-G
BASE NEUTRALS & ACID (METHOD 625), TOTAL	SAMPLE MEASUREMENT	******	******		******	NODI [9]	NODI [9]	(19)			
76030 T 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	******	******	*** ****	******	REPORT MO AVG	REPORT DAILY MX	MG/L		3TRLY	GRAB
VOLATILE COMPOUNDS, (GC/MS)	SAMPLE MEASUREMENT	******	******		******	NODI [9]	NODI [9]	(19)			
78732 T 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	******	******	*** ****	******	REPORT MO AVG	REPORT DAILY MX	MG/L		3TRLY	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE	DATE		
Michael T. Carroll Mgr. Pittsfield Remediation Prog.	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	M. T. Carroll	413 448-5902	2005	8	29
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE / NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*
SEE COMMENTS FOR 0051. SEE PAGE 8 + 9 OF PERMIT.

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location (If Different)*
NAME GENERAL ELECTRIC CORPORATION
ADDRESS ATTN: JEFFREY G. RUEBESAM
100 WOODLAWN AVENUE
PITTSFIELD MA 01201
FACILITY GENERAL ELECTRIC COMPANY
LOCATION PITTSFIELD MA 01201
ATTN: MICHAEL T CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved.
OMB No. 2040-0004

MA0003891	064 T	MAJOR
PERMIT NUMBER	DISCHARGE NUMBER	(SUBR W)
		F - FINAL
		WASTEWATER TREATMENT (005)

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	05	07	01	TO	05	07	31

*** NO DISCHARGE | | | ***
NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
PH	SAMPLE MEASUREMENT	*******	*******		6.8	*******	7.8	(12) SU	0	99/99	RCDR
00400 T 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*******	*******	*** ****	6.0 MINIMUM	*******	9.0 MAXIMUM	SU		WEEKLY	RANG-G
DIBENZOFURAN	SAMPLE MEASUREMENT	*******	*******		*******	NODI [6]	NODI [6]	(22)			
81302 T 0 0 SEE COMMENTS BELOW	PERMIT REQUIREMENT	*******	*******	*** ****	*******	REPORT MO AVG	REPORT DAILY MX	PPT		ONCE/ MONTH	COMPOS
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
Michael T. Carroll Mgr. Pittsfield Remediation Prog.	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	M. T. Carroll	413	448-5902	2005	8	24
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*
SEE COMMENTS FOR 0051. SEE PAGE 8 + 9 OF PERMIT.

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if Different)*
NAME GENERAL ELECTRIC CORPORATION
ADDRESS ATTN: JEFFREY G. RUEBESAM
100 WOODLAWN AVENUE
PITTSFIELD MA 01201
FACILITY GENERAL ELECTRIC COMPANY
LOCATION PITTSFIELD MA 01201
ATTN: MICHAEL T CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved.
OMB No. 2040-0004

MA0003891	007 1
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	05	07	01	TO	05	07	31

MAJOR
(SUBR W)
F - FINAL
DISCHARGE TO HOUSATONIC RIVER

*** NO DISCHARGE [X] ***
NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
TEMPERATURE, WATER DEG. FAHRENHEIT 00011 W 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*******	*******		*******			(15)			
	PERMIT REQUIREMENT	*******	*******	**** ****	*******	70 MO AVG	75 DAILY MX	DEG. F		ONCE/ MONTH	GRAB
PH 00400 W 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*******	*******			*******		(12)			
	PERMIT REQUIREMENT	*******	*******	**** ****	6. 0 MINIMUM	*******	9. 0 MAXIMUM	SU		WEEKLY	RANG-G
POLYCHLORINATED BIPHENYLS (PCBS) 39516 W 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*******	*******		*******			(21)			
	PERMIT REQUIREMENT	*******	*******	**** ****	*******	REPORT MO AVG	REPORT DAILY MX	PPB		2/WKLY	GRAB
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 W 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT			(03)	*******	*******	*******				
	PERMIT REQUIREMENT	REPORT MO AVG	REPORT DAILY MX	MGD	*******	*******	*******	**** ****		ONCE/ MONTH	CALCTD
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE	DATE		
Michael T. Carroll Mgr. Pittsfield Remediation Prog.	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	M. T. Carroll	413 448-5902	2005	8 24
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE / NUMBER	YEAR	MO / DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*
SAMPLE AT MANHOLE PRIOR TO CITY STORM DRAIN.

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if Different)*
NAME GENERAL ELECTRIC CORPORATION
ADDRESS ATTN: JEFFREY G. RUEBESAM
100 WOODLAWN AVENUE
PITTSFIELD MA 01201
FACILITY GENERAL ELECTRIC COMPANY
LOCATION PITTSFIELD MA 01201
ATTN: MICHAEL T CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved.
OMB No. 2040-0004

MA0003891	009 1
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	05	07	01	TO	05	07	31

MAJOR
(SUBR W)
F - FINAL
PROCESSES TO UNKAMET BROOK

*** NO DISCHARGE | | ***

NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING AVERAGE	QUANTITY OR LOADING MAXIMUM	QUANTITY OR LOADING UNITS	QUALITY OR CONCENTRATION MINIMUM	QUALITY OR CONCENTRATION AVERAGE	QUALITY OR CONCENTRATION MAXIMUM	QUALITY OR CONCENTRATION UNITS	NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
BOD, 5-DAY (20 DEG. C) 00310 V 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	0.04	0.1	(26) LBS/DY	*******	*******	*******		0	01/DW	CP
	PERMIT REQUIREMENT	106 MO AVG	498 DAILY MX	LBS/DY	*******	*******	*******	**** ****		WEEKLY	COMPOS
PH 00400 V 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*******	*******		7.3	*******	7.4	(12) SU	0	01/DW	GR
	PERMIT REQUIREMENT	*******	*******	**** ****	6.0 MINIMUM	*******	9.0 MAXIMUM	SU		WEEKLY	RANG-G
SOLIDS, TOTAL SUSPENDED 00530 V 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	0.5	1.2	(26) LBS/DY	*******	*******	*******		0	01/DW	CP
	PERMIT REQUIREMENT	213 MO AVG	976 DAILY MX	LBS/DY	*******	*******	*******	**** ****		WEEKLY	COMPOS
OIL & GREASE 00556 V 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*******	4.6	(26) LBS/DY	*******	*******	1.4	(19) MG/L	0	01/DW	GR
	PERMIT REQUIREMENT	*******	498 DAILY MX	LBS/DY	*******	*******	15 DAILY MX	MG/L		WEEKLY	GRAB
POLYCHLORINATED BIPHENYLS (PCBS) 39516 V 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	*******	*******		*******	NODI [9]	NODI [9]	(19)			
	PERMIT REQUIREMENT	*******	*******	**** ****	*******	REPORT MO AVG	REPORT DAILY MX	MG/L		NTRLY	GRAB
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 V 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	0.003	0.056	(03) MGD	*******	*******	*******		0	99/99	RC
	PERMIT REQUIREMENT	REPORT MO AVG	REPORT DAILY MX	MGD	*******	*******	*******	**** ****		CONTIN UOUS	ORDR
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE	DATE		
Michael T. Carroll Mgr. Pittsfield Remediation Prog.	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	M. T. Carroll	413 448-5902	2005	8	24
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE / NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*
SEE PAGE 11 OF PERMIT. SEE DMRS 009A + 009B. REPORT SUM OF LOAD 09A + 09B, FOR BOD, TSS, FLOW. SAMPLE AT DISCHARGE POINT TO BROOK FOR PH, OIL & GREASE, AND PCB.

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location (If Different)*
NAME GENERAL ELECTRIC CORPORATION
ADDRESS ATTN: JEFFREY G. RUEBESAM
100 WOODLAWN AVENUE
PITTSFIELD MA 01201
FACILITY GENERAL ELECTRIC COMPANY
LOCATION PITTSFIELD MA 01201
ATTN: MICHAEL T CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved.
OMB No. 2040-0004

MA0003891	009 A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	05	07	01	TO	05	07	31

MAJOR
(SUBR W)
F - FINAL
09A SAMPLE POINT BEFORE 009

*** NO DISCHARGE ~~X~~ ***
NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
BOD, 5-DAY (20 DEG. C) 00310 V 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT			(26)	******	******	******				
	PERMIT REQUIREMENT	106 MO AVG	438 DAILY MX	LBS/DY	******	******	******	**** ****		WEEKLY	COMPOS
SOLIDS, TOTAL SUSPENDED 00530 V 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT			(26)	******	******	******				
	PERMIT REQUIREMENT	213 MO AVG	876 DAILY MX	LBS/DY	******	******	******	**** ****		WEEKLY	COMPOS
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 V 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT			(03)	******	******	******				
	PERMIT REQUIREMENT	REPORT MO AVG	REPORT DAILY MX	MGD	******	******	******	**** ****		CONTINUOUS	RECORD
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE	DATE		
Michael T. Carroll Mgr. Pittsfield Remediation Prog.	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	M. T. Carroll	413 448-5902	2005	8	24
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE / NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*
SEE PAGE 11 OF PERMIT. SEE DMR 0091. SAMPLE AT 09A.

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if Different)*
NAME GENERAL ELECTRIC CORPORATION
ADDRESS ATTN: JEFFREY G. RUEBESAM
100 WOODLAWN AVENUE
PITTSFIELD MA 01201
FACILITY GENERAL ELECTRIC COMPANY
LOCATION PITTSFIELD MA 01201
ATTN: MICHAEL T CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved.
OMB No. 2040-0004

MA0003891	009 B
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	05	07	01	TO	05	07	31

MAJOR
(SUBR W)
F - FINAL
09B SAMPLE POINT PRIOR TO 009

*** NO DISCHARGE [ ] ***
NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
BOD, 5-DAY (20 DEG. C) 00310 V 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	0.04	0.1	LBS/DY	*******	*******	*******		0	01/DW	CP
	PERMIT REQUIREMENT	106 MO AVG	438 DAILY MX	LBS/DY	*******	*******	*******	******		WEEKLY	COMPOS
SOLIDS, TOTAL SUSPENDED 00530 V 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	0.5	1.2	LBS/DY	*******	*******	*******		0	01/DW	CP
	PERMIT REQUIREMENT	213 MO AVG	876 DAILY MX	LBS/DY	*******	*******	*******	******		WEEKLY	COMPOS
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 V 0 0 SEE COMMENTS BELOW	SAMPLE MEASUREMENT	0.003	0.056	MGD	*******	*******	*******		0	99/99	RC
	PERMIT REQUIREMENT	REPORT MO AVG	REPORT DAILY MX	MGD	*******	*******	*******	******		CONTINUOUS	RECORDR
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE	DATE		
Michael T. Carroll Mgr. Pittsfield Remediation Prog.	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	M. Carroll	413 448-5902	2005	8	24
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE / NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*
SEE PAGE 11 OF PERMIT. SEE DMR 0091; SAMPLE AT 09B.

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location (If Different)*
NAME GENERAL ELECTRIC CORPORATION
ADDRESS ATTN: JEFFREY G. RUEBESAM
100 WOODLAWN AVENUE
PITTSFIELD MA 01201
FACILITY GENERAL ELECTRIC COMPANY
LOCATION PITTSFIELD MA 01201
ATTN: MICHAEL T CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved.
OMB No. 2040-0004

PERMIT NUMBER	DISCHARGE NUMBER
MA0003891	SUM A

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	05	07	01	TO	05	07	31

MAJOR
(SUBR W)
F - FINAL
METALS: 001, 004, 005, 007, 009, 011

*** NO DISCHARGE [ ] ***
NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING AVERAGE	QUANTITY OR LOADING MAXIMUM	QUANTITY OR LOADING UNITS	QUALITY OR CONCENTRATION MINIMUM	QUALITY OR CONCENTRATION AVERAGE	QUALITY OR CONCENTRATION MAXIMUM	QUALITY OR CONCENTRATION UNITS	NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
PHOSPHORUS, TOTAL (AS P) 00665 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*******	0.1	(26) LBS/DY	*******	*******	*******		0	03/30	CP
	PERMIT REQUIREMENT	*******	REPORT DAILY MX	LBS/DY LBS/DY	*******	*******	*******	******		ONCE/ MONTH	COMPOS
NICKEL TOTAL RECOVERABLE 01074 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*******	0.01	(26) LBS/DY	*******	*******	*******		0	03/30	CP
	PERMIT REQUIREMENT	*******	REPORT DAILY MX	LBS/DY LBS/DY	*******	*******	*******	******		ONCE/ MONTH	COMPOS
SILVER TOTAL RECOVERABLE 01079 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*******	0.002	(26) LBS/DY	*******	*******	*******		0	03/30	CP
	PERMIT REQUIREMENT	*******	REPORT DAILY MX	LBS/DY LBS/DY	*******	*******	*******	******		ONCE/ MONTH	COMPOS
ZINC TOTAL RECOVERABLE 01094 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*******	0.1	(26) LBS/DY	*******	*******	*******		0	01/07	CP
	PERMIT REQUIREMENT	*******	REPORT DAILY MX	LBS/DY LBS/DY	*******	*******	*******	******		WEEKLY	COMPOS
ALUMINUM, TOTAL (AS AL) 01105 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*******	0.2	(26) LBS/DY	*******	*******	*******		0	03/30	CP
	PERMIT REQUIREMENT	*******	REPORT DAILY MX	LBS/DY LBS/DY	*******	*******	*******	******		ONCE/ MONTH	COMPOS
CADMIUM TOTAL RECOVERABLE 01113 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*******	0.001	(26) LBS/DY	*******	*******	*******		0	03/30	CP
	PERMIT REQUIREMENT	*******	REPORT DAILY MX	LBS/DY LBS/DY	*******	*******	*******	******		ONCE/ MONTH	COMPOS
LEAD TOTAL RECOVERABLE 01114 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*******	0.01	(26) LBS/DY	*******	*******	*******		0	01/07	CP
	PERMIT REQUIREMENT	*******	REPORT DAILY MX	LBS/DY LBS/DY	*******	*******	*******	******		WEEKLY	COMPOS

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Michael T. Carroll
Mgr. Pittsfield Remediation Prog.

TYPED OR PRINTED

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

M. T. Carroll

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
AREA CODE	NUMBER	YEAR	MO	DAY
413	448-5902	2005	8	24

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*
COMPOSITE PROPORTIONATE TO FLOW.

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location (If Different)*
NAME GENERAL ELECTRIC CORPORATION
ADDRESS ATTN: JEFFREY G. RUEBESAM
100 WOODLAWN AVENUE
PITTSFIELD MA 01201
FACILITY GENERAL ELECTRIC COMPANY
LOCATION PITTSFIELD MA 01201
ATTN: MICHAEL T CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved.
OMB No. 2040-0004

MA0003891	SUM A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	05	07	01	TO	05	07	31

MAJOR
(SUBR W)
F - FINAL
METALS: 001, 004, 005, 007, 009, 011

*** NO DISCHARGE [ ] ***
NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
CHROMIUM TOTAL RECOVERABLE 01118 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*******	0.002	(26) LBS/DY	*******	*******	*******		0	03/30	CP
	PERMIT REQUIREMENT	*******	REPORT DAILY MX	LBS/DY	*******	*******	*******	***** *****		ONCE/ MONTH	COMPOS
COPPER TOTAL RECOVERABLE 01119 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*******	0.03	(26) LBS/DY	*******	*******	*******		0	01/07	CP
	PERMIT REQUIREMENT	*******	REPORT DAILY MX	LBS/DY	*******	*******	*******	***** *****		WEEKLY	COMPOS
CYANIDE, TOTAL RECOVERABLE 78248 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*******	0.09	(26) LBS/DY	*******	*******	*******		0	03/30	CP
	PERMIT REQUIREMENT	*******	REPORT DAILY MX	LBS/DY	*******	*******	*******	***** *****		ONCE/ MONTH	GRAB
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE	DATE		
Michael T. Carroll Mgr. Pittsfield Remediation Prog.	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	413 448-5902	2005	8	24
TYPED OR PRINTED	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE / NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*
COMPOSITE PROPORTIONATE TO FLOW.

PERMITTEE NAME/ADDRESS *(Include Facility Name/ Location if Different)*
NAME GENERAL ELECTRIC CORPORATION
ADDRESS ATTN: JEFFREY G. RUEBESAM
100 WOODLAWN AVENUE
PITTSFIELD MA 01201
FACILITY GENERAL ELECTRIC COMPANY
LOCATION PITTSFIELD MA 01201
ATTN: MICHAEL T CARROLL, EHS&F

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM *(NPDES)*
DISCHARGE MONITORING REPORT *(DMR)*

Form Approved.
OMB No. 2040-0004

MA0003891	SUM B
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	05	07	01	TO	05	07	31

MAJOR
(SUBR W)
F - FINAL
TOXICS: 001, 004, 005, 007, 009, 011

*** NO DISCHARGE [ ] ***
NOTE: Read instructions before completing this form.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
NOEL STAT 7DAY CHR C ERIODAPHNIA TBD3B 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*******	*******		100	*******	*******	(% 23)	0	01/30	CP
	PERMIT REQUIREMENT	*******	*******	**** ****	REPORT DAILY MN	*******	*******	PER-CENT		ONCE/ MONTH	COMPOS
NOAEL STAT 48HR ACU CERIODAPHNIA TDA3B 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*******	*******		NODI [8]	*******	*******	(23)			
	PERMIT REQUIREMENT	*******	*******	**** ****	REPORT DAILY MN	*******	*******	PER-CENT		ONCE/ MONTH	COMPOS
NOAEL STATRE 48HR AC U D. PULEX TDM3D 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	*******	*******		100	*******	*******	(% 23)	0	01/30	CP
	PERMIT REQUIREMENT	*******	*******	**** ****	35 DAILY MN	*******	*******	PER-CENT		ONCE/ MONTH	COMPOS
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE	DATE		
Michael T. Carroll Mgr. Pittsfield Remediation Prog.	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	M. T. Carroll	413 448-5902	2005	8	24
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE / NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS *(Reference all attachments here)*
MONTHLY DRY WEATHER TESTING. COMPOSITE PROPORTIONATE TO FLOW. FOR JULY, AUG., SEPT. REPORT ACUTE AND CHRONIC. SEE DMR SUMC FOR QUARTERLY WET WEATHER ACUTE. SUBMIT THIS DMR WITH A NODI '9' WHEN SUBMITTIN WET WEATHER RESULTS ON DMR SUMC.

Attachment C

Toxicity Evaluation of Wastewaters Discharged From the General Electric Plant; Pittsfield, Massachusetts [Samples Collected in August 2005]

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

Toxicity Evaluation of Wastewaters Discharged from The General Electric Plant Pittsfield, Massachusetts

Samples collected in August 2005

Submitted to:

General Electric
Area Environmental & Facility Programs
100 Woodlawn Avenue
Pittsfield, Massachusetts 01201

SGS Sample ID: TA5-H0-P334

Study Director: Ken Holliday

02 September 2005

SGS Environmental Services
1258 Greenbrier Street
Charleston, West Virginia 25311-1002
Tel: 304.346.0725 Fax: 304.346.0761
www.sgs.com

Signatures and Approval

Submitted by: SGS Environmental Services
1258 Greenbrier Street
Charleston, West Virginia 25311-1002

Tel: 304.346.0725
Fax: 304.346.0761
www.sgs.com

Ken Holliday — September 02, 2005
Date

Ken Holliday
Study Director
ken_holliday@sgs.com

Titshina L. Mims — September 02, 2005
Date

Titshina L. Mims
Technical Writer

Barbara Hensley — September 02, 2005
Date

Barbara Hensley
Project Manager
barbara_hensley@sgs.com

Whole Effluent Toxicity Test
Report Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on: September 02, 2005
Date

Jeannie Latterner
Authorized signature

Jeannie Latterner
Name

QA/QC Manager
Title

SGS Environmental Services
Laboratory

Table of Contents

List of Tables

Summary

Static Acute Toxicity Test with *Daphnia pulex*

Sponsor:	General Electric
Protocol Title:	*Acute Aquatic Toxicity Testing*, SGS Document Control Number 7002, version 5.0
SGS Study Number:	TA5-H0-P334
Test Material:	Composite effluent from the General Electric Company located in Pittsfield, Massachusetts
GE Sample ID:	A6668C
Dilution Water:	Water from the Housatonic River (grab sample)
GE Sample ID:	A6667R
Dates Collected:	August 14, 2005 to August 15, 2005
Date Received:	August 16, 2005
Test Dates:	August 16, 2005 to August 18, 2005
Test Concentrations:	100% effluent 75% effluent 50% effluent 35% effluent 15% effluent 5% effluent dilution water control reference control secondary reference control (sodium thiosulfate)
Results:	The 48-hour LC50 value was determined to be >100% effluent. The No-Observed-Acute-Effect-Level (NOAEL) was observed to be 100% effluent.

1.0 Introduction

1.1 Background

In 1972, amendments were made to the Clean Water Act (CWA) prohibiting the discharge of any pollutant from a point source to waters of the United States, unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. Since the passing of the 1972 amendments to the CWA, significant progress has been made in cleaning up industrial process wastewater and municipal sewage.

The purpose of the National Pollutant Discharge Elimination System (NPDES) Program is to protect human health and the environment. The Clean Water Act requires that all point sources discharging pollutants into waters of the United States must obtain an NPDES permit. By point sources, EPA means discrete conveyances such as pipes or man made ditches.

For many years, discharge limits were based on available technology for wastewater treatment. However, in 1984, the U.S. Environmental Protection Agency (EPA) released a national policy statement entitled "Policy for the Development of Water Quality-Based Permit Limitations for Toxic Pollutants" (U.S. EPA, 1984) which addresses the control of toxic pollutants beyond technology-based requirements in order to meet water quality standards. To implement the new policy, guidance was provided to the respective state and regional permit personnel in the EPA's "Technical Support Document for Water Quality-Based Toxics Control" (U.S. EPA, 1985; U.S. EPA, 1991). The EPA's policy statement and the support document recommended that, where appropriate, permit limits should be based on effluent toxicity as measured in aquatic toxicity tests.

1.2 Clean Water Act, 33 U.S.C. s/s 1251 et seq. (1977)

The Clean Water Act is a 1977 amendment to the Federal Water Pollution Control Act of 1972, which set the basic structure for regulating discharges of pollutants to waters of the United States. The law gave EPA the authority to set effluent standards on an industry basis (technology-based) and continued the requirements to set water quality standards for all contaminants in surface waters. The CWA makes it unlawful for any person to discharge any pollutant from a point source into navigable waters unless a permit (NPDES) is obtained under the Act. The 1977 amendments focused on toxic pollutants. In 1987, the CWA was reauthorized and again focused on toxic substances, authorized citizen suit provisions, and funded sewage treatment plants (POTWs) under the Construction Grants Program. The CWA provisions for the delegation by EPA of many permitting, administrative, and enforcement aspects of the law to state governments. In states with the authority to implement CWA programs, EPA still retains oversight responsibilities.

1.3 Objective of the General Electric Study

The objective of this study was to measure the acute toxicity of the composite wastewater discharged by the General Electric facility located in Pittsfield, Massachusetts, using *Daphnia pulex* under static conditions. Whereas *D. pulex* are not considered locally important, they are routinely used by regulatory agencies and contract laboratories nationwide for toxicity testing. A toxicity test was conducted from August 16, 2005 to August 18, 2005 at SGS Environmental Services, Charleston, West Virginia. All original raw data and the final report produced for this study are stored in SGS's archives at the above location.

2.0 Materials and Methods

2.1 Protocol

Procedures used in this acute toxicity test followed those described in the SGS Standard Operating Procedure (SOP) entitled *Acute Aquatic Toxicity Testing*, SGS document control number 7002, version 5.0. This SOP generally follows the standard methodology presented in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (5th Edition EPA-821-R-02-012 U.S. EPA, Cincinnati, Ohio.) Additional SOPs used in this study are outlined below:

Title	Document Number	Version
Culture Waters for Aquatic Toxicity Testing	7005	4.0
Culture of *Daphnia*	7006	5.0
Reference Toxicant Testing	7008	5.0
Sample Handling for Aquatic Toxicity Testing	7009	4.0

Copies of these documents are included in the References section of this report.

2.2 Effluent Sample

The effluent sample (A6668C) was collected by GE personnel August 14, 2005 to August 15, 2005. Upon receipt at SGS on August 16, 2005, the sample temperature was 4.0° C. The effluent sample was characterized as having

Parameter	Result
Total Hardness	300
Alkalinity (as $CaCO_3$)	161
pH	6.72
Specific Conductance	722
Dissolved Oxygen Concentration*	8.04

*Dissolved oxygen concentration was recorded after sample was aerated and warmed to approximately 20°C).

The effluent sample was observed to be clear and colorless.

2.3 Dilution Water

Dilution water consisted of receiving water collected from the Housatonic River. The receiving water (A6667R) was collected by General Electric personnel on August 15, 2005. Upon receipt at SGS on August 16, 2005, the sample temperature was 4.0°C. The dilution water was characterized as having

Parameter	Result
Total Hardness	260
Alkalinity (as $CaCO_3$)	156
pH	6.82
Specific Conductance	402
Dissolved Oxygen Concentration*	8.75

*Dissolved oxygen concentration was recorded after sample was aerated and warmed to approximately 20°C).

The dilution water sample was observed to be slightly cloudy with a straw color.

2.4 Reference Control Water

Water used in the reference control vessels was deionized (DI) water adjusted to the appropriate hardness (moderately hard reconstituted water) by the addition of reagent grade chemicals (U.S. EPA, 1993). Characterization of this water resulted in:

Parameter	Result
Total Hardness	100
Alkalinity (as $CaCO_3$)	67
pH	7.08
Specific Conductance	307
Dissolved Oxygen	8.74

2.5 Test Organisms

Daphnids (*Daphnia pulex*), less than 24-hours old, were obtained from SGS laboratory cultures maintained in Charleston. The culture system consisted of twenty-four (24) 100 ml disposable plastic beakers each containing 80 ml of culture medium and one (1) daphnid. The culture medium was deionized (DI) water for which the hardness was raised by addition of reagent grade chemicals (U.S. EPA, 1993). Prior to use, the culture water was characterized:

Parameter	Result
Total Hardness	within range of 80-110 mg/L
Alkalinity (as $CaCO_3$)	within range of 60-70 mg/L
pH	within range of 7.0 to 7.2

The culture area was maintained at a temperature of 20°C (± 1°C) with a regulated photoperiod of 16 hours of light and 8 hours of darkness.

Daphnid cultures were fed a combination of green algae (*Selanastrum capricorium*), approximately 4.0 x 10^7 cells/ml) and YCT (yeast, cereal leaves and trout chow). Approximately 1.0 ml of algae and 0.5 ml of YCT was added to each culture vessel daily. Three times per week, daphnids are transferred to fresh culture media.

Approximately twenty-four hours before test initiation, all immature daphnids were removed from the culture flasks. Offspring produced during the period were used in the toxicity test.

2.6 Test Procedures

A subsample of the effluent and the dilution water (approximately 2250 ml) was analyzed by SGS for total phosphorus, chloride, total suspended solids, and total solids. The 48-hour toxicity test was conducted at concentrations of 100%, 75%, 50%, 35%, 15% and 5% effluent. Test concentrations were prepared by

diluting the appropriate volume of effluent with dilution water to a total volume of 250 ml. Test solutions were then divided into replicate (5 replicates per concentration) 30 ml medicine cups, each containing 20 ml of test solution. One set of five control beakers (containing Housatonic River water) and one set of five reference control beakers (containing moderately hard reconstituted water) were established and maintained under the same conditions as the exposure concentrations. A secondary set of five reference control beakers (containing sodium thiosulfate) was also maintained. Test solutions were placed in an incubator to maintain solution temperature of 20°C (± 1°C). Light was provided on a 16-hour light and 8-hour dark photoperiod. Florescent bulbs provided an illumination of 90 to 100 foot-candles in the test area.

Prior to test initiation, daphnids less than 24-hours old were culled individually with a plastic pipette and placed into a 1000 ml holding beaker containing approximately 500 ml of reference water. The test was initiated when daphnids were individually transferred from the holding beaker to the test solutions (4 daphnids per replicate). The daphnids were fed prior to test initiation but were not fed during the exposure period.

2.7 Test Monitoring

The number of mortalities and observations in each replicate vessel were recorded at 24 and 48 hours of exposure and observed mortalities were removed from the test solutions. Biological observations and observations from the physical characteristics of each replicate test solution and control were also made and recorded at 0, 24 and 48 hours. Dissolved oxygen concentrations pH and temperature were measured at test initiation and at 24-hour intervals thereafter, in one replicate vessel (a) for each test concentration in which there were surviving organisms.

Total hardness concentrations were measured by the EDTA titrimetric method and total alkalinity concentrations were determined by potentiometric titration to an endpoint of pH 4.5 (APHA, 1989). Total residual chorine was measured by Hach test. Concentrations of ammonia were determined using a Buchi model 212 distillation unit and titrated automatically with a Brinkman titroprocessor. Specific conductivity was measured with a Cole Palmer Model 71250 salinity-conductivity-temperature meter and probe; pH was measured with a Fisher Scientific Accumet 910 pH meter and combination electrode; dissolved oxygen concentration was measured with an YSI Model 59 dissolved oxygen meter. Daily temperature measurements were performed with a Princo mercury thermometer and a Fisher minimum-maximum thermometer. Light intensity was measured with a General Electric type 217 light meter.

2.8 Reference Toxicity Test

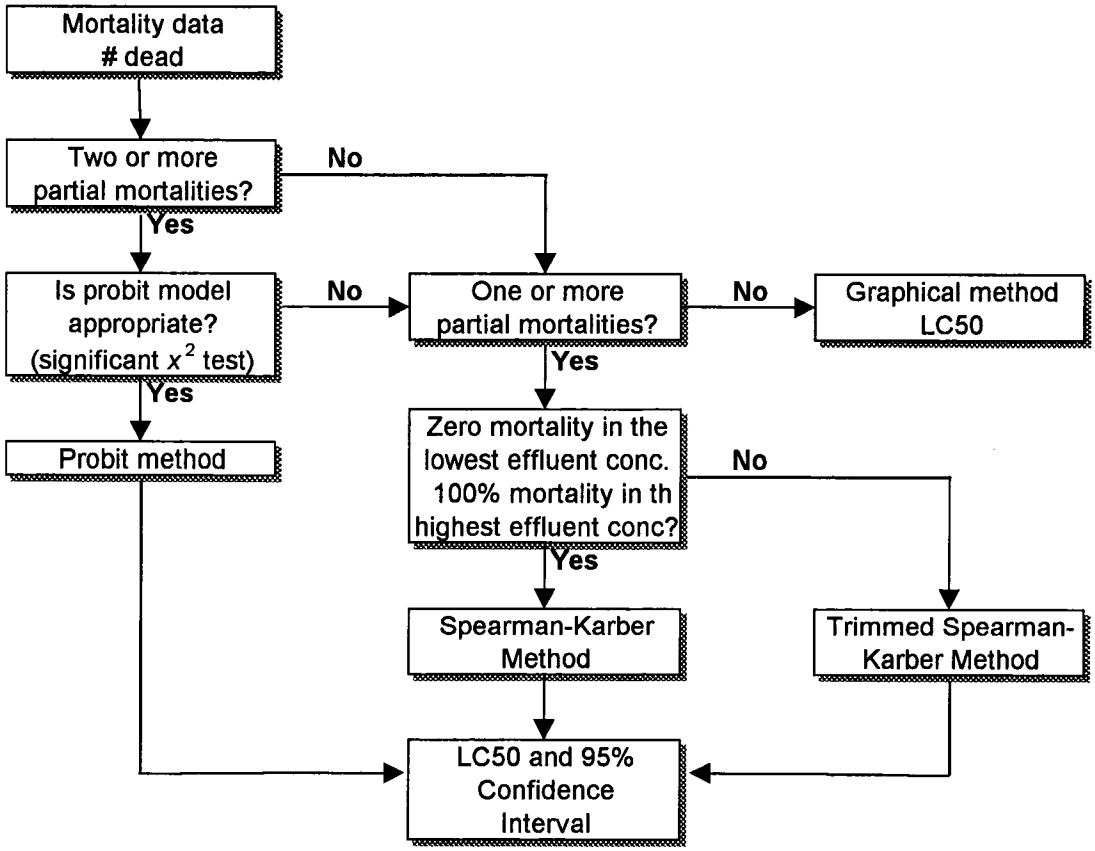
A 48-hour reference toxicity test exposing *Daphnia pulex* to sodium chloride (NaCl) was conducted from August 16, 2005 to August 18, 2005. The reference test was conducted to establish the health of the test organisms. The reference toxicity test included five NaCl concentrations and a dilution water control (moderately hard reconstituted water). The nominal NaCl concentrations for the test with *Daphnia pulex* ranged from 625 to 10,000 mg of NaCl/L. Test methods were the same as those described above for the effluent test.

3.0 Statistics

The concentration-response relationships observed were characterized by the median lethal concentrations (LC50), which is the concentration that is calculated to be lethal to 50 percent of the organisms within the test period. If no concentration caused mortality of 50%, then the LC50 value was determined to be greater than the highest concentration tested and no statistical analysis were performed. If at least one concentration caused mortality of greater than 50% of the test population, then a computer program (TOXSTAT 3.5) was used to calculate the LC50 value. Three statistical methods were available in the computer program: probit analysis, the Trimmed Spearman-Karber, and the Spearman-Karber methods. The graphical method is available if appropriate. Generally, to choose the best estimate of the LC50 value for a particular data set, the U.S. EPA flow chart on page 15 was followed.

The No-Observable-Acute-Effect-Level (NOAEL) was estimated for the acute toxicity test, and is defined as the highest concentration of effluent that produced $\geq$ 90% survival.

Flowchart 1. Determination of the LC50 from a Multi-Effluent-Concentration Acute Toxicity Test



Flowchart for determination of the LC50 for multi-effluent-concentration acute toxicity tests.

4.0 Results

4.1 Effluent Toxicity Test

The methods and detection limits of chemical analyses performed on the composite effluent sample and dilution water are summarized in Table 1. Results of the characterization and analysis of the effluent and the dilution water are presented in Table 2. Water quality parameters measured during the toxicity test are presented in Table 3. Daily and continuous monitoring of the test solutions established the temperature ranged from 19°C to 21°C throughout the exposure period. The effluent concentration was tested (expressed as %) and the corresponding percent mortalities recorded during the 48-hour toxicity test are presented in Table 4. Significant toxicity was not demonstrated in this examination. Based on the results of this study, the 48-hour LC_{50} value was >100% effluent. The NOAEL value for this study was determined to be 100% effluent.

4.2 Reference Toxicity Test

SGS uses sodium chloride (NaCl) as a reference toxicant. The reference test was conducted from August 16, 2005 to August 18, 2005, and the resulting 48-hour LC50 was estimated by Trimmed Spearman-Karber Method to be 2176 mg NaCl/L (95% confidence intervals of 1821 to 2601 mg NaCl/L).

References

American Public Health Association, American Water Works Association, and Water Pollution Control Federation (APHA). 1989. *Standard Methods for the Examination of Water and Wastewater.* 17th Edition.

U.S. Environmental Protection Agency. 1984. Development of water Quality-Based Permit Limitations for Toxic Pollutants. Federal Register 49(48): 90160-90190.

U.S. Environmental Protection Agency. 1985. Technical Support Document for Water Quality-Based Toxics Control. Office of Water, Washington, DC.

U.S. Environmental Protection Agency. 1991. Technical Support Document for Water Quality-Based Toxics Control. Office of Water, Washington, DC.

U.S. Environmental Protection Agency. 5th Edition. *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*. EPA-821-R-02-012.

Table 1. Methods and detection limits of chemical analyses of the General Electric Pittsfield Plant effluent and the dilution water (Housatonic River).

Parameters	Method	Detection Limits
Ammonia Nitrogen as N	EPA 350.2	1.0 mg/L
Chloride	EPA 325.2	1.0 mg/L
Total Organic Carbon	EPA 415.1	1.0 mg/L
Total Solids	EPA 160.3	10.0 mg/L
Phosphorus, Total as P	Standard Methods 4500-P	0.020 mg/L
Total Residual Chlorine	Standard Methods 4500-Cl G	0.01 mg/L
Total Suspended Solids	EPA 160.2	5.0 mg/L

Table 2. Results of the characterization and analyses of the General Electric Pittsfield Plant effluent and the dilution water (Housatonic River).

Parameter	Effluent (A6668C)	Housatonic River (A6667R)
Temperature	20.5°C	20.5°C
pH	6.72	6.82
Alkalinity (as $CaCO_3$)	161 mg/L	156 mg/L
Hardness (as $CaCO_3$)	300 mg/L	260 mg/L
Dissolved Oxygen	8.04 mg/L	8.75 mg/L
Specific Conductivity	722 µmhos/cm	402 µmhos/cm
Salinity	N/A	N/A
Total Residual Chlorine	ND	ND
Ammonia as N (0-Hour)	ND	ND
Total Phosphorus as P	0.12 mg/L	0.021 mg/L
Chloride	80 mg/L	23 mg/L
Total Suspended Solids	17 mg/L	ND
Total Solids	450 mg/L	240 mg/L
Total Organic Carbon	7.6 mg/L	4.1 mg/L

Dissolved oxygen concentrations recorded after samples were aerated and warmed to approximately 20°C.
N/A = not applicable ND = non detectable

Table 3. The water quality measurements recorded during the 48-hour static toxicity test exposing *Daphnia pulex* to General Electric Pittsfield Plant effluent.

Matrix ↓	pH			Dissolved Oxygen (mg/L)			Temperature (°C)		
	0	24	48	0	24	48	0	24	48
Reference Control	7.08	7.15	7.19	8.74	8.67	8.57	20.5	19.7	20.2
Secondary Ref Control	7.13	7.19	7.20	8.80	8.64	8.51	20.5	19.7	20.2
Dilution Water Control	6.82	6.89	6.93	8.75	8.68	8.60	20.5	19.7	20.2
5% Effluent	6.82	6.87	6.90	8.64	8.51	8.40	20.5	19.7	20.2
15% Effluent	6.80	6.85	6.84	8.51	8.43	8.32	20.5	19.7	20.2
35% Effluent	6.77	6.75	6.83	8.40	8.38	8.31	20.5	19.7	20.2
50% Effluent	6.75	6.80	6.84	8.27	8.19	8.20	20.5	19.7	20.2
75% Effluent	6.73	6.79	6.81	8.20	8.17	8.21	20.5	19.7	20.2
100% Effluent	6.72	6.79	6.83	8.04	8.11	8.17	20.5	19.7	20.2

Dissolved oxygen, pH and temperature were measured in one replicate test chamber (A) for each concentration and controls.
The appearance of the effluent was clear, with some sediment.

Reference Control = moderately hard synthetic water
Secondary Control = moderately hard synthetic water and 0.1 N sodium thiosulfate ($Na_2S_2O_3$)
Dilution Water Control = receiving water collected from the Housatonic River

Table 4. Cumulative percent mortalities recorded during the 48-hour static toxicity test exposing *Daphnia pulex* to General Electric Pittsfield Plant effluent.

Test Matrix ↓	Cumulative Percent Mortality (%)											
	24-Hour						48-Hour					
	A	B	C	D	E	Mean	A	B	C	D	E	Mean
Reference Control	0	0	0	0	0	0	0	0	0	0	0	0
Secondary Ref Control	0	0	0	0	0	0	0	0	0	0	0	0
Dilution Water Control	0	0	0	0	0	0	0	0	0	0	0	0
5% Effluent	0	0	0	0	0	0	0	0	0	0	0	0
15% Effluent	0	0	0	0	0	0	0	0	0	0	0	0
35% Effluent	0	0	0	0	0	0	0	0	0	0	0	0
50% Effluent	0	0	0	0	0	0	0	0	0	0	0	0
75% Effluent	0	0	0	0	0	0	0	0	0	0	0	0
100% Effluent	0	0	0	0	0	0	0	0	0	0	0	0

Reference Control = moderately hard synthetic water
$Na_2S_2O_3$ Control = moderately hard synthetic water and sodium thiosulfate (0.1 N)
Dilution Water Control = receiving water collected from the Housatonic River

Appendix I

References

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Document Title:	**Acute Aquatic Toxicity Testing**
Method Reference:	**SGS/USEPA**
Document File Name:	**7002-05.DOC**
Revision Number:	**5.0**
Effective Date:	**May 17, 2005**
Review Date	**May 17, 2005**

UNCONTROLLED COPY

Document Control Number: **7002.05**

Approved by: _____ Supervisor — 5-17-5 Date

Approved by: _____ QA/QC Officer — 5-17-05 Date

1.0 SUMMARY

A 24-, 48-, or 96-hour test to determine the toxicity to freshwater aquatic animals of effluents.

2.0 REFERENCES

2.1 Weber, Cornelius I., *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms.*, Fifth Edition. EPA-821-R-02-012. U.S.EPA, Cincinnati, Ohio.

2.2 *Reporting and Testing Guidance for Biomonitoring Required by the Ohio Environmental Protection Agency* , October, 1991.

2.3 *Toxics Management Program's Guidance for Conduction and Reporting the Results of Toxicity Tests in Fulfillment of VPDES Permit Requirements*, Revised July 1992.

3.0 SCREENING

3.1 Test Duration

24 Hours, 48 Hours or 96 Hours.

3.2 Test Preparation

3.2.1 Measure the pH, D.O. and total residual chlorine of the 100% effluent and the control water. If the effluent pH falls outside of the range of 6.0-9.0, two parallel tests are set up in which one effluent is adjusted and the other is not. The pH is adjusted to 7.0 using additions of 1N NaOH and HCl, (other pH adjustment endpoints may be utilized depending on local requirements). The measured amount of acid or base is recorded on the bench sheet. If the D.O. is below 40% saturation or above 100% saturation, the effluent is aerated prior to test initiation. If the total chlorine is above 0.1 mg/L, two parallel tests are set up in which one effluent is dechlorinated and the other

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is not (Dechlorination may be prohibited; permit is checked to determine if dechlorination is allowed). The effluent is dechlorinated by the addition of anhydrous sodium thiosulfate. The measured amount is recorded on the bench sheet. Care is taken to add the least amount of sodium thiosulfate needed to decrease the TRC level below 0.10 mg/L. Typically, adjustment of effluent is unnecessary.

3.2.2 Twenty organisms per concentration are used in acute screening tests.

3.2.3 This is a static, non-renewal test, using *Ceriodaphnia dubia, Daphnia pulex, Daphnia magna*, or *Pimephales promelas* (Fathead minnow).

3.2.4 Water quality (D.O., pH, conductivity, hardness, alkalinity and TRC), is measured at the time of test initiation. At test termination, temperature, D.O. conductivity and pH are measured. The final mortality and percent effected counts are recorded. Temperature is maintained at 25°± 1°C for *Daphnia*, and 20° ± 1°C for fathead minnows. Facilities exist to perform both fish and *Daphnia* tests at either temperature.

3.3 Test Results

No statistical analysis is performed on screening data.

4.0 DEFINITIVE TEST

4.1 *Pimephales promelas* (Fathead Minnows)

4.1.1 Test Duration

48-Hours or 96-Hours

4.1.2 Static non-renewal

4.1.3 Test Preparation

4.1.3.1 This test is comprised of a control and an effluent dilution series usually consisting of 100%, 50%, 25%, 12.5% and 6.25% (unless otherwise indicated).

4.1.3.2 The sample is brought up to test temperature in a room temperature water bath. Chemical parameters are checked and recorded. If the pH, D.O. or chlorine fall outside the acceptable

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testing range, the effluent may be adjusted (see screening; Test Preparation).

4.1.3.3 The dilutions are prepared in calibrated graduated cylinders using moderately hard synthetic water as dilution water. Other dilution water may be used if specified.

4.1.3.4 Approximately 400 ml of test solution is placed in each of two 800 ml disposable plastic beakers.

4.1.4 Loading

Ten (10) organisms are placed in each beaker. SGSuses fish which are less than 14 days old and are hatched within the same 24 hour period. A loading limit of 0.8 g/l is observed. Fish are loaded by first transferring them to a shallow dish where they are easily transferred into the test solutions with wide-bore pipettes.

4.1.5 Test Temperature

20° C (± 1)

4.1.6 Daily Procedures

4.1.6.1 At the end of each 24 hours, the pH, D.O. and temperatures are checked and recorded. At this time mortalities are also recorded.

4.1.6.2 If a 96 hour static acute test is required, the test solution may be renewed at 48 hours. Renewal is accomplished by siphoning old test solution and debris and replacing with fresh solution of the appropriate concentration.

4.1.6.3 At the end of 48 hours or 96 hours the final mortalities and percent affected are recorded along with the final water qualities (D.O., pH, conductivity).

4.1.7 Feeding

Organisms are allowed to feed only prior to test initiation, and prior to renewal at 48 hours in a 96 hour test.

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Effective Date:	**May 17, 2005**
Review Date	**May 17, 2005**

4.2 *Ceriodaphnia dubia, Daphnia magna,* and *Daphnia pulex*

4.2.1 Test Duration

48-Hours

4.2.2 Static Non-renewal

4.2.3 Test Preparation

4.2.3.1 This test is comprised of a control and a dilution series consisting of 100%, 50%, 25%, 12.5% and 6.25% of the effluent (unless otherwise indicated).

4.2.3.2 The sample is brought up to test temperature in a room temperature waterbath. Chemical parameters are checked and recorded. If the pH, D.O. or chlorine fall outside the acceptable testing range, the effluent may be adjusted (see screening; Test Preparation).

4.2.3.3 The dilutions are prepared in beakers using moderately hard synthetic water (see Section II; Dilution Waters and Culture Media), unless other dilution water is specified. At least 25 ml. of each dilution are placed in five 30 ml. testing vessels.

4.2.4 Loading

4.2.4.1 Four organisms are placed in each vessel. The *Daphnids* are loaded with a disposable polyethylene transfer pipette and are gently released below the surface of the water to avoid the risk of injury.

4.2.5 Test Temperature

The test is conducted in a constant temperature incubator at 25° ±1° C(To satisfy local requirements tests may be conducted at other temperatures).

4.2.6 Daily Procedure

4.2.6.1 At 24 and 48 hours the mortalities and number adversely effected are noted.

4.2.6.2 Due to the fragile structure of *Daphnia* organisms, dissolved oxygen, hardness alkalinity, specific conductance and pH readings are not taken after the organisms have been added to the sample. These analyses could cause injury to the *Daphnia* organisms.

4.2.7 Photoperiod

16 hours light, 8 hours dark.

4.2.8 Feeding

Organisms are allowed to feed prior to test initiation; they are not fed for the duration of the test.

5.0 TEST DATA

5.1 *Pimephales promelas*, *Ceriodaphnia dubia*, *Daphnia magna* and *Daphnia pulex*

5.1.1 Mortality and adverse effects are used as the endpoints for a definitive test.

5.1.2 Chemical parameters checked before test initiation, at 24 hours, 48 hours, 72 hours and 96 hours.

5.1.3 Mortalities recorded at 24 hours, 48 hours, 72 hours and 96 hours.

5.1.4 Any atypical behavior or complications are recorded.

6.0 DATA ANALYSIS

6.1 Introduction

Data from acute effluent toxicity tests are used to estimate the **LC50** and **EC50**. The **LC50** is a point estimate of the effluent concentration that is expected to cause lethality to 50% of the test organisms. The **EC50** is a point estimate of the effluent concentration that is expected to cause and adverse effects to 50% of the test organisms.

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Document Title:	**Acute Aquatic Toxicity Testing**
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Revision Number:	**5.0**
Effective Date:	**May 17, 2005**
Review Date	**May 17, 2005**

6.2 Methods for Estimating the LC50 & EC50

6.2.1 The flow chart (Figure 6) on page 73 of the manual, *Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms* (Fifth Edition), EPA-821-R-02-012, Appendix A is observed for determination of the LC50 for multi-concentration acute toxicity tests.

6.2.2 Several statistics packages, including Toxstat® 3.4, are available for data analysis.

7.0 REPORT PREPARATION

7.1 SGS Acute Toxicity Test Reports Typically Contain the Following Information:

7.1.1 Test background information - Includes client, NPDES or state permit number, sampling point reference number, date collected and received, collector's name, type and date of test, dilution water used, test results, and chain of custody forms.

7.1.2 Results - **LC50** & **EC50** values and analysis method used; Any comments concerning the test results.

7.1.3 Initial Characterization of the Effluent Sample - Raw Data Sheets: Includes dissolved oxygen (DO), pH, specific conductivity, hardness, alkalinity and a description of the sample source.

7.1.4 Reference Toxicity Data

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Document Title: Culture Waters for Aquatic Toxicity Testing
Method Reference: SGS/USEPA
Document File Name: 7005-04.DOC
Revision Number: 4.0
Effective Date: October 20, 1998
Review Date: May 17, 2005

Document Control Number: 7005.04

Approved by: _____ Supervisor — Date: 5-17-5

Approved by: _____ QA/QC Officer — Date: 5-17-05

1.0 Summary

This document describes the preparation of various waters used for the culture of aquatic organisms.

2.0 Moderately-Hard Synthetic Water

2.1 Place 19 liter of de-ionized, or equivalent, water in a properly cleaned and labeled plastic carboy.

2.2 Add 1.20 g of $MgSO_4$, 1.92 g $NaHCO_3$ and 0.08g KCl to the carboy.

2.3 Aerate overnight.

2.4 Add 1.20 g of $CaSO_4 2H_2O$ to 1 liter of de-ionized or equivalent water in a separate flask. Stir on magnetic stirrer until calcium sulfate is dissolved and add to the 19 liter above and mix well.

2.5 Aerate vigorously for 24 hours to stabilize the medium.

3.0 Hard Synthetic Water

3.1 Place 9 liter of de-ionized, or equivalent, water in a properly cleaned and labeled plastic carboy.

3.2 Add 1.20 g of $MgSO_4$, 1.92 g $NaHCO_3$ and 0.08g KCl to the carboy.

3.3 Aerate overnight.

3.4 Add 1.20 g of $CaSO_4 2H_2O$ to 1 liter of de-ionized, or equivalent water in a separate flask. Stir on magnetic stirrer until calcium sulfate is dissolved and add to the 9 liter above and mix well.

3.5 Aerate vigorously for 24 hours to stabilize the medium.

4.0 Synthetic Water Solutions

4.1 KCL Stock Solution

4.1.1 Place 8 g of crystalline, reagent grade KCL in a 1 liter volumetric flask.
4.1.2 Bring the volume to one liter with distilled water.
4.1.3 Aerate vigorously for several hours before using.
4.1.4 Store in a 1 liter polyethylene bottle.

4.2 $MgSO_4$ Stock Solution

4.2.1 Place 120 g of regent water, anhydrous $MgSO_4$ powder in a 1 liter volumetric flask.
4.2.2 Bring the volume to one liter with distilled water.
4.2.3 Aerate vigorously for several hours before using.
4.2.4 Store in a 1 liter polyethylene bottle.

4.3 $NaHCO_3$ Stock Solution

4.3.1 Place 96 g of reagent grade $NaHCO_3$ powder in a 1 liter volumetric flask.
4.3.2 Bring the volume to 1 liter with distilled water
4.3.3 Aerate vigorously for several hours before using.
4.3.4 Store in a 1 liter polyethylene bottle.

5.0 Activated Carbon Treated Tap Water Diluent

5.1 Fill a 5-gallon carboy with water from the treatment system using the attached hose. Water should be allowed to flow slowly through the hose into the sink for 2-3 minutes before filling the carboy. Flow rate to fill the carboy should be slow.

5.2 One or two long airstones are placed in the filled carboy. Water is aerated vigorously for 48-hours.

5.3 Total residual chlorine must be checked on water from newly filled carboys before using.

5.4 Alkalinity, hardness and pH are checked on samples from dechlorinated water carboys according to the Laboratory Procedure Checklist.

5.5 Log information on the Dechlorinated Tap Water and Cechlorimeter log sheet including the carboy number and date filled.

6.0 Synthetic Sea Water Preparation

6.1 Fill a clean carboy with dechlorinated water to approximately the 25-gallon mark.

6.2 The newly filled carboy should be checked for the presence of chlorine and the results recorded on the saltwater carboy log sheet. If chlorine is present, two 4-inch airstones (adjusted to a moderately heavy air flow) should be introduced and the water aerated until a level of <0.01 mg/L is reached.

6.3 A sufficient amount of synthetic salt is added to the carboy to obtain the required salinity (usually 20 ppt).

6.4 All information should be logged on the Saltwater Carboy log sheet.

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Document Title:	**Culture of *Daphnia***
Method Reference:	**SGS/USEPA**
Document File Name:	**7006-05.DOC**
Revision Number:	**5.0**
Effective Date:	**March 12, 2001**
Review Date:	**May 17, 2005**

Document Control Number: 7006

Approved by: _____ Supervisor — Date: 5-17-5

Approved by: _____ QA/QC Officer — Date: 5.17.05

1.0 Summary

This document describes the procedure for the culture of *Ceriodaphnia dubia, Daphnia pulex, Daphnia magna* that are used in aquatic toxicity testing.

2.0 Mass Stock Cultures of *Ceriodaphnia dubia, Daphnia pulex,* and *Daphnia magna*

2.1 Stock cultures are maintained in 1000 ml beakers/jars with 900 mls of culture media at 20 ± 1° C. These cultures are maintained only as a back-up source of organisms.

2.2 Culture media for *Ceriodaphnia dubia* and *Daphnia pulex* is moderately-hard synthetic water. Culture media for *Daphnia magna* is hard synthetic water (see document control number 7005.04, "Culture Waters for Aquatic Toxicity Testing").

2.3 Many cultures are maintained simultaneously with an informal rotation cycle. New cultures are started with young produced by individual cultures. These cultures are maintained for approximately 3 weeks after which they are discarded.

2.4 Cultures are fed YCT (yeast, cerophyll, digested trout chow/flake food) and algae (*Selanastrum capricorium*) on Monday, Wednesday and Friday. Feeding, as well as culture rotation, temperature and all other relevant data is recorded by species in a log book.

2.5 Stock cultures are also fed algae and YCT. These feedings are recorded in the log book.

3.0 Individual Cultures of *Ceriodaphnia dubia, Daphnia pulex, Daphnia magna*

3.1 Cultures of *Daphnia magna* and *Daphnia pulex* are maintained in 100 ml plastic beakers. Twenty-four (24) beakers with one organism each are kept at all times to ensure continuous availability of neonates for testing. Cultures of individual *Ceriodaphnia dubia* are maintained in 30 ml sterile plastic medicine cups. One to two cultures of approximately 100 organisms each are kept at all times.

3.2 Cultures are renewed three times per week. Organisms are fed daily.

4.0 Obtaining Neonates for Testing

4.1 Cultures of *Ceriodaphnia* are started by placing one neonate into a 30 ml disposable plastic cup containing approximately 20 ml of Moderately Hard Synthetic Water. New *Ceriodaphnia* cultures are started every ten to fourteen days. *D. magna* and *D. pulex* are replaced whenever mortality occurs.

4.2 The individual cultures are transferred to fresh media three times per week. Synthetic water, algae and YCT are mixed prior to pouring into culture vessel to ensure uniformity of media. The old media and neonates are kept for stock cultures for several weeks and then discarded.

4.3 To assure neonates for chronic tests are of a very similar age, transfer of individual brood stock to fresh media should be made the morning of the test. The cultures are then checked approximately every two hours to find an adequate number of neonates all released with an 8 hour period. For acute tests, individuals are either transferred less than 24 hours before a test or the young are separated from adults less than 24 hours before a test.

4.4 Young used in chronic testing are obtained from adults who have produced at least three broods, with no less than 8 neonates in their third or subsequent brood. Neonates are then distributed in a "blocking" procedure, i.e., neonates from the same organism are placed in one replication of each concentration.

5.0 *DAPHNIA* Food

5.1 Digested Flake Food

5.1.1 Add 5g flake food to 1 L deionized water. Mix well in a blender and place in a 2 L separatory funnel. To digest, aerate this mixture at room temperature for one week.

5.1.2 At end of the digestion period, remove aeration and allow to settle.

5.1.3 Drain sediment. Place supernatant in a beaker and allow to settle in refrigerator overnight.

5.1.4 Filter through fine mesh.

5.2 Cerophyll®

5.2.1 Add 5g Cerophyll® to 1 L deionized water. Mix in a blender on high speed for 5 minutes.

5.2.2 Remove from blender and allow to settle in refrigerator overnight.

5.2.3 Retain supernatant for combined YCT food.

5.3 Yeast

5.3.1 Add 5g dry yeast to 1 L deionized water. Mix in a blender at low speed.

5.3.2 Do not allow mixture to settle.

5.4 Combined YCT Food

5.4.1 Mix equal parts of each of the above preparations in large clean beakers.

5.4.2 Pour well mixed YCT into small screw cap bottles. Freeze until needed.

SGS Environmental Services Inc.
Standard Operating Procedure

Document Title:	**Reference Toxicant Testing**
Method Reference:	**SGS/USEPA**
Document File Name:	**7008-05.DOC**
Revision Number:	**5.0**
Effective Date:	**July 31, 2001**
Review Date	**May 17, 2005**

Document Control Number: 7008

Approved by: _____ Supervisor _____ 5-17-5 Date

Approved by: _____ QA/QC Manager _____ 5-17-05 Date

1.0 Summary

To insure that healthy organisms are used in testing, SGS performs monthly QA/QC tests on all in-house cultured organisms. SGS uses sodium chloride as a reference toxicant.

2.0 Apparatus

2.1 Disposible plastic beakers

2.2 Disposible plastic medicine cups

2.3 Pipettes

2.4 pH meter

2.5 Dissolved oxygen (DO) meter

3.0 Reagents

3.1 Moderately hard synthetic water (refer to document control number 7005, *Culture Waters for Aquatic Toxicity Testing*)

3.2 Sodium Chloride (NaCl), reagent grade, Baker

4.0 Method

4.1 *Pimephales promelas* (fathead minnows)

4.1.1 48-hour static acute toxicity tests are run at 20°C (±1°C) using fish that are from 1 to 14 days old.

4.1.2 This test consists of a control and a dilution series of 10g/L, 9g/L, 8g/L, 7g/L, and 6g/L, of sodium chloride. Other dilution series may be used.

4.1.3 The dilutions are prepared in 800 ml disposable plastic beakers using moderately hard synthetic water. 500 mls of test solution is placed in each of two replications. Water quality values are measured and recorded at this time.

4.1.4 Ten organisms are placed in each replicate. Fish are loaded by first siphoning them into a shallow pan from which they are transferred to the beakers with a large bore pipette.

4.1.5 The test is terminated at 48 hours. At this time, mortalities are recorded along with final water quality data.

4.2 Daphnids *(Ceriodaphnia dubia, Daphnia magna, Daphnia pulex)*

4.2.1 48-hour static acute tests are performed at 25°C (±1°C) using organisms less than 24 hours old.

4.2.2 These tests consist of a control and a five dilution series. The concentration of the reference toxicant is varied depending on species.

4.2.2.1 *Ceriodaphnia dubia, Daphnia pulex:*

dilutions of 3.0 g/L, 2.5 g/L, 2.0 g/L, 1.5 g/L, 1.0 g/L

4.2.2.2 *Daphnia magna:*

dilutions of 5.0 g/L, 4.0 g/L, 3.0 g/L, 2.0 g/L, 1.0 g/L

4.2.3 Dilutions are prepared using moderately hard synthetic water. 20 mls of each dilution are placed in each of 5 plastic medicine cups.

4.2.4 Four organisms are placed in each test vessel. The *Daphnids* are loaded with a disposable plastic pipette. Organisms are gently released below the surface of the water to minimize risk of injury.

4.2.5 The test is terminated at 48 hours. At this time, mortalities are recorded along with final water quality data.

5.0 Data Analysis

5.1 Toxicity tests are conducted on a monthly basis.

5.2 The median lethal concentration (LC_{50}) is calculated according to EPA protocols.

5.3 Results from these tests are incorporated into Q-sum charts. These records are kept in monthly files.

6.0 Definitions

6.1 Median lethal concentrations (LC_{50}) -- the concentration that is calculated to be lethal to 50 percent of the organisms within the test period.

SGS Environmental Services Inc.
Standard Operating Procedure

Document Title:	**Sample Handling for Aquatic Toxicity Testing**
Method Reference:	**SGS/USEPA**
Document File Name:	**7009-04.DOC**
Revision Number:	**4.0**
Effective Date:	**October 20, 1998**
Review Date:	**May 17, 2005**

Document Control Number: **7009.04**

Approved by: _____ Supervisor — Date: 5-12-5

Approved by: _____ QA/QC Officer — Date: 5-17-05

1.0 Summary

This document describes the manner in which sample waters (effluents, wastewaters, etc.) are handled from point of collection to testing.

2.0 Sample Handling

2.1 Sampling Personnel

SGS's sampling personnel are trained and experienced in the techniques for collecting samples according to NPDES permit requirements. This includes the use of automatic sampling equipment and the measurement of various field parameters.

2.2 Sample Containers

Sample containers used by SGS are disposable plastic cubitainers®.

2.3 Sample Collection Points

For NPDES permit required tests, the sample will be collected at the point specified in the discharge permit unless otherwise directed by the regulatory agency.

2.4 Sample Shipment

Samples are placed on ice (sufficient to maintain 0-4°C) in a cooler and are transported as quickly as possible to the laboratory.

2.5 Laboratory Handling of Samples

Upon delivery to the laboratory, the effluent samples are inspected, given a sample control number and stored at 4° C until used for testing.

2.6 Sample Holding Time

Samples will be tested within 24 hours upon receipt in the laboratory. The maximum lapsed time for collection of a grab or composite sample and the initiation of test, or for test solution renewal, will not exceed 36-hours for Chronic and Acute Testing.

3.0 LABORATORY ENVIRONMENT

3.1 Laboratory Arrangement

The aquatic toxicity testing laboratory is divided into two separate areas: (1) the culturing laboratory and (2) the testing laboratory. See attached diagram for details of laboratory layout.

3.2 Temperature

The aquatic toxicity testing laboratory air temperature is maintained at 20 ± 1° C throughout the year by a central heating and cooling system which is regulated by thermostats. Temperatures are continuously recorded by thermographs.

3.3 Water

Several waters are available for use in the laboratory. SGS has access to municipally supplied water, well water and reagent water from which synthetic water is prepared. Waters used for culturing and testing are analyzed semiannually for priority pollutants and other contaminants. A detailed report is available.

3.4 Lighting

Ambient laboratory lighting is regulated with a 16 hour day/8 hour night photoperiod controlled by an electronic timing system in the culturing and testing areas.

4.0 LABORATORY EQUIPMENT

4.1 General

Instruments used for the measurement of physical and chemical parameters are calibrated prior to use in testing. Any instrument that exceeds the calibration limits is taken out of service and corrective action is taken.

4.2 Balances

Analytical balances are calibrated against standard weights prior to use. All calibration results and adjustments are recorded in bound books.

4.3 Water Quality Meters

Meters are calibrated prior to use using known standards and the manufacturer's instructions. Records of calibration are kept in logbooks. Detailed procedures for the operation of these meters are found in SOP's for each specific instrument.

4.4 Reagents

All reagents are stored in a separate area. Expired reagents and chemicals are discarded.

4.5 Test Containers

All test containers are either clean reusable glassware or new, disposable plastic beakers.

5.0 EQUIPMENT CLEANING PROCEDURES

5.1 Equipment used in culturing or testing is washed in the following manner:

5.1.1 Soak 15 minutes and scrub with detergent in tap water.
5.1.2 Rinse three times with tap water.
5.1.3 Rinse once with 20% nitric acid.
5.1.4 Rinse twice with deionized water.
5.1.5 Rinse once with full-strength, pesticide-grade acetone.
5.1.6 Rinse well with deionized water.
5.1.7 Invert and air dry.
5.1.8 All equipment and test chambers are rinsed with deionized water immediately prior to use for each test.

Appendix II
Chain of Custody

TA5-HO-P334 1/2

Chain of Custody Record

General Electric Co.

100 Woodlawn Ave. Pittsfield, MA 01201

Chain of Custody #: OBG081505-01

Split Sample
C.TOX1 AUG 2005
ACUTOX AUG 2005

Wet **Weather Acute Aquatic Toxicity for** AUG 2005

Project # NPDES PERMIT	Analytical Lab: CT&E Environmental Services Inc.			Sampled By: (Print) Mark Wasnewsky		
Sample #	**Date**	**Time**	**Containers**	**Parameters to be Analyzed**	**Preservative**	**Remarks**
A6668C	8/14 to 8/15/05	11^00 AM	1 Gallon plastic	Definitive Test(LC50 and NOAEL), Static acute toxicity, 48 hr w/ Daphnia pulex	Chilled	(See below)
	to		1000 ml. plastic	Chloride, TSS,Total Solids, Alkalinity Specific Conductance, CL2	Chilled	
	to		500 ml. plastic	Total Phosphorus, TOC, NH3	H2SO4	
A6667R	8/15/05	8^30 AM	1 Gallon plastic	Housatonic River water dilution water for definitive test	Chilled	
			1000 ml. plastic	Chloride, TSS,Total Solids, Alkalinity Specific Conductance, CL2	Chilled	
			500 ml. plastic	Total Phosphorus, TOC, NH3	H2SO4	

Relinquished By:	**Date/Time**	**Received By:**	**Date/Time**
Mark Wasnewsky	8-15-05		8-15-05 1400
Relinquished By:	**Date/Time**	**Received By:**	**Date/Time**
	8-15-05 1430		

Additional Comments: The effluent sample being analyzed for toxicity is a flow-proportioned composite. Each outfall sample is a 24-hour composite. The sample collection times for each outfall are as follows:

001- 705 AM **004-** / **005-64T-** 700 AM **005-64G-** 700 AM **007-** / **09A-** / **09B-** 715 AM

The time of compositing the final flow-proportioned sample was 1100 **A.M.**

rec'd 8/16 @ 930 4.0°
IPS Barbara Hensley

Appendix III
Bench Data

General Electric – 48-hour Acute Biotoxicity Bench Sheet

Client: General Electric

Project: DRY Weather Acute

Lab. No.: TAS-HO-P332-001/002

Sample Date: 08/14-15/05 Time: 11:05

Date Received: 08/16/05

Source: Effluent Composite

Date Analyzed: 08/16/05

Source of dilution water: Housatonic River Water

Analyst(s): KH

Test Species: *Daphnia pulex* Age: < 24 HRS Temp. Range: °C

Type of Test: 48-Hour Static Acute

Total Chlorine: n/d

	Beginning	Ending
Date:	08/16/05	08/18/05
Time:	11:00	11:00

Concentration→	Housatonic River Control	MHSW Control	MHSW $Na_2S_2O_3$ Control	Effluent 5%	Effluent 15%	Effluent 35%	Effluent 50%	Effluent 75%	Effluent 100%
START									
Temperature	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
Hardness	260	100	110						300
D.O.	8.75	8.74	8.80	8.64	8.51	8.40	8.27	8.20	8.04
pH	6.82	7.08	7.13	6.82	6.80	6.77	6.75	6.73	6.72
Alkalinity	156	67	65						161
Sp. Conduct.	402	307	317	442	477	551	624	680	722
24 HOUR									
No. Surviving	20	20	20	20	20	20	20	20	20
Temperature	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7
D.O.	8.68	8.67	8.64	8.51	8.43	8.38	8.19	8.17	8.11
pH	6.89	7.15	7.19	6.87	6.85	6.75	6.80	6.79	6.79
Sp. Conduct.	410	318	327	440	483	543	630	697	729
48 HOUR									
No. Surviving	20	20	20	20	20	20	20	20	20
Temperature	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
D.O.	8.60	8.57	8.51	8.40	8.32	8.31	8.20	8.21	8.17
pH	6.93	7.19	7.20	6.90	6.84	6.83	6.84	6.81	6.83
Sp. Conduct.	419	324	330	449	491	556	639	690	733

Method Reference: *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms.*, Fifth Edition. EPA-821-R-02-012 U.S.EPA, Washington, DC.

f:\public\forms\bioassay\GE bench sheet-acute.doc

FOR REFERENCE, CITE:
HAMILTON, M.A., R.C. RUSSO, AND R.V. THURSTON, 1977.
TRIMMED SPEARMAN-KARBER METHOD FOR ESTIMATING MEDIAN
LETHAL CONCENTRATIONS IN TOXICITY BIOASSAYS.
ENVIRON. SCI. TECHNOL. 11(7): 714-719;
CORRECTION 12(4):417 (1978).

DATE: 08/16/05 TEST NUMBER: - DURATION: 48 HOURS
CHEMICAL: NaCl SPECIES: PULEX

RAW DATA:

CONCENTRATION(MG/L)	625.00	1250.00	2500.00	5000.00	*******
NUMBER EXPOSED:	20	20	20	20	20
MORTALITIES:	0	2	12	20	20
SPEARMAN-KARBER TRIM:		0.00%			

SPEARMAN-KARBER ESTIMATES: LC50: 2176.38
95% LOWER CONFIDENCE: 1821.37
95% UPPER CONFIDENCE: 2600.58

Acute Biotoxicity Bench Sheet

Client: QC

Project: Reference Toxicant Lab. No.:

Date Received:

Sample Date: Time: Date Analyzed:

Source: NaCl Analyst: KH

Source of dilution water: Moderately Hard Synthetic Water

Test Species: Daphnia pulex Age: < 24 hrs Temp. Range: °C

Type of Test: 48 HOUR ACUTE

Total Chlorine: n/d

	Beginning	Ending
Date:	08/16/05	08/18/05
Time:	1500	1500

Concentration	**Control**		625	1250	2500	5000	10,000
START							
Temperature	20.2		20.2	20.2	20.2	20.2	20.2
Hardness	100						110
D.O.	8.8		8.8	8.8	8.8	8.8	8.8
pH	7.1		7.2	7.2	7.2	7.2	7.2
Alkalinity	67						73
Sp. Conduct.	314		1680	2330	3920	8100	14240
24 HOUR							
Temperature	20.6		20.6	20.6	20.6	20.6	20.6
No. Surviving	20		20	19	12	2	0
48 HOUR							
Temperature	19.7		19.7	19.7	19.7	19.7	19.7
No. Surviving	20		20	18	8	0	0

Note: All results expressed in mg/L unless otherwise designated. < = less than

Note: Number in parenthesis equals number not adversely effected (EC_{50}). This number is used in calculating EC_{50} value.

Note: Due to fragile structure of *Daphnia* organisms, dissolved oxygen (DO), hardness, alkalinity, specific conductance, and pH reading could not be taken after the organisms are added to the sample. Doing so would cause injury to the organisms.

Method Reference: *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms.*, Fifth Edition. EPA-821-R-02-012 U.S.EPA, Washington, DC

Appendix IV

U.S. EPA Region I Toxicity Test Summary

Toxicity Test Summary Sheet

Facility Name: General Electric Co. Test Start Date: August 16, 2005
NPDES Permit Number: MA 000 3891 Pipe Number: 001, 005-64T, 005-64G, 09A, 09B

Test Type	Test Species	Sample Type	Sample Method
☑ Acute	☐ Fathead minnow	☐ Prechlorinated	☐ Grab
☐ Chronic	☐ Ceriodaphnia	☐ Dechlorinated	☑ Composite
☐ Modified*	☑ Daphnia pulex	☐ Chlorine	☐ Flow thru
☐ 24-hour Screening	☐ Mysid Shrimp	☐ Spiked at lab	☐ Other
	☐ Menidia	☑ Chlorinated on-site	
	☐ Sea Urchin	☐ Unchlorinated	
	☐ Champia		
	☐ Selenastrum		
	☐ Other		

*Modified (Chronic reporting acute values)

Dilution Water

X Receiving waters collected at a point upstream of or away from the discharge, free from toxicity or other sources of contamination (Receiving water name: Housatonic River);

___ Alternate surface water of known quality and a harness, etc. to generally reflect the characteristics of the receiving water;

___ Synthetic water prepared using either Millipore Mill-Q or equivalent deionized water and reagent grade chemicals; or deionized water combined with mineral water;

___ or artificial sea salts mixed with deionized water;

___ Deionized water and hypersaline brine; or

___ other

Effluent sampling date(s): August 14, 2005 to August 15, 2005

Effluent concentrations tested (in %): 100 75 50 35 15 5
*(Permit limit concentration): N/A

Was effluent salinity adjusted? No
If yes, to what value? N/A ppt
With sea salts? N/A Hypersaline brine solution? N/A

Actual effluent concentrations tested after salinity adjustment
(In %): N/A N/A N/A N/A N/A N/A
Reference Toxicant Test Date: August 16, 2005 to August 18, 2005

N/A= not applicable

Permit Limits & Test Results

Test Acceptability Criteria

MEAN CONTROL SURVIVAL: 100% MEAN CONTROL REPRODUCTION: N/A

MEAN CONTROL WEIGHT: N/A MEAN CONTROL CELL COUNT: N/A

Limits		Results	
LC50	N/A	48-hr LC50	>100%
		Upper Value	N/A
		Lower Value	N/A
		Data Analysis Method used:	N/A
A-NOEC	N/A	A-NOEC	100%
C-NOEC	N/A	C-NOEC	N/A
		LOEC	N/A
IC25	N/A	IC25	N/A
IC50	N/A	IC50	N/A

N/A = not applicable

Attachment D

Chronic Effects of the Process Wastewaters Discharged From the General Electric Plant; Pittsfield, Massachusetts [Samples Collected in August 2005]

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

Chronic Effects of the Process Wastewaters Discharged from the General Electric Plant Pittsfield, Massachusetts

Samples collected in August 2005

Submitted to:

General Electric
Area Environmental & Facility Programs
100 Woodlawn Avenue
Pittsfield, Massachusetts 01201

SGS Sample ID: TA5-H0-P333

Study Director: Ken Holliday

08 September 2005

SGS Environmental Services
1258 Greenbrier Street
Charleston, West Virginia 25311-1002
Tel: 304.346.0725 Fax: 304.346.0761
www.sgs.com

Signatures and Approval

Submitted by: SGS Environmental Services
1258 Greenbrier Street
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Ken Holliday — 08 September 2005
Ken Holliday — Date
Study Director
Ken.holliday@sgs.com

Titshina L. Mims — 08 September 2005
Titshina L. Mims — Date
Technical Writer

Jeannie Latterner for BH — 08 September 2005
Barbara Hensley — Date
Project Manager
Barbara.hensley@sgs.com

Whole Effluent Toxicity Test
Report Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on: 08 September 2005
Date

Authorized signature

Jeannie Latterner
Name

QA/QC Manager
Title

SGS Environmental Services
Laboratory

Jeannie.milholland@sgs.com

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Executive Summary

The following is a summary of the toxicity results exposing *Ceriodaphnia dubia* to effluent collected from the General Electric Company, Pittsfield, Massachusetts. Effluent samples were collected from August 14, 2005 to August 19, 2005. The freshwater species, *Ceriodaphnia dubia*, was exposed to the effluent under static-renewal conditions. Acute endpoints were derived 48-hours into the chronic studies.

Acute Toxicity Evaluation

Species	Exposure Period	LC_{50} % effluent	NOAEL % effluent
Ceriodaphnia dubia	48 hours	>100%	100%

Chronic Toxicity Evaluation

Species	Endpoint	Exposure Period	NOCEL % effluent	LOCEL % effluent	MAWC % effluent
Ceriodaphnia dubia	Survival	7 days	100%	>100%	≥100%
Ceriodaphnia dubia	Reproduction	7 days	100%	>100%	≥100%

Summary of Test Conditions and Test Results

Static Renewal Short-Term Toxicity Test with *Ceriodaphnia dubia*

Sponsor:	General Electric
Protocol Title:	*Chronic Aquatic Toxicity Testing*, SGS Document Control Number 7003, version 5.0
Study Number:	TA5-H0-P333
Test Material:	Composite effluent from the General Electric Company located in Pittsfield, Massachusetts
GE Sample ID:	A6668C, A6670C and A6672C
Dilution Water:	Water from the Housatonic River
Dilution Water ID:	A6667R, A6669R and A6671R

Dates Collected:

Effluent	Dilution Water
08/14/05 to 08/15/05 (A6668C)	08/15/05 (A6667R)
08/16/05 to 08/17/05 (A6670C)	08/17/05 (A6669R)
08/18/05 to 08/19/05 (A6672C)	08/19/05 (A6671R)

Dates Received: 08/16/05, 08/18/05, 08/20/05

Test Dates: 08/16/05 to 08/23/05

Test Concentrations:
100% effluent
75% effluent
50% effluent
25% effluent
12.5 effluent
6.25% effluent
dilution water control (Housatonic River)
reference control (moderately hard reconstituted water)
secondary reference control (sodium thiosulfate)

Test Type:	Chronic static renewal
Temperature:	25°C (± 1°C)
Light Intensity:	90 to 100 foot-candles
Photoperiod:	16 hours light, 8 hours dark
Size of Test Chamber:	30 ml medicine cups
Test Solution Volume:	20 ml per medicine cup
Renewal of solutions:	Test solutions were renewed daily using the most recently collected effluent sample.
Age of Organisms:	The test organisms were less than 24-hours old and were all hatched within an 8-hour period of each other.
Number of Neonates per test chamber:	1 daphnid per test chamber (replicate)
Number of Replicate Test Chambers per treatment:	10 test chambers (replicates) per concentration
Feeding regime:	Daphnid cultures were fed a combination of green algae (*Selenastrum capricorium*) and YCT (yeast, cereal leaves and trout chow).
Aeration:	The effluent sample was supersaturated by aeration prior to use in the test.
Results:	LC_{50} The 48-hour LC_{50} value was determined to be >100% effluent.
	NOAEL The No-Observed-Acute-Effect-Level (NOAEL), based on survival, was observed to be 100% effluent
	NOCEL The No-Observed-Chronic-Effect-Level, based on reproduction, was determined to be 100% effluent

LOCEL The Lowest-Observed-Chronic-Effect-Level, based on reproduction, was determined to be >100% effluent

MAWC The Maximum Acceptable Wastewater Concentration was calculated to be ≥100% effluent.

1.0 Introduction

1.1 Background

In 1972, amendments were made to the Clean Water Act (CWA) prohibiting the discharge of any pollutant from a point source to waters of the United States, unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. Since the passing of the 1972 amendments to the CWA, significant progress has been made in cleaning up industrial process wastewater and municipal sewage.

The purpose of the National Pollutant Discharge Elimination System (NPDES) Program is to protect human health and the environment. The Clean Water Act requires that all point sources discharging pollutants into waters of the United States must obtain an NPDES permit. By point sources, EPA means discrete conveyances such as pipes or man made ditches.

For many years, discharge limits were based on available technology for wastewater treatment. However, in 1984, the U.S. Environmental Protection Agency (EPA) released a national policy statement entitled "Policy for the Development of Water Quality-Based Permit Limitations for Toxic Pollutants" (U.S. EPA, 1984) which addresses the control of toxic pollutants beyond technology-based requirements in order to meet water quality standards. To implement the new policy, guidance was provided to the respective state and regional permit personnel in the EPA's "Technical Support Document for Water Quality-Based Toxics Control" (U.S. EPA, 1985; U.S. EPA, 1991). The EPA's policy statement and the support document recommended that, where appropriate, permit limits should be based on effluent toxicity as measured in aquatic toxicity tests.

1.2 Clean Water Act, 33 U.S.C. s/s 1251 et seq. (1977)

The Clean Water Act is a 1977 amendment to the Federal Water Pollution Control Act of 1972, which set the basic structure for regulating discharges of pollutants to waters of the United States. The law gave EPA the authority to set effluent standards on an industry basis (technology-based) and continued the requirements to set water quality standards for all contaminants in surface waters. The CWA makes it unlawful for any person to discharge any pollutant from a point source into navigable waters unless a permit (NPDES) is obtained under the Act. The 1977 amendments focused on toxic pollutants. In 1987, the CWA was reauthorized and again focused on toxic substances, authorized citizen suit provisions, and funded sewage treatment plants (POTWs) under the Construction Grants Program. The CWA provisions for the delegation by EPA of many permitting, administrative, and enforcement aspects of the law to state governments. In states with the authority to implement CWA programs, EPA still retains oversight responsibilities.

1.3 The Chronic Toxicity Test

The acute toxicity test is used for predicting the maximum allowable concentrations of industrial waste waters that can be discharged into a receiving system. Chronic toxicity tests produce data that is useful in predicting the wastewater concentrations not likely to harm a resident population of invertebrates or fish.

1.4 Objective of the General Electric Study

The objective of this study was to measure the chronic toxicity of the composite process wastewater discharged by the General Electric facility located in Pittsfield, Massachusetts, using *Ceriodaphnia dubia* under static renewal conditions. Whereas *Ceriodaphnia dubia* are not considered locally important, they are routinely used by regulatory agencies and contract laboratories nationwide for toxicity testing. A short-term chronic toxicity test was conducted from August

16, 2005 to August 23, 2005 at SGS Environmental Services, Charleston, West Virginia. All original raw data and the final report produced for this study are stored in SGS's archives at the above location.

2.0 Materials and Methods

2.1 Protocol

Procedures used in this chronic toxicity test followed those described in the SGS Standard Operating Procedure (SOP) entitled *Chronic Aquatic Toxicity Testing*, SGS document control number 7003, version 5.0. This SOP generally follows the standard methodology described by the U.S. Environmental Protection Agency.

Additional SOPs used in this study are outlined below:

Title	Document Number	Version
Culture Waters for Aquatic Toxicity Testing	7005	4.0
Daphnia, Culture of	7006	5.0
Reference Toxicant Testing	7008	5.0
Sample Handling for Aquatic Toxicity Testing	7009	4.0

Copies of these documents are included in the References section of this report.

2.2 Effluent Sample

The first effluent sample (A6668C) was collected by GE personnel from August 14, 2005 to August 15, 2005 , and was used to initiate the short-term chronic test and renewal of the test solutions on Day 1 and Day 2. Upon receipt at SGS on August 16, 2005, the sample temperature was 4.0°C. The effluent sample was characterized as having

Sample #1 – collected from 08/14/05 to 08/15/05

Parameter	Result
Total Hardness	290
Alkalinity (as $CaCO_3$)	152
Ph	6.87

Sample #1 – collected from 08/14/05 to 08/15/05

Parameter	Result
Specific Conductance	725
Dissolved Oxygen Concentration*	9.04
Appearance	Clear

The second effluent sample (A6670C) was collected by GE personnel from August 16, 2005 to August 17, 2005 , and was used for renewal of test solutions on Day 3 and Day 4. Upon receipt at SGS on August 18, 2005, the sample temperature was 3.1°C. The effluent sample was characterized as having

Sample #2 – collected from 08/16/05 to 08/17/05

Parameter	Result
Total Hardness	350
Alkalinity (as $CaCO_3$)	193
pH	7.15
Specific Conductance	761
Dissolved Oxygen Concentration*	8.46
Appearance	Clear

The third effluent sample (A6672C) was collected by GE personnel from August 18, 2005 to August 19, 2005 , and was used for renewal of test solutions on Days 5, 6 and 7. Upon receipt at SGS on August 20, 2005, the sample temperature was 3.4°C. The effluent sample was characterized as having

Sample #3 – collected from 08/18/05 to 08/19/05

Parameter	Result
Total Hardness	380
Alkalinity (as $CaCO_3$)	322
pH	7.35
Specific Conductance	1123
Dissolved Oxygen Concentration*	8.51
Appearance	Clear

*Dissolved oxygen concentration was recorded after sample was aerated and warmed to approximately 20°C).

2.3 Dilution Water

Dilution water consisted of receiving water collected from the Housatonic River and was collected as a "grab" sample. The first dilution water sample (A6667R) was collected by General Electric personnel on August 15, 2005, and was used with the Day 1 and Day 2 test. Upon receipt at SGS, the sample temperature was 4.0°C. The dilution water sample was characterized as having

Dilution Water #1	**Collected 08/15/05**
Parameter	**Result**
Total Hardness	300
Alkalinity (as $CaCO_3$)	149
pH	6.62
Specific Conductance	416
Dissolved Oxygen Concentration*	8.92
Appearance:	Slight yellow color

The second dilution water sample (A6669R) was collected by General Electric personnel on August 17, 2005, and was used with the Day 3 and Day 4 tests. Upon receipt at SGS, the sample temperature was 3.1°C. The dilution water sample was characterized as having

Dilution Water #2	**Collected 08/17/05**
Parameter	**Result**
Total Hardness	240
Alkalinity (as $CaCO_3$)	152
pH	6.80
Specific Conductance	386
Dissolved Oxygen Concentration*	8.80
Appearance:	Slight yellow color

The third dilution water sample (A6671R) was collected by General Electric personnel on August 19, 2005, and was used with the Day 5, 6 and 7 tests. Upon receipt at SGS, the sample temperature was 3.4°C. The dilution water sample was characterized as having

Dilution Water #3	Collected 08/19/05
Parameter	**Result**
Total Hardness	390
Alkalinity (as $CaCO_3$)	301
pH	7.43
Specific Conductance	414
Dissolved Oxygen Concentration*	8.46
Appearance:	Slight yellow color

*Dissolved oxygen concentration was recorded after sample was aerated and warmed to approximately 25°C).

2.4 Reference Control Water

Water used in the reference control vessels was deionized (DI) water adjusted to the appropriate hardness (moderately hard reconstituted water) by the addition of reagent grade chemicals (U.S. EPA, 1993). Characterization of this water resulted in:

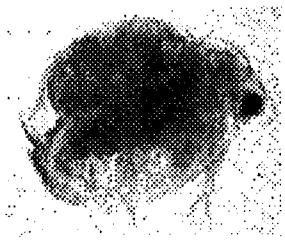
Parameter	Result
Total Hardness	100 - 110
Alkalinity (as $CaCO_3$)	64 - 67
pH	7.03 - 7.10
Specific Conductance	308 - 320

2.5 Secondary Reference Control

A secondary reference control consisted of deionized (DI) water adjusted to the appropriate hardness (moderately hard reconstituted water) and sodium thiosulfate (0.1 N).

2.6 Test Organisms

Ceriodaphnia dubia→



Daphnids (*Ceriodaphnia dubia*), less than 24-hours old, were obtained from SGS laboratory cultures maintained in Charleston. The culture system consisted of twenty-four (24) 100 ml disposable plastic beakers each containing 80 ml of culture medium

and one (1) daphnid. The culture medium was deionized (DI) water for which the hardness was raised by addition of reagent grade chemicals (U.S. EPA, 1993). Prior to use, the culture water was characterized:

Parameter	Result
Total Hardness	within range of 80-110 mg/L
Alkalinity (as $CaCO_3$)	within range of 60-75 mg/L
PH	within range of 7.0 to 7.2

The culture area was maintained at a temperature of 25°C (±1°C) with a regulated photoperiod of 16 hours of light and 8 hours of darkness.

Daphnid cultures were fed a combination of green algae (*Selenastrum capricorium*), approximately 4.0×10^7 cells/ml and YCT (yeast, cereal leaves and trout chow). Approximately 1.0 ml of algae and 0.5 ml of YCT was added to each culture vessel daily. Three times per week, daphnids are transferred to fresh culture media.

Approximately twenty-four hours before test initiation, all immature daphnids were removed from the culture flasks. Offspring produced during the period were used in the toxicity test. All Ceriodaphnia dubia were used in the test were ≤24 hours old and all were produced within an 8-hour period.

2.7 Test Procedures

A subsample of the effluent and the dilution water (approximately 2250 ml), from each of the three sampling events, was analyzed by SGS for total phosphorus, chloride, total suspended solids, and total solids. The short-term chronic toxicity test was conducted at concentrations of 100%, 75%, 50%, 25%, 12.5% and 6.25% effluent. Test concentrations were prepared from this solution by diluting the appropriate volume of effluent with dilution water to a total volume of 800 ml. Test solutions were then divided into replicate (10

replicates per concentration) 30 ml medicine cups, each containing 20 ml of test solution. One set of ten control beakers (containing Housatonic River water), one set of ten reference control beakers (containing moderately hard reconstituted water), and one set of ten secondary reference control beakers (containing moderately hard reconstituted water and sodium thiosulfate) were established and maintained under the same conditions as the exposure concentrations. Test solutions were placed in an incubator to maintain solution temperature of 25°C (± 1°C). Light was provided on a 16-hour light and 8-hour dark photoperiod. Florescent bulbs provided an illumination of 90 to 100 foot-candles in the test area.

Prior to test initiation, daphnids less than 24-hours old were culled individually with a plastic pipette and placed into a 1000 ml holding beaker containing approximately 500 ml of reference water. The test was initiated when daphnids were individually transferred from the holding beaker to the test solutions (5 daphnids per replicate). The renewal of the test solutions was conducted daily by transferring the adult organisms to freshly prepared solutions. The daphnids were fed prior to test initiation and immediately following renewal of the test solutions.

2.8 Test Monitoring

The number of mortalities and observations in each replicate vessel were recorded at 0, 24, 48, 72, 96, 120, 144 and 168 hours of exposure and observed mortalities were removed from the test solutions. Biological observations and observations from the physical characteristics of each replicate test solution and control were also made and recorded at 0, 24, 48, 72, 96, 120, 144 and 168 hours. Dissolved oxygen concentrations pH and temperature were measured at test initiation and at 24-hour intervals thereafter, in one replicate vessel (a) for each test concentration in which there were surviving organisms.

Total hardness concentrations were measured by the EDTA titrimetric method and total alkalinity concentrations were determined by potentiometric titration to an endpoint of pH 4.5 (APHA, 1989). Total residual chorine was measured by Hach test. Concentrations of ammonia were determined using a Buchi model 212 distillation unit and titrated automatically with a Brinkman titroprocessor. Specific conductivity was measured with a Cole Palmer Model 71250 salinity-conductivity-temperature meter and probe; pH was measured with a Fisher Scientific Accumet 910 pH meter and combination electrode; dissolved oxygen concentration was measured with a YSI Model 59 dissolved oxygen meter. Daily temperature measurements were performed with a Princo mercury thermometer and a Fisher minimum-maximum thermometer. Light intensity was measured with a General Electric type 217 light meter.

2.9 Reference Toxicity Test

A chronic reference toxicity test exposing *Ceriodaphnia dubia* to sodium chloride (NaCl) was conducted from August 05, 2005 to August 12, 2005. The reference test was conducted to establish the health of the test organisms. The reference toxicity test included five NaCl concentrations and a dilution water control (moderately hard reconstituted water). The nominal NaCl concentrations for the test with *Ceriodaphnia dubia* was 500, 1000, 2000, 3000 and 4000 mg of NaCl/L. Test methods were the same as those described above for the effluent test.

3.0 Statistics

All data generated during the test was tabulated, summarized and analyzed by SGS. The data generated at the end of 48 hours were analyzed and when appropriate a median lethal concentration (LC_{50}) was calculated. This value was derived using a computerized statistical method (TOXSTAT 3.5), which was also used to calculate confidence levels were possible for each test organism.

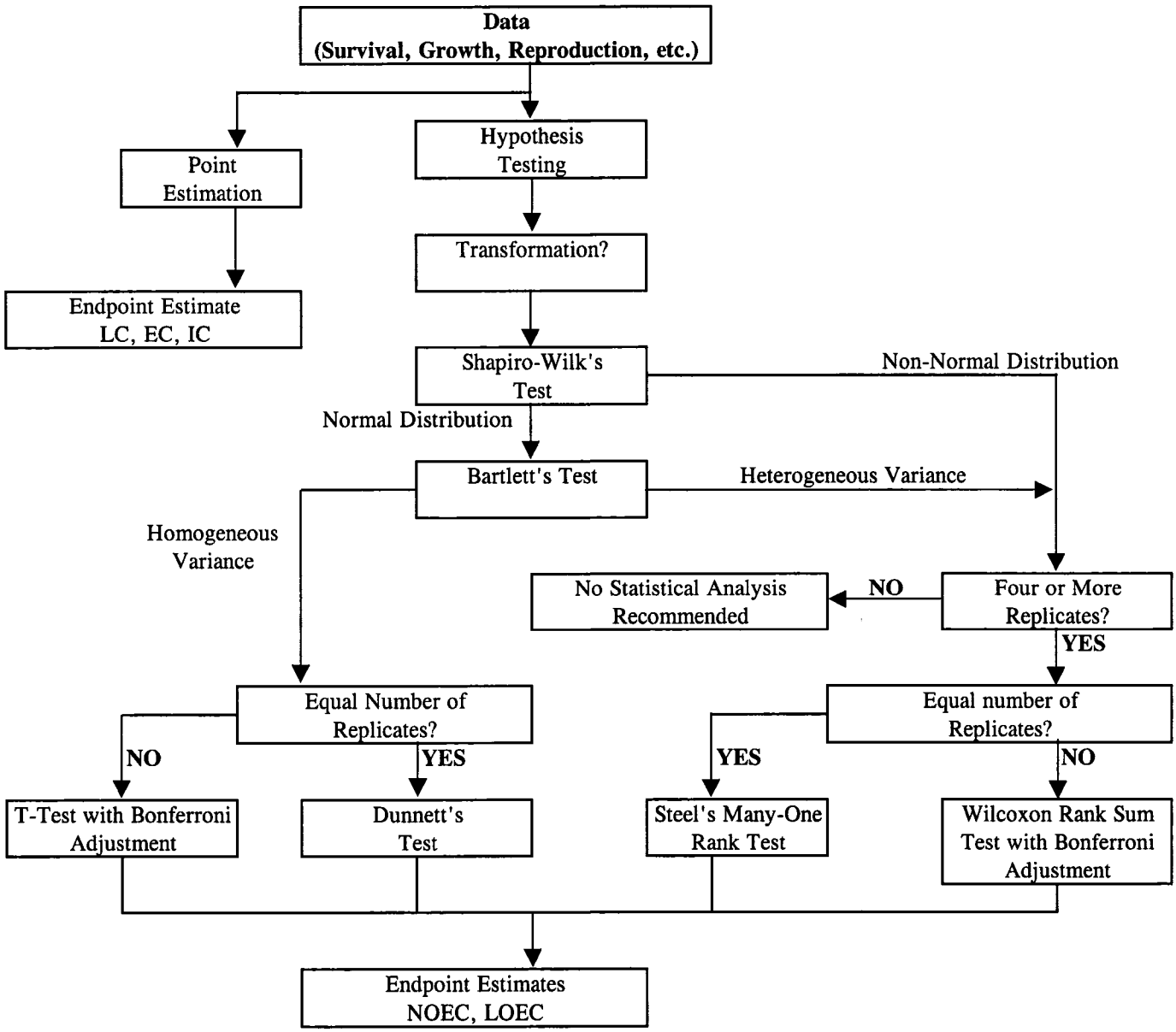
If partial mortalities were observed in at least two concentrations, the probit analysis, which yields LC_{50} values and 95 percent confidence levels, was used. When fewer than two partial mortalities were observed, the moving average method, binomial method, or non-linear interpolation, was used to generate LC_{50}s. The final report specifies the statistical methods used.

The Shapiro-Wilk's test and Bartlett's test are performed on all other chronic data to test for normality of data distribution and homogeneity of variance between treatments.

Concentrations above the NOECL for survival were excluded from the hypothesis tests for reproduction and growth. If assumptions of parametric analysis (Shapiro-Wilk's test and Bartlett's test) are met, the reproduction data will be analyzed using Dunnett's procedure or the T-test with Bonferroni Adjustment. If assumptions are not met, Steel's Many-One Rank test or Wilcoxon Rank Sum test with Bonferroni Adjustment (non-parametric analyses) are used to analyze data. Fisher's Exact is used to analyze Ceriodaphnia survival data. The final report specifies the statistical methods used.

Generally, to choose the best estimate values for a particular data set, the U.S. EPA flow chart on page 21 was followed.

Flowchart for Statistical Analysis of Data



4.0 Results

4.1 Effluent Toxicity Test

The methods and detection limits of chemical analyses performed on the composite effluent sample and dilution water are summarized in Table 1. Results of the characterization and analysis of the effluent and the dilution water are presented in Table 2. Water quality parameters measured during the toxicity test are presented in Table 3. Daily and continuous monitoring of the test solutions established the temperature ranged from 24°C to 26°C throughout the exposure period. The effluent concentration was tested (expressed as %) and the corresponding percent mortalities recorded during the 48-hour toxicity test are presented in Table 4.

The percent survival and number of offspring produced during the 7-day exposure to *C. dubia* are presented in Table 4. The 48-hour LC_{50} value was determined to be >100% effluent, since no concentrations caused ≥50% mortality during the first 48 hours of the study. At test termination, 100% survival was observed among *C. dubia* exposed to all effluent concentrations and the controls. Based on statistical analysis of the survival data, the NOCEL was determined to be 100% effluent.

By day seven, ≥60% of the reference control organisms had produced at least three broods with a minimum of 15 young per female.

	Mean Number of Offspring per Effluent Concentration								
	Effluent Concentration (%)						Dilution water control	Reference Control	Secondary Reference Control
	6.25	12.5	25	50	75	100			
Mean →	24.7	25.8	27.2	25.4	26.2	23.7	24.8	25.1	24.6

(Secondary reference control = sodium thiosulfate)

Statistical analyses of *C. dubia* reproduction using Dunnett's did not established a difference between the 100% effluent concentration and the control group. The NOCEL, based on reproduction, was therefore determined to be 100% effluent. The Lowest-Observed-Chronic-Effect-Level (LOCEL), based on reproduction, was determined to be >100% effluent. The Maximum-Acceptable-Wastewater-Concentration (MAWC) was calculated to be 100% effluent.

4.2 Reference Toxicity Test

SGS uses sodium chloride (NaCl) as a reference toxicant. The reference test was conducted from August 03, 2005 to August 05, 2005, and the resulting 48-hour LC_{50} was estimated by Spearman-Karber Trim to be 1238 mg of NaCl/L (95% confidence intervals of 1037 to 1479 mg NaCl/L).

5.0 References

American Public Health Association, American Water Works Association, and Water Pollution Control Federation (APHA). 1989. *Standard Methods for the Examination of Water and Wastewater. 17th Edition*.

U.S. Environmental Protection Agency. 1984. *Development of water Quality-Based Permit Limitations for Toxic Pollutants*. Federal Register 49(48):90160-90190.

U.S. Environmental Protection Agency. 1985. *Technical Support Document for Water Quality-Based Toxics Control*. Office of Water, Washington, DC.

U.S. Environmental Protection Agency. 1991. Technical Support Document for Water Quality-Based Toxics Control. Office of Water, Washington, DC.

Weber, Cornelius I., et al., *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fourth Edition. EPA-821-R-02-013. U.S.EPA, Cincinnati, Ohio.

Table 1. Methods and detection limits of chemical analyses of the General Electric Pittsfield Plant effluent and the dilution water (Housatonic River).

Parameters	Method	Detection Limits
Ammonia Nitrogen as N	EPA 350.2	1.0 mg/L
Chloride	EPA 325.2	1.0 mg/L
Total Organic Carbon	EPA 415.1	1.0 mg/L
Total Solids	EPA 160.3	10.0 mg/L
Phosphorus, Total as P	EPA 365.2	0.02 mg/L
Total Residual Chlorine	Standard Methods 4500-Cl G	0.01 mg/L
Total Suspended Solids	EPA 160.2	5.0 mg/L

Table 2a. Sample #1 – collected from 08/14/05 to 08/15/05
Dilution water collected on 08/15/05
Results of the characterization and analyses of the General Electric Pittsfield Plant effluent and the dilution water (Housatonic River).

Parameter	Effluent (A6668C)	Housatonic River (A6667R)
Temperature	24.7°C	24.7°C
pH	6.87	6.62
Alkalinity (as $CaCO_3$)	152 mg/L	149 mg/L
Hardness (as $CaCO_3$)	290 mg/L	300 mg/L
Dissolved Oxygen	9.04 mg/L	8.92 mg/L
Specific Conductivity	725 µmhos/cm	416 µmhos/cm
Salinity	N/A	N/A
Total Residual Chlorine	ND	ND
Ammonia as N (0-Hour)	ND	ND
Total Phosphorus as P	0.12 mg/L	0.021 mg/L
Chloride	80 mg/L	23 mg/L
Total Suspended Solids	17 mg/L	ND
Total Solids	450 mg/L	240 mg/L
Total Organic Carbon	7.6 mg/L	4.1 mg/L
Description	clear	slight yellow color

*Dissolved oxygen concentrations recorded after samples were aerated and warmed to approximately 20°C.
N/A = not applicable ND = non detectable

Table 2b. Sample #2 – collected from 08/16/05 to 08/17/05
Dilution water collected on 08/17/05
Results of the characterization and analyses of the General Electric Pittsfield Plant effluent and the dilution water (Housatonic River).

Parameter	Effluent (A6670C)	Housatonic River (A6669R)
Temperature	25.2°C	25.2°C
pH	7.15	6.80
Alkalinity (as $CaCO_3$)	193	152
Hardness (as $CaCO_3$)	350	240
Dissolved Oxygen	8.46	8.80
Specific Conductivity	761	386
Salinity	N/A	N/A
Total Residual Chlorine	ND	ND
Ammonia as N (0-Hour)	ND	ND
Total Phosphorus as P	0.062 mg/L	ND
Chloride	80 mg/L	22 mg/L
Total Suspended Solids	9.0 mg/L	ND
Total Solids	410 mg/L	220 mg/L
Total Organic Carbon	6.8 mg/L	4.6 mg/L
Description	Clear	Slight yellow color

Dissolved oxygen concentrations recorded after samples were aerated and warmed to approximately 20°C.
N/A = not applicable ND = non detectable

Table 2c. Sample #3 – collected from 08/18/05 to 08/19/05
Dilution water collected on 08/19/05
Results of the characterization and analyses of the General Electric Pittsfield Plant effluent and the dilution water (Housatonic River).

Parameter	Effluent (A6672C)	Housatonic River (A6671R)
Temperature	25.4°C	25.4°C
pH	7.35	7.43
Alkalinity (as $CaCO_3$)	322	301
Hardness (as $CaCO_3$)	380	390
Dissolved Oxygen	8.51	8.46
Specific Conductivity	1123	414
Salinity	N/A	N/A
Total Residual Chlorine	ND	ND
Ammonia as N (0-Hour)	ND	ND
Total Phosphorus as P	0.030 mg/L	ND
Chloride	110 mg/L	23 mg/L
Total Suspended Solids	ND	ND
Total Solids	590 mg/L	230 mg/L
Total Organic Carbon	4.2 mg/L	4.2 mg/L
Description	Clear	Slight yellow color

Dissolved oxygen concentrations recorded after samples were aerated and warmed to approximately 20°C. N/A = not applicable ND = non detectable

Table 3. The water quality measurements (ranges) recorded during the 7-day short-term chronic toxicity test exposing *Ceriodaphnia dubia* to General Electric Pittsfield Plant effluent.

Sample ↓	pH	Dissolved Oxygen mg/L	Temperature (°C)	Conductivity µmhos/cm
Dilution Water Control	6.62-7.54	8.46-8.92	24.7-25.7	380-416
Reference Control	7.03-7.11	8.70-8.82	24.7-25.7	304-323
$Na_2S_2O_3$ Control	7.09-7.15	8.72-8.81	24.7-25.7	312-326
6.25% effluent	6.64-7.52	8.46-8.92	24.7-25.7	430-558
12.5% effluent	6.65-7.50	8.46-8.92	24.7-25.7	473-602
25% effluent	6.70-7.47	8.46-8.95	24.7-25.7	531-707
50% effluent	6.76-7.45	8.48-8.97	24.7-25.7	552-831
75% effluent	6.80-7.41	8.50-8.98	24.7-25.7	678-950
100% effluent	6.87-7.40	8.46-9.04	24.7-25.7	710-1123

Dilution Water Control = receiving water collected from the Housatonic River
Reference Control = moderately hard synthetic water
$Na_2S_2O_3$ Control = moderately hard synthetic water and sodium thiosulfate (0.1 N)

Table 4. Summary of the mean survival and reproduction recorded during the 7-day short-term chronic toxicity test exposing *Ceriodaphnia dubia* to General Electric Pittsfield Plant effluent.

Effluent Concentration (%)	Days 1	2	3	4	5	6	7
Reference Control	100%	100%	100%	100%	100%	100%	100%
$Na_2S_2O_3$ Control	100%	100%	100%	100%	100%	100%	100%
Control	100%	100%	100%	100%	100%	100%	100%
6.25	100%	100%	100%	100%	100%	100%	100%
12.5	100%	100%	100%	100%	100%	100%	100%
25	100%	100%	100%	100%	100%	100%	100%
50	100%	100%	100%	100%	100%	100%	100%
75	100%	100%	100%	100%	100%	100%	100%
100	100%	100%	100%	100%	100%	100%	100%

	Number of Offspring Produced							Mean
Reference Control	0	0	0	31	21	63	133	25.1
$Na_2S_2O_3$ Control	0	0	0	32	26	77	111	24.6
Control	0	0	0	35	29	77	110	24.8
6.25	0	0	0	32	34	56	125	24.7
12.5	0	0	0	36	23	73	126	25.8
25	0	0	0	40	32	78	122	27.2
50	0	0	0	36	22	76	120	25.4
75	0	0	0	43	23	76	120	26.2
100	0	0	0	42	19	55	121	23.7

Actual number of mortalities (if any) is presented in parentheses.

Reference Control = moderately hard synthetic water
$Na_2S_2O_3$ Control = moderately hard synthetic water and sodium thiosulfate (0.1 N)
Dilution Water Control = receiving water collected from the Housatonic River

Appendix I

References

SGS Environmental Services Inc.
Standard Operating Procedure

Document Title:	**Procedure for Chronic Aquatic Toxicity Testing**
Method Reference:	**SGS/USEPA**
Document File Name:	**7003-05.DOC**
Revision Number:	**5.0**
Effective Date:	**May 17, 2005**
Review Date:	**May 17, 2005**

Document Control Number: **7003.05**

Approved by: _____ Supervisor — 5-17-5 Date

Approved by: Jeannie Latterner QA/QC Officer — 5-17-05 Date

1.0 INTRODUCTION

1.1 This method estimates the chronic toxicity of whole effluents and receiving water to *Pimephales promelas*, fathead minnow, and *Ceriodaphnia dubia* in a seven-day, static-renewal test. Growth, survival, and reproduction are used as endpoints to measure toxicity.

1.2 The sample is brought up to test temperature in a room temperature water bath. Chemical parameters are checked and recorded. If the pH, D.O. or chlorine fall outside the acceptable testing range, the effluent may be adjusted (see screening; Test Preparation).

1.3 24 hour composite samples are used in chronic testing. Some tests use three samples collected over the seven day period in which the test is set up and daily renewals are made. Other tests require a fresh sample daily for seven days.

1.3.1 The first sample is used for test initiation on day 1 and test solution renewal on day 2. The second sample is used for renewals on days 3 and 4, and the third sample is used for renewals on days 5, 6. Samples held over night are kept at 4° C until needed.

1.3.2 A fresh sample is collected and used for solution renewal each day.

2.0 *PIMEPHALES PROMELAS* LARVAL SURVIVAL AND GROWTH TEST

2.1 Test Duration

7 Days

2.2 Static Renewal

2.3 Endpoints

Survival and Growth

2.4 Test Preparation

2.4.1 The screening test consists of a control and a 100%. The definitive test consists of a control and a dilution series consisting of 100%, 50%, 25%, 12.5% and 6.25% of the effluent(unless otherwise requested). Samples taken at points downstream may be included if a permit requires it.

2.4.2 The sample is brought up to test temperature(25°C) in a waterbath. Chemical parameters (alkalinity, hardness, pH, D.O., and conductivity) are checked and recorded. If the pH, D.O. or chlorine fall outside the acceptable testing range, the effluent may be adjusted (see screening; Test Preparation).

2.4.3 The dilutions are prepared in graduated cylinders using moderately hard synthetic water (unless other dilution water is specified by the permit).

2.4.4 250 ml of each dilution are poured into four(4) beakers. Containers are disposable 800 ml HDPE plastic beakers.

2.5 Loading

2.5.1 Ten organisms, less than 24 hours old, are placed in each beaker. Fish are loaded by first transferring them to a shallow dish from which they are easily transferred with a large bore pipette.

2.5.2 The test chambers are positioned randomly at the beginning of the test. This randomization is maintained throughout the test.

2.6 Test Temperature

The test is conducted in a constant temperature incubator at 25°C ± 1°

2.7 Renewal Procedure

2.7.1 At 24 hours, the water quality parameters and temperatures are checked and recorded. At this time mortalities are also recorded and removed.

2.7.2 New concentrations are prepared (as in day 1) and the renewal water qualities and temperatures are recorded.

2.7.3 The test vessels are gently emptied. Extreme care is taken not to lose any fish. At this time uneaten *artemia* and other debris are removed from the

bottom of the test chambers using a disposable pipet. New dilutions are slowly added.

2.7.4 Accidental removal of fish is noted on the bench sheet.

2.8 Feeding

2.8.1 The fish in each chamber are fed 0.15 ml of an *artemia* suspension two (2) times daily. Accuracy and consistency is assured by dispensing *artemia* suspension with an automatic pipette. The *artemia* suspension consists of concentrated newly hatched brine shrimp. This feeding will supply each chamber with sufficient food to ensure a small excess.

2.8.2 Fish are not fed during the final 12 hours of the test.

2.9 Termination of the Test

2.9.1 Seven days after test initiation the test is terminated. At this time final water qualities are measured and recorded along with mortalities.

2.9.2 Surviving larvae from each test chamber are rinsed with D.I. water and are placed on pre-weighed tin trays. The fish are euthanised before drying. The fish are dried at 100° C for a minimum of 2 hours and are then placed in a desiccator until the time of weighing. Weights are measured to the nearest 0.01 mg.

2.10 Acceptability of Test Results

Survival in the controls must be at least 80%. The average dry weight of control larvae must be greater than or equal to 0.250 mg.

3.0 *CERIODAPHNIA DUBIA* SURVIVAL AND REPRODUCTION TEST

3.1 Test Duration

Until 60% of the control has three broods.

3.2 Static Renewal

3.3 Test Endpoints

Survival and Reproduction

3.4 Test Preparation

3.4.1 A screening test consists of a control and a 100%.

3.4.2 A definitive test consists of a control and a dilution series consisting of 100%, 50%, 25%, 12.5% and 6.25% of the effluent (unless otherwise requested) and River Sample Points, if provided.

3.5 Feeding

0.1 ml each of YCT and concentrated algae is placed in the test vessel prior to loading or transferring of the organisms. This is done to prevent undue stress to the organisms.

3.6 Loading

3.6.1 Neonates are obtained from adults that have eight or more young in their third or subsequent broods.

3.6.2 Neonates used in the test are all within 8 hours of each other in age. At the time of test initiation the neonates are ≤ 24 hours.

3.6.3 One neonate is placed in each test vessel. Test vessels are 30 ml disposable medicine cups. SGS uses a fibrotic illuminator during loading and renewals.

3.7 Test Temperature

25°C ± 1° C

3.8 Renewal

3.8.1 New test solutions are prepared and placed in new test vessels daily. Renewal water quality is measured prior to transfer. The test organisms are transferred to the new test solutions using a small bore pipette.

3.8.2 Neonates are counted at the time of transfer, but are not transferred. This number, along with any adult mortalities, is recorded.

3.9 Termination of the Test

3.9.1 The test is terminated when sixty percent (60%) of the control has had three broods.

3.9.2 At this time neonates are counted and recorded.

3.10 Acceptability of Test Results

3.10.1 Survival of the control adults must be at least 80%.

3.10.2 80% or greater survival and an average of 15 or more young/surviving female in the control solutions.

4.0 TEST DATA

4.1 Mortalities are recorded daily.

4.2 Water quality parameters are recorded before test initiation, at 24 hour intervals, (renewal of dilutions) and at the time of test termination.

4.3 Final dry weight of the *Pimephales promelas* are recorded.

4.4 Neonates are counted and recorded daily in the *Ceriodaphnia dubia* test.

4.5 Any unusual observations or complications noted during the test.

5.0 DATA ANALYSIS

5.1 Introduction

The data collected is first tabulated and summarized. A hypothesis test approach is used to calculate LOEC (Lowest Observed Effect Concentration) and NOEC (No Observed Effect Concentration) values for survival, growth and reproduction.

5.2 Methods for estimating the NOEC and LOEC of Survival Data

Note: Concentrations at which there is no survival in any of the test chambers are excluded from statistical analysis.

5.2.1 **Fisher's Exact Test** - used for *Ceriodaphnia dubia* survival data.

SGS Environmental Services Inc.
Standard Operating Procedure

Document Title:	**Procedure for Chronic Aquatic Toxicity Testing**
Method Reference:	**SGS/USEPA**
Document File Name:	**7003-05.DOC**
Revision Number:	**5.0**
Effective Date:	**May 17, 2005**
Review Date:	**May 17, 2005**

Document Control Number: **7003.05**

5.2.2 **Shapiro-Wilk's Test and Bartlett's Test** - tests for normality and homogeneity of variance respectively, are performed first using no transformation.

5.2.3 **Dunnett's Procedure** - parametric procedure; used if data meets both the normality and homogeneity assumptions.

5.2.4 **Steel's Many-One Rank Test** - non-parametric procedure; used if either the normality or homogeneity test fail.

5.2.5 **Bonferroni T-test** - parametric analysis; used when unequal number of replicates occur.

5.2.6 **Wilcoxon Rank Sum Test with the Bonferroni adjustments** - non-parametric analysis; used when unequal number of replicates occur.

5.2.7 **t-Test** - used to compare Control with River Sample Points. Used for screening tests.

6.0 REPORT PREPARATION

6.1 SGS chronic toxicity test reports contain the following information:

6.1.1 Summary Page - Includes client, NPDES permit number, date collected, type and date of test, dilution water used, summary of test procedure and results.

6.1.2 Logistical Information - When the sample was collected and by whom, when the sample arrived at the laboratory, start time of test, any other pertinent information.

6.1.3 Results - Values obtained from test, statistical methods utilized to calculate the results.

6.1.4 Initial Characteristics of Effluent - Includes dissolved oxygen, pH, specific conductivity, hardness, alkalinity, temperature and total residual chlorine when indicated.

6.1.5 Data Summary - Summarizes percent survival per concentration, mean dry weight per concentration, mean young produced per concentration.

6.1.6 Statistical Data Print Outs.

6.1.7 Chain of Custody

7.0 References

7.1 Weber, Cornelius I., et al., *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms.*, Fourth Edition. EPA-821-R-02-013. U.S.EPA, Cincinnati, Ohio.

7.2 *Reporting and Testing Guidance for Biomonitoring Required by the Ohio Environmental Protection Agency*, October, 1991.

SGS Environmental Services Inc.
Standard Operating Procedure

Document Title:	**Culture Waters for Aquatic Toxicity Testing**
Method Reference:	**SGS/USEPA**
Document File Name:	**7005-04.DOC**
Revision Number:	**4.0**
Effective Date:	**October 20, 1998**
Review Date:	**May 17, 2005**

Document Control Number: 7005.04

Approved by: _____ Supervisor — 5-17-5 Date

Approved by: _____ QA/QC Officer — 5-17-05 Date

1.0 Summary

This document describes the preparation of various waters used for the culture of aquatic organisms.

2.0 Moderately-Hard Synthetic Water

2.1 Place 19 liter of de-ionized, or equivalent, water in a properly cleaned and labeled plastic carboy.

2.2 Add 1.20 g of $MgSO_4$, 1.92 g $NaHCO_3$ and 0.08g KCl to the carboy.

2.3 Aerate overnight.

2.4 Add 1.20 g of $CaSO_4 2H_2O$ to 1 liter of de-ionized or equivalent water in a separate flask. Stir on magnetic stirrer until calcium sulfate is dissolved and add to the 19 liter above and mix well.

2.5 Aerate vigorously for 24 hours to stabilize the medium.

3.0 Hard Synthetic Water

3.1 Place 9 liter of de-ionized, or equivalent, water in a properly cleaned and labeled plastic carboy.

3.2 Add 1.20 g of $MgSO_4$, 1.92 g $NaHCO_3$ and 0.08g KCl to the carboy.

3.3 Aerate overnight.

3.4 Add 1.20 g of $CaSO_4 2H_2O$ to 1 liter of de-ionized, or equivalent water in a separate flask. Stir on magnetic stirrer until calcium sulfate is dissolved and add to the 9 liter above and mix well.

3.5 Aerate vigorously for 24 hours to stabilize the medium.

4.0 Synthetic Water Solutions

4.1 KCL Stock Solution

4.1.1 Place 8 g of crystalline, reagent grade KCL in a 1 liter volumetric flask.
4.1.2 Bring the volume to one liter with distilled water.
4.1.3 Aerate vigorously for several hours before using.
4.1.4 Store in a 1 liter polyethylene bottle.

4.2 $MgSO_4$ Stock Solution

4.2.1 Place 120 g of regent water, anhydrous $MgSO_4$ powder in a 1 liter volumetric flask.
4.2.2 Bring the volume to one liter with distilled water.
4.2.3 Aerate vigorously for several hours before using.
4.2.4 Store in a 1 liter polyethylene bottle.

4.3 $NaHCO_3$ Stock Solution

4.3.1 Place 96 g of reagent grade $NaHCO_3$ powder in a 1 liter volumetric flask.
4.3.2 Bring the volume to 1 liter with distilled water
4.3.3 Aerate vigorously for several hours before using.
4.3.4 Store in a 1 liter polyethylene bottle.

5.0 Activated Carbon Treated Tap Water Diluent

5.1 Fill a 5-gallon carboy with water from the treatment system using the attached hose. Water should be allowed to flow slowly through the hose into the sink for 2-3 minutes before filling the carboy. Flow rate to fill the carboy should be slow.

5.2 One or two long airstones are placed in the filled carboy. Water is aerated vigorously for 48-hours.

5.3 Total residual chlorine must be checked on water from newly filled carboys before using.

5.4 Alkalinity, hardness and pH are checked on samples from dechlorinated water carboys according to the Laboratory Procedure Checklist.

5.5 Log information on the Dechlorinated Tap Water and Cechlorimeter log sheet including the carboy number and date filled.

SGS Environmental Services Inc.
Standard Operating Procedure

Document Title:	**Culture Waters for Aquatic Toxicity Testing**
Method Reference:	**SGS/USEPA**
Document File Name:	**7005-04.DOC**
Revision Number:	**4.0**
Effective Date:	**October 20, 1998**
Review Date:	**May 17, 2005**

Document Control Number: **7005.04**

6.0 Synthetic Sea Water Preparation

6.1 Fill a clean carboy with dechlorinated water to approximately the 25-gallon mark.

6.2 The newly filled carboy should be checked for the presence of chlorine and the results recorded on the saltwater carboy log sheet. If chlorine is present, two 4-inch airstones (adjusted to a moderately heavy air flow) should be introduced and the water aerated until a level of <0.01 mg/L is reached.

6.3 A sufficient amount of synthetic salt is added to the carboy to obtain the required salinity (usually 20 ppt).

6.4 All information should be logged on the Saltwater Carboy log sheet.

SGS Environmental Services Inc.
Standard Operating Procedure

Document Title:	**Culture of *Daphnia***
Method Reference:	**SGS/USEPA**
Document File Name:	**7006-05.DOC**
Revision Number:	**5.0**
Effective Date:	**March 12, 2001**
Review Date:	**May 17, 2005**

Document Control Number: 7006

Approved by: _____ Supervisor — 5-17-5 Date

Approved by: _____ QA/QC Officer — 5.17.05 Date

1.0 Summary

This document describes the procedure for the culture of *Ceriodaphnia dubia, Daphnia pulex, Daphnia magna* that are used in aquatic toxicity testing.

2.0 Mass Stock Cultures of *Ceriodaphnia dubia, Daphnia pulex,* and *Daphnia magna*

2.1 Stock cultures are maintained in 1000 ml beakers/jars with 900 mls of culture media at 20 ± 1° C. These cultures are maintained only as a back-up source of organisms.

2.2 Culture media for *Ceriodaphnia dubia* and *Daphnia pulex* is moderately-hard synthetic water. Culture media for *Daphnia magna* is hard synthetic water (see document control number 7005.04, "Culture Waters for Aquatic Toxicity Testing").

2.3 Many cultures are maintained simultaneously with an informal rotation cycle. New cultures are started with young produced by individual cultures. These cultures are maintained for approximately 3 weeks after which they are discarded.

2.4 Cultures are fed YCT (yeast, cerophyll, digested trout chow/flake food) and algae (*Selanastrum capricorium*) on Monday, Wednesday and Friday. Feeding, as well as culture rotation, temperature and all other relevant data is recorded by species in a log book.

2.5 Stock cultures are also fed algae and YCT. These feedings are recorded in the log book.

3.0 Individual Cultures of *Ceriodaphnia dubia, Daphnia pulex, Daphnia magna*

3.1 Cultures of *Daphnia magna* and *Daphnia pulex* are maintained in 100 ml plastic beakers. Twenty-four (24) beakers with one organism each are kept at all times to ensure continuous availability of neonates for testing. Cultures of individual *Ceriodaphnia dubia* are maintained in 30 ml sterile plastic medicine cups. One to two cultures of approximately 100 organisms each are kept at all times.

3.2 Cultures are renewed three times per week. Organisms are fed daily.

SGS Environmental Services Inc.
Standard Operating Procedure

Document Title:	**Culture of *Daphnia***
Method Reference:	**SGS/USEPA**
Document File Name:	**7006-05.DOC**
Revision Number:	**5.0**
Effective Date:	**March 12, 2001**
Review Date:	**May 17, 2005**

Document Control Number: **7006**

4.0 Obtaining Neonates for Testing

4.1 Cultures of *Ceriodaphnia* are started by placing one neonate into a 30 ml disposable plastic cup containing approximately 20 ml of Moderately Hard Synthetic Water. New *Ceriodaphnia* cultures are started every ten to fourteen days. *D. magna* and *D. pulex* are replaced whenever mortality occurs.

4.2 The individual cultures are transferred to fresh media three times per week. Synthetic water, algae and YCT are mixed prior to pouring into culture vessel to ensure uniformity of media. The old media and neonates are kept for stock cultures for several weeks and then discarded.

4.3 To assure neonates for chronic tests are of a very similar age, transfer of individual brood stock to fresh media should be made the morning of the test. The cultures are then checked approximately every two hours to find an adequate number of neonates all released with an 8 hour period. For acute tests, individuals are either transferred less than 24 hours before a test or the young are separated from adults less than 24 hours before a test.

4.4 Young used in chronic testing are obtained from adults who have produced at least three broods, with no less than 8 neonates in their third or subsequent brood. Neonates are then distributed in a "blocking" procedure, i.e., neonates from the same organism are placed in one replication of each concentration.

5.0 *DAPHNIA* Food

5.1 Digested Flake Food

5.1.1 Add 5g flake food to 1 L deionized water. Mix well in a blender and place in a 2 L separatory funnel. To digest, aerate this mixture at room temperature for one week.

5.1.2 At end of the digestion period, remove aeration and allow to settle.

5.1.3 Drain sediment. Place supernatant in a beaker and allow to settle in refrigerator overnight.

5.1.4 Filter through fine mesh.

SGS Environmental Services Inc.
Standard Operating Procedure

Document Title:	**Culture of *Daphnia***
Method Reference:	**SGS/USEPA**
Document File Name:	**7006-05.DOC**
Revision Number:	**5.0**
Effective Date:	**March 12, 2001**
Review Date:	**May 17, 2005**

Document Control Number: **7006**

5.2 Cerophyll®

5.2.1 Add 5g Cerophyll® to 1 L deionized water. Mix in a blender on high speed for 5 minutes.

5.2.2 Remove from blender and allow to settle in refrigerator overnight.

5.2.3 Retain supernatant for combined YCT food.

5.3 Yeast

5.3.1 Add 5g dry yeast to 1 L deionized water. Mix in a blender at low speed.

5.3.2 Do not allow mixture to settle.

5.4 Combined YCT Food

5.4.1 Mix equal parts of each of the above preparations in large clean beakers.

5.4.2 Pour well mixed YCT into small screw cap bottles. Freeze until needed.

SGS Environmental Services Inc.
Standard Operating Procedure

Document Title:	**Reference Toxicant Testing**
Method Reference:	**SGS/USEPA**
Document File Name:	**7008-05.DOC**
Revision Number:	**5.0**
Effective Date:	**July 31, 2001**
Review Date	**May 17, 2005**

Document Control Number: 7008

Approved by: _____ Supervisor _____ 5-17-5 Date

Approved by: _____ QA/QC Manager _____ 5-17-05 Date

1.0 Summary

To insure that healthy organisms are used in testing, SGS performs monthly QA/QC tests on all in-house cultured organisms. SGS uses sodium chloride as a reference toxicant.

2.0 Apparatus

2.1 Disposible plastic beakers

2.2 Disposible plastic medicine cups

2.3 Pipettes

2.4 pH meter

2.5 Dissolved oxygen (DO) meter

3.0 Reagents

3.1 Moderately hard synthetic water (refer to document control number 7005, *Culture Waters for Aquatic Toxicity Testing*)

3.2 Sodium Chloride (NaCl), reagent grade, Baker

4.0 Method

4.1 *Pimephales promelas* (fathead minnows)

4.1.1 48-hour static acute toxicity tests are run at 20°C (±1°C) using fish that are from 1 to 14 days old.

4.1.2 This test consists of a control and a dilution series of 10g/L, 9g/L, 8g/L, 7g/L, and 6g/L, of sodium chloride. Other dilution series may be used.

4.1.3 The dilutions are prepared in 800 ml disposable plastic beakers using moderately hard synthetic water. 500 mls of test solution is placed in each of two replications. Water quality values are measured and recorded at this time.

4.1.4 Ten organisms are placed in each replicate. Fish are loaded by first siphoning them into a shallow pan from which they are transferred to the beakers with a large bore pipette.

4.1.5 The test is terminated at 48 hours. At this time, mortalities are recorded along with final water quality data.

4.2 Daphnids *(Ceriodaphnia dubia, Daphnia magna, Daphnia pulex)*

4.2.1 48-hour static acute tests are performed at 25°C (±1°C) using organisms less than 24 hours old.

4.2.2 These tests consist of a control and a five dilution series. The concentration of the reference toxicant is varied depending on species.

4.2.2.1 *Ceriodaphnia dubia, Daphnia pulex:*

dilutions of 3.0 g/L, 2.5 g/L, 2.0 g/L, 1.5 g/L, 1.0 g/L

4.2.2.2 *Daphnia magna:*

dilutions of 5.0 g/L, 4.0 g/L, 3.0 g/L, 2.0 g/L, 1.0 g/L

4.2.3 Dilutions are prepared using moderately hard synthetic water. 20 mls of each dilution are placed in each of 5 plastic medicine cups.

4.2.4 Four organisms are placed in each test vessel. The *Daphnids* are loaded with a disposable plastic pipette. Organisms are gently released below the surface of the water to minimize risk of injury.

4.2.5 The test is terminated at 48 hours. At this time, mortalities are recorded along with final water quality data.

5.0 Data Analysis

5.1 Toxicity tests are conducted on a monthly basis.

5.2 The median lethal concentration (LC_{50}) is calculated according to EPA protocols.

5.3 Results from these tests are incorporated into Q-sum charts. These records are kept in monthly files.

6.0 Definitions

6.1 Median lethal concentrations (LC_{50}) -- the concentration that is calculated to be lethal to 50 percent of the organisms within the test period.

SGS Environmental Services Inc.
Standard Operating Procedure

Document Title:	**Sample Handling for Aquatic Toxicity Testing**
Method Reference:	**SGS/USEPA**
Document File Name:	**7009-04.DOC**
Revision Number:	**4.0**
Effective Date:	**October 20, 1998**
Review Date:	**May 17, 2005**

Document Control Number: 7009.04

Approved by: _____ Supervisor — 5-12-5 Date

Approved by: _____ QA/QC Officer — 5-17-05 Date

1.0 Summary

This document describes the manner in which sample waters (effluents, wastewaters, etc.) are handled from point of collection to testing.

2.0 Sample Handling

2.1 Sampling Personnel

SGS's sampling personnel are trained and experienced in the techniques for collecting samples according to NPDES permit requirements. This includes the use of automatic sampling equipment and the measurement of various field parameters.

2.2 Sample Containers

Sample containers used by SGS are disposable plastic cubitainers®.

2.3 Sample Collection Points

For NPDES permit required tests, the sample will be collected at the point specified in the discharge permit unless otherwise directed by the regulatory agency.

2.4 Sample Shipment

Samples are placed on ice (sufficient to maintain 0-4°C) in a cooler and are transported as quickly as possible to the laboratory.

2.5 Laboratory Handling of Samples

Upon delivery to the laboratory, the effluent samples are inspected, given a sample control number and stored at 4° C until used for testing.

2.6 Sample Holding Time

Samples will be tested within 24 hours upon receipt in the laboratory. The maximum lapsed time for collection of a grab or composite sample and the initiation of test, or for test solution renewal, will not exceed 36-hours for Chronic and Acute Testing.

3.0 LABORATORY ENVIRONMENT

3.1 Laboratory Arrangement

The aquatic toxicity testing laboratory is divided into two separate areas: (1) the culturing laboratory and (2) the testing laboratory. See attached diagram for details of laboratory layout.

3.2 Temperature

The aquatic toxicity testing laboratory air temperature is maintained at 20 ± 1° C throughout the year by a central heating and cooling system which is regulated by thermostats. Temperatures are continuously recorded by thermographs.

3.3 Water

Several waters are available for use in the laboratory. SGS has access to municipally supplied water, well water and reagent water from which synthetic water is prepared. Waters used for culturing and testing are analyzed semiannually for priority pollutants and other contaminants. A detailed report is available.

3.4 Lighting

Ambient laboratory lighting is regulated with a 16 hour day/8 hour night photoperiod controlled by an electronic timing system in the culturing and testing areas.

4.0 LABORATORY EQUIPMENT

4.1 General

Instruments used for the measurement of physical and chemical parameters are calibrated prior to use in testing. Any instrument that exceeds the calibration limits is taken out of service and corrective action is taken.

4.2 Balances

Analytical balances are calibrated against standard weights prior to use. All calibration results and adjustments are recorded in bound books.

4.3 Water Quality Meters

Meters are calibrated prior to use using known standards and the manufacturer's instructions. Records of calibration are kept in logbooks. Detailed procedures for the operation of these meters are found in SOP's for each specific instrument.

4.4 Reagents

All reagents are stored in a separate area. Expired reagents and chemicals are discarded.

4.5 Test Containers

All test containers are either clean reusable glassware or new, disposable plastic beakers.

5.0 EQUIPMENT CLEANING PROCEDURES

5.1 Equipment used in culturing or testing is washed in the following manner:

5.1.1 Soak 15 minutes and scrub with detergent in tap water.
5.1.2 Rinse three times with tap water.
5.1.3 Rinse once with 20% nitric acid.
5.1.4 Rinse twice with deionized water.
5.1.5 Rinse once with full-strength, pesticide-grade acetone.
5.1.6 Rinse well with deionized water.
5.1.7 Invert and air dry.
5.1.8 All equipment and test chambers are rinsed with deionized water immediately prior to use for each test.

Appendix II
Chains of Custody

TA5- HQ- P333- 1/2

Chain of Custody Record

General Electric Co.

100 Woodlawn Ave. Pittsfield, MA 01201

Chain of Custody #: OBG081505

AUG 2005 Chronic Toxicity - Comp. # 1

Split Sample C. TOX #1 / AW TOX AUG 2005

Project # NPDES PERMIT	Analytical Lab: CT&E Environmental Services Inc.			Sampled By: (Print) Mark Wasnewsky		
Sample #	**Date**	**Time**	**Containers**	**Parameters to be Analyzed**	**Preservative**	**Remarks**
A6668C	8/14 to 8/15/05	1109 AM	1 Gallon plastic	Definitive Test(NOCEL), Static reproductive chronic toxicity, 7-day w/Ceriodaphnia	Chilled	(See below)
A6668C	8/14 to 8/15/05	↓	1000 ml. plastic	Chloride, TSS,Total Solids, Alkalinity Specific Conductance, CL2	Chilled	
A6668C	8/14 to 8/15/05	↓	500 ml. plastic	Total Phosphorus, TOC, NH3	H2SO4	
A667R	8/15/05	830 AM	1 Gallon plastic	Housatonic River water dilution water for chronic test	Chilled	
A667R	8/15/05	↓	1000 ml. plastic	Chloride, TSS,Total Solids, Alkalinity Specific Conductance, CL2	Chilled	
A667R	8/15/05	↓	500 ml. plastic	Total Phosphorus, TOC, NH3	H2SO4	

Relinquished By:	Date/Time	Received By:	Date/Time
Mark Wasnewsky	8-15-05		8-15-05 1400
Relinquished By:	Date/Time	Received By:	Date/Time
	8-15-05 1430		

Additional Comments: The effluent sample being analyzed for toxicity is a flow-proportioned composite. Each outfall sample is a 24-hour composite. The sample collection times for each outfall are as follows:

001- 705 AM 004- / 005-64T- 700 AM 005-64G- 700 AM 007- / 09A- / 09B- 715 AM

The time of compositing the final flow-proportioned sample was 2100 A.M.

rec'd 8/16 @930 4.0°

UBS Barbara Hunter

TA5-HO-P333-3/4

Chain of Custody Record
General Electric Co.
100 Woodlawn Ave. Pittsfield, MA 01201

Chain of Custody #: OBG081705

AUG 2005 Chronic Toxicity - Comp. # 2

Project # NPDES PERMIT	Analytical Lab: CT&E Environmental Services Inc.			Sampled By: (Print) Mark Wasnewsky		
Sample #	Date	Time	Containers	Parameters to be Analyzed	Preservative	Remarks
3 A6670C	8/16 to 8/17/05	11^00 AM	1 Gallon plastic	Definitive Test(NOCEL), Static reproductive chronic toxicity, 7-day w/Ceriodaphnia	Chilled	(See below)
3 A6670C	8/16 to 8/17/05	↓	1000 ml. plastic	Chloride, TSS,Total Solids, Alkalinity Specific Conductance, CL2	Chilled	
3 A6670C	8/16 to 8/17/05	↓	500 ml. plastic	Total Phosphorus, TOC, NH3	H2SO4	
4 A6669R	8/17/05	8^30 AM	1 Gallon plastic	Housatonic River water dilution water for chronic test	Chilled	
4 A6669R	8/17/05	↓	1000 ml. plastic	Chloride, TSS,Total Solids, Alkalinity Specific Conductance, CL2	Chilled	
4 A6669R	8/17/05	↓	500 ml. plastic	Total Phosphorus, TOC, NH3	H2SO4	

Relinquished By:	Date/Time	Received By:	Date/Time
Mark Wasnewsky	8-17-05		8-17-05 1400
Relinquished By:	Date/Time 8-17-05 1430	Received By: Robin Hambrick	Date/Time 8-18-05 10:10

Additional Comments: The effluent sample being analyzed for toxicity is a flow-proportioned composite. Each outfall sample is a 24-hour composite. The sample collection times for each outfall are as follows:

001- 745 AM 004- / 005-64T- 700 AM 005-64G- 700 AM 007- / 09A- / 09B- 800 AM

The time of compositing the final flow-proportioned sample was 1100 **A.M.** UPS 3.1°C

TA5 -HO-P333-5/6

Chain of Custody Record
General Electric Co.
100 Woodlawn Ave. Pittsfield, MA 01201

Chain of Custody #: OBG081905

AUG 2005 Chronic Toxicity - Comp. # 3

Project # NPDES PERMIT	Analytical Lab: CT&E Environmental Services Inc.			Sampled By: (Print) SEAN COYLE		
Sample #	Date	Time	Containers	Parameters to be Analyzed	Preservative	Remarks
5 A6672C	8/18 to 8/19/05	10:50 AM	1 Gallon plastic	Definitive Test(NOCEL), Static reproductive chronic toxicity, 7-day w/Ceriodaphnia	Chilled	(See below)
5 A6672C	8/18 to 8/19/05	10:50 AM	1000 ml. plastic	Chloride, TSS,Total Solids, Alkalinity Specific Conductance, CL2	Chilled	
5 A6672C	8/18 to 8/19/05	10:50 AM	500 ml. plastic	Total Phosphorus, TOC, NH3	H2SO4	
6 A6671R	8/19/05	7:20 AM	1 Gallon plastic	Housatonic River water dilution water for chronic test	Chilled	
6 A6671R	8/19/05	8:20 AM	1000 ml. plastic	Chloride, TSS,Total Solids, Alkalinity Specific Conductance, CL2	Chilled	
6 A6671R	8/19/05	8:20 AM	500 ml. plastic	Total Phosphorus, TOC, NH3	H2SO4	

Relinquished By:	Date/Time	Received By:	Date/Time
C. Coyle	8-19-05, 2:05PM		8-19-05 1400
Relinquished By:	Date/Time	Received By:	Date/Time
	8-19-05 1430	Robin Dombrucki	8-20-05 9:30

Additional Comments: The effluent sample being analyzed for toxicity is a flow-proportioned composite. Each outfall sample is a 24-hour composite. The sample collection times for each outfall are as follows:

001- 7:45 AM 004- / 005-64T- 7:00 AM 005-64G- 7:00 AM 007- / 09A- / 09B- UPS / 3.4°C

The time of compositing the final flow-proportioned sample was 10:50 AM A.M.

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Appendix III

Bench Data

General Electric – 7-Day Chronic Biotoxicity Bench Sheet

Client: General Electric
Project:
Lab. No.: TAS-HO-P333-001/002
Sample Date: 08/15/05 Time: 11:00
Date Received: 08/16/05
Source: Effluent composite
Date Analyzed: 08/16/05
Source of dilution water: Housatonic River 0830 A
Analyst(s): KH
Test Species: *Ceriodaphnia dubia* Age: < 24 hrs Temp. Range: °C
Type of Test: 7-day chronic
Total Chlorine: n/d

	Beginning	Ending
Date:	08/16/05	08/17/05
Time:	11:00	11:00

Concentration→	Housatonic River Control	MHSW Control	MHSW $Na_2S_2O_3$ Control	Effluent 6.25%	Effluent 12.5%	Effluent 25%	Effluent 50%	Effluent 75%	Effluent 100%
Initial									
Temperature	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7
Hardness	300	110	110						290
D.O.	8.92	8.74	8.79	8.92	8.92	8.95	8.97	8.98	9.04
pH	6.62	7.04	7.11	6.64	6.65	6.70	6.76	6.80	6.87
Alkalinity	149	67	69						152
Sp. Conduct.	416	312	319	442	479	542	662	694	725
End									
No. Surviving	10	10	10	10	10	10	10	10	10
Temperature	25.1	25.1	25.1	25.1	25.1	25.1	25.1	25.1	25.1
D.O.	8.82	8.68	8.64	8.83	8.81	8.86	8.85	8.82	8.90
pH	6.69	7.10	7.10	6.69	6.70	6.75	6.77	6.78	6.85
Sp. Conduct.	421	317	313	451	483	540	668	681	732

DAY 1

Method Reference: *Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms.*, Fourth Edition. EPA-821-R-02-013 U.S.EPA, Washington, DC

f:\public\forms\bioassay\GE bench sheet-chronic.doc

General Electric – 7-Day Chronic Biotoxicity Bench Sheet

Client: General Electric
Project:
Lab. No.: TAS-HO-P333-001/002
Sample Date: 08/14-15/05 Time: 11:00
Date Received: 08/16/05
Source: Effluent composite
Date Analyzed: 08/17/05
Source of dilution water: Housatonic River
Analyst(s): KH
Test Species: *Ceriodaphnia dubia* Age: < 24 hrs Temp. Range: °C
Type of Test: 7-day chronic

Total Chlorine: n/d

	Beginning	Ending
Date:	08/17/05	08/18/05
Time:	11:00	11:00

Concentration→	Housatonic River Control	MHSW Control	MHSW $Na_2S_2O_3$ Control	Effluent 6.25%	Effluent 12.5%	Effluent 25%	Effluent 50%	Effluent 75%	Effluent 100%
Initial									
Temperature	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2
Hardness	280	100	100						290
D.O.	8.90	8.70	8.72	8.90	8.91	8.93	8.93	8.95	9.00
pH	6.67	7.09	7.12	6.72	6.78	6.79	6.83	6.87	6.91
Alkalinity	153	65	67						146
Sp. Conduct.	407	317	322	459	494	531	671	680	710
End									
No. Surviving	10	10	10	10	10	10	10	10	10
Temperature	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6
D.O.	8.81	8.64	8.66	8.81	8.85	8.84	8.82	8.84	8.86
pH									
Sp. Conduct.	415	321	331	450	486	540	664	691	719

DAY 2

Method Reference: *Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms.*, Fourth Edition. EPA-821-R-02-013 U.S.EPA, Washington, DC

f:\public\forms\bioassay\GE bench sheet-chronic.doc

General Electric – 7-Day Chronic Biotoxicity Bench Sheet

Client: General Electric
Project:
Lab. No.: JAS-HO-P333-003/004
Sample Date: 08/16/05 Time: 11:00 Date Received: 08/18/05
Source: Effluent composite Date Analyzed: 08/18/05
Source of dilution water: Housatonic River Analyst(s): KH
Test Species: *Ceriodaphnia dubia* Age: < 24 hrs Temp. Range: °C
Type of Test: 7-day chronic
Total Chlorine: n/d

	Beginning	Ending
Date:	08/18/05	08/19/05
Time:	11:00	11:00

Concentration→	Housatonic River Control	MHSW Control	MHSW $Na_2S_2O_3$ Control	Effluent 6.25%	Effluent 12.5%	Effluent 25%	Effluent 50%	Effluent 75%	Effluent 100%
Initial									
Temperature	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2
Hardness	240	100	110						350
D.O.	8.80	8.71	8.78	8.72	8.70	8.64	8.58	8.50	8.46
pH	6.80	7.03	7.10	6.80	6.83	6.91	6.97	7.07	7.15
Alkalinity	152	64	67						193
Sp. Conduct.	386	313	321	434	473	543	552	678	761
End									
No. Surviving	10	10	10	10	10	10	10	10	10
Temperature	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4
D.O.	8.72	8.60	8.62	8.64	8.61	8.54	8.49	8.43	8.40
pH	6.83	7.08	7.13	6.84	6.87	6.95	7.03	7.12	7.14
Sp. Conduct.	381	312	319	427	477	551	547	664	770

DAY 3

Method Reference: *Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms.*, Fourth Edition. EPA-821-R-02-013 U.S.EPA, Washington, DC

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General Electric – 7-Day Chronic Biotoxicity Bench Sheet

Client: General Electric
Project:
Lab. No.: TAS-HO-P333-003/004
Sample Date: 08/16-17/05 Time: 11:00
Date Received: 08/18/05
Source: Effluent composite
Date Analyzed: 08/19/05
Source of dilution water: Housatonic River
Analyst(s): KH
Test Species: *Ceriodaphnia dubia* Age: < 24 hrs Temp. Range: °C
Type of Test: 7-day chronic
Total Chlorine: n/d

	Beginning	Ending
Date:	08/19/05	08/20/05
Time:	11:00	11:00

Concentration→	Housatonic River Control	MHSW Control	MHSW $Na_2S_2O_3$ Control	Effluent 6.25%	Effluent 12.5%	Effluent 25%	Effluent 50%	Effluent 75%	Effluent 100%
Initial									
Temperature	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Hardness	230	110	110						330
D.O.	8.74	8.81	8.80	8.71	8.67	8.60	8.57	8.55	8.51
pH	6.84	7.10	7.12	6.91	7.02	7.09	7.13	7.17	7.20
Alkalinity	157	69	67						184
Sp. Conduct.	380	320	325	430	484	561	658	709	748
End									
No. Surviving	10	10	10	10	10	10	10	10	10
Temperature	25.1	25.1	25.1	25.1	25.1	25.1	25.1	25.1	25.1
D.O.	8.62	8.74	8.70	8.65	8.60	8.54	8.50	8.46	8.48
pH	~~8.~~ 6.91	7.13	7.19	6.98	7.06	7.12	7.18	7.20	7.22
Sp. Conduct.	371	324	331	441	490	552	656	711	752

DAY 4

Method Reference: *Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms.*, Fourth Edition. EPA-821-R-02-013 U.S.EPA, Washington, DC

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General Electric – 7-Day Chronic Biotoxicity Bench Sheet

Client: General Electric
Project: _____ Lab. No.: TAS-HO-P333-005/006
Sample Date: 08/18-19/05 Time: 10:50 Date Received: 08/20/05
Source: Effluent composite Date Analyzed: 08/20/05
Source of dilution water: Housatonic River Analyst(s): KH
Test Species: *Ceriodaphnia dubia* Age: < 24 hrs Temp. Range: °C
Type of Test: 7-day chronic
Total Chlorine: _____

	Beginning	Ending
Date:	08/20/05	08/21/05
Time:	11:00	11:00

Concentration→	Housatonic River Control	MHSW Control	MHSW $Na_2S_2O_3$ Control	Effluent 6.25%	Effluent 12.5%	Effluent 25%	Effluent 50%	Effluent 75%	Effluent 100%
Initial									
Temperature	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4
Hardness	390	100	110						380
D.O.	8.46	8.81	8.80	8.46	8.46	8.48	8.48	8.50	8.51
pH	7.43	7.09	7.13	7.41	7.41	7.40	7.38	7.36	7.35
Alkalinity	301	64	66						322
Sp. Conduct.	414	310	317	528	543	681	759	932	1123
End									
No. Surviving	10	10	10	10	10	10	10	10	10
Temperature	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
D.O.	8.40	8.72	8.73	8.41	8.44	8.44	8.41	8.43	8.44
pH	7.47	7.13	7.18	7.49	7.53	7.43	7.42	7.37	7.39
Sp. Conduct.	420	319	316	534	553	683	747	920	1107

DAY 5

Method Reference: *Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms.*, Fourth Edition. EPA-821-R-02-013 U.S.EPA, Washington, DC

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General Electric – 7-Day Chronic Biotoxicity Bench Sheet

Client: General Electric
Project: _____ Lab. No.: TAS-40-P333-005/006
Date Received: 08/20/05
Sample Date: 08/18-19/05 Time: 10:50 Date Analyzed: 08/21/05
Source: Effluent composite Analyst(s): KH
Source of dilution water: Housatonic River
Test Species: *Ceriodaphnia dubia* Age: < 24 hrs Temp. Range: °C
Type of Test: 7-day chronic

Total Chlorine: _____

	Beginning	Ending
Date:	08/21/05	08/22/05
Time:	11:00	11:00

Concentration→	Housatonic River Control	MHSW Control	MHSW $Na_2S_2O_3$ Control	Effluent 6.25%	Effluent 12.5%	Effluent 25%	Effluent 50%	Effluent 75%	Effluent 100%
Initial									
Temperature	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8
Hardness	360	110	110						370
D.O.	8.51	8.82	8.80	8.51	8.51	8.52	8.52	8.54	8.54
pH	7.49	7.11	7.15	7.49	7.47	7.47	7.45	7.41	7.40
Alkalinity	309	69	70						326
Sp. Conduct.	404	323	326	534	571	707	781	911	1104
End									
No. Surviving	10	10	10	10	10	10	10	10	10
Temperature	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4
D.O.	8.44	8.72	8.70	8.63	8.48	8.49	8.46	8.45	8.47
pH	7.53	7.17	7.19	7.53	7.53	7.52	7.48	7.46	7.45
Sp. Conduct.	412	328	335	540	561	711	797	921	1090

DAY 0

Method Reference: *Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms.*, Fourth Edition. EPA-821-R-02-013 U.S.EPA, Washington, DC

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General Electric – 7-Day Chronic Biotoxicity Bench Sheet

Client: General Electric
Project:
Lab. No.: TAS-40-P333-005/006
Sample Date: 08/~~14~~ 18-19/05 Time: 10:50
Date Received: 08/20/05
Source: Effluent composite
Date Analyzed: 08/22/05
Source of dilution water: Housatonic River
Analyst(s): KH
Test Species: *Ceriodaphnia dubia* Age: < 24 hrs Temp. Range: °C
Type of Test: 7-day chronic
Total Chlorine:

	Beginning	Ending
Date:	08/22/05	08/23/05
Time:	11:00	11:00

Concentration→	Housatonic River Control	MHSW Control	MHSW $Na_2S_2O_3$ Control	Effluent 6.25%	Effluent 12.5%	Effluent 25%	Effluent 50%	Effluent 75%	Effluent 100%
Initial									
Temperature	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7
Hardness	370	100	110						370
D.O.	8.47	8.77	8.81	8.49	8.46	8.46	8.50	8.53	8.52
pH	7.54	7.07	7.10	7.52	7.50	7.45	7.45	7.41	7.38
Alkalinity	302	64	67						320
Sp. Conduct.	416	304	312	558	602	685	831	950	1081
End									
No. Surviving	10	10	10	10	10	10	10	10	10
Temperature	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4	25.4
D.O.	8.40	8.65	8.68	8.42	8.40	8.40	8.41	8.41	8.50
pH	7.55	7.12	7.16	7.61	7.59	7.49	7.51	7.50	7.47
Sp. Conduct.	420	313	324	570	613	697	851	947	1094

DAY 7

Method Reference: *Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms.*, Fourth Edition. EPA-821-R-02-013 U.S.EPA, Washington, DC

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Biotoxicity Bench Sheet

Lab. No. TAS-HO-P353 Test Organism CD Start Date: 08/16/05 Time: 11:00
Client: GE Lot No. End Date: 08/23/05 End Time 11:00
Effluent/Sample EFF Age: < 24 hrs Investigators KH

Conc. Control	Day	Replicate 1	2	3	4	5	6	7	8	9	10	No. of Young	No. of Adults	Young per Adult
	1													
	2													
	3													
	4	4	2	3	3	4	3	2	3	4	3			
	5	0	4	0	1	8	0	8	0	0	0			
	6	9	0	9	10	0	10	0	10	7	8			
	7	13	13	14	13	14	14	13	14	12	13			
	8													
	total	26	19	26	27	26	27	23	27	23	24	248	10	24.8

Conc. 2°Control	Day	Replicate 1	2	3	4	5	6	7	8	9	10	No. of Young	No. of Adults	Young per Adult
	1													
	2													
	3													
	4	5	4	3	4	3	2	4	3	4	3			
	5	0	0	0	8	0	2	10	0	9	0			
	6	12	9	8	13	9	10	0	8	0	8			
	7	7	15	12	0	14	13	13	11	14	11			
	8													
	total	24	28	23	25	26	~~28~~ 27	27	22	27	22	~~252~~ 251	10	~~25.2~~ 25.1

Conc. 2°Control+	Day	Replicate 1	2	3	4	5	6	7	8	9	10	No. of Young	No. of Adults	Young per Adult
	1													
	2													
	3													
	4	3	4	3	4	3	4	3	3	2	3			
	5	6	9	0	1	0	0	8	0	2	0			
	6	0	12	10	12	8	12	0	12	0	11			
	7	9	0	14	13	12	12	14	11	14	12			
	8													
	total	18	25	27	30	23	28	25	26	18	26	246	10	24.6

Biotoxicity Bench Sheet

Lab. No. TAT-HO-P333 Test Organism CD Start Date: 08/16/05 Time: 11:00
Client: GE Lot No. End Date: 08/23/05 End Time 11:00
Effluent/Sample EFF Age: <24 hrs Investigators KH

Conc. 6.25%	Day	Replicate 1	2	3	4	5	6	7	8	9	10	No. of Young	No. of Adults	Young per Adult
	1													
	2													
	3													
	4	2	4	3	2	3	4	3	4	3	4			
	5	0	0	8	0	0	0	7	8	0	11			
	6	6	9	0	12	9	13	0	0	7	0			
	7	12	13	14	14	11	11	12	13	12	13			
	8													
	total	20	26	25	28	23	28	22	25	22	28	247	10	24.7

Conc. 12.5%	Day	Replicate 1	2	3	4	5	6	7	8	9	10	No. of Young	No. of Adults	Young per Adult
	1													
	2													
	3													
	4	3	4	3	4	5	4	3	4	2	4			
	5	0	9	0	0	0	8	0	6	0	0			
	6	9	0	6	9	10	0	10	0	16	13			
	7	14	12	12	12	13	14	12	13	11	13			
	8													
	total	26	25	21	25	28	26	25	23	29	30	258	10	25.8

Conc. 25%	Day	Replicate 1	2	3	4	5	6	7	8	9	10	No. of Young	No. of Adults	Young per Adult
	1													
	2													
	3													
	4	3	4	4	4	5	4	5	4	3	4			
	5	8	10	0	0	0	0	0	0	14	0			
	6	0	0	13	10	11	7	10	14	0	13			
	7	13	14	12	13	13	12	12	10	12	11			
	8													
	total	24	28	29	27	29	23	27	28	29	28	272	10	27.2

Biotoxicity Bench Sheet

Lab. No. TAS-HO-P333 Test Organism CD Start Date: 08/10/05 Time: 11:00
Client: GE Lot No. End Date: 08/23/05 End Time 11:00
Effluent/Sample EFF Age: <24 HRS Investigators KH

Conc. 50%	Day	Replicate 1	2	3	4	5	6	7	8	9	10	No. of Young	No. of Adults	Young per Adult
	1													
	2													
	3													
	4	2	4	5	5	4	0	5	4	3	4			
	5	0	8	0	0	0	5	0	0	9	0			
	6	10	0	8	7	11	14	9	9	0	7			
	7	13	16	13	12	14	0	13	14	12	13			
	8													
	total	25	28	26	24	30	19	27	27	24	24	254	10	25.4

Conc. 75%	Day	Replicate 1	2	3	4	5	6	7	8	9	10	No. of Young	No. of Adults	Young per Adult
	1													
	2													
	3													
	4	3	4	5	4	5	5	4	4	5	4			
	5	0	9	0	6	0	1	0	0	7	0			
	6	12	0	9	0	12	10	13	10	0	10			
	7	14	12	10	11	12	12	11	13	12	13			
	8													
	total	29	25	24	21	29	28	28	27	24	27	262	10	26.2

Conc. 100%	Day	Replicate 1	2	3	4	5	6	7	8	9	10	No. of Young	No. of Adults	Young per Adult
	1													
	2													
	3													
	4	4	5	4	3	5	5	4	3	5	4			
	5	0	0	0	6	7	0	0	0	0	6			
	6	6	9	8	0	0	10	6	10	6	0			
	7	14	12	12	11	13	11	12	12	13	11			
	8													
	total	24	26	24	20	25	26	22	25	24	21	237	10	23.7

Appendix IV
Statistical Sheets

Title: GE AUGUST 2005
File: GECDREP .805 Transform: NO TRANSFORMATION

Kolmogorov Test for Normality

D = 0.1194 (p-value = 0.0030)
D* = 1.1419

Critical D* = 1.035 (alpha = 0.01 , N = 90)
= 0.895 (alpha = 0.05 , N = 90)

Data FAIL normality test (alpha = 0.01). Try another transformation.

Warning - The first three homogeneity tests are sensitive to non-normality and should not be performed with this data as is.

Title: GE AUGUST 2005
File: GECDREP .805 Transform: NO TRANSFORMATION

Steel's Many-One Rank Test - Ho: Control<Treatment

GROUP	IDENTIFICATION	MEAN IN ORIGINAL UNITS	RANK SUM	CRIT. VALUE	DF	SIG 0.05
1	CONTROL	24.8000				
2	CONTROL+	24.6000	104.50	73.00	10.00	
3	2' CONTROL	25.2000	109.00	73.00	10.00	
4	6.25%	24.7000	103.50	73.00	10.00	
5	12.5%	25.8000	111.00	73.00	10.00	
6	25%	27.2000	137.50	73.00	10.00	
7	50%	25.4000	112.50	73.00	10.00	
8	75%	26.2000	124.00	73.00	10.00	
9	100%	23.7000	87.50	73.00	10.00	

Critical values are 1 tailed (k = 8)

Title: GE AUGUST 2005
File: GECDREP .805 Transform: NO TRANSFORMATION

GRP	IDENTIFICATION	MEAN	SMOOTHED MEAN	CONCENTRATION
1	CONTROL	24.8000	25.4875	0.0000
2	CONTROL+	24.6000	25.4875	0.0000
3	2' CONTROL	25.2000	25.4875	2.0000
4	6.25%	24.7000	25.4875	6.2500
5	12.5%	25.8000	25.4875	12.5000
6	25%	27.2000	25.4875	25.0000
7	50%	25.4000	25.4875	50.0000
8	75%	26.2000	25.4875	75.0000
9	100%	23.7000	23.7000	100.0000

ICp estimate with p = 25 is > 100.0000

Appendix V

U.S. EPA Region I Toxicity Test Summary

Toxicity Test Summary Sheet

Facility Name: General Electric Co. Test Start Date: August 16, 2005
NPDES Permit Number: MA 000 3891 Pipe Number: 001, 005-64T, 005-64G, 09A, 09B

Test Type	Test Species	Sample Type	Sample Method
☐ Acute	☐ Fathead minnow	☐ Prechlorinated	☐ Grab
☑ Chronic	☐ Ceriodaphnia	☐ Dechlorinated	☑ Composite
☐ Modified*	☑ Ceriodaphnia dubia	☐ Chlorine	☐ Flow thru
☐ 24-hour Screening	☐ Mysid Shrimp	☐ Spiked at lab	☐ Other
	☐ Menidia	☑ Chlorinated on-site	
	☐ Sea Urchin	☐ Unchlorinated	
	☐ Champia		
	☐ Selenastrum		
	☐ other		

*Modified (Chronic reporting acute values)

Dilution Water

X Receiving waters collected at a point upstream of or away from the discharge, free from toxicity or other sources of contamination (Receiving water name: Housatonic River);

___ Alternate surface water of known quality and a harness, etc. to generally reflect the characteristics of the receiving water;

___ Synthetic water prepared using either Millipore Mill-Q or equivalent deionized water and reagent grade chemicals; or deionized water combined with mineral water;

___ or artificial sea salts mixed with deionized water;

___ Deionized water and hypersaline brine; or

___ other

Effluent sampling date(s): August 14, 2005 to August 19, 2005

Effluent concentrations tested (in %): 100 75 50 25 12.5 6.25
*(Permit limit concentration): N/A

Was effluent salinity adjusted? No
If yes, to what value? N/A ppt
With sea salts? N/A Hypersaline brine solution? N/A

Actual effluent concentrations tested after salinity adjustment (in %): N/A N/A N/A N/A N/A N/A
Reference Toxicant Test Date: August 05, 2005 to August 12, 2005

Permit Limits & Test Results

Test Acceptability Criteria

MEAN CONTROL SURVIVAL: ≥90% MEAN CONTROL REPRODUCTION: N/A

MEAN CONTROL WEIGHT: N/A MEAN CONTROL CELL COUNT: N/A

Limits		Results	
LC_{50}	N/A	48-hr LC_{50}	>100%
		Upper Value	N/A
		Lower Value	N/A
		Data Analysis Method used:	N/A
A-NOEC	N/A	A-NOEC	100%
C-NOEC	N/A	C-NOEC	100%
		LOEC	100%
IC25	N/A	IC25	N/A
IC50	N/A	IC50	N/A

N/A = not applicable

Appendix VI
7-Day Chronic Reference
Toxicity Test Data

Biotoxicity Bench Sheet

Lab. No. QC | Test Organism CD | Start Date: 08/05/05 | Time: 1500
Client: | Lot No | End Date: 08/12/05 | End Time 1500
Effluent/Sample NaCl | Age: <24 hrs | Investigators KH

Conc. Control	Day	Replicate 1	2	3	4	5	6	7	8	9	10	No. of Young	No. of Adults	Young per Adult
	1													
	2													
	3						2							
	4	5	4	3	3	4	0	4	0	4	3			
	5	9	8	0	8	0	7	0	10	0	8			
	6	0	0	11	0	12	0	12	0	7	0			
	7	12	13	14	12	13	12	13	12	12	14			
	8													
	total	26	25	28	23	29	21	29	22	23	25	251	10	25.1

Conc. 250 mg/l ~~6.25%~~	Day	Replicate 1	2	3	4	5	6	7	8	9	10	No. of Young	No. of Adults	Young per Adult
	1													
	2													
	3													
	4	3	4	3	4	3	4	3	2	4	3			
	5	0	0	5	0	8	10	0	9	0	8			
	6	9	10	0	10	0	0	8	7	10	0			
	7	14	11	12	13	12	14	14	12	12	11			
	8													
	total	26	25	20	27	23	28	25	30	26	22	252	10	25.2

Conc. 500 mg/l ~~12.5%~~	Day	Replicate 1	2	3	4	5	6	7	8	9	10	No. of Young	No. of Adults	Young per Adult
	1													
	2													
	3													
	4	4	5	4	3	4	5	3	5	4	5			
	5	10	0	0	0	0	7	0	0	0	8			
	6	0	12	10	8	11	0	8	10	10	0			
	7	13	13	11	12	13	10	13	12	x-0	13			
	8													
	total	27	~~29~~ 30	25	23	28	22	24	27	↓ x-14	26	~~246~~ ~~24.6~~	9	24.6

Biotoxicity Bench Sheet

Lab. No. QC | Test Organism CD | Start Date: 08/05/05 | Time: 1500
Client: | Lot No | End Date: 08/12/05 | End Time 1500
Effluent/Sample NaCl | Age <24 hrs | Investigators HH KH

Conc. 1000 mg/L 25%	Day	Replicate 1	2	3	4	5	6	7	8	9	10	No of Young	No of Adults	Young per Adult
	1													
	2													
	3													
	4	2	0	0	0	2	0	3	2	0	2			
	5	0	4	x-0	3	0	x-0	0	0	2	0			
	6	3	0	↓	0	x-2	↓	4	1	x-0	x-0			
	7	0	2	↓	3	↓	↓	0	0	↓	↓			
	8			↓		↓	↓			↓	↓			
	total	5	6	x-0	6	x-4	x-0	7	3	x-2	x-2	35	5	3.5

Conc. 2000 mg/L 50%	Day	Replicate 1	2	3	4	5	6	7	8	9	10	No of Young	No. of Adults	Young per Adult
	1													
	2													
	3													
	4	0	0	0	2	0	0	0	0	0	0			
	5	x-0	2	0	0	0	2	x-0	0	3	3			
	6	↓	0	x-0	x-0	x-0	x-0	↓	x-0	0	x-0			
	7	↓	x-0	↓	↓	↓	↓	↓	↓	x-0	↓			
	8	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
	total	x-0	x-2	x-0	x-2	x-0	x-2	x-0	x-0	x-3	x-3	12	0	1.2

Conc. 4000 mg/L 100%	Day	Replicate 1	2	3	4	5	6	7	8	9	10	No of Young	No of Adults	Young per Adult
	1													
	2	X	X	X	X	X		X	X	X	X			
	3	↓	↓	↓	↓	↓	X	↓	↓	↓	↓			
	4	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
	5	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
	6	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
	7	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
	8	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓			
	total													

Title: CD REFTOX AUGUST 2005
File: QCCDREP .805 Transform: NO TRANSFORMATION

Shapiro - Wilk's Test for Normality

D = 401.0000
W = 0.9574

Critical W = 0.9300 (alpha = 0.01 , N = 50)
W = 0.9470 (alpha = 0.05 , N = 50)

Data PASS normality test (alpha = 0.01). Continue analysis.

Title: CD REFTOX AUGUST 2005
File: QCCDREP .805 Transform: NO TRANSFORMATION

Bartlett's Test for Homogeneity of Variance

Calculated B1 statistic = 11.2076 (p-value = 0.0243)

Data PASS B1 homogeneity test at 0.01 level. Continue analysis.

Critical B = 13.2767 (alpha = 0.01, df = 4)
= 9.4877 (alpha = 0.05, df = 4)

Title: CD REFTOX AUGUST 2005
File: QCCDREP .805 Transform: NO TRANSFORMATION

ANOVA Table

SOURCE	DF	SS	MS	F
Between	4	6166.6800	1541.6700	173.0054
Within (Error)	45	401.0000	8.9111	
Total	49	6567.6800		

(p-value = 0.0000)

Critical F = 3.7674 (alpha = 0.01, df = 4,45)
= 2.5787 (alpha = 0.05, df = 4,45)

Since F > Critical F REJECT Ho: All equal (alpha = 0.05)

Title: CD REFTOX AUGUST 2005
File: QCCDREP .805 Transform: NO TRANSFORMATION

Dunnett's Test - TABLE 1 OF 2 Ho:Control<Treatment

GROUP	IDENTIFICATION	TRANSFORMED MEAN	MEAN CALCULATED IN ORIGINAL UNITS	T STAT	SIG 0.05
1	CONTROL	25.1000	25.1000		
2	250 MG/L	25.2000	25.2000	-0.0749	
3	500 MG/L	24.6000	24.6000	0.3745	
4	1000 MG/L	3.5000	3.5000	16.1798	*
5	2000 MG/L	1.2000	1.2000	17.9026	*

Dunnett critical value = 2.2300 (1 Tailed, alpha = 0.05, df [used] = 4,40)
(Actual df = 4,45)

Title: CD REFTOX AUGUST 2005
File: QCCDREP .805 Transform: NO TRANSFORMATION

Dunnett's Test - TABLE 2 OF 2 Ho:Control<Treatment

GROUP	IDENTIFICATION	NUM OF REPS	MIN SIG DIFF (IN ORIG. UNITS)	% OF CONTROL	DIFFERENCE FROM CONTROL
1	CONTROL	10			
2	250 MG/L	10	2.9770	11.9	-0.1000
3	500 MG/L	10	2.9770	11.9	0.5000
4	1000 MG/L	10	2.9770	11.9	21.6000
5	2000 MG/L	10	2.9770	11.9	23.9000

Title: CD REFTOX AUGUST 2005
File: QCCDREP .805 Transform: NO TRANSFORMATION

GRP	IDENTIFICATION	MEAN	SMOOTHED MEAN	CONCENTRATION
1	CONTROL	25.1000	25.1500	0.0000
2	250 MG/L	25.2000	25.1500	250.0000
3	500 MG/L	24.6000	24.6000	500.0000
4	1000 MG/L	3.5000	3.5000	1000.0000
5	2000 MG/L	1.2000	1.2000	2000.0000

ICp estimate with p = 25 is 635.9597

Bootstrap results using 480 iterations:

Mean = 624.8202 Standard Deviation = 24.4462
95% Confidence Interval: (558.1897 , 653.8955)

Acute Biotoxicity Bench Sheet

Client: QC

Project: Reference Toxicant Lab. No.:

Date Received:

Sample Date: Time: Date Analyzed:

Source: NaCl Analyst:

Source of dilution water: Moderately Hard Synthetic Water

Test Species: Ceriodaphnia dubia Age: <24 hrs Temp. Range: °C

Type of Test: 48 HOUR ACUTE

Total Chlorine:

	Beginning	Ending
Date:	08/03/05	08/05/05
Time:	1500	1500

Concentration	Control		500	1000	2000	3000	4000
START							
Temperature	24.5		24.5	24.5	24.5	24.5	24.5
Hardness	110						120
D.O.	8.7		8.7	8.7	8.7	8.7	8.8
pH	7.1		7.2	7.2	7.2	7.2	7.2
Alkalinity	65						74
Sp. Conduct.	309		2340	3670	3920	5730	7940
24 HOUR							
Temperature	25.2		25.2	25.2	25.2	25.2	25.2
No. Surviving	20		20	20	13	6	0
48 HOUR							
Temperature	25.8		25.8	25.8	25.8	25.8	25.8
No. Surviving	20		20	13	4	0	0

Note: All results expressed in mg/L unless otherwise designated. < = less than

Note: Number in parenthesis equals number not adversely effected (EC_{50}). This number is used in calculating EC_{50} value.

Note: Due to fragile structure of *Daphnia* organisms, dissolved oxygen (DO), hardness, alkalinity, specific conductance, and pH reading could not be taken after the organisms are added to the sample. Doing so would cause injury to the organisms.

Method Reference: *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms.*, Fifth Edition. EPA-821-R-02-012 U.S.EPA, Washington, DC

TRIMMED SPEARMAN-KARBER METHOD. MONTANA STATE UNIV

FOR REFERENCE, CITE:
HAMILTON, M.A., R.C. RUSSO, AND R.V. THURSTON, 1977.
TRIMMED SPEARMAN-KARBER METHOD FOR ESTIMATING MEDIAN
LETHAL CONCENTRATIONS IN TOXICITY BIOASSAYS.
ENVIRON. SCI. TECHNOL. 11(7): 714-719;
CORRECTION 12(4):417 (1978).

DATE: 08/03/05 TEST NUMBER: - DURATION: 48 HOURS
CHEMICAL: NaCl SPECIES: CD

RAW DATA:

CONCENTRATION(MG/L)	500.00	1000.00	2000.00	3000.00	4000.00
NUMBER EXPOSED:	20	20	20	20	20
MORTALITIES:	0	7	16	20	20

SPEARMAN-KARBER TRIM: 0.00%

SPEARMAN-KARBER ESTIMATES: LC50: 1238.42
95% LOWER CONFIDENCE: 1036.97
95% UPPER CONFIDENCE: 1478.99

Attachment E

Results from the GeoTesting Express Direct Shear Interface Testing of the Cover System Components for a Portion of the Building 71 OPCA [August 24, 2005]

BBL®
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

GeoTesting express

Client:	Blasland, Bouck & Lee, Inc.		
Project Name:	GE		
Project Location:	Pittsfield, MA		
GTX #:	6125		
Start Date:	08/24/05	Tested By:	bdf/rmt
End Date:	08/24/05	Checked By:	jdt
Soil ID:	General Fill		
Soil Description:	Moist, dark olive brown silty sand with gravel.		
Geosynthetic ID:	Geocomposite: Roll #1645018		
Geosynthetic Description:	Black, double non-woven.		

Interface Shear Test Series by ASTM D 5321

Test Series #:	1	
Test Profile - Top to Bottom:	Textured Gripping Surface / SOIL / GEOCOMPOSITE / Textured Gripping Surface	
Soil Preparation:	Compacted using moderate effort at the as received Moisture Content	
Compaction Characteristics:	Maximum Dry Density	--- pcf
	Optimum Moisture Content	--- %
	Compaction Test Method	ASTM D 1557
Geosynthetic Preparation:	Saturated for 30 minutes under normal load prior to shear.	
Test Equipment:	Top box = 12 in x 12 in; Bottom box = 16 in x 12 in; Load cells and LVDTs connected to data acquisition system for shear force, normal load and horizontal displacement readings; Flat plate clamping device; surface area = 144 in^2	
Horizontal Displacement, in/min:	0.04	Test Condition: inundated

Parameter	Point 1	Point 2	Point 3	Point 4	Point 5	Point 6
Initial Moisture Content, %	8	8	8	---	---	---
Initial Dry Density, pcf	121	121	121	---	---	---
Percent Compaction, %	---	---	---	---	---	---
Normal Compressive Stress, psf	200	400	1000	---	---	---
Peak Shear Stress, psf	144	274	699	---	---	---
Post Peak Shear Stress, psf	131	262	648	---	---	---
Final Moisture Content, %	17	16	16	---	---	---

NOTES:

Peak Friction Angle:	**35**	**degrees**
Peak Cohesion:	**0**	**psf**
Post Peak Friction Angle:	**33**	**degrees**
Post Peak Cohesion:	**2**	**psf**

Figure a. Shear Force vs. Horizontal Displacement

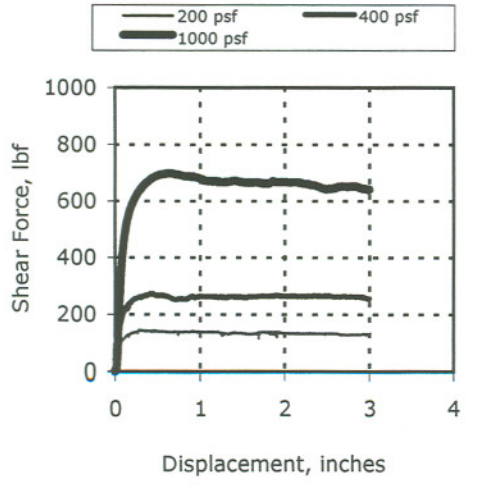
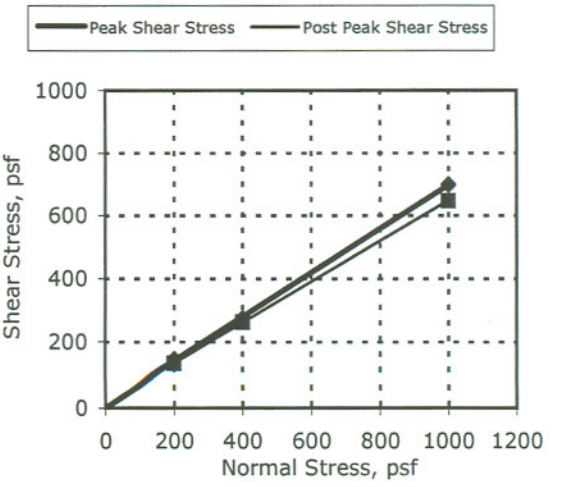


Figure b. Shear Stress vs. Normal Stress



GeoTesting express

Client:	Blasland, Bouck & Lee, Inc.		
Project Name:	GE		
Project Location:	Pittsfield, MA		
GTX #:	6125		
Start Date:	08/24/05	Tested By:	bdf/rmt
End Date:	08/25/05	Checked By:	jdt
Soil ID:	Subgrade Soil		
Soil Description:	Moist, dark olive brown silty sand with gravel.		
Geosynthetic ID:	Geomembrane: Roll #GT-06-05-0795		
Geosynthetic Description:	Black, 60 mil textured HDPE.		

Interface Shear Test Series by ASTM D 5321

Test Series #:	2	
Test Profile - Top to Bottom:	Textured Gripping Surface / SOIL / GEOMEMBRANE / Textured Gripping Surface	
Soil Preparation:	Compacted using moderate effort at the as received Moisture Content	
Compaction Characteristics:	Maximum Dry Density	--- pcf
	Optimum Moisture Content	--- %
	Compaction Test Method	ASTM D 1557
Geosynthetic Preparation:	Saturated for 30 minutes under normal load prior to shear.	
Test Equipment:	Top box = 12 in x 12 in; Bottom box = 16 in x 12 in; Load cells and LVDTs connected to data acquisition system for shear force, normal load and horizontal displacement readings; Flat plate clamping device; surface area = 144 in^2	
Horizontal Displacement, in/min:	0.04	Test Condition: inundated

Parameter	Point 1	Point 2	Point 3	Point 4	Point 5	Point 6
Initial Moisture Content, %	9	9	9	---	---	---
Initial Dry Density, pcf	116	116	116	---	---	---
Percent Compaction, %	---	---	---	---	---	---
Normal Compressive Stress, psf	200	400	1000	---	---	---
Peak Shear Stress, psf	144	260	677	---	---	---
Post Peak Shear Stress, psf	135	245	640	---	---	---
Final Moisture Content, %	19	18	15	---	---	---

NOTES:

Peak Friction Angle:	**34**	**degrees**
Peak Cohesion:	**2**	**psf**
Post Peak Friction Angle:	**33**	**degrees**
Post Peak Cohesion:	**0**	**psf**

Figure a. Shear Force vs. Horizontal Displacement

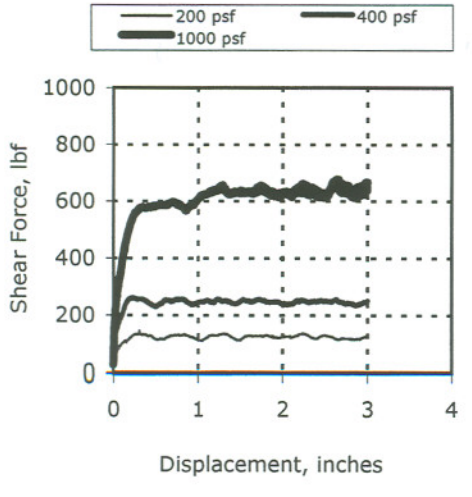
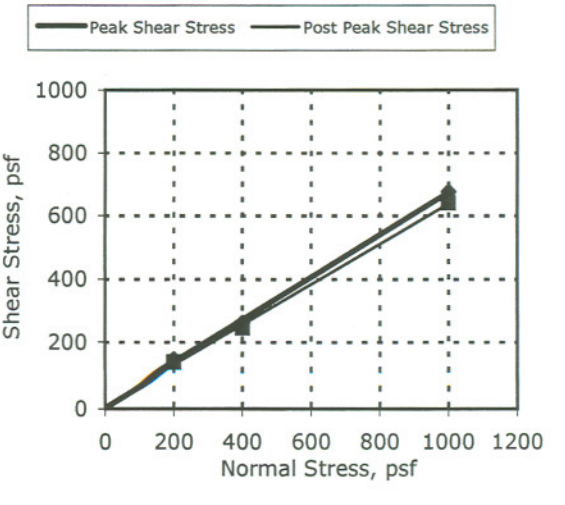


Figure b. Shear Stress vs. Normal Stress



GeoTesting express

Client:	Blasland, Bouck & Lee, Inc.		
Project Name:	GE		
Project Location:	Pittsfield, MA		
GTX #:	6125		
Start Date:	08/24/05	Tested By:	bdf/rmt
End Date:	08/25/05	Checked By:	jdt
Geosynthetic ID:	Geomembrane: Roll #GT-06-05-0795 Geocomposite: Roll #1645018		
Geosynthetic Description:	Geomembrane: Black, 60 mil textured HDPE. Geocomposte: Black double non-woven.		

Interface Shear Test Series by ASTM D 5321

Test Series #:	3		
Test Profile - Top to Bottom:	Textured Gripping Surface / GEOMEMBRANE / GEOCOMPOSITE / Textured Gripping Surface		
Soil Preparation:	---		
Compaction Characteristics:	Corrected Maximum Dry Density	---	pcf
	Corrected Optimum Moisture Content	---	%
	Compaction Test Method	ASTM D 1557	
Geosynthetic Preparation:	Saturated for 15 minutes under normal load prior to shear.		
Test Equipment:	Top box = 12 in x 12 in; Bottom box = 16 in x 12 in; Load cells and LVDTs connected to data acquisition system for shear force, normal load and horizontal displacement readings; Flat plate clamping device; surface area = 144 in^2		
Horizontal Displacement, in/min:	0.2	Test Condition:	inundated

Parameter	Point 1	Point 2	Point 3	Point 4	Point 5	Point 6
Initial Moisture Content, %	---	---	---	---	---	---
Initial Dry Density, pcf	---	---	---	---	---	---
Percent Compaction, %	---	---	---	---	---	---
Normal Compressive Stress, psf	200	400	1000	---	---	---
Peak Shear Stress, psf	130	236	578	---	---	---
Post Peak Shear Stress, psf	96	163	377	---	---	---
Final Moisture Content, %	---	---	---	---	---	---

NOTES:

Peak Friction Angle:	**29**	**degrees**
Peak Cohesion:	**15**	**psf**
Post Peak Friction Angle:	**19**	**degrees**
Post Peak Cohesion:	**24**	**psf**

Figure a. Shear Force vs. Horizontal Displacement

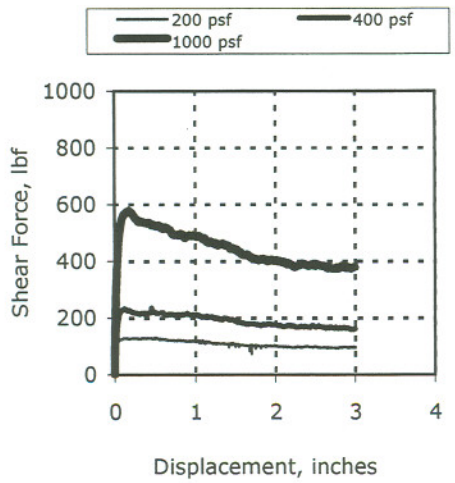


Figure b. Shear Stress vs. Normal Stress