MODIFICATION TO
AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended (33 U.S.C. §§ 1251 et seq.; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§ 26-53),

General Electric Company
159 Plastics Avenue
Pittsfield, MA 01201

is authorized to discharge from the facility located at

General Electric Company
159 Plastics Avenue
Pittsfield, MA 01201
(See also: Attachment A)

to receiving waters named the

Housatonic River, Unkamet Brook
(Housatonic River Watershed)

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein. This document presents the complete permit, including both the modified conditions and the unmodified conditions from the permit issued on September 30, 2008. The modified attachments (Attachments A and C) are also attached.

This permit modification will become effective on October 1, 2009.

This permit modification expires on December 31, 2013, the same day as the expiration of the permit issued on September 30, 2008, which became effective on January 1, 2009.

This permit modification shall supersede, to the extent applicable, the Surface Water Discharge Permit issued to the facility by the Commissioner of the Massachusetts Department of Environmental Protection on September 30, 2008.

Signed this day of

_____
Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA

_____
Director
Division of Watershed Management
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from the **64G** treatment system (which discharges through the outfall serial number 005 to the Housatonic River). The discharge consists of treated groundwater and city water (used for fire suppression/testing activities), treated water from storm sewer cleaning (see BMP A in Attachment C), and treated water generated as part of consent decree response actions. The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharge and collected at a point that includes **the final effluent from the 64G treatment system**, prior to combining with other 005 flow components.

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirement	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Flow[*1]	MGD	Report	–	Report	Continuous	Recorder
Flow[*4]	MGD	Report	–	Report		
Oil and Grease	mg/l	Report	–	Report	2/Month	Grab
TSS	mg/l	Report	–	Report	2/Month	24-Hour Composite[*6]
pH	st. units	(See Part I.A. footnote *21.)			2/Month	Grab
PCBs, total [*13, * 15]	ug/l	0.014	–	Report	2/Month	24-Hour Composite[*6]
Volatile Organic Compounds (VOCs), total [*20]	ug/l	Report	–	Report	2/Month	Grab
Semivolatiles (SVOCs), total [*20]	ug/l	Report	–	Report	2/Month	Grab
Whole Effluent Toxicity, LC_{50} [*16]	%	–	–	Report	1/Quarter[*18,*19]	24-Hour Composite[*6]
Whole Effluent Toxicity, IC_{25} and C-NOEC [*17]	%	–	–	Report	1/Quarter*[18*19]	24-Hour Composite[*6]

Footnotes begin on page 15.

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for this discharge during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge effluent from treatment plant **64T** (which discharges through outfall serial number 005 to the Housatonic River) **during dry weather**. The dry weather discharge consists of treated flow from the 64T treatment plant, which includes groundwater infiltration and city water (used for fire suppression/testing activities). The discharge will be limited and monitored by the permittee as specified below**.** Measurement and reporting of flow shall begin upon the effective date of the permit modification. All other monitoring shall begin twenty four (24) months from the effective date of this modification, unless the 64T treatment plant influent during dry weather is eliminated prior to that date pursuant to the schedule found in Part C of Attachment C. Samples shall be representative of the discharge from treatment plant 64T during **dry weather.**[*2]

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirement	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Flow[*1]	MGD	Report	–	Report	1/Week	Estimate[*24]
Flow[*4]	MGD	Report	–	Report		
Oil and Grease	mg/l	–	–	15	2/Month	Grab
Oil and Grease	lbs/day	Report	–	Report		
TSS	mg/l	Report	–	Report	2/Month	24-Hour Composite[*6]
TSS	lbs/day	Report	–	Report		
pH	st. units	(See Part I.A. footnote *21)			2/Month	Grab
PCBs, total [*14]	ug/l	Report [*22]	–	Report	2/Month	24-Hour Composite[*6]
PCBs, total	lbs/day	Report	–	Report		

Footnotes begin on page 15.

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for this discharge during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

3 During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge effluent from outfall serial number **005** to the Housatonic River. The discharge consists of treated effluent from the 64G treatment plant (see Part I.A.1. above for specific flow components), treated effluent from the 64T treatment plant, consisting of storm water (during wet weather), groundwater infiltration and city water (used for fire suppression/testing activities). The discharge will be limited and monitored by the permittee as specified below[*4]. Samples shall be representative of the discharge through outfall 005 to the Housatonic River[*5]. When outfall 005 is flooded, the permittee may sample using flow proportioned samples from the 64T and 64G discharges.**

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirement	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Rainfall/Precipitation[*11]	Inches	Report		Report	Continuous	Recorder
Flow [*1, *26]	MGD	Report	–	Report	Continuous	Recorder
Flow[*4]	MGD	Report	–	Report		
Oil and Grease [*5]	mg/l	–	–	15	2/Month	Grab
Oil and Grease [*5]	lbs/day	–	–	135		
TSS [*5, *25]	mg/l	Report	–	Report	2/Month	24-Hour Composite[*6]
TSS [*5]	lbs/day	188	–	270		
pH	st. units	(See Part I.A. footnote *21)			2/Month	Grab
PCBs, total [*5, *14, *25]	ug/l	Report	–	Report	2/Month	24-Hour Composite[*6]
PCBs, total [*5]	lbs/day	0.01	–	0.03		

Footnotes begin on page 15.

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for this discharge during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E.

** The permittee shall note the days each month that the outfall is flooded on the outfall's monthly summary table.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

4. During the period beginning the effective date and lasting through expiration, during **wet weather** the permittee is authorized to discharge effluent to the Housatonic River from outfall serial number **005**, including treated effluent from the 64G treatment plant (see Part I.A.1. above for specific flow components) and treated effluent from the 64T treatment plant, consisting of storm water, groundwater infiltration and city water (used for fire suppression/testing activities). The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharge through outfall 005 to the Housatonic River during **wet weather.** [*7] When outfall 005 is flooded, the permittee may sample using flow proportioned samples from the 64T and 64G discharges.

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirement	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Rainfall/Precipitation [*12]	inches	Report		Report	Continuous	Recorder
Flow [*4, *26]	MGD	Report	–	Report	Continuous	Recorder
Oil and Grease	mg/l	–	–	15	1/Quarter [*23]	Grab [*9]
TSS [*25]	mg/l	Report	–	Report	3/Quarter [*23]	Composite [*8]
TSS	lbs/day	Report	–	Report		
pH	st. units	(See Part I.A. footnote *21.)			1/Quarter [*23]	Grab [*9]
PCBs, total [*14, *25]	ug/l	Report	–	Report	3/Quarter [*23]	Composite [*8]
PCBs, total	lbs/day	Report	–	Report		

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

5. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge effluent through outfall serial number **05A** (an overflow from the 005 drainage system) to the Housatonic River during **dry weather**. The discharge consists of flow from the 64W oil/water separator, which includes groundwater infiltration and city water (used for fire suppression/testing activities). The discharge will be limited and monitored by the permittee as specified below. Measurement and reporting of flow shall begin upon the effective date of the permit modification. All other monitoring shall begin twenty four (24) months from the effective date of this modification, unless the discharge during dry weather is eliminated prior to that date pursuant to the schedule found in Part C of Attachment C. Samples shall be representative of the discharge through outfall 05A during **dry weather**.[*2] Samples are not required when outfall 05A is flooded.**

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirement	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Flow[*4]	MGD	Report	–	Report	1/Week	Estimate[*24]
Oil and Grease	mg/l	–	–	15	2/Month	Grab
Oil and Grease	lbs/day	Report	–	Report		
TSS	mg/l	Report	–	Report	2/Month	24-Hour Composite[*6]
TSS	lbs/day	Report	–	Report		
pH	st. units	(See Part I.A. footnote *21)			2/Month	Grab
PCBs, total [*14]	ug/l	Report [*22]	–	Report	2/Month	24-Hour Composite[*6]
PCBs, total	lbs/day	Report	–	Report		

Footnotes begin on page 15.

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for this discharge during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E.

** The permittee shall note the days each month that the outfall is flooded on the outfall's monthly summary table.

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

6. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge effluent through outfall serial number **05A** (an overflow from the 005 drainage system) to the Housatonic River **during wet weather**. The discharge consists of flow from the 64W oil/water separator, which includes groundwater (infiltration), city water (used for fire suppression/testing activities) and storm water. The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharge through outfall 05A **during wet weather**.[*7] Samples are not required when outfall 05A is flooded.**

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirement	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Rainfall / Precipitation [*12]	inches	Report	–	Report	Per Discharge Event	Total
Flow[*3]	MGD	Report	–	Report	Continuous	Recorder
Flow[*4]	MGD	Report	–	Report		
Number of Activations [*10]	#	Report	–	–	Per Discharge Event	Observation
Oil and Grease	mg/l	–	–	15	1/Quarter [*23]	Grab[*9]
Oil and Grease	lbs/day	Report	–	Report		
TSS [*25]	mg/l	Report	–	Report	3/Quarter [*23]	Composite[*8]
TSS	lbs/day	Report	–	Report		
pH	st. units	(See Part I.A. footnote *21)			1/Quarter [*23]	Grab[*9]
PCBs, total [*14, *25]	ug/l	Report	–	Report	3/Quarter [*23]	Composite*[8]
PCBs, total	lbs/day	Report	–	Report		

Footnotes begin on page 15.

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for this discharge during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E.

** The permittee shall note the days each month that the outfall is flooded on the outfall's monthly summary table.

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

7. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge effluent through outfall serial number **05B** (untreated overflow from the 005 drainage system) to the Housatonic River during **wet weather**. The discharge consists of untreated groundwater infiltration, city water (used for fire suppression/testing activities) and storm water to the Housatonic River. **Discharges during dry weather are prohibited, except discharges due solely to fire suppression/testing activities**. The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharges and collected **during wet weather** conditions.[*7]

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirement	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Rainfall/Precipitation[*12]	inches	Report	–	Report	Per Discharge Event	Total
Flow [*3]	MGD	Report	–	Report	Continuous	Recorder
Flow [*4]	MGD	Report	–	Report		
Number of Activations[*10]	#	Report	–	–	Per Discharge Event	Observation
Oil and Grease	mg/l	–	–	15	1/Quarter [*23]	Grab[*9]
TSS [*25]	mg/l	Report	–	Report	1/Quarter [*23]	Composite[*8]
pH	st. units	(See Part I.A. footnote *21.)			1/Quarter [*23]	Grab[*9]
PCBs, total [*14, *25]	ug/l	Report	–	Report	1/Quarter [*23]	Composite[*8]

Footnotes begin on page 15.

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for these discharges during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E.

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

8. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from outfall serial number **006** to the Housatonic River during **dry weather**, consisting of treated groundwater infiltration and city water (used for fire suppression/testing activities) from oil/water separator 64X. Measurement and reporting of flow shall begin upon the effective date of the permit modification. All other monitoring shall begin twenty four (24) months from the effective date of this modification, unless the discharge during dry weather is eliminated prior to that date pursuant to the schedule found in Part C of Attachment C. The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharge **during dry weather** conditions.*[2]

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirement	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Flow *[1]	MGD	Report	–	Report	1/Week	Estimate *[24]
Flow *[4]	MGD	Report	–	Report		
Oil and Grease	mg/l	–	–	15	2/Month	Grab
TSS	mg/l	Report	–	Report	2/Month	24-Hour Composite *[6]
TSS	lbs/day	Report	–	Report		
pH	st. units	(See Part I.A. footnote *21.)			2/Month	Grab
PCBs, total *[14]	ug/l	Report *[22]	–	Report	2/Month	24-Hour Composite *[6]
PCBs, total	lbs/day	Report	–	Report	2/Month	
Volatile Organic Compounds (VOCs), total *[20]	ug/l	Report	–	Report	2/Month	Grab
Semivolatiles (SVOCs), total *[20]	ug/l	Report	–	Report	2/Month	Grab

Footnotes begin on page 15.

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for this discharge during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E.

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

9. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent through outfall serial number **006** to the Housatonic River during **wet weather**, including effluent from the 64X oil water separator, consisting of groundwater infiltration, city water (used for fire suppression/testing activities) and storm water to the Housatonic River. The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharge and collected **during wet weather.**[*7]

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirement	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Rainfall / Precipitation [*12]	inches	Report	–	Report	Per Discharge Event	Total
Flow [*4]	MGD	Report	–	Report	Continuous	Recorder
Oil and Grease	mg/l	–	–	15	1/Quarter [*23]	Grab[*9]
TSS[*25]	mg/l	Report	–	Report	3/Quarter [*23]	Composite[*8]
TSS	mg/l	Report	–	Report		
pH	st. units	(See Part I.A. footnote *21.)			1/Quarter [*23]	Grab[*9]
PCBs, total [*14, *25]	ug/l	Report	–	Report	3/Quarter [*23]	Composite[*8]
PCBs, total	ug/l	Report	–	Report		

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PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

10. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge effluent from outfalls serial numbers **06A** and **SR05** (flows from the 006 drainage system that exceed the capacity of OWS64X and its related piping capacity) consisting of untreated groundwater infiltration, city water (used for fire suppression/testing activities) and storm water to the Housatonic River during **wet weather**. The discharges will be limited and monitored by the permittee as specified below**.** Discharges during dry weather are prohibited, except discharges due solely to fire suppression/testing activities. Samples shall be representative of the discharge and collected **during wet weather.** *7

Effluent Characteristic	Outfall	Units	Discharge Limitation			Monitoring Requirement	
			Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Rainfall/Precipitation *12	06A, SR05	inches	Report	–	Report	Per Discharge Event	Total
Flow *4, *26	SR05	MGD	Report	–	Report	Per Discharge Event	Recorder
Flow *3, *26	06A	MGD	Report	–	Report	Continuous	Recorder
Flow *4	06A	MGD	Report	–	Report		
Number of Activations *10, *26	06A, SR05	#	Report	–	–	Per Discharge Event	Observation
Oil and Grease	06A	mg/l	Report	–	15	1/Quarter *23	Grab *9
TSS *25	06A	mg/l	Report	–	Report	1/Quarter *23	Composite *8
TSS	06A	lbs/day	Report	–	Report		
pH	06A	st. units	(See Part I.A. footnote *21.)			1/Quarter *23	Grab *9
PCBs, total *14, *25	06A	ug/l	Report	–	Report	1/Quarter *23	Composite *8
PCBs, total	06A	lbs/day	Report	–	Report		

Footnotes begin on page 15.

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for these discharges during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E.

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

11 During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from internal outfall **09B** (discharge from oil/water separator 119W which discharges through outfall serial number **009***)* to Unkamet Brook. The discharge includes city water (used for fire suppression/testing activities), ground water infiltration, and storm water. The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharge from OWS 119W[*5].

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirement	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Rainfall/Precipitation[*12]	inches	Report		Report	Continuous	Recorder
Flow [*1, *26]	MGD	Report	–	Report	Continuous	Recorder
Flow [*4]	MGD	Report	–	Report		
Oil and Grease[*5]	mg/l	–	–	15	1/Quarter[*23]	Grab
Oil and Grease[*5]	lbs/day	–	–	438		
TSS[*5]	mg/l	Report	–	Report	3/Quarter[*23]	24-Hour Composite[*6]
TSS[*5]	lbs/day	213	–	876		
pH	st. units	(See Part I.A. footnote *21.)			1/Quarter[*23]	Grab
PCBs, total [*14]	ug/l	Report	–	Report	3/Quarter[*23]	24-Hour Composite[*6]
PCBs, total	lbs/day	Report	–	Report		

Footnotes begin on page 15.

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for this discharge during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E.

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

12. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated and untreated effluent from outfall serial number **009** to Unkamet Brook, including city water (used for fire suppression/testing activities) and ground water infiltration, to Unkamet Brook during **dry weather**. The discharge will be limited and monitored by the permittee as specified below. Measurement and reporting of flow shall begin upon the effective date of the permit modification. All other monitoring shall begin twenty four (24) months from the effective date of this modification, unless the discharge during dry weather is eliminated prior to that date pursuant to the schedule found in Part C of Attachment C**.** Samples shall be representative of the discharge and collected during **dry weather** *[2] at sampling point 009 (the combined discharges from OWS 119W and flow bypassed around OWS 119W).

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirement	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Flow[*1]	MGD	Report	–	Report	1/Week	Estimate[*24]
Flow [*4]	MGD	Report	–	Report	2/Month	Estimate[*24]
Oil and Grease	mg/l	Report	–	15	2/Month	Grab
TSS	mg/l	Report	–	Report	2/Month	24-Hour Composite[*6]
TSS	lbs/day	Report	–	Report		
pH	st. units	(See Part I.A. footnote *21.)			2/Month	Grab
PCBs, total [*14,]	ug/l	Report [*22]	–	Report	2/Month	24-Hour Composite[*6]
PCBs, total	lbs/day	Report	–	Report		

Footnotes begin on page 15.

In addition to the specific reporting required on the DMR, the permittee shall attach a summary of all samples collected for this discharge during the reporting period, showing the results of each sample per calendar day. An example summary table is shown in Attachment E.

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

13. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated and untreated effluent from outfall serial number **009** to Unkamet Brook **during wet weather**, including city water (used for fire suppression/testing activities), ground water infiltration, and storm water. The discharge will be limited and monitored by the permittee as specified below. Samples shall be representative of the discharge and collected **during wet weather**[*7] at sampling point 009 (the combined discharges from OWS 119W and flow bypassed around OWS 119W).

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirement	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Flow [*4, *26]	MGD	Report	–	Report	Continuous	Recorder
Oil and Grease	mg/l	–	–	15	1/Quarter [*23]	Grab[*9]
TSS [*25]	mg/l	Report	–	Report	3/Quarter [*23]	Composite[*8]
TSS	lbs/day	Report	–	Report		
pH	st. units	(See Part I.A. footnote *21)			1/Quarter [*23]	Grab[*9]
PCBs, total [*14, *25]	ug/l	Report	–	Report	3/Quarter [*23]	Composite[*8]
PCBs, total	lbs/day	Report	–	Report		

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Footnotes:

*1 Report the average monthly and maximum daily flows.

*2 Dry weather is defined as any day on which less that 0.1 inches of total precipitation falls and no snow melt occurs.

*3. Report the monthly average and maximum daily flows. The monthly average flow is defined as the average flow per day of discharge.

*4 Report the average monthly and maximum daily flows for the day(s) that PCB samples were taken.

*5 This sampling will determine compliance with technology-based limits. The sampling shall be conducted as part of a routine sampling plan, in which samples are collected on the same day(s) of the month without regard to weather conditions. If the weather on the day of the sampling meets the definition of a dry weather day, the collected data may be used towards satisfying the dry weather monitoring requirements for the outfall.

*6 A 24-hour composite sample will consist of at least twenty four (24) grab samples taken during one working day (e.g., 7 a.m. Monday - 7 a.m. Tuesday). For intermittent discharges, the number of hourly grab samples may be reduced to correspond to the period of discharge.

*7. Wet weather is defined as any day on which more than 0.1 inches of total precipitation falls or on which snow melt occurs, and the interval from the preceding measurable storm is at least 24 hours. The 24-hour storm interval is waived when the preceding measurable storm did not yield a measurable discharge, or if the permittee is able to document that less than a 24 hour interval is representative for local storm events during the sampling period.

*8. Wet weather composite sampling shall be done on a wet weather day. Composite samples shall be collected over the duration of the storm or for three hours, whichever is less, and shall be collected as flow proportioned samples (or collected at equal time intervals and combined proportional to flow). The first aliquot shall be collected within the first 30 minutes of the discharge. If it is not practicable to take the sample during the first 30 minutes, the permittee will sample during the first hour of discharge and describe why collecting a grab sample during the first 30 minutes was impracticable. The permittee will submit this information with the discharge monitoring report.

*9. Wet weather grab samples shall be taken during the first 60 minutes of the discharge. If it is not practicable to take the sample during the first 60 minutes, the permittee will sample during the first 90 minutes of discharge and describe why collecting a grab sample during the first 60 minutes was impracticable. The permittee will submit this information with the discharge monitoring report.

*10 Report the number of calendar days during the month that the outfall discharged.

*11. The permittee will maintain a rainfall rain gauge on-site when the air temperature is above freezing, and will report the National Weather Service data for Pittsfield, MA, when the air

temperature is below freezing. Report on the DMR the average and daily maximum precipitation that fell on the days PCB samples were taken.

*12 The average and daily maximum precipitation that fell on the days that sampling occurred shall be reported on the DMR

*13. The total PCB monthly average compliance limit for this discharge is set at 0.065 ug/l, and the minimum level (ML) is defined as 0.065 ug/l. The permittee will: (1) use Modified Method 8082, attached to this permit as **Attachment D**, (2) meet all the specifications within **Attachment D**, (3) make every effort to achieve a minimum detection level (MDL) of 0.014 ug/l using Modified Method 8082, and (4) provide the result of total PCBs as the sum of all Aroclors. Sample results less than 0.065 ug/l shall be reported as zero on the discharge monitoring report; numerical results of all samples, including results less than the ML, shall be reported in an attachment to the discharge monitoring report (DMR).

*14. The total PCB minimum level (ML) for total PCBs is defined as 0.065 ug/l. The permittee will: (1) use Modified Method 8082, attached to this permit as **Attachment D**, (2) meet all the specifications within **Attachment D**, (3) make every effort to achieve a minimum detection level (MDL) of 0.014 ug/l using Modified Method 8082, and (4) will provide the result of total PCBs as the sum of all Aroclors. Sample results less than 0.065 ug/l shall be reported as zero on the discharge monitoring report; numerical results of all samples, including results less than the ML shall be reported in an attachment to the discharge monitoring report (DMR).

*15. Interim requirements and a schedule for attaining an effluent minimum level concentration of (0.065 ug/l) may be found in Section D of this permit.

*16. The LC_{50} is the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a 100% limit means that a sample of 100% effluent (no dilution) will cause no more than a 50% mortality rate.

*17. C-NOEC (chronic-no observed effect concentration) and the IC_{25} concentrations are defined as the highest concentration of toxicant or effluent to which organisms are exposed in a life cycle or partial life cycle test which causes no adverse effect on growth, survival, or reproduction at a specific time of observation as determined from hypothesis testing where the test results exhibit a linear dose-response relationship. However, where the test results exhibit a non-linear dose-response relationship, the permittee must report the lowest concentration where there is no observable effect.

*18. The permittee will: (1) conduct chronic (and modified acute) toxicity tests quarterly, (2) test the daphnid, Ceriodaphnia dubia in accordance to the schedule in the table below, (3) calculate the percent minimum significant difference (PMSD) as defined within the 2002 EPA National Toxicity Guidance Document (i.e., a measurement of the test's sensitivity), (4) calculate and report both the IC_{25} and C-NOEC endpoints, and (5) select and report as the final test endpoint that which most closely represents the appropriate test result based on the interpretation of the dose response curve (refer to EPA 821-B-00-004, July 2000, Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)). The tests must be performed in accordance with test procedures and protocols specified in **Attachment B** of this permit.

Test Dates: Second Week in	Submit Results By:	Test Species:	Acute Limit: LC_{50}	Chronic Limit: C-NOEC and IC_{25}
March June September December	April 30th July 31st October 31st January 31st	Ceriodaphnia dubia (Daphnid)	Report	Report

After submitting **two years** of WET test results, all of which demonstrate an IC25 of 100%, the permittee may request a reduction in the WET testing requirements. The permittee is required to continue testing at the frequency specified in the permit until notice is received by certified mail from the EPA that the WET testing requirement has been changed.

*19. If toxicity test(s) using receiving water as diluent show the receiving water to be toxic or unreliable, the permittee will follow procedures outlined in **Attachment B** Section IV, DILUTION WATER in order to obtain permission to use an alternate dilution water. In lieu of individual approvals for alternate dilution water required in **Attachment B**, EPA-New England has developed a Self-Implementing Alternative Dilution Water Guidance document (called "Guidance Document") which may be used to obtain approval of an alternate dilution water, including the appropriate species for use with that water. If this Guidance document is revoked, the permittee will revert to obtaining approval as outlined in **Attachment B**. The "Guidance Document" has been sent to all permittees with their annual set of DMRs and Revised Updated Instructions for Completing EPA's Pre-Printed NPDES Discharge Monitoring Report (DMR) Form 3320-1 and is not intended as a direct attachment to this permit. Any modification or revocation to this "Guidance Document" will be transmitted to the permittee as part of the annual DMR instruction package. However, at any time, the permittee may choose to contact EPA-New England directly using the approach outlined in **Attachment B**.

*20. Report all volatile organic compounds and semivolatile organic compounds detected using EPA Method 624 and Method 625, respectively, and attach the results to the discharge monthly reports.

*21. The pH of the effluent will not be less than 6.5 or greater than 9.0 at any time, unless these values are exceeded due to natural causes.

*22 See Part C of Attachment C, Best Management Practices Plan, for requirements regarding dry weather discharges.

*23 A quarter is defined as a calendar quarter. The required number of samples shall be collected within the calendar quarter and reported on the discharge monitoring report for the last month of the quarter. For example, results for samples collected during the calendar quarter of January 1

through March 31 shall be reported on the March discharge monitoring report. Individual sample results shall be reported on the monthly summary for the month in which they were collected.

*24 Dry weather flow estimates will be obtained through visual inspection, where dry weather flows are less than can be measured by existing flow meters. Flows measured pursuant to the requirements of Part A.2. shall be measured at the influent to the 64T treatment plant wet well.

*25 Composite sample collection for TSS and PCBs, as noted in Parts I.A.3, I.A.4, I.A.6, I.A.7, I.A.9, I.A.10, I.A.12, and I.A.13 above, shall begin no later than six (6) months from the effective date of permit modification to allow for the installation of additional sampling equipment. During the interim period, the permittee shall collect grab samples for TSS and PCBs once per quarter in lieu of the required composite samples.

*26 Flow monitoring, as noted in Parts I.A.3, I.A.4, I.A.10, I.A.11, and I.A.13 above, shall begin no later than six (6) months from the effective date of permit modification to allow for the installation of additional flow monitoring equipment. The schedule for installing flow monitoring equipment at outfall SR05 (Part I.A.10) is also contingent upon City of Pittsfield approval

Because flow measurements are necessary to calculate mass (lbs/day) discharges, effluent monitoring in Parts I.A.10, I.A.11 and I.A.13 that requires reporting in units of mass shall also begin six (6) months from the effective date of the permit modification. For Parts I.A.3 and I.A.4, the combined flows from internal outfalls 64G and 64T shall be reported as the total flow for outfall 005 for the six (6) months following the effective date of the permit modification.

PART I.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

14. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge uncontaminated groundwater, water from fire suppression/testing activities, and storm water from the following outfall serial numbers: YD10, YD11, and YD12 (discharges to Unkamet Brook), YD13 and YD16 (discharges to the Housatonic River).

For one year from the effective date of the permit, the permittee must inspect the authorized outfalls once per month during dry weather. If discharges are occurring, and are not due solely to fire suppression/testing activities, the flow rate must be estimated and grab samples collected for pH, TSS, and PCBs (using Modified Method 8082). A summary of these inspections, including all monitoring data, must be attached to the DMR. Based on the sampling results, EPA may extend this monitoring requirement via certified letter or reopen the permit to include effluent limitations on dry weather discharges.

Wet weather monitoring of the authorized outfalls must be conducted as required in Part C.2.b.

The following five requirements (Parts I.A.15.-19.) apply to all discharges at this site:

15. The discharge will not cause objectionable discoloration of the receiving waters.

16. The effluent will contain neither a visible oil sheen, foam, nor floating solids at any time.

17. The permittee will demonstrate adequate laboratory controls and appropriate quality assurance procedures, in accordance with 40 C.F.R. § 122.41(e).

18. All samples and measurements taken for the purpose of monitoring will be representative of the monitored activity, in accordance with 40 C.F.R. § 122.41(j).

19. The discharge will not cause or contribute to an exceedance of the instream temperature requirements under 314 CMR 4.05(3)(b)2 of the Massachusetts Water Quality Standards.

20. All existing manufacturing, commercial, mining, and silvaculture dischargers must notify the Director as soon as they know or have reason to believe:

    a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

        (1) One hundred micrograms per liter (100 ug/l);

        (2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrgrams per liter (500 ug/l) for 2, 4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

        (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. § 122.21(g)(7); or

        (4) The level established by the Director in accordance with 40 C.F.R. § 122.44(f).

    b. That activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

        (1) Five hundred micrograms per liter (500 ug/l);

        (2) One milligram per liter (mg/l) for antimony;

        (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. § 122.21(g)(7); or

        (4) The level established by the Director in accordance with 40 C.F.R. § 122.44(f).

    c. That the permittee has begun or expects to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

21. Except as part of treatment plant operations at the 64G and 64T treatment plants, the permittee

shall not add chemicals to any of the discharges at the facility.

22. This permit may be modified, or revoked and reissued, on the basis of new information in accordance with 40 CFR § 122.62.

23. Toxics Control

    a. The permittee will not discharge any pollutant or combination of pollutants in toxic amounts.

    b. Any toxic components of the effluent will not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards

24. Numerical Effluent Limitations for Toxicants

    EPA or the MassDEP may use the results of the toxicity tests and chemical analysis conducted pursuant to this permit, as well as national water quality criteria developed pursuant to Section 304(a)(1) of the Clean Water Act (CWA), state water quality criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants, including but not limited to those pollutants listed in Appendix D of 40 C.F.R. § 122.

25. Floor Drains

    Within ninety (90) days of the effective date of the permit, the permittee must: (1) verify the location of each floor drain at active operations buildings at the GE Pittsfield site (e. g., Building 100), and (2) permanently remove or seal those floor drains within the building that do not directly discharge to the sewer system. **Within one hundred and eighty (180) days** of the effective date of the permit, the permittee must: (1) verify the location of each floor drain at inactive operations buildings at the GE Pittsfield site that are not otherwise scheduled for demolition under the Brownfields Program (i.e., Buildings 7, 9, 9B, 10, 12, 12T, 14, 52, 53, 64, 78, 106, 107, 108, 119, 121), and (2) permanently remove or seal those floor drains within each of these buildings that do not directly discharge to the sewer system. Office buildings are not subject to the terms of this requirement. In addition, other buildings scheduled for future demolition under the Brownfields Program are not subject to the terms of this requirement.

B. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from the outfalls listed in **Attachment A** of this permit. Discharges of wastewater from any other point sources are not authorized by this permit and will be reported in accordance with Part II. Section D.1.e.(1) of the General Requirements of this permit (Twenty-four hour reporting).

To ensure that all point source discharges of pollutants owned or operated by the permittee are included in the permit, the permittee shall complete a survey of its site to confirm that there are

no point source discharges of pollutants from its site that are not included in the permit. This survey shall evaluate whether there are any pipes, ditches, swales, or other discrete conveyances that discharge pollutants either directly to waters of the United States or to conveyance systems owned and operated by others that discharge to waters of the United States. A report of the survey, including a map showing any additional discharges, including flow components (e.g. storm water, groundwater infiltration), estimated flows, and sampling for TSS and PCBs shall be submitted to MassDEP and EPA **within 120 days of the effective date of the permit**.

C. BEST MANAGEMENT PRACTICES

1. The permittee must implement the Best Management Practices (BMP) requirements upon the effective date of the permit, which include: (1) BMPs described in **Attachment C**, and (2) the Storm Water Pollution Prevention Plan (SWPPP) described below. When the permit becomes effective, all of the BMP requirements will be enforceable.

2. The permittee must maintain and implement a storm water pollution prevention plan (SWPPP) for storm water runoff areas discharging to point sources authorized by this permit. The permittee's storm water discharges are subject to the best management practices established in the permittee's Storm Water Pollution Prevention Plan (SWPPP) and as described in **Attachment C**. The permittee must submit an updated SWPPP to EPA and the MassDEP **within 6 (six) months** of the effective date of this permit. The updated SWPPP must be implemented **within 60 (sixty) days** of
the submittal date, along with any modifications that are agreed upon by EPA, MassDEP and GE. The plan shall be updated annually and a copy submitted to EPA and MassDEP by **March 1** each year.

a. The contents of the SWPPP must meet all of the requirements of Section 5 of the 2008 *Multi-Sector General Permit for Stormwater Discharges Associated With Industrial Activities* (except for conditions pertaining to effluent monitoring, because specific monitoring requirements for all stormwater discharges from the facility are included in the main body of this permit), and must also include up-to-date mapping of the storm water collection system, showing all storm water collection pipes, pipe type (e.g. concrete, clay, perforated) pipes sizes, connections, manhole locations, and treatment units. The SWPP must also include routine inspections of active and plugged outfalls to ensure the integrity of the seals on plugged outfalls to ensure that storm drains not authorized to discharge during dry weather are not discharging under those conditions, and to ensure that there is no breakout of groundwater in the vicinity of the outfalls.

b. The permittee must include within their SWPPP, a plan for sampling all of the storm water discharges listed under Part I.A.14. of this permit **once each year.** At a minimum the following parameters must be sampled: average and peak flow, oil and grease, PCBs (using Modified Method 8082), TSS, and zinc (pollutant samples shall be all collected as storm duration flow composite samples, see footnote *8 in Part I.A.).

3. The permittee must attach all BMP sampling results to their monthly discharge monitoring reports (includes "**Attachment C**" and **SWPPP** requirements.)

4. By **March 1 of each year**, the permittee must submit a report to MassDEP and EPA summarizing

the activities conducted under the BMP and SWPPP during the previous year, including the submittal of any storm water sampling performed during the year which was not previously submitted.

D. COMPLIANCE SCHEDULE

1. PCB Limits and Capability Studies

To achieve compliance with the monthly average PCB effluent limitation for outfall 64G (0.014 ug/l), the permittee shall complete the activities in the following compliance schedule. The PCB interim compliance limit for the effluent from outfall 64G shall be a monthly average total PCBs concentration of 0.15 ug/l until compliance with the ML (0.065 ug/l) is achieved in accordance with the schedule set forth below. Total PCBs will be measured using the Modified Method 8082 (protocol attached to the permit as "**Attachment D**"), with a minimum detection level of approximately 0.014 ug/l.

By May 31, 2010, GE shall complete a PCB treatment capability study of the 64G treatment system which will evaluate whether the existing facility is capable of achieving a monthly average limit of 0.065 ug/l.

Following completion of the 64G PCB treatment capability study, the discharge limit will be established as follows:

- If the 64G monitoring data required above demonstrate a 100% capability of achieving a monthly average limit of 0.065 ug/l, the deadline for attaining the monthly average total PCB limit of 0.065 ug/l for outfall 64G shall be **30 days** after the submittal of the required reports**. Compliance capability will be determined using EPA's modified delta log normal method.

- If the 64G monitoring data do not demonstrate a 100% compliance capability with a monthly average limit of 0.065 ug/l, then the interim compliance limit will remain at 0.15 ug/l until GE upgrades the 64G facility to achieve a monthly average PCB concentration of 0.065 ug/l in accordance with the treatment capability studies. Any treatment capability study shall include a plan and schedule pertaining to treatment facility upgrades, subject to EPA and MassDEP approval, for achieving the average limit of 0.065 mg/l as soon as possible in accordance with 40 C.F.R. § 122.47. Any such schedule shall include interim status reports on the progress toward achieving the limit at six (6) month intervals, calculated from the date the treatment capability is submitted. GE shall comply with the 0.065 ug/l average limit on outfall 64G **30 days** after the date required to complete the upgrade(s).

** If subsequent actions undertaken by GE to meet groundwater or NAPL-related Performance Standards or other requirements of the Consent Decree require a significant increase in the 64G treatment plant flow rates above the flow rates that occurred during the 64G treatment plant capability study, and if EPA's On-Scene Coordinator concurs that the increased flows are from such Consent Decree work, then GE must meet an interim compliance limit of 0.15 ug/l for the period during which such increased flow rates are necessary. GE must comply with the interim

limit during the period of increased flows, and shall endeavor to achieve a goal of a monthly PCB concentration of 0.065 ug/l. At the end of the period of increased flows, the limit of 0.065 ug/l shall again apply.

2. Optimization Study and Improvements

Following completion of the 64G PCB treatment capability study and achievement of the PCB compliance limit of 0.065 ug/l (as described in item 1 of this section), GE shall commence a PCB treatment optimization study of the 64G treatment system. The optimization study shall evaluate further enhancements of the treatment plant, with the goal of further reducing the discharge of PCBs to the detection limit (MDL) of 0.014 ug/l.

This study shall evaluate the cost and effectiveness of enhancement alternatives including:

- Operational adjustments to the existing treatment plant, including increased frequency of activated carbon replacement.
- Additional or different activated carbon columns.
- Enhance treatment prior to activated carbon columns.
- Filtration following activated carbon columns.

By February 28, 2011, or 9 months after the date on which GE completes any 64G treatment capability enhancements necessary to achieve a total PCB limit of 0.065 ug/l (as described in item 1 of this section), whichever is later, GE shall report the results of the optimization study to EPA and MassDEP. The report shall document the findings of the study and provide a recommended enhancement alternative(s) that will result in effluent concentrations less than the MDL of 0.014 ug/l. The plan shall also include an implementation schedule for completing the enhancements and shall document the capital costs for, and the estimated reduction in PCBs that would be achieved by those enhancements. GE shall implement the recommended enhancements in accordance with the schedule proposed in the optimization study report, subject to EPA and MassDEP approval, for achieving the monthly average limit of 0.014 ug/l at outfall 64G as soon as possible in accordance with 40 C.F.R. § 122.47.

E. AMBIENT MONITORING PLAN

Wet Weather Plan

Within twelve (12) months of the effective date of the permit, the permittee shall develop and submit to EPA and MassDEP an ambient monitoring plan designed to show the effect of its wet weather discharges on water quality in the designated receiving waters. The plan shall include at least two rounds of wet weather ambient sampling per year and shall include sampling stations in the Housatonic River and Unkamet Brook upstream and downstream of its authorized discharges and from other instream sampling stations sufficient to determine the impact of each authorized discharge on instream water quality. The instream sampling shall coincide with wet weather sampling from the wet weather discharges authorized by this permit.

The plan shall be implemented in the second year of the permit and be conducted each year thereafter.

Dry Weather Plan

Within twelve (12) months of the effective date of the permit modification, the permittee shall develop and submit to EPA and MassDEP an ambient monitoring plan designed to show the effect of its dry weather discharges on water quality in the designated receiving waters. The plan shall include at least two rounds of dry weather ambient sampling per year and shall include sampling stations in the Housatonic River and Unkamet Brook upstream and downstream of its authorized discharges and from other instream sampling stations sufficient to determine the impact of each authorized discharge on instream water quality. The instream sampling shall coincide with dry weather sampling from the dry weather discharges authorized by this permit.

The plan shall be implemented within twenty four (24) months of the effective date of the permit modification and shall be conducted each year thereafter.

F. PERMIT REOPENER

Within thirty six (36) months of the effective date of the permit modification, the Region intends to complete a concise written assessment of (i) the wet and dry weather PCB control measures, including those required under Attachment C, BMP.C, and (ii) the results of the wet and dry weather ambient monitoring program. This evaluation shall be available to the public. If the results indicate that the permit has proven to be insufficiently stringent to comply with applicable water quality standards for toxics, including PCBs, EPA may re-open and modify the permit's terms to impose additional BMPs and/or numeric effluent limitations sufficient to ensure compliance with such water quality standards and, in any event, shall consider such newly available information in the permit reissuance process.

G. MONITORING AND REPORTING

1. Reporting

Monitoring results obtained during each calendar month will be summarized and reported on Discharge Monitoring Report Form(s) postmarked no later than the **28th day of the following month**.

Signed and dated originals of these, and all other reports required herein, will be submitted to the Director and the State at the following addresses:

Environmental Protection Agency
Water Technical Unit (SEW)
P.O. Box 8127
Boston, Massachusetts 02114

The State Agency is:

Massachusetts Department of Environmental Protection
Western Regional Office - Bureau of Resource Protection
436 Dwight Street
Springfield, MA 01103

Signed and dated Discharge Monitoring Report Forms and toxicity test reports required by this permit will also be submitted to the State at:

Massachusetts Department of Environmental Protection
Division of Watershed Management
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608

H. STATE PERMIT CONDITIONS

This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) under Federal and State law, respectively. As such, all the terms and conditions of this Permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MassDEP pursuant to M.G.L. Chap.21, § 43.

Each Agency will have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit will be effective only with respect to the Agency taking such action, and will not affect the validity or status of this Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this Permit is declared, invalid, illegal or otherwise issued in violation of State law such permit will remain in full force and effect under Federal law as an NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this Permit is declared invalid, illegal or otherwise issued in violation of Federal law, this Permit will remain in full force and effect under State law as a Permit issued by the Commonwealth of Massachusetts.

Attachment A
Discharge Outfalls
NPDES Permit No. MA0003891
General Electric Company
Pittsfield, MA

Outfall:	Description of Discharge:	Location (Latitude/Longitude):	Receiving Water:
005	Dry weather and wet weather discharge Dry weather discharge includes treated groundwater, treated water from storm sewer cleaning (see BMP 1 in Attachment C), related water generated as part of consent decree response actions, and treated city water (used for fire protection testing) from 64G and treated groundwater infiltration, city water (used for fire protection testing) and unknown dry weather flow from city storm drain system from 64T Wet weather discharge includes dry weather flow components listed above, plus treated storm water runoff from 64T	42 26' 59" / 73 13' 53"	Housatonic River
05A	Overflow from outfall 005 drainage system. Dry and wet weather discharge Dry weather discharge consists of treated water from OWS 64W, which includes groundwater infiltration and city water used for fire suppression/testing activities Wet weather discharge includes dry weather flow components listed above, plus storm water flows exceeding the capacity of 64T	42 26' 59" / 73 13' 53"	Housatonic River
05B	Wet weather discharge, except for dry weather discharges due solely to fire suppression/testing activities Overflow from outfall 005 drainage system. Untreated flows exceeding the capacity of OWS 64W	42 26' 59" / 73 13' 53"	Housatonic River

Attachment A
Discharge Outfalls
NPDES Permit No. MA0003891
General Electric Company
Pittsfield, MA

Outfall:	Description of Discharge:	Location (Latitude/Longitude):	Receiving Water:
006	Dry and wet weather discharge Dry weather flow includes discharge from OWS 64X of groundwater infiltration, city water (used for fire protection testing) and unknown dry weather flow from city storm drain Wet weather flow consists of discharge from OWS 64X Including dry weather flow components listed above plus facility and city storm water runoff	42 27' 04" / 73 13' 44"	Housatonic River
06A	Wet weather discharge, except for dry weather discharges due solely to fire suppression/testing activities Overflow from 006 drainage area. Consists of untreated flows exceeding the capacity of OWS 64X	42 27' 04" / 73 13 44"	Housatonic River
SRO5	Wet weather discharge, except for dry weather discharges due solely to fire suppression/testing activities Overflow from 006 drainage area. Consists of untreated Flows exceeding the capacity of OWS 64X	___	Housatonic River
009	Dry weather and wet weather discharge Dry weather flow consists of discharge from OWS 119W (09B), including groundwater infiltration, city water (used for fire protection testing) and untreated groundwater infiltration Wet weather flow consists of dry weather flow components listed above plus storm water. Storm water is treated in OWS 119W (09B) to its hydraulic capacity; flows exceeding the capacity of OWS 119W are discharged untreated	42 27' 42" / 73 12' 30"	Unkamet Brook

Attachment A
Discharge Outfalls
NPDES Permit No. MA0003891
General Electric Company
Pittsfield, MA

Outfall:	Description of Discharge:	Location (Latitude/Longitude):	Receiving Water:
YD10	uncontaminated groundwater, flow from fire suppression/testing activities, and facility and city storm water	—	Unkamet Brook
YD11	uncontaminated groundwater, flow from fire suppression/testing activities, and facility storm water	—	Unkamet Brook
YD12	uncontaminated groundwater, flow from fire suppression/testing activities, and facility storm water	—	Unkamet Brook
YD13	uncontaminated groundwater, flow from fire suppression/testing activities, and facility storm water	—	Housatonic River
YD16	uncontaminated groundwater, flow from fire suppression/testing activities, and facility storm water	—	Housatonic River

Attachment C
Best Management Practices Plan
NPDES Permit No. MA0003891
General Electric Company
Pittsfield, MA

BEST MANAGEMENT PRACTICES PLAN [1]

A. STORM WATER BMP ACTIVITIES

1. Cleaning and Inspection of Existing Storm Sewer Components [2]

BMP A.1.A - Debris Removal from Manholes and Catch Basins

- Initial inspection and removal of accumulated debris from all outside storm sewer manholes (MHs) and catch basins (CBs) on GE property in Drainage Basins 005, 006, and 009.
- Quarterly inspections for one year of 10 to 15 "select" MHs and CBs in Drainage Basins 005, 006 and 009. Removal of accumulated debris as needed (i.e., when observed debris thickness exceeds approximately 6 inches and prior to the catch basin exceeding 50% of the sediment storage capacity).[3]
- Annual inspection of select MHs and CBs in Drainage Basins 005, 006, and 009. (debris removal as needed).
- Provide summary of completed inspection/cleaning activities in annual BMP report.

BMP A.1.B - Debris Removal from Oil/Water Separators

- Removal of accumulated debris from OWSs 64W, 64X, 64Z, and 119W.
- Performance of annual inspection (including debris thickness measurements) of each active OWS.
- Removal of accumulated debris from OWSs every 2 years, or sooner if average thickness of debris observed during annual inspections exceeds 6 inches.
- Provide summary of completed inspection/cleaning activities in annual BMP report.

BMP A.1.C - Pipeline Cleaning and Inspection

- For active piping within Drainage Basins 005, 006, and 009 where groundwater infiltration/inflow (I/I) is identified through the observation of dry weather flows attributable to I/I (if any), collect representative water samples for volatile organic compound (VOC) analysis prior to any pipe cleaning activities. Following the identification of dry weather groundwater I/I flows, if any, and the subsequent cleaning or potential repair/rehabilitation of the subject piping, collect another

round of water samples for VOC analysis (if I/I is identified) for comparative purposes.

- Within Drainage Basins 005 and 006, perform hydraulic pressure washing of the interior surfaces of approximately **4,700** linear feet (LF) of active storm sewer piping to remove accumulated debris (Figure 1). [4]

- Within Drainage Basins 009, YD 10, YD 11, and YD 12, perform hydraulic pressure washing of the interior surfaces of approximately **2,800** linear feet (LF) of active storm sewer piping to remove accumulated debris (Figure 2). [5]

- Video inspection (following pipe cleaning) of approximately **7,500** LF of existing storm sewer piping in Drainage Basins 005, 006, 009, YD 10, YD 11, and YD 12 to assess pipe integrity (Figures 1 and 2).

- Submit a report (separate from the annual BMP report) summarizing the results of the cleaning and inspection activities.

2. Enhancements to Oil/Water Separators

BMP A.2.A - Short-Term OWS Enhancements

- Modify each OWS discharge from an underflow to overflow arrangement.

- Make reasonable best efforts to increase the water storage volume and solids settling capabilities within each OWS through changes to the physical configuration (e.g., weir plates, baffles, etc.).

- Following completion of short-term enhancements described above, conduct sampling and analysis to assess "baseline" effectiveness of each OWS. For (3) different events (selected to represent various flow conditions within each OWS), collect influent and effluent samples from each OWS. Analyze samples for total PCBs (using modified Method 8082) and total suspended solids (TSS). Samples taken for the study shall be 24-hour, flow-weighted composites. Record OWS flow information and other pertinent operating conditions.

BMP A.2.B - Longer-Term OWS-Related Activities

- Conduct a pilot study at OWS 64Z to evaluate potential for increased solids removal. Potential activities include addition of pre-treatment solids removal equipment, installation of additional structures within OWS to promote solids settling, etc.

- To assess potential effectiveness of above activities, conduct sampling and analysis of OWS 64Z flow during (3) different events (to represent various flow conditions). Collect influent and effluent samples with analysis for total PCBs (using modified Method 8082) and TSS. Samples taken for the study shall be 24 hour flow weighted composites. Record OWS flow information and other pertinent operating conditions.

- Make reasonable best efforts to implement permanent improvements to solids settling capabilities at OWS 64Z. Also, evaluate potential improvements to OWSs 64W and 64X.

- Identify and evaluate potential measures to optimize stormwater management within Drainage Basins 005 and 006 through physical modifications related to the East Street Diversion Structure and existing OWS 64Z discharge/bypass piping network.

3. Physical Modifications to Drainage Basins

BMP A.3.A - Modify 60s Complex to Reduce Storm Water Runoff Bypasses

- Reduce storm water discharges and minimize bypasses of the oil/water separators by implementing measures that reduce the areas of impervious cover at the site. Such measures shall include, where practicable and appropriate, adding soil/vegetation cover over impervious areas such as building floor slabs, paved areas, etc.; designing new surface cover in a manner that facilitates infiltration, including surface grading and contouring; and intentionally compromising the integrity of building floor slabs (but *not* paved areas).

- Make reasonable best efforts to modify, abandon, or replace existing storm sewer piping (including existing Sewer Relief Overflows) to reflect new drainage area conditions following building demolition and other activities in the area.

B. IMPLEMENTATION SCHEDULE AND NOTES - STORM WATER BMP ACTIVITIES

1. Schedule

- Initial cleaning and assessment of manholes, catch basins, and piping (i.e., BMPs A.1.A and A.1.C) within Drainage Basins 006 and 009 will be initiated following the permit modification. Within 30 days of the effective date of the permit modification, GE shall identify to the Agencies the specific schedule for performing all of these activities within six (6) months of the effective date of the permit modification.

- Cleaning of OWSs (i.e., BMP A.1.B) and short-term physical modifications to OWSs (i.e., BMP A.2.A) shall be completed by September 30, 2009.

- The pilot study of OWS 64Z (part of BMP A.2.B) will be performed following the completion of initial cleaning and assessment activities and implementation of short-term enhancements, and will be completed by September 30, 2010.

- Initial cleaning and assessment of manholes and catch basins (i.e., BMP A.1.A) within Drainage Basin 005 will be completed by June 30, 2009, unless there are weather related delays, in which case these activities will be completed by July 31, 2009.

- Initial cleaning and assessment of piping (i.e., BMP A.1.C) within Drainage Basin 005 will be completed by August 31, 2009.

- The specific scope and timing/schedule for the performance of remaining BMPs (i.e., remainder of BMP A.2.B, and BMP A.3.A) is uncertain and dependent on the results of the other BMPs and/or completion of various CD- and Brownfields-related activities. A preliminary timeframe of one to three years is estimated.

- GE will prepare an annual BMP summary report for submittal to the Agencies. That report will describe all completed activities, and provide relevant information and data as appropriate. Other information (e.g., proposed additional BMPs, schedule updates, etc.) will also be provided in the annual summary. This summary is due on March 1 of each year following the effective date of the permit (see Part I.C.4. of permit)

2. Notes

1) In addition to the activities identified in Attachment C, GE will continue to perform BMPs within the GE facility as identified in its *Stormwater Pollution Prevention Plan*.

2) Solid debris may be placed at GE's On-Plant Consolidation Area(s) subject to space limitations, or must be disposed of properly off-site.; water will be treated at GE's 64G Groundwater Treatment Facility (64G GWTF),

3) "Select" MHs and CBs subject to future inspections to be determined based on initial inspection and cleaning activities, as well as location within overall storm sewer network. Scope of future inspections may vary; for example, in response to results of annual inspections and/or ongoing CD and Brownfields activities.

4) Pipe sections in Drainage Basins 005 and 006 subject to cleaning include piping that: was historically cleaned and/or sliplined; is located in potential PCB source areas (e.g., subsurface areas with non-aqueous phase liquids, elevated PCB concentrations in soil, etc.); is located in close proximity to existing discharge outfalls; or likely to remain active following CD and Brownfields activities. In addition, based on the results of the MH and CB cleaning and inspection activities (BMP A.1.A), additional piping may be identified for hydraulic cleaning.

5) Pipe sections in Drainage Basin 009, YD 10, YD 11, and YD 12 subject to cleaning include active piping that may be subject to I/I due to elevation of the piping and groundwater table, and pipe sections where debris has historically accumulated.

C. DRY WEATHER FLOW ELIMINATION AND/OR CONDITION-BASED IMPOSITION OF NUMERIC EFFLUENT LIMITATIONS FOR PCBs

1. In accordance with the BMPs set forth below, the Permittee shall, within twelve (12) months of the effective date of the permit modification, (a) investigate the occurrences of dry weather flow from outfalls 05A, 64T, 006 and 009, (b) identify the source(s) of such flow, and within forty-two (42) months of the effective date of the permit modification, (c) eliminate such flow or, if this is not feasible, then to reduce the discharge to a level that does not have the reasonable potential to cause or contribute to an exceedance of applicable water quality standards.

a. Identification of Dry Weather Flow Sources (12 months)

• GE shall design and implement a "baseline" monitoring program to identify the presence and potential origin of dry weather flows that may discharge through GE outfalls 005 (excluding 64G GWTF), 05A, 006, and 009. This monitoring shall be in addition to routine sampling required in Parts I.A.2, I.A.5, I.A.8, and I.A.12 of the permit. Information obtained from this program (general understanding regarding the location, origin, nature, and quantity of dry weather flow) will support subsequent evaluations concerning possible dry weather flow reduction/elimination measures.
• The "baseline" program shall be designed based on review of available mapping for the GE facility and adjacent areas; the results of the BMP cleaning activities described in Part A of this attachment; available information related to seasonal groundwater elevations and other site considerations; and an initial field reconnaissance of accessible areas within and along the perimeter of the GE facility (e.g., MHs and CBs).
• At a minimum, the "baseline" program shall include a monthly visual inspection of numerous MHs, CBs, pipe sections, and other structures (collectively, "structures") located within, along the perimeter, and/or potentially hydraulically connected to the drainage basins associated with outfalls 005 (excluding 64G GWTF), 05A, 006, and 009. Each structure will be inspected for evidence of dry weather flow. If such flows are observed, qualitative information related to the flow (e.g., potential origin, estimated flow quantity, visual observations, etc.) will be recorded. To the extent practicable, the rate of observed flow will be estimated.
• During implementation of the program, the results of the "baseline" monitoring program will be reviewed, and modifications to the ongoing program will be implemented if warranted. Modifications (if any) will be identified consistent with the objectives of the program (i.e., to identify the presence and possible origin of dry weather flows).
• To account for the potential intermittent and/or seasonal occurrences of dry weather flows (e.g., infiltration of groundwater during seasonal high water table conditions), the "baseline" monitoring program shall be conducted over a several-month timeframe. The duration of the "baseline" monitoring program shall not exceed 12 months, unless specific Agency approval is provided for a longer duration.
• The proposed "baseline" monitoring plan shall be provided to the Agencies for review and comment within 30 days of the effective date of the permit modification. The proposal shall identify specific timeframes for the implementation and completion of "baseline" program, including the submittal of a semi-annual interim status report(s) and a final summary report. The final summary report shall also include GE's initial evaluations and proposals (if any) for additional monitoring (if warranted) and/or dry weather flow reduction/elimination measures.

b. Implementation of Flow Reduction/Elimination Measures (42 months)

• The results of the BMP activities will be evaluated to determine the need for (and if necessary, the scope of) flow reduction/elimination measures ("flow reduction measures"). The evaluation of possible flow reduction measures will

consider the specific circumstances related to each dry weather flow, including the origin/location of the observed flow; frequency, rate, and duration of flow; length and size of affected piping; technical and cost feasibility of potential measures, etc.

• Potential flow reduction measures for dry weather flows that are not related to GE shall be discussed with the City of Pittsfield and Agencies as appropriate. Reasonable best efforts, in consultation with the City, shall be applied to reduce and minimize, or eliminate, offsite flow contributions.

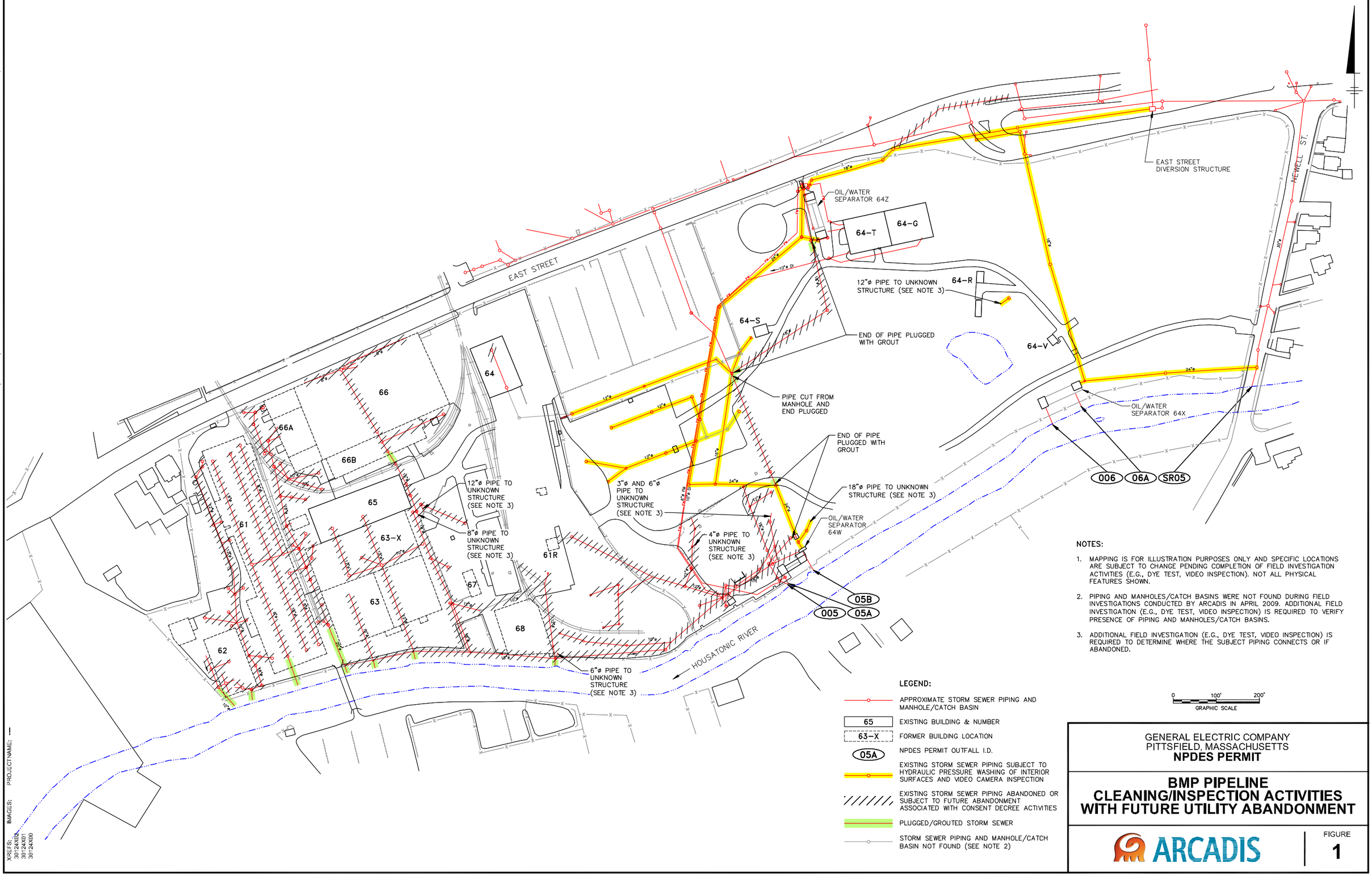
• For each dry weather flow that is identified for flow reduction measures, one or more of the following measures shall be considered and selected based on the evaluations described above: pipeline cleaning and inspection, pipeline abandonment, pipeline replacement, pipeline rehabilitation (e.g., sliplining or grouting), and re-routing of flow. In addition, depending on the nature of the dry weather flow, GE may consider sampling and analysis activities or other assessment efforts to further evaluate the need for and potential scope of flow reduction measures.

• GE shall substantially complete an initial round of flow reduction measures based on the above evaluation within seventeen (17) months of the effective date of the permit modification and shall substantially complete any necessary follow-on rounds of flow reduction measures within twenty-nine months (29) of the effective date of the permit modification.

• In the annual BMP summary report, GE shall document the flow reduction measures that have been performed in the preceding year (since submittal of the last report), the results of monitoring activities, and additional, future BMP measures (if any) that GE has identified. In addition, on approximately a semi-annual basis, GE shall submit a status report to the Agencies that describes the ongoing BMP activities.

c. Dry Weather Monitoring Program

• If measurable dry weather flows remain after the completion of BMP activities, GE may prepare a dry weather monitoring program, in addition to the pollutant monitoring requirements found in Parts I.A.2, I.A.5, I.A.8, and I.A.12 of the permit, necessary to characterize the location, origin, nature, quantity, and quality of such flows.



NOTES:

1. MAPPING IS FOR ILLUSTRATION PURPOSES ONLY AND SPECIFIC LOCATIONS ARE SUBJECT TO CHANGE PENDING COMPLETION OF FIELD INVESTIGATION ACTIVITIES (E.G., DYE TEST, VIDEO INSPECTION). NOT ALL PHYSICAL FEATURES SHOWN.
2. PIPING AND MANHOLES/CATCH BASINS WERE NOT FOUND DURING FIELD INVESTIGATIONS CONDUCTED BY ARCADIS IN APRIL 2009. ADDITIONAL FIELD INVESTIGATION (E.G., DYE TEST, VIDEO INSPECTION) IS REQUIRED TO VERIFY PRESENCE OF PIPING AND MANHOLES/CATCH BASINS.
3. ADDITIONAL FIELD INVESTIGATION (E.G., DYE TEST, VIDEO INSPECTION) IS REQUIRED TO DETERMINE WHERE THE SUBJECT PIPING CONNECTS OR IF ABANDONED.

LEGEND:

- APPROXIMATE STORM SEWER PIPING AND MANHOLE/CATCH BASIN
- 65 — EXISTING BUILDING & NUMBER
- 63-X — FORMER BUILDING LOCATION
- 05A — NPDES PERMIT OUTFALL I.D.
- EXISTING STORM SEWER PIPING SUBJECT TO HYDRAULIC PRESSURE WASHING OF INTERIOR SURFACES AND VIDEO CAMERA INSPECTION
- EXISTING STORM SEWER PIPING ABANDONED OR SUBJECT TO FUTURE ABANDONMENT ASSOCIATED WITH CONSENT DECREE ACTIVITIES
- PLUGGED/GROUTED STORM SEWER
- STORM SEWER PIPING AND MANHOLE/CATCH BASIN NOT FOUND (SEE NOTE 2)

0 100' 200'
GRAPHIC SCALE

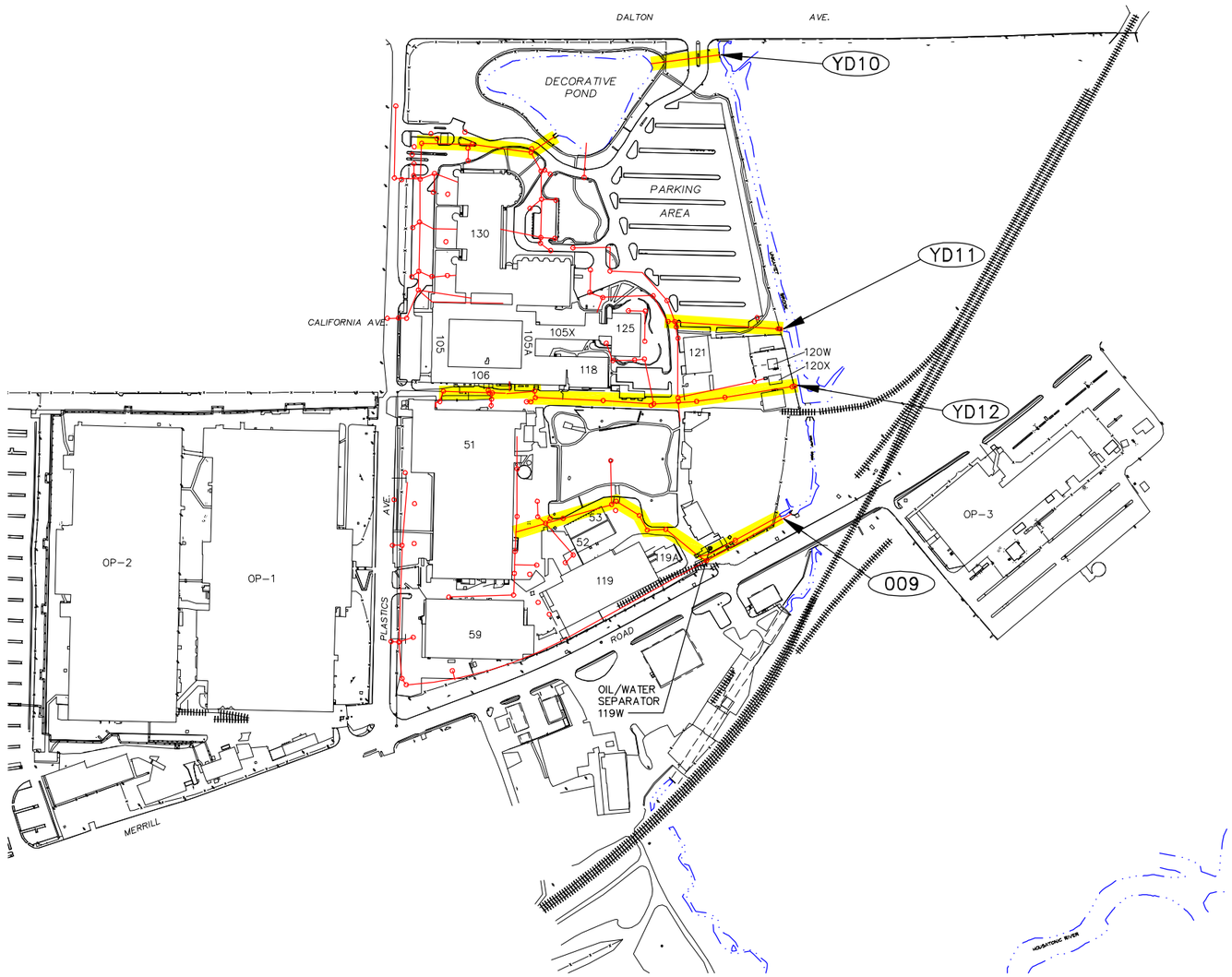
GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
NPDES PERMIT

BMP PIPELINE CLEANING/INSPECTION ACTIVITIES WITH FUTURE UTILITY ABANDONMENT

ARCADIS

FIGURE 1

CITY:SYRACUSE DIVGROUP:ENVCAD DB:DMW LAF AGS LD:DMW PIC:P.KEANEY PM:P.FILIPPETTI TM:P.FILIPPETTI LYR:ON=*;OFF=*REF*
G:\GE\ENVCAD\SYRACUSE\ACT©\B0030\124001\0001\0\DWG\ADDENDUM\NPDES-PERMIT\30124G03.DWG LAYOUT: 1 SAVED: 5/4/2009 12:12 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: — PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/4/2009 12:13 PM BY: SAMOS, ALEX
XREFS:
30124X02
30124X01
30124X00
IMAGES:
PROJECTNAME: —



LEGEND:

- 119 — BUILDING AND NUMBER
- FENCING
- APPROXIMATE STORM SEWER PIPING AND MANHOLE/CATCH BASIN
- EXISTING STORM SEWER PIPING SUBJECT TO HYDRAULIC PRESSURE WASHING OF INTERIOR SURFACES AND VIDEO CAMERA INSPECTION
- 009 — NPDES PERMIT OUTFALL I.D.

NOTE:

1. MAPPING IS FOR ILLUSTRATION PURPOSES ONLY AND SPECIFIC LOCATIONS ARE SUBJECT TO CHANGE PENDING COMPLETION OF FIELD INVESTIGATION ACTIVITIES (E.G., VIDEO INSPECTION). NOT ALL PHYSICAL FEATURES SHOWN.

0 400' 800'

APPROXIMATE SCALE

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
NPDES PERMIT

BMP PIPELINE CLEANING/INSPECTION ACTIVITIES

ARCADIS

FIGURE 2

RESPONSE TO PUBLIC COMMENTS ON DRAFT MODIFICATION OF PERMIT NO. MA0003891 FOR GENERAL ELECTRIC COMPANY PITTSFIELD, MASSACHUSETTS

On June 3, 2009, Region 1 of the U.S. Environmental Protection Agency ("EPA") and the Massachusetts Department of Environmental Protection ("MassDEP") (together, the "Agencies") released for public notice and comment a draft modification of National Pollutant Discharge Elimination System ("NPDES") Permit No. MA0003891. The permit had been reissued to the General Electric Company ("GE" or "permittee") on September 30, 2008, to authorize discharges from its Pittsfield, Massachusetts, facility to Unkamet Brook and the East Branch of the Housatonic River. The public comment period for the draft permit modification ended on July 2, 2009.

Written comments on the draft permit modification were received from:

1. General Electric Co.
2. Connecticut Department of Environmental Protection
3. Citizens for PCB Removal
4. National Marine Fisheries Service

All comments presented in this document have been reproduced verbatim from each comment letter.

In accordance with the provisions of 40 C.F.R. § 124.17, this document presents the Agencies' responses to comments received on the draft permit modification. After a review of the comments, EPA and MassDEP have decided to issue the final permit modification. As a result of comments, the Agencies have revised certain permit conditions, improved certain analyses and made certain clarifications. These improvements and changes are detailed in this document and reflected in the final permit modification. A summary of the changes made in the final permit modification is presented below. The analyses underlying these changes are explained in the responses to comments that follow.

A copy of the final permit modification may be obtained by sending a written request to the following address:

United States Environmental Protection Agency, Region 1
Attn: Brian Pitt
1 Congress Street, Suite 1100 (CMP)
Boston, Massachusetts 02114-2023

Copies of the final permit modification may also be obtained by calling or emailing Brian Pitt, who can be reached at (617) 918-1875. Electronic copies of the final permit modification and these responses to public comments are available at EPA's web site at epa.gov/regiona01/npdes/mirantcanal/index.html.

Comment from GE

Page	Part	Comment
1		Page 1 references Attachment A. A revised Attachment A was not included with the draft Permit Modification. A revised Attachment A should be included.
Response: Attachment A includes detailed descriptions of the outfalls authorized by the permit and was inadvertently omitted from the draft permit package. Only minor changes to this attachment were necessary to reflect the modifications to the permit (including the minor modification made on May 15, 2009). The changes include dry weather flow authorizations for outfalls 05A, 05B, 06A, SR05, and deletion of outfalls YD6, YD7, YD8, YD9, and YD14, which have been eliminated. The updated attachment has been included in the final permit modification.		
2	Part I.A.1	Parenthetical "(see BMP 1 in Attachment C)" should be changed to read "(see BMP A in Attachment C)" to include water from other BMP cleaning activities (e.g., oil/water separators).
Response: The requested change has been made. The change makes the parenthetical more comprehensive.		
11	Part I.A.10	There are asterisks following the word "Report" in the Rainfall/Precipitation line item in the table. The asterisks do not appear to reference a footnote and should thus be removed.
Response: The asterisks are typographical errors and have been removed.		
12	Part I. A. 11	TSS and PCB monitoring/reporting in lbs/day (loading) is not possible until flow meter installation (and/or reconfiguration) is complete. Footnote *26 allows for a 6-month schedule, from the effective date of the Permit Modification, to install (reconfigure) flow monitoring equipment. TSS and PCB monitoring and reporting should be consistent with footnote *26 and provide for a monitoring/reporting schedule to begin no later than 6 months from the effective date of the Permit Modification.
Response: The commenter is correct that mass discharges cannot be calculated without flow data, and that footnote *26 allows for a 6-month schedule for installation of flow		

Page	Part	Comment
monitoring equipment at certain outfalls. Therefore, a schedule requiring the submittal of mass discharge data beginning six months from the effective date of the permit has been added to footnote *26. This schedule has been provided for all outfalls subject to footnote *26 (i.e., all outfalls for which flow measurement devices need to be installed), except for outfall 005. For outfall 005, the permit requires that the combined flows from the flow meters at 64T and 64G be used for the first six months after the effective date of the permit.		
13	Part I.A.12	Footnote *25 requires TSS and PCB monitoring/reporting to begin no later than 6 months from the effective date of the permit modification to provide for the installation of additional sampling equipment. However, the paragraph above the table in Part I.A.12 states "All other monitoring shall begin twenty four (24) months from the effective date of this modification." References to footnote *25 should be removed from Part 1A.12 to be consistent with the dry weather monitoring requirements in Parts I.A.2., I.A.5, I.A.8 of the draft Permit Modification.
Response: The requested change has been made. The schedule for this dry weather discharge should be consistent with the schedule for the other dry weather discharges.		
16	Footnote *13, *14	A reference to Attachment D was made in footnotes *13 and *14. Attachment D was not included with the draft Permit Modification. Attachment D should be included.
Response: Attachment D was included in the final permit issued on September 30, 2008. There were no changes to this attachment proposed in the draft permit modification, so it was not included. The version of Attachment D attached to the September 30, 2008 final permit is therefore the correct version and has not been included as an attachment to the final permit modification.		
16, 17	Footnote *18, *19	A reference to Attachment B was made in footnotes *18 and *19. Attachment B was not included with draft Permit Modification. Attachment B should be included.
Response: Similar to the previous response, Attachment B was not modified, so was not included in the draft permit modification and has not been included in the final permit modification.		
18	Part I.A.14	There appears to be an inconsistency between the first and second sentences of this part. The first sentence authorizes the discharge of uncontaminated

Page	Part	Comment
		groundwater. However, the second sentence prohibits all dry weather discharges (except discharges due solely to fire suppression/testing activities). Groundwater discharge may occur during dry weather periods, which would be prohibited by the second sentence.
Response: There is an inconsistency between the first and second sentences. EPA's intent was to authorize the dry weather discharge of uncontaminated groundwater and fire suppression/testing water, but to require sampling of only dry weather discharges due to groundwater. EPA has clarified this requirement by adding "and water from fire suppression/testing activities" to the authorized discharges in the first sentence, and eliminating the second sentence.		
Pg. 2 of Attachment C	BMP A.2.A	The third bullet requires reasonable best efforts to install continuous flow monitoring equipment at the OWS. A schedule for installing flow monitoring equipment at the oil water separators is set forth by the Parts listed in footnote *26, thus the third bullet should be removed.
Response: The requested change has been made**.** The schedule in footnote *26 supersedes the more general requirement in Attachment C.		
Pg.4 of Attachment C	B.2	For clarity purposes, the first sentence in note 1 should be revised from "In addition to the activities identified in this table…" to "In addition to the activities identified in Attachment C…"
Response: The requested change makes the requirement clearer and has been made.		
Pg. 5 of Attachment C	Attachment C-C.1.a	The following Parts are missing from the first bullet: I.A.2, I.A.5, I.A.8, and I.A.12.
Response: The requested change corrects an omission in the draft permit modification and has been made.		
Grammatical/Typo Revisions:		
2	Part I.A.1	PCB line item footnotes in table should not be italicized.
Response: The requested change has been made.		
4	Part I.A.3	Oil and Grease units, in the table, should be changed from "lbs.day" to "lbs./day".

Page	Part	Comment
Response: The requested change has been made.		
4	Part I.A.3	The comma following the Rainfall/Precipitation line item footnote *11 in the table should be removed.
Response: The requested change has been made.		
5	Part I.A.4	There are two instances in the first sentence of the paragraph above the table, where spaces are incorrectly inserted. The first instance follows the word "plant", and the second is at the end of the sentence.
Response: The requested changes have been made.		
Pg. 3 of Attachment C	BMP A.2.B	The word "to" should be inserted after the word "efforts" in the second bullet on this page.
Response: The requested change has been made.		
Pg. 4 of Attachment C	B.1	There is a double period after the second bullet on this page. One period should be deleted.
Response: The requested change has been made.		
Pg. 6 of Attachment C	Attachment C-C.1.b	The extra space after the forth bullet in this section should be removed.
Response: The requested change has been made.		

Comments from Connecticut Department of Environmental Protection

Comment 1: Thank you for the opportunity to provide comments on the proposed revisions to the National Pollutant Discharge Elimination System (NPDES) permit for the General Electric Company facility in Pittsfield, Massachusetts. The Connecticut Department of Environmental Protection (CT DEP) supports the efforts of the US Environmental Protection Agency and the Department of Environmental Protection of the Commonwealth of Massachusetts to regulate discharges from the General Electric facility. However, the revised permit, as proposed, will be insufficient to insure that the

discharges from the facility will achieve water quality standards established under Section 303 of the Clean Water Act, as required by 40 CFR 122.44(d). Given that the Housatonic River in both Massachusetts and Connecticut has been substantially impacted by past and present releases from this facility, the NPDES permit for this facility must impose stringent limitations and requirements to allow attainment of water quality standards and goals within Massachusetts and Connecticut.

As stated in the fact sheet that accompanies the revised permit, EPA believes that the revised permit focuses on steps to work towards the elimination of PCBs from the wet and dry weather discharges from the facility. CT DEP concurs that source elimination is needed at the facility with the goal of eliminating PCBs from the discharges emanating from the facility. The revised permit, however, does not include substantive requirements to identify and eliminate sources of PCBs to the discharges. Since source elimination is identified as the driving force behind the proposed changes to the permit, specific requirements to identify and eliminate sources of PCBs in the discharge must be included in addition to the current requirements which focus on optimization of the treatment system for discharge 64G, general non-water quality based best management practices for controlling stormwater, and flow reductions.

Response 1: The Agencies respectfully disagree with the assertion that the permit modification will fail to ensure compliance with water quality standards. The Agencies' legal, technical and policy justifications for the permit modification have been set forth in detail on page 4 through 11 of the fact sheet accompanying the draft permit. This discussion includes an analysis of why the permit modification, which opts for narrative rather than numeric effluent limitations on dry weather discharges (64G excepted), is sufficiently stringent to comply with the Clean Water Act and its implementing regulations. While CT DEP clearly would have preferred a different permitting approach (*i.e.*, one that imposed numeric PCB limits on all discharges from the facility), there is nothing in its comments to demonstrate why it believes the Agencies' approach is erroneous and why the permit modification fails to comply with the statute or regulations. The Agencies have discerned no reason to depart from the analysis originally set forth in the fact sheet regarding the ability of the permit modification to comply with all applicable water quality standards.

The Agencies also disagrees that the permit lacks substantive requirements to identify and eliminate sources of PCBs. To the contrary, the permit modification imposes the following requirements with respect to PCB source identification:

- GE shall design and implement a "baseline" monitoring program to identify the presence and potential origin of dry weather flows that may discharge through GE outfalls 005 (excluding 64G GWTF), 05A, 006, and 009. Information obtained from this program (general understanding regarding the location, origin, nature, and quantity of dry weather flow) will support subsequent evaluations concerning possible dry weather flow reduction/elimination measures.
- The "baseline" program shall be designed based on review of available mapping

for the GE facility and adjacent areas; the results of the BMP cleaning activities described in Part A of this attachment; available information related to seasonal groundwater elevations and other site considerations; and an initial field reconnaissance of accessible areas within and along the perimeter of the GE facility (e.g., manholes (MHs) and catch basins (CBs)).

- At a minimum, the "baseline" program shall include a monthly visual inspection of numerous MHs, CBs, pipe sections, and other structures (collectively, "structures") located within, along the perimeter, and/or potentially hydraulically connected to the drainage basins associated with outfalls 005 (excluding 64G GWTF), 05A, 006, and 009. Each structure will be inspected for evidence of dry weather flow. If such flows are observed, qualitative information related to the flow (e.g., potential origin, estimated flow quantity, visual observations, etc.) will be recorded. To the extent practicable, the rate of observed flow will be estimated.
- During implementation of the program, the results of the "baseline" monitoring program will be reviewed, and modifications to the ongoing program will be implemented if warranted. Modifications (if any) will be identified consistent with the objectives of the program (i.e., to identify the presence and possible origin of dry weather flows).
- To account for the potential intermittent and/or seasonal occurrences of dry weather flows (e.g., infiltration of groundwater during seasonal high water table conditions), the "baseline" monitoring program shall be conducted over a several month timeframe. The duration of the "baseline" monitoring program shall not exceed 12 months, unless specific Agency approval is provided for a longer duration.
- The proposed "baseline" monitoring plan shall be provided to the Agencies for review and comment within 30 days of the effective date of the permit modification. The proposal shall identify specific timeframes for the implementation and completion of "baseline" program, including the submittal of a semi-annual interim status report(s) and a final summary report. The final summary report shall also include GE's initial evaluations and proposals (if any) for additional monitoring (if warranted) and/or dry weather flow reduction/elimination measures.

And implementation:

- The results of the BMP activities will be evaluated to determine the need for (and if necessary, the scope of) flow reduction/elimination measures ("flow reduction measures"). The evaluation of possible flow reduction measures will consider the specific circumstances related to each dry weather flow, including the origin/location of the observed flow; frequency, rate, and duration of flow; length and size of affected piping; technical and cost feasibility of potential measures, etc.
- Potential flow reduction measures for dry weather flows that are not related to GE shall be discussed with the City of Pittsfield and Agencies as appropriate. Reasonable best efforts, in consultation with the City, shall be applied to reduce and minimize, or eliminate, offsite flow contributions.

> • For each dry weather flow that is identified for flow reduction measures, one or more of the following measures shall be considered and selected based on the evaluations described above: pipeline cleaning and inspection, pipeline abandonment, pipeline replacement, pipeline rehabilitation (e.g., sliplining or grouting), and re-routing of flow. In addition, depending on the nature of the dry

The requirements above are clear, enforceable obligations of the permittee, will entail significant time and expense, and are logically designed to achieve the objective of PCB source elimination from point sources. As such, they would appear on their face to qualify as "specific requirements to identify and eliminate sources of PCBs in the discharge." While CT DEP may have preferred more specific permit conditions—and it is unclear from the comment what these may be—the Agencies explained in the fact sheet that a flexible approach that allowed the permittee to iterate its flow elimination/reduction efforts (within the timeframes specified in the permit) was warranted given the particular facts of this case.[1]

Comment 2: Additionally, Attachment C of the permit states that if source elimination is not possible, the goal would be to reduce the level of PCBs in the discharges to a level below which no reasonable potential to cause or contribute to an excursion above water quality standards exist. It is our contention that it is not possible to make this demonstration since water quality within the Housatonic River is impaired and the waterbody is identified as such on the impaired waters lists prepared by both Massachusetts and Connecticut pursuant to Section 303(d) of the Federal Clean Water Act. As long as such impairment persists, it will not be possible to demonstrate that the discharge of any amount of PCBs to the environment does not cause or contribute to such impairment.

Response: Given the existing impairment in the receiving waters and the persistent, adverse environmental impacts of PCBs, the Agencies believe that establishing the narrative PCB effluent limitation based on a reasonable potential to cause or contribute to a violation of water quality standards is both conservative and reasonable. If the permittee is unable to entirely eliminate dry weather flows, EPA will assess whether reasonable potential exists in accordance with applicable technical guidance for water quality-based toxics control given the record before it at that time.

Comment 3: For several discharges, with the exception of requirements to monitor discharge flow, the permit suspends monitoring requirements for all parameters,

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[1] "Dry weather flow from outfalls 05A, 64T, 006 and 009 presents unique challenges at the Pittsfield facility because the flow is not associated with active manufacturing, is episodic in nature, appears to be consistently low in volume, and in certain cases appears to originate within area(s)/source(s) over which GE may not have meaningful control (*e.g.*, City of Pittsfield inflow)." Fact Sheet at 7. Because there is such a wide range of possibilities related to the occurrence, nature, frequency, and extent of dry weather flows, a detailed, regimented plan for addressing such flows is neither feasible nor desirable at this stage in the permitting process.

including PCBs, for a period of 24 months. Monitoring of PCBs should not be suspended for any time period.

Response 3: During the first 24 months the permit is in effect, the permittee will be focusing on the elimination of the dry weather discharges. Any PCB data collected during this period would be of little use in the ultimate decision of whether the discharge cause or contributes to an exceedance of water quality standards, given that it would reflect the quality of the discharge before the implementation of the BMPs, when what is of primary interest is the quality of the discharge after the implementation of the BMPs. The Agencies would also note that the permittee is required to routinely measure the dry weather flow for these discharges, which will provide meaningful information on the progress of the permittee in eliminating the discharges.

Comment 4: All discharges, including both dry and wet weather flows, should be regulated using water quality based permit limits. With the exception of discharge 64G, water quality based limits are not applied to any of the discharges from the facility.

Response 4: All dry weather flows from the facility are subject to water quality-based effluent limitations. In some cases, such as 64G, these are in the form of numeric limits, while in others they are in the form of narrative limits. *See* CWA § 502(11) (defining effluent limitation as "any restriction" on quantities, rates and concentrations of constituents discharged from point sources); 40 C.F.R. § 122.44(d) (obligating the permitting authority to include "any requirements" necessary to achieve water quality standards"); *See Defenders of Wildlife v. Browner*, 191 F.3d 1159 (9th Cir. 1999), *aff'g on other grounds In re Ariz. Mun. Storm Water NPDES Permits*, 7 E.A.D. 646, 658-59 (EAB 1988) (Permits need not contain numeric limitations to ensure strict compliance with state water quality standards). The Agencies believe that the narrative effluent limitations associated with the dry weather discharges are as stringent as the numeric limitations applied to outfall 64G. Indeed, such narrative limitations require either elimination of PCBs altogether or reduction below the reasonable potential threshold—a standard that CT DEP itself asserts will not be possible to meet.

Wet weather discharge effluent limitations are outside the scope of this modification.

Comment 5: The permit should require evaluation of treatment options for all discharges which have the potential to contain PCBs.

Response 5: When writing NPDES permits, EPA does not mandate particular technologies to achieve water quality- or technology-based effluent limitations. Congress intended to give the discharger as much flexibility as possible in choosing his mode of compliance. *See* Natural Resources Defense Council, Inc. v. Costle, 568 F.2d 1369, 1380 (D.C. Cir. 1977); *see, e.g.*, H. Rep. No. 92-911, 92d Cong., 2d Sess. 107, reprinted in Legislative History at 794.

Comments from Citizens For PCB Removal

As our name implies, and as we have always done, we are commenting on this document as non-scientist citizens, as laypeople, but with a more in-depth knowledge of the General Electric PCB-, and other components- contaminated site than the average Berkshire County resident, due to more than 12 years of personal, hands-on involvement in this Issue.

After much internal discussion, and an informal meeting with EPA officials (Thank You!), we are somewhat pleased with the proposed resolution of this dispute. It certainly is a vast improvement over the 1998 NPDES permit for this site. One of our fundamental and ongoing concerns has involved the continuous recontamination of the Housatonic River and surrounding neighborhoods from PCBs and other contaminants from GE-owned property, City of Pittsfield property, including Silver Lake, and the PEDA property. By capping/plugging some of the crucial outflows from these areas that then drain directly into the River, or into the City storm system which ultimately ends up in the River, any PCB and other highly toxic pollutants generated at GE's Plant sites will not have a *direct* drainage route to the River. However, we are still very concerned that these toxins will still find their way to the River via other routes, including groundwater seepage especially along capped piping beds, surface runnoff, and flood events.
We named our Group very carefully. We have always stood for **the removal**, or detoxification, of PCBs – and other highly toxic contaminants at this Site; not the encapsulation, containment or "capping" of them, leaving them in the environment to do further damage and become a problem for future generations. It is general knowledge that this industrial site was -and still is - highly, deeply, grossly contaminated with a variety of exceedingly toxic materials. We are still very much concerned about the levels of contamination at the Site and the potential for further problems of exposure to the environment, and thus the humans and other living creatures within that environment. Our concern centers on the health and well-being of these living inhabitants and the growing body of knowledge of the damage that has been done, - and is still being done - from these toxins. If the easily attainable outlets of contaminant flow are blocked, how will we know if they are still being leached from the site, and from exactly what source? Enclosed/attached is a recent (May 28, 2009) article from WebMD regarding medical research on the growing issue of human liver damage and disease, <u>including liver cancer of "no known" cause</u>. While it does not name PCB's specifically, it does name the group of chemicals to which PCB's and the other known site contaminants are similar, linked or related. It states that even the previously thought "low" levels of toxins from our environment that most of us have in our bodies at present may very well be cause for significant health risks and effects not previously suspected. If these levels are affecting humans, then they most certainly must be affecting the living organisms in the River and surrounding areas. This gives new meaning to so-called "safe" levels of PCBs and other dangerous chemicals.

Therefore, we ask that EPA, DEP and all the Environmental Groups continue to hold General Electric to the task of **truly cleaning up** their mess, and to set the most highly stringent standards for the detection and removal of continuing sources of contaminants

at this site as is humanly possible. We call for further, diligent testing of the Site, especially for **all** the known or suspected substances used at this site, and to continuously and vigilantly monitor the entire Site (as defined in the Consent Decree), the River and the surrounding areas for *each and every one* of these toxic substances. And we continue to press EPA and DEP to consider, investigate and evaluate using pilot studies locally, the cutting edge technologies that safely destroy or detoxify PCB's and all the other contaminants found at this site – including previously declared "cleaned" areas - to the point that long term monitoring will not be necessary and future generations can enjoy their environs without risk or fear.

Response: As detailed in the fact sheet accompanying the original draft permit, the Agencies concur that PCBs pose a significant environmental threat. Moreover, the Agencies agree that efforts to control their impacts can be complicated by the tendency of PCBs to persist and migrate through the environment. The Agencies are endeavoring to address PCBs within their statutory and regulatory authorities. In issuing a permit modification entailing the potential elimination of point source PCB discharges during dry weather, the Agencies were mindful of potential secondary impacts. Still, the Agencies regarded the trade-off between a certain, direct discharge to the river (i.e., as a result of eliminating dry weather flows) and a possible, indirect impact on the river (i.e., as a result of redirected dry weather flows finding their way to the river via ground water or soil) as reasonable.

The Agencies agree that a well-designed, comprehensive monitoring regime is a key component of achieving designated uses in the receiving waters. For this reason, the permit modification includes effluent monitoring, as well as both dry weather and wet weather ambient monitoring requirements to assess the effectiveness of the permit.

Note that the Agencies have concluded that there is an opportunity for synergy between dry weather/wet weather pollution control measures and believes that efforts to eliminate/reduce dry weather flows will likely result in cleaner storm water effluent discharging from the site. While the main purpose of the dry weather flow elimination/reduction requirements that have been added to the permit is to lessen dry weather water quality impacts, the investigations and activities required to achieve this result will also mitigate storm water impacts. Ground water infiltration and its associated contaminants are components of wet weather flow as well as dry weather flow. Accordingly, the elimination of groundwater infiltration will reduce wet weather flows and improve wet weather flow quality. Similarly, abandonment and plugging of unnecessary storm drains will reduce wet weather discharges and improve storm water quality by allowing wet weather treatment units to operate more efficiently.

Comments from the National Marine Fisheries Service

This is in response to Public Notice MA-028-09 dated June 3, 2009 regarding a proposed National Pollutant Discharge Elimination System (NPDES) permit for General Electric Company, located in Pittsfield, Massachusetts. The receiving waters for the discharge is the Housatonic River (East Branch) and the Unkamet Brook. These comments are

offered by the Protected Resource Division of NOAA's National Marine Fisheries Service (NMFS).

While several species of listed whales and sea turtles occur seasonally in waters off the Massachusetts coast and populations of the federally endangered shortnose sturgeon occur in the Connecticut and Merrimack Rivers, no listed species are known to occur in the Housatonic River (East Branch) and the Unkamet Brook. As such, no further coordination with NMFS PRD is necessary. Should you have any questions regarding these comments, please contact Danielle Palmer at (978) 282-8468.

Response: The comment requires no changes to the final permit modification.