33	Fact Sheet	Delete references to outfall 011.	Outfall 011 was removed from GE's multi-outfall sampling program by minor modification dated November 21, 1996.	require any changes to the permit. EPA does not modify fact sheets at the time of final permit issuance because the fact sheet is written to support the draft permit. The submitted information is part of the administrative record and does not require any changes to the permit.
34	Permit and Fact Sheet	Remove references, conditions and limitations applicable to YD4, YD5, YD15, SR02, SR03, 007, OF-P1, OF-T2 and OF-T3.	Conveyances have been eliminated.	Discharges YD4, YD5, YD15, SR02, SR03, OF-P1, OF-T2, and OF-T3 have been removed from the permit pursuant to this comment. GE has reported that Outfall 007 was blocked with concrete in March 2005.

GE Technical Exhibits 1, 2 and 3

EPA note: The following exhibits were attached to GE's comments to support specific comments made in the body of its submittal and are attached for reference purposes.

A. GE Technical Exhibit 1 (Discharge Outfall Descriptions)

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

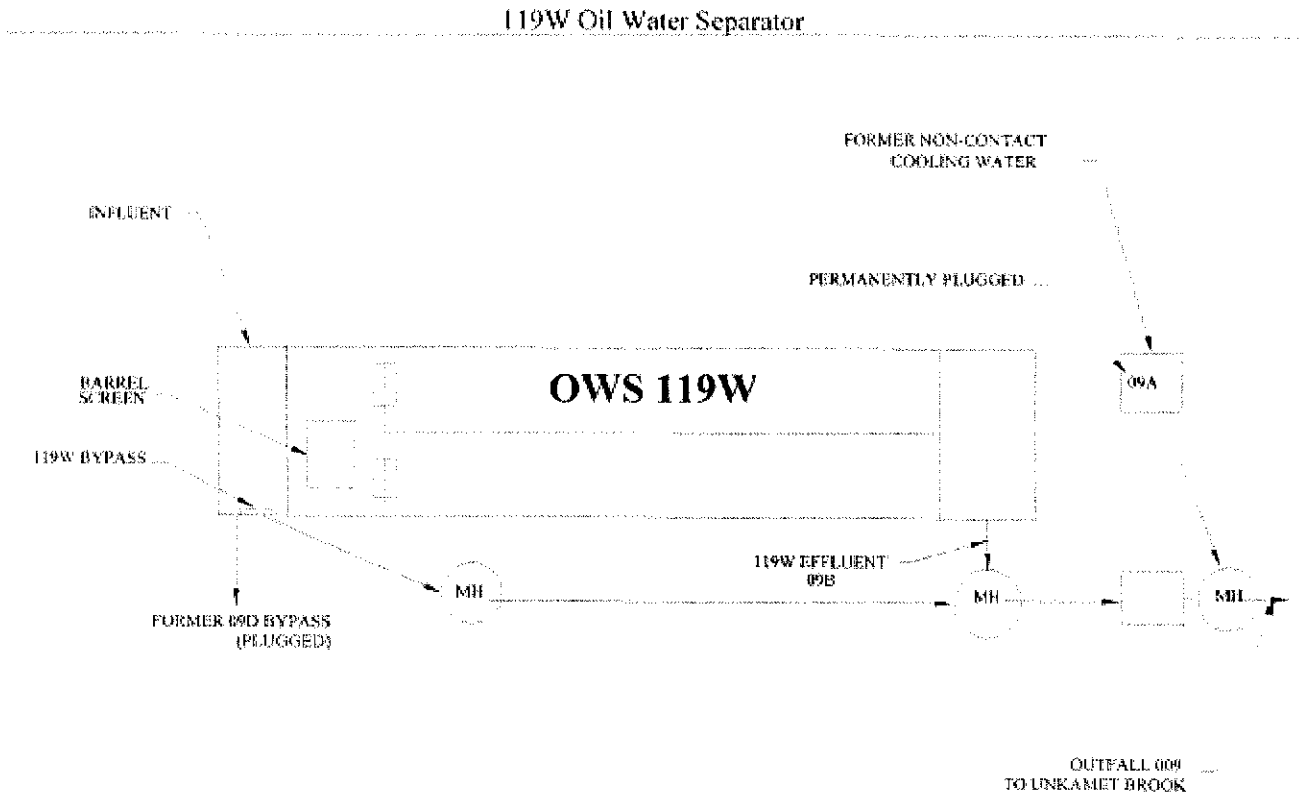
Outfall:	Description of Discharge:	Location (Latitude/Longitude):	Receiving Water:
001	wet and dry weather discharge including: groundwater (infiltration); city water (used for fire protection testing); unknown dry weather flow from city storm drain system; facility and city storm water	42 27' 09"/ 73 14' 16"	Silver Lake
01A	overflow from 001 drainage system: wet weather discharge including groundwater (infiltration); city water (used for fire protection testing); unknown dry weather flow from city storm drain system; facility and city storm water	42 27' 10"/ 73 14' 18"	Silver Lake
004	wet weather discharge of storm water	___	Silver Lake
005	wet and dry weather treated discharge including: groundwater, OPCA leachate and other EPA approved influent to (64G);	42 26' 59"/ 73 13' 53"	Housatonic River

	groundwater (infiltration); city water (used for fire protection testing); unknown dry weather flow from city storm drain; facility and city storm water		
05A	overflow from outfall 005 drainage system: wet and dry weather discharge of groundwater (infiltration); city water (used for fire protection testing); unknown dry weather flow from city storm drain; facility and city storm water.	42 26' 59"/ 73 13' 53"	Housatonic River

Outfall:	Description of Discharge:	Location (Latitude/Longitude):	Receiving Water:
05B	overflow from outfall 005 drainage system: wet weather discharge of groundwater (infiltration); city water (used for fire protection testing); unknown dry weather flow from city storm drain; facility and city storm water	42 26' 59"/ 73 13' 53"	Housatonic River
SRO4	overflows from 005 drainage system: wet weather Discharge of facility storm water	___	Housatonic River
006	wet and dry weather discharge including: groundwater (infiltration); city water (used for fire protection testing); unknown dry weather flow from city storm drain; facility and city storm water	42 27' 04" / 73 13' 44"	Housatonic River
06A	overflow from 006 drainage area: wet weather discharge of groundwater (infiltration); city water (used for fire protection testing); unknown dry weather flow from city storm drain; facility and city storm water	42 27' 04"/ 73 13' 44"	Housatonic River
SRO5	overflow from 006 drainage area: wet weather discharge of groundwater (infiltration); city water (used for fire protection testing); unknown dry weather flow from city storm drain; facility and city storm water	___	Housatonic River
09B	wet and dry weather discharge including: ground water (infiltration); city water (used for fire protection testing); facility storm water	42 27' 42"/ 73 12' 30"	Unkamet Brook
009	wet and dry weather discharge including: ground water (infiltration); city water (used for fire protection testing); facility storm water	42 27' 42"/ 73 12' 30"	Unkamet Brook

Outfall:	Description of Discharge:	Location (Latitude/Longitude):	Receiving Water:
YD3	facility storm water	___	Silver Lake
YD10	facility and city storm water	___	Unkamet Brook
YD11	facility storm water	___	Unkamet Brook
YD12,	facility storm water	___	Unkamet Brook
YD6, YD7	facility storm water	___	Housatonic River
YD8, YD9	facility storm water	___	Housatonic River
YD13, YD14	facility storm water	___	Housatonic River
YD16	facility storm water	___	Housatonic River

B. GE Technical Exhibit 2 (OWS 119W Flow Diagram)



C. GE Technical Exhibit 3 (Fact Sheet Attachments D, F, G, M, N and Q Data Sets)

Attachments D, F, G, M, N, and Q – See GE Technical Comments Summary Chart #28

The effluent data for metals as generated in support of the Whole Effluent Toxicity (WET) monitoring should be revised:

- to reflect the time period representative of facility conditions that are more similar to future facility conditions; and
- to correspond with the data set used to evaluate effluent variability in Attachment R and for the Outfalls 009 and 005 during dry weather conditions.

The DMR time period considered representative of facility conditions in the future is from January 2001 to June 2004. The metals data are generated from a flow-proportional 24-hr composite sampled collected from Outfalls 001, 004, 005, 007, and 009. However, Outfalls 004 and 007 only discharge in response to wet weather events. Hence, two distinct sets of data are generated, one applicable to dry weather conditions and the other more representative of wet weather conditions. Finally, there are conditions when Outfall 001 and 009 dominate the dry weather flow-proportional 24-hr composites, and other conditions when Outfall 005 dominates the composite. Therefore, the metals data can be further fine-tuned to be representative of facility conditions.

Both total and dissolved metals are analyzed, however dissolved metals is the indication of the quality of the effluent for comparison to in-stream aquatic life criteria.

The dissolved metals data representative of Outfall 001 (Attachment D) and Outfall 009 (Attachment N) during dry weather conditions for cadmium and lead are all non-detect with detection limits of 0.001 mg/L and for chromium, nickel, and silver are all non-detect with detection limits of 0.0025 mg/L. The data for dissolved aluminum, copper, and zinc are:

Al (mg/L)	Cu (mg/L)	Zn (mg/L)
<0.100	0.014	0.05
0.072	0.0052	0.0096
<0.100	0.015	0.03
<0.100	<0.005	0.034
<0.100	<0.005	0.016
<0.100	0.0075	0.0025
<0.100	0.0055	0.046
<0.100	<0.005	0.026
<0.100	<0.005	0.025
<0.100	<0.005	0.017

The dissolved metals data representative of Outfall 005 (Attachment G) during dry weather conditions for cadmium are all non-detect with a detection limit of 0.001 mg/L and for chromium, nickel, and silver are all non-detect with detection limits of 0.0025 mg/L. The data for dissolved aluminum, copper, lead, and zinc are:

Al (mg/L)	Cu (mg/L)	Pb (mg/L)	Zn (mg/L)
<0.100	0.014	<0.005	0.018
0.25	0.0079	<0.0025	0.03
0.035	0.0025	<0.0025	0.01
<0.100	<0.005	<0.005	0.023
0.047	<0.005	<0.005	0.035
0.049	<0.005	<0.005	0.024
<0.100	0.0049	<0.005	0.075
<0.100	<0.005	<0.005	0.025
0.07	<0.005	<0.005	0.047
<0.100	0.0048	<0.005	0.051
<0.100	<0.005	<0.005	0.016
<0.100	<0.005	<0.005	0.032
<0.100	0.011	<0.005	0.033
<0.100	<0.005	<0.005	0.03
<0.100	0.0052	<0.005	0.0077
<0.100	<0.005	<0.005	0.01
<0.100	<0.005	<0.005	<0.02
<0.100	<0.005	<0.005	<0.02
0.084	0.0071	0.0031	0.024
0.075	0.0078	<0.005	0.056
<0.100	0.0056	0.0044	0.046
<0.100	0.0062	<0.005	0.035
<0.100	0.0047	<0.005	0.018
<0.100	0.003	<0.005	0.017
<0.100	0.0078	<0.005	0.014
<0.100	0.0068	<0.005	0.017
<0.100	0.0023	<0.005	0.011
<0.100	0.0057	<0.005	0.016

The dissolved metals data representative of wet weather conditions, including Outfall 004 (Attachment F) and Outfall 007 (Attachment M) from January 2001 to June 2004 for cadmium, chromium, nickel, and silver are non-detect except for one detection for each chemical. The detection limit is 0.001 mg/L for cadmium and 0.0025 mg/L for chromium, nickel, and silver. The data for dissolved aluminum, copper, lead, and zinc are:

Al (mg/L)	Cu (mg/L)	Pb (mg/L)	Zn (mg/L)
0.084	0.0130	<0.005	0.071
<0.100	0.0059	<0.005	0.024
<0.100	0.0087	<0.005	0.040
<0.100	0.010	<0.005	0.090
<0.100	0.0072	<0.005	0.110
<0.100	<0.005	<0.005	0.089
<0.100	0.0048	<0.005	0.024
<0.100	0.012	<0.005	0.034
<0.100	0.0083	0.0055	0.017
0.082	0.0094	<0.005	0.060
0.088	0.0073	<0.005	0.037
0.057	0.0092	<0.005	0.034
0.078	0.011	<0.005	0.043
0.072	0.0092	<0.005	0.052
0.17	0.0075	<0.005	0.048
0.056	0.0064	<0.005	0.053
<0.100	0.0082	<0.005	0.032
<0.100	0.0038	<0.005	0.020
<0.100	<0.005	<0.005	0.020
<0.100	0.0058	<0.005	0.030
<0.100	0.0078	<0.005	0.0180

D. GE Technical Exhibit 4 (Fact Sheet Attachment R Revisions)

Attachment R – See GE Technical Comments Summary Chart #30

The table presenting the variability of copper in the flow-proportional 24-hr composite sample dominated by the discharge of Outfalls 001 and 009 (and not Outfall 005) and the comparison to the preliminary effluent limit based on the limiting aquatic criterion should be revised to as follows:

Pollutant	N	Maximum (mg/L)	Coefficient of Variation	Projected Effluent Quality (PEQ) (mg/L)	Daily Maximum Projected Effluent Limit (PEL) (mg/L)	Monthly Average Projected Effluent Limit (PEL) (mg/L)	Most Restrictive Controlling Criteria	RPE TEST PEQ > PEL_{DM}?	RPE TEST PEQ > PEL_{MA}?
Copper, dissolved	11	0.015	0.82	0.0285	0.017	0.012	Chronic	yes	yes

1. Metals chemistry associated with monthly composite samples collected from January 2001 to June 2004 for the purposes of toxicity testing.
2. Effluent composite samples were collected from sampling locations 001, 005-64T, 005-64G, 09A, 09B and dominated by Outfall 001 + 009 flow.
3. Multiplying factor to generate PEQ based on $95^{th}/95^{th}$ table in the EPA TSD.

IV. MA RIVERWAYS COMMENTS

MA Riverways submitted 15 pages of comments expressing numerous concerns. The comment letter is presented in its entirety. EPA identified 26 separate comments and has presented its response to each one,

Comment 1:

The GE Pittsfield site and its polychlorinated biphenyls (PCB) contamination is complicated and divisive issue in the City of Pittsfield and the region. The long-term release of PCBs and other pollutants at the GE site and surrounding areas left a complex legacy pertinent to the review and reissuance of the NPDES permit for this site's discharges. The receiving waters are currently impaired waterways, failing to meet water quality standards due not only to the presence of PCBs (priority organics) but also because of other unknown toxicity/causes and pathogens. Substantial public and private resources have been expended in the ongoing assessment and clean up of the Housatonic River. Most of the initial remediation areas are downstream of the Permittee's outfalls and this has direct bearing on the NPDES permit. Data collected during the assessments have shown the PCBs originating from the GE facility have traveled well downstream of Pittsfield and in many instances concentrations of PCBs in the river system are increasing. Some of the fish tissue analysis have shown an increase in PCBs in fish, (average in 1994 was 76mg/kg/ww while the average in 1995 went up -30% to 112 mg/kg/ww as reported on page 8 of the Fact Sheet). The renewed permit for this site must strive to fulfill the intent of the NPDES program to achieve, "the restoration and maintenance of the chemical, physical, and biological integrity of the Nation's waters". The prevention of further releases of PCBs and other pollutants to the Housatonic River, Unkamet Brook and Silver Lake certainly fits this mandate. It is our belief the draft permit as presented falls short of this mandated goal.

The Fact Sheet and other materials, made available by the EPA, provided valuable insight into site history, past and on-going assessments and studies of the Housatonic River, PCB contamination, the storm water infrastructure, and the compliance record of the Permittee. The addition of a flow schematic, (the web based, clear, in-color version was especially appreciated), and site maps helped in the review of the draft permit.

Response 1:

EPA concurs with the assessments that PCBs from the GE site have entered the receiving water and have traveled downstream from the site; that the Housatonic River is in nonattainment of water quality standards due to PCBs; that historic discharges from the site are the cause of this nonattainment; and that ongoing discharges of PCBs from the site and resuspension of PCBs from sediments in the Housatonic River are sources of concern.

For the reasons set forth in the Fact Sheet and above, EPA has determined that the Final Permit includes effluent limitations and conditions consistent with the Clean Water Act and EPA regulations and policies, including the Interim Permitting Policy.

Comment 2:

PCBs
Of the information and data presented, the most unsettling information was the concentration of PCBs and other pollutants still discharging from the many GE outfalls. The NPDES permitted outfalls are discharging into receiving waters already impaired by PCBs and unknown toxics and upriver of the initial remediated river reach. As the EPA web page on the GE clean up states, "These risk evaluations, which were peer reviewed and endorsed by EPA Headquarters, support EPA's position that the entire two-mile section of river may present an imminent and substantial endangerment to human health and the environment. These evaluations justify removal actions for the Upper Reach section of the river. The actions also are based on data showing that previously cleaned-up floodplain areas are being recontaminated by PCBs from the river during routine flooding". (Human Health Evaluation and Ecological Risk Assessment Regarding PCB Contamination in Pittsfield, MA) Though this statement is from a 1998 fact sheet, it strongly suggests newly remediated areas are threatened with recontamination during routine flooding- a. time when storm water discharges would be contributing significant flows containing PCBs to the receiving waters.

The EPA Fact Sheet did not identify the likely recontaminant source(s) and the web page does not indicate there has been subsequent monitoring to identify the source(s) or to ascertain if the recontamination has stopped or slowed since the 1990s. Barring additional study, the level of PCBs found in the permitted outfalls and the reported loads from outfall 005 make a case that these NPDES permitted outfalls contribute to recontamination and increased contamination with a continued influx of PCBs both on a daily basis, from 'treatment system outfall' 005, and during wet weather or melt water events from most of the other outfalls.

The paucity of data on the loads being released into the river from the existing GE Pittsfield outfalls speaks to a need for more information on the probable loads. An addition to the permit is requested requiring the Permittee to estimate the load of PCBs entering into the three receiving waters quarterly and annually from each individual outfall. These estimates would also allow the estimation of the combined PCB load being released annually from all the outfalls. This information would inform the public of the on-going threat of recontamination to remediated areas, the further contamination of downstream reaches from PCBs, inform an inquiry of the costs of future clean ups juxtaposed with the potential for recontamination and additional remediation, human and aquatic health threats, and the efficacy of treatment methods.

In order to gather sufficient data to make a reasonable estimate of loadings from the individual outfall pipes, changes are needed in the monitoring and reporting requirements in the draft permit. As noted in the Fact Sheet and evident in the discharge monitoring data supplied in the attachments, there is variability in the PCB concentrations found in each outfall. This variability would make estimating loads over time problematic if monitoring continues in the same manner and frequency required in the existing and draft permits. Currently most of the outfalls require only quarterly monitoring for PCBs with a grab sample taken within the first 90 minutes of the discharge event.

Sampling outfalls only within the first 30 minutes certainly contributes to an inaccurate picture of the overall concentration and loading of pollutants during a discreet wet weather discharge event. This may be especially true of the GE site given the sources of influent into the storm water system. Of particular concern is the groundwater infiltration portion of the influent into the storm water system. During times of low groundwater levels, the delay before the groundwater rises to a point where it is infiltrating the storm water infrastructure may exceed 30 minutes so the single grab sample would fail to capture effluent with the groundwater infiltration component known to be contributing to discharges in outfalls 0 1A, 05A, 05B, 006, and 009. This is a serious omission since the groundwater at the GE site is known to be contaminated thus an expected source of PCBs found in the effluent. Sampling must be adjusted to guarantee the sampling of the outfalls captures the full character and all the sources of influent into the storm water infrastructure.

The data gathering methods proposed in the draft permit and in the existing permit are likely contributing to the variability and inaccurate portrait of PCB loads, and possibly other pollutants, in the outfall discharges. More frequent monitoring and a flow proportional composite samples of the individual discharges would produce data more illustrative of PCB concentrations in relation to a specific discharge event and outfall thus more adequately capturing and characterizing the effluent. Better data will allow for a more accurate assessment of the PCB loads entering into the Housatonic River and its tributaries Unkamet Brook and Silver Lake and produce the information needed to help inform a host of other management and regulatory decisions. A flow proportional composite sample taken throughout wet weather events for each individual outfall is the preferable alternative to grab sampling. Composite sampling will partially ameliorate the variability in the concentration of pollutants. The more comprehensive and accurate data generated by more comprehensive sampling will help in identifying the extent of recontamination and environmental degradation due to the outfall effluent. This sampling augmentation coupled with continuous flow monitoring would allow loads entering the receiving waters to be calculated on a per outfall, event and annual basis.

The need for additional and more effective monitoring is apparent when reviewing the Fact Sheet. The inadequacy of the available PCB data for the outfalls is a major factor in the reluctance to assign permit limits to the storm water outfalls- despite many years of monitoring

showing elevated concentrations of PCBs and other pollutants. If a paucity of data is an impediment than this further supports the need to amend the quarterly monitoring requirement and grab sample methodology since a continuation of this insufficient testing will not provide any additional information over the existing, inadequate level of data collection.

Response 2:

EPA has considered the comments above regarding the adequacy of the existing monitoring regime and has decided to make several changes in response. The monitoring and reporting requirements in this case are intended to identify if problems are present, either in the receiving water or in the discharge; to characterize the cause(s) of such problems (including the sources of recontamination); and to assess the effectiveness of storm water controls in reducing contaminants and making improvements in water quality. Responses to the specific issues raised in this comment are given below.

Recontamination:

The permit now requires that the permittee develop and implement an instream monitoring plan adequate to assess the impact of its point source discharges on receiving water quality. Monitoring conducted under this plan will help to address the recontamination issue.

Report quarterly and annual loading of PCB from each outfall:

EPA concurs that loading will be a useful measure in assessing the trend of PCB loadings from each outfall entering the Housatonic River. For those outfalls with required routine PCB sampling, reporting of PCB load has been required. Such loadings can be calculated using the concentrations and flow data already required by the Draft Permit and so does not incur additional sampling or analytical costs. Such reporting has been included in the Final Permit.

Flow composite PCB samples:

Flow composites are generally considered more representative of a discharge which may have varying concentrations. Certainly, this is true for storm water runoff for which pollutant concentrations can vary widely based on a number of factors including pollutant build-up and storm characteristics. Therefore, flow proportioned composite PCB samples have been required Also see Response to GE Comment 7.

Increase frequency of sampling:

The Interim Permitting Policy stresses that "each storm water permit should include a coordinated and cost-effective monitoring program to gather necessary information to determine

the extent to which the permit provides for the attainment of applicable water quality water quality standards and to determine appropriate conditions or limitations for subsequent permits." Accordingly, EPA has re-evaluated the frequency of sampling and has generally required increased sampling PCB monitoring frequency for continuous discharges have been increased from once per month to twice per month and for intermittent wet weather discharges has been increased from quarterly to once per month. In addition, the yard drains are now to be inspected once per month during dry weather and sampled if discharging. Sampling of yard drains during wet weather has been increased from once per year in the second and fifth year of the permit to once per year every year of the permit.

As described elsewhere in this response, EPA has also required a summary of all data collected during each month, including the submittal of detailed rainfall and flow records. With these data EPA will be better able to assess the characteristics of the discharges and identify those areas of the site needing additional conditions or limitations to achieve water quality standards.

Comment 3:

An increase in monitoring frequency and a change in methodology is not sufficient to prevent further degradation to these impaired waters. The DMR data provided in the attachments and on the EPA's web accessible PCS database clearly show PCB concentrations in the discharges of the outfalls have exceeded aquatic criterion and pose more than a reasonable potential to continue to exceed water quality criteria. An egregious example is the 5600 ug/l PCB concentration found in outfall 006 in June of 2000. The Fact Sheet puts these concerns in more compelling terms, "Instream sampling data for the Housatonic River and Unkamet Brook indicate periodic exceedances of Instream PCB water quality criteria for aquatic and human health protection downstream of GE's discharges. Instream sampling data for Silver Lake indicates consistent exceedances..." (Fact Sheet, p. 8)

Given these documented exceedances of PCB water quality criteria, a reasonable potential for future exceedances, the toxicity and persistence of PCBs in aquatic systems and the considerable efforts already expended on remediation including the expenditure of public funds, all of the outfalls should have a numerical concentration and load limit based on water quality criteria with the aim of meeting human health criteria. The concentration should be set at the fresh water criterion continuous concentration for PCBs of 0.0 14 ug/l. The load limits should be such that the cumulative load of PCBs discharged from all of the outfalls and yard drains will not be in a quantity with the reasonable potential to recontaminate the receiving waters over time or result in chronic or acute toxicity in the aquatic or terrestrial environment.

A rough estimate of PCB loading using data from outfalls 01a, 001,004, 005, 05A, 05B, 006, 006A, 007, 009 and SR04 for the grab sampling from September 2004 further illustrates the need for load and concentration limits on each of the outfalls based on water quality considerations.

The DMR data provides only a brief 'snap shot' of the conditions during the sampled event. The limited data allows for only generalized calculation so with this caveat in mind, this one storm would have contributed around 0.146 lbs of PCBs to the receiving waters. Consider the number of discharge events plus the continuous release of PCBs from outfall 005 and there could well be many pounds of persistent PCBs released each year, just upstream of the remediated section of the river.

Response 3:

The Final Permit includes water quality-based numeric PCB limits of 0.014 mg/l for all dry weather (non-storm water) discharges, which now includes outfalls 64G, 005, 006 and 009, and water quality-based BMP limits on all storm water discharges.

As described in Riverways Response 2, EPA has also required reporting of discharge mass of PCBs from outfalls 64G, 005, 05A, 05B, 006, 06A, 09B and 009 (as discussed at length in response to GE's comments). Outfalls 001, 01A, 004 have been transferred to PEDA and are no longer included in the permit. SRO4 and outfall 007 have been eliminated and are no longer authorized by the permit.

EPA has determined that the monitoring programs required by the Final Permit will be sufficient to determine the adequacy of the required storm water controls. If such controls should prove inadequate, additional conditions or limitations shall be required.

Comment 4:

The draft permit contains a compliance schedule to allow the Permittee to work toward the draft permit's proposed PCB limit for outfall 005. Presumably a compliance schedule would be instituted for the other outfalls to ramp up to meet PCB limits. It is unfortunate there will be further postponement in getting PCB limits in place after an 8 year delay in a revisiting and reissuance of the permit. The schedule outlined in the draft permit adds to the frustration in getting some rigorous PCB limits in place. The Permittee is tasked with developing an expeditious plan and implementation schedule to meet only a 0.065 ug/l concentration limit should the current system be found inadequate after a capability study. Who will determine the expeditiousness of the plan and schedule? Next the Permittee will work on an optimization study to try and reach a concentration limit of 0.0 14 ug/l. It appears costs will be a factor in deciding whether to implement these optimizations. The enhancements will not be decided solely by the regulators but be a joint agreement between EPA, DEP and GE. Does this mean there could be an enhancement scenario that fails to reach the 0.014 ug/l goals because an agreement could not be reached with GE or cost concerns eliminated certain options thus delaying reaching the bare minimum of water quality goals and potentially continuing the risk of aquatic toxicity and recontamination?

Only the outfall for the groundwater treatment unit, 005, has PCB limitations proposed in the draft permit. The permit limits for outfall 005 differ between wet and dry weather but the rationale for how limitations were calculated is not fully explained in the Fact Sheet. How was the total load for wet weather determined? Is the assigned load limit based on water quality criteria? Does the load limit take into consideration the combined loadings from all the outfalls and the cumulative affect on water quality, potential for increased contamination and the contribution to recontamination? Can a once a month grab sample adequately reflect the PCB concentration and load discharged into the river from this single outfall? Why is the dry weather limitation for outfall 005 an average monthly concentration limit only and not a load limit and daily maximum as well?

The average monthly range provided in the Fact Sheet shows this treatment facility can easily contribute more than a pound of PCBs annually from dry weather flows at the current flow rate and based on the infrequent monitoring level. What affect will this pound or two of PCBs have on cleaned areas downstream? The lack of load limits is particularly unfortunate since the Fact Sheet indicates the volume of treated groundwater may increase in order to meet remediation benchmarks and Consent Decree requirements. An increase in volume would lead to increased loadings as it seems unlikely there would be increased PCB removal rates with increased volumes.

The dry weather concentration limit for outfall 005 is technology based and relies on the sensitivity and reliability of the treatment methods used to test for PCBs. The draft permit proposes the use of Method 8082 for PCB analysis and Modified Method 8082 because of its lower detection limit. While we support the use of the testing method that provides reliable results and the lowest minimum detection limit; the detection limit should not be the de facto pollutant limit when there is accepted water quality criterion. Regardless of the monitoring method and detection limit, the PCB limit should reflect water quality needs, specifically the freshwater criterion continuous concentration of 0.014 ug/l. While there may not be a methodology available currently with a detection limit of 0.014 ug/l or lower this should not overrule known water quality limits. There are many instances of disparity in NPDES permits between detection limits and calculated acute or chronic toxicity limits but in these instances the toxicity limits are used in the permit, (TRC and copper are two such parameters). The EPA and MassDEP made the judicious decision not to use dilution in establishing PCB limitations. This decision and the established chronic criterion and the need to meet the Class B standards of suitability for fish and other aquatic life, primary and secondary contact, and suitability for agricultural use mandates the water quality limitation override the technology based default of the detection limit. The permit can be reworked to recognize the detection limit constraints as is often done in NPDES permits for some metals, TRC and other pollutants whose established testing methods do not provide a sufficiently low detection limit.

Response 4:

Regarding the compliance schedule in Part D of the Draft Permit, the plan to achieve a monthly average limit of 0.065 ug/l is not subject to cost considerations and the ultimate decision regarding the implementation schedule is with EPA and MassDEP. These requirements have not been changed. Regarding the plan and schedule for attaining the limit of 0.014 ug/l, EPA agrees that the language was too open ended (*i.e.*, the compliance date was not specified and the decision to comply appeared to rest with GE). Under 40 C.F.R. § 122.47, the schedule must lead to compliance with the CWA and regulations. EPA has adopted the same language for this plan as for the plan to meet the 0.065 ug/l limit, which will ensure that EPA and MassDEP clearly have the ability to select alternatives and schedules they believe are reasonable. EPA requires that costs be submitted to allow EPA to evaluate the cost implications of the various treatment alternatives, including treatment to an effluent concentration of 0.014 ug/l. At this time, the effluent concentration of 0.014 ug/l is lower than the current ML and is not being used for purposes of complying with the permit. EPA, however, believes the permittee undertake reasonable steps towards investigating, identifying and implementing technologies capable of achieving the limit..

As discussed extensively in the response to GE Comment B.7, technology-based limits for outfall 005 are applied at the 005 outfall, consistent with the 1992 permit. In the Draft Permit a water quality-based PCB limit was applied at the 64G discharge under the belief that the 64G discharge represented all of the dry weather flow through outfall 005. Because EPA now understands that the 64T treatment plant also discharges during dry weather, EPA has established water quality-based limit of 0.014 ug/l for the dry weather flow from outfall 005 at the 005 outfall.

The water quality-based PCB limit was established at the fresh water chronic criteria of 0.014 ug/l. There is no acute water quality criterion for PCBs. Chronic criteria are intended to protect against longer-term effects. Water quality-based limits to protect against chronic effects are typically written as monthly average limits and limits to protect against acute effects are typically written as maximum daily limits.

Water quality-based mass limits were not included in the permit because there are no water quality criteria related to mass discharge (*i.e.*, no sediment criteria). The water quality criterion for PCBs is established as a concentration, so the concentration in the discharge and the resulting concentration in the receiving water are the measures which determine compliance with water quality criteria. It is not clear what effect the mass discharges will have on sediment quality, without knowing how the PCB loads will partition in the water column (*i.e.*, will they remained suspended and transported downstream or will they settle in the immediate vicinity of the outfalls). EPA expects that instream monitoring conducted under this permit and the consent decree will answer those questions.

Comment 5:

The Fact Sheet supplies information about the response actions required in the Consent Decree (CD) for this site. GE must" ....address PCBs and other hazardous constituents in soils, sediments and groundwater." The CD does not specifically mention storm water, unfortunately, but by inference storm water is incorporated since the sources of PCBs in the storm water discharges must be from soils and/or groundwater. The Fact Sheet and diagrams indicate a great deal of suspected or confirmed groundwater infiltration into the storm water system discharging through several outfalls though the Fact Sheet and its attachments does not provide maps showing groundwater contamination areas and PCB hot spots in relation to the drainage basins. The site history provided implies the entire GE site has both contaminated soils and groundwater, clean up is on-going and part of the remediation efforts includes a groundwater treatment system discharging through outfall 005 extracting and treating contaminated groundwater.

This contaminated groundwater has been a longstanding problem at the site and a concern of many who worry the tainted groundwater can migrate into nearby waterways. Despite the ongoing need for groundwater treatment to remove PCBs, the draft permit will allow this untreated contaminated groundwater to infiltrate into the storm sewer system discharging to Silver Lake, Unkamet Brook and the Housatonic River. Groundwater infiltration is also permitted under the existing permit though the Fact Sheet does not indicate that the volume of groundwater and the extent of the infiltration problem has been assessed to determine if groundwater is responsible for all or part of the PCBs measured in the storm water discharges. When will the infiltration problem be assessed and the level of infiltration for each of the drainage areas be determined? How was the presence or absence of groundwater infiltration to a given drainage system determined? If there is groundwater infiltration it seems likely there could be dry weather flows during periods of high groundwater. Are there dry weather flows associated with infiltration? Without specific information and data proving otherwise, it seems reasonable to presume the contaminated groundwater beneath the GE site infiltrating into the storm water drainage system contains PCBs and other pollutants. If there is dry weather flows due to groundwater infiltration than these discharges must be permitted, limits assigned and adequate monitoring instituted.

Despite the known groundwater contamination and its infiltration into the storm water system, the draft permit specifically grants permission for outfalls 001, 0 1A, 05A, 05B, 006, and 009 to discharge groundwater infiltrate. If the goal of the NPDES permitting program is the restoration and maintenance of the integrity of our nation's waters, wittingly allowing contaminated waters to enter receiving waters is in clear violation of Clean Water Act goals. The Permittee should be required to eliminate all untreated groundwater from its discharges. Why aren't all pipelines slip lined given the pervasive groundwater contamination? Until groundwater is fully eliminated, the

outfalls containing groundwater infiltrate need to be monitored more frequently as argued previously, the monitoring requirement refined to better characterize the total amount of PCBs being release over the length of the wet weather discharge, and a maximum load and concentration reflecting the multiple outfalls discharging to the receiving water, the existing degradation of the receiving water and the need to prevent recontamination or further degradation.

Most recently released draft NPDES permits for Massachusetts point discharges have specific requirements concerning infiltration and inflow (I&I) assessment and elimination. These I&I related additions are a welcome augmentation to the permits as is the effort to address I&I. The GE Pittsfield draft permit contains related efforts regarding the implementation of best management practice but not I&I assessment and removal requirements. The requirements under BMPs needs to be expanded to include work to assess infiltration and inflow, develop a management plan to eliminate I&I, produce a work schedule for implementing the plan and begin the work. The plan for eliminating infiltration should be drafted for approval with in a specified time frame, preferably within six months to a year of the permit becoming final, and include an expedited work schedule for I&I removal.

Tangentially related to the Infiltration and Inflow is the elimination work the Permittee has undertaken to separate non-groundwater from the storm drain system where feasible. It is unclear what constitutes non-groundwater but presumably it covers effluent such as industrial process, cooling and noncontact cooling water.

SR04, (within outfall 005 drainage) has high PCB concentrations and was still operating as of 10/04. The discharge monitoring information for SR04 shows a PCB concentration on 9/04 of 15.5 ug/l but because there are no permit concentration or load limits in the existing permit, and none proposed in the draft permit, this outfalls discharge complies with the NPDES permit despite the significant PCB concentration. The Fact Sheet indicates there will be remedial work done in this basin to reduce flows. Modifying, abandoning and replacing existing sewer infrastructure needs to be done carefully and in a manner that will not result in continued and even increased discharge of PCBs into the receiving waters in the short term.

Increased monitoring needs to be undertaken during this work with provisions to stop work if the monitoring shows a spike in pollutant levels associated with the rehabilitation work until measures can be instituted to address the problem.

Response 5:

As the commenter has stated, there is contaminated groundwater on this site and infiltration of this groundwater to the collection system can result in the discharge of these pollutants to receiving waters. The permittee has previously slip lined portions of its collection system that go

through contaminated areas. BMPs proposed in the Draft Permit in Attachment C, BMP 1.C (bullets 2 and 3) were intended to confirm that these areas continue to have little or no infiltration. As described in the Fact Sheet, GE has removed many sources of extraneous flows from the collection system on its own initiative. As discussed in the response to the GE comments, EPA has included monitoring and effluent limitations on all dry weather discharges from the site. This dry weather monitoring is intended to quantify the pollutant loads from non-storm water sources, including groundwater infiltration. The limitations will require that the permittee address those outfalls violating permit limits.

Regarding the commenter's proposal to require an infiltration/inflow (I/I) control programs similar to that required of owners of separate sanitary sewer systems (*i.e.*, sewers designed for the conveyance of domestic wastewater to a wastewater treatment plant) is inapt. Separate systems are not sized to convey significant quantities of inflow (extraneous water entering a collection system from a discrete connection, usually from the surface) or infiltration (extraneous water entering the collection system from the ground, usually through defective pipes or connections). See 40 C.F.R. § 35.905 for more precise definitions of infiltration and inflow.

The I/I reduction programs required in POTW permits are for the removal of both infiltration and inflow to the extent necessary to prevent overflows from the collection system and effluent violations at the treatment works, and therefore are designed to reduce the overall quantity of flow conveyed by the system rather than to reduce the quantity of pollutants conveyed by the system. EPA believes that the approach followed in the Final Permit, which will result in the identification of specific problem areas and spur activities to remove or treat these discharges is a better approach than achieving an overall reduction flow, or simply requiring slip lining of the entire collection system regardless of the level of contamination of the discharge.

Sewer system work, especially cleaning, needs to be done carefully to ensure that PCBs settled in the system are not inadvertently discharged. Footnote 2 of the Best Management Practices Plan requires that solid and liquid wastes from cleaning operations receive proper treatment and disposal.

Regarding SR04, the discharge has been plugged, so the outfall has been removed from the permit.

Regarding the comment that the Draft Permit specifically grants permission for outfalls 001, 01A, 05A, 05B, 006, and 009 to discharge groundwater infiltrate. This authorization merely acknowledges that infiltration will be a component of the flow through these outfalls. As stated previously, if the groundwater is contaminated and results in violation of effluent limitations, the permittee will be required to either eliminate the infiltration or provide treatment sufficient to achieve the limits.

Comment 6:

BMPs
The addition of best management requirements are a logical addition to a permit covering a complex and vast site. What is most noteworthy about the BMPs required in the draft permit is the heavy reliance on routine operation, inspection and maintenance of the drainage system. The information in the permit leads one to assume basic 'good housekeeping' activities such as catch basin cleanouts, removal of accumulated oil and water separator solids and manhole and system inspections have not been routine at this contaminated industrial site. This shortfall is presumably why these elementary BMPs are specifically included in the draft NPDES permit though the BMP section of the draft permit is both brief and vague. Few benchmarks, goals or innovation required. Presumably the facility has had a storm water pollution prevention plan in place for some time and activities such as catch basin inspection and clean outs, in addition to other good housekeeping, operation and maintenance endeavors, are typical components of an SWPPP. If proper maintenance of the storm water system was not a part of the Permittee's SWPPP, what pollution prevention methods are contained in the Permittee's current SWPPP? Why hasn't basic 'good housekeeping' been done at this facility all along?

The Fact Sheet states, "This permitting approach also emphasizes that each storm water permit should include a coordinated and cost-effective monitoring program to determine the extent to which the permit provides for attainment of applicable water quality standards." (pg 8) The intent is to attain water quality goals and this will be done through effective, not just cost-effective, monitoring. The approach regarding the infeasibility of numeric effluent limitations is also faulty as is substitution of BMPs as the default to meet water quality standards over numeric limitations. By what reasoning was this conclusion reached concerning the infeasibility of numeric permit limitations? For most of the pollutants of concern, PCBs, Oil & Grease, metals and TSS, there are national criteria and limits calculated using dilution and other receiving water characteristics. The permit and Fact Sheet indicate a great deal of optimism about the ability of the best management practices to reduce PCB concentrations in the outfalls. The Fact Sheet does not indicate there has been any study of the source of PCBs in the discharges or that BMP pilot projects have been undertaken that illustrate and support expectations that the required BMPs will significantly reduce PCBs entering the receiving waters via outfalls. In fact no compelling data or arguments were put forward to support the assumption PCBs and other pollutants sources are primarily from runoff related components as opposed to some other source relatively unaffected by the required BMPs- such as groundwater infiltration. The BMP requirements do not negate the need for the already stated argument advocating the need for permit concentration and load limits and augmented monitoring.

Response 6:

As discussed at length in the response to GE Comment B.1, EPA believes that it was appropriate to rely on the Interim Permitting Policy when designing the water quality-based effluent limitations for storm water for this permit and to impose reasonable BMP-based limits at this time. Use of the policy for this permit does not preclude future numeric limits if shown to be necessary to achieve water quality standards and if sufficient information is developed on which to rationally base those limits.

Regarding the source of PCBs (*i.e.*, infiltration versus storm water), EPA has determined that the dry weather monitoring requirements and limits will control of PCBs contained in the infiltration to sufficiently low levels, and the required BMPs will adequately address pollutants in storm water. The relative contribution of the two sources can be better established once the monitoring required by this permit is effective and data are collected.

EPA disagrees with the commenter's conclusions regarding the BMPs required by the permit. The permittee does indeed have storm water management plans in place, as required by the prior permit and the MSGP permit. The 1992 permit required that GE develop a plan summarizing its existing storm water management practices (See: GE's May 21, 1992 Final NPDES Permit Modification MA0003891, Part I. A.11.c., page 16). This permit also required that GE implement a periodic (at least quarterly) inspection program of all flow diversion devices (e.g., flow control valves) to determine these devices function in accordance with existing storm water management practices. The Storm Water Management Plan for National Pollutant Discharge Elimination System (NPDES) Permit MA0003891 (SWMP) was originally prepared in December 1988 and then revised in July 1990. Since 1990, a number of operational modifications have been implemented within the GE facility. As a result, GE's SWMP was revised in December 2000 to incorporate the modifications and provide an updated summary of the current storm water management practices.

The quarterly inspections of the storm water management facilities (and associated flow control valves and settings) have been performed by GE to ensure that the facilities are functioning properly and that deviations to the settings have not occurred. Quarterly inspections have been performed on the following control structures: OWS 31 influent and chambers; East Street Diversion Structure; 64Z Diversion Structure; OWS 64Z influent and chambers; SSPS bar screen; OWS 64W influent and chambers; OWS 64X influent and chambers; OWS 64X influent and chambers; and OWS 119W chambers. The control devices pertaining to each control structure and the settings established for the control gates or valves are shown in the December 2000 SWMP, in Attachment A. Each storm water management facility inspection is documented using a GE facility form, and includes the following information: (1) whether or not each valve is operated through a full range of motion, (2) whether or not each valve is in the desired setting,

(3) observations and maintenance activities, (4) the date of the inspection, (5) the time of the inspection, and (6) the name of the inspectors.

In 1995, GE submitted a Notice of Intent (NOI) for coverage under the Multi-Sector General Permit. The Multi-Sector General Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPP Plan). The SWPP Plan is divided into seven sections: (1) Introduction (background information), (2) Certifications, (3) Pollution Prevention Team (and duties), (4) Potential Pollutant Sources, (5) Measures and Controls to Prevent Storm Water Pollution, (6) Annual Site Compliance Evaluation, and (7) Storm Water Monitoring Requirements. Each facility covered by the Multi-Sector General Permit must develop a SWPP Plan with the goal of eliminating, minimizing or reducing the amount of pollution in storm water discharges from the facility.

The focus of this response is from Section 5 of the SWPP Plan, Measures and Controls to Prevent Storm Water Pollution. This section is divided into three main parts. The first part presents nonstructural controls (best management practices) that are common to control pollutant sources identified in all drainage areas. The second part of Section 5 is structural controls, which are divided into three activities: material handling and storage, management of storm water runoff, and sediment and erosion control. The third part of Section 5 describes the special BMPs required for facilities subject to EPCRA Section 313 reporting requirements with regard to Water Priority Chemicals.

The nonstructural controls are: good housekeeping, preventative maintenance, spill prevention, spill response, inspections, employee training, record keeping, and incident reporting. The following good housekeeping practices are required by the SWPP Plan: (1) schedule regular pickup and disposal of garbage and waste materials at the facility, (2) routinely inspect for leaks and observe conditions of drums, tanks, and containers, (3) promptly perform cleanup of spilled materials, (4) ensure that cleanup procedures are understood by employees, (5) keep an up-to-date inventory of all materials present at the facility, clearly labeling containers, and (6) maintain clean ground surfaces with regular sweeping.

GE has been implementing all of the above good housekeeping practices in all drainage areas. Refuse removal and disposal is performed in all areas of the plant by solid waste contractors. Areas around the waste collection vessels are inspected in accordance with Section 5.1.3. These inspections also include all significant material storage and handling areas, and are designed to uncover leak or spill conditions that could potentially lead to a discharge of pollutants with storm water. Spills are cleaned up in accordance with Section 5.1.6. of the SWPP Plan. In paved and other impervious areas, sweeping is performed periodically to reduce pollutants in storm water discharges.

Past manufacturing operations have resulted in soil contamination in some areas of the GE site. Under certain conditions, PCBs may be carried by storm water runoff. The SWPP Plan, however, does not attempt to identify or list such areas or design applicable "BMPs." The final NPDES individual permit for the GE facility includes a BMP Plan that encompasses the steps that will be taken to identify the contaminated areas, and lists the applicable BMPs that will address the contamination.

It was EPA's intent in the Draft Permit to authorize dry weather discharges through those outfalls that included such discharges, subject to PCB effluent limitations and monitoring requirements, and to not authorize dry weather discharges for outfalls that did not currently have such discharges. This will in turn lead to either the elimination of infiltration, or the treatment of contaminated infiltration to achieve water quality standards. In reviewing the Draft Permit, EPA realized that it erred in this approach concerning outfall 001 by authorizing dry weather discharges without including numeric water quality-based limits. Also, GE has notified EPA of several outfalls that have dry weather discharges that EPA did not authorize to discharge during dry weather (outfalls 006 and 009). Accordingly, the Final Permit now includes water quality-based PCB limitations for all discharges authorized to discharge during dry weather. As described earlier, outfall 001 has been removed from the permit as it is no longer owned by GE.

Comment 7:

Given the inference in the draft permit that overland flows are a source of PCBs then it is counterproductive to support increased sheet flow, a stipulation in the draft permit, if runoff is going to pick up PCB and other pollutants from former building floor slabs, paved areas, soils and stockpiled materials. An increase in sheet flow would result in more untreated releases of PCBs into the receiving waters. The draft permit should eliminate support for an increase in sheet flow if it is likely to contribute PCBs to the receiving waters. Allowing yard drains to go unmonitored and tested is equally unproductive. Without monitoring the identification and reduction of PCBs entering receiving waters will be hampered by a lack of information on this potential source. At a minimum, quarterly, flow proportional composite monitoring of yard drains for PCBs, TSS, Oil and Grease and flow should be added to the permit. Also, if annual cleaning of select storm drains and manholes has the potential to reduce PCBs than there should be stricter limits on TSS and Oil & Grease plus frequent sweeping and vacuuming of the GE site and annual cleanouts for all storm drains and yard drains since these measures would likely reduce PCBs in runoff.

Response 7:

Reducing impervious area and reducing storm water runoff flows is generally considered a desired outcome of any storm water management plan because doing so will decrease the discharge of storm water, including untreated discharges through relief overflows, and will also

increase the treatment efficiency of the treatment units, thereby reducing the discharge of pollutants through the facility's outfalls. EPA expects that the quality of runoff from the site will improve as a result of storm water BMPs such as street sweeping and with soil remediation, building demolition, and landscaping activities being conducted under the requirements of the CD.

EPA has made revisions to the permit based on the commenter's concern that provisions in the permit would in this case encourage discharge of pollutants through non-point sources such as sheet flow. EPA has modified the language in BMP.3.A to clarify that the intent was to facilitate infiltration. If flow is channelized and discharged to a receiving water it would be considered a point source and subject to NPDES permitting. EPA also made modest changes to the language in BMP.3.A to clarify that the intent of this provision was to minimize storm water bypasses.

See Response to Winn, Gray and Herkimer Comment 11 regarding the site survey to identify any additional point sources not currently authorized by the permit.

As discussed in an earlier response, monitoring of yard drains has been significantly increased and now includes monitoring under both dry and wet weather conditions.

Comment 8:

The BMP plan in the draft permit will require cleaning and inspections in only select drainage basins. Why only a subset of drainages when all of the outfalls have shown significant concentrations and loads of pollutants in the past? Why are outfalls in the 001, 004 and 009 drainage basins not included in this aspect of the BMP plan? The discharge monitoring data available for these outfalls shows a history of elevated PCB and other pollutants released from these outfalls. The draft permit presents a timeline for the inspection of the target basins but when will the non-target drainage areas and non-target drainage system components be inspected? The history of this site, the current and planned demolition and redevelopment, the on-going problems with pollutants in the effluent, and the apparent paucity of information on the storm water collection infrastructure offers a compelling and judicious argument to require initial inspection of <u>all</u> catch basins, man holes and storm sewer system infrastructure initially to determine: if there are any existing problems, if there are findings that warrant increased monitoring of a particular structure or area, infrastructure integrity and functionality, the sources of unknown flows and unequivocally if there is groundwater infiltration in any of the storm water drainages. The need for initial inspection should include both the storm water outfall systems and the yard drains. Priority should be given to those systems with known groundwater infiltration or in areas with redevelopment or remediation activities or know 'hot spots' of PCBs or other pollutants.

Response 8:

The outfall 005 and 006 drainage areas were basins targeted for the cleaning and inspection BMP based on the historic use of the site and known areas of contamination. EPA determined that it was rational to initially focus cleaning and inspection efforts on these areas. As discussed in other responses, the Final Permit requires increased monitoring of both wet and dry weather discharges at all outfalls and includes PCB effluent limitations for all known dry weather discharges. If this effluent monitoring shows high levels in other basins reveal that additional BMP or other conditions are required the permit requirements can be modified to address these concerns.

EPA believes that focused BMP projects, with future projects based on effluent monitoring data and permit limitation violations, is preferable to more generic BMPs.

Comment 9:

The permit requirement for biennial clean outs of the oil and water separators is a concern if the OWS accumulated waste material is found to contain PCBs or other pollutants. There does not appear to be any information on the probability of resuspension and subsequent discharge into a receiving water or decreased effectiveness of the treatment system or BMP associated with these accumulated waste materials. Has there been any investigation into the toxicity of the accumulated material in the OW separators and sumps? An investigation into the likelihood of resuspension and the efficacy of treatment systems with differing amounts of material build up?

How was the 'clean-out benchmark' of six inches of accumulated sediment in the catch basins determined and did this thickness take into consideration the possibility of PCBs or other pollutants being present in the sediment? Are the removed sediments treated as hazardous waste or tested for PCBs? How are the materials handled, stored and disposed of? Do any of the areas where stockpiled waste materials, waste material handling and loading areas have the potential to come in contact with runoff and storm water and eventually enter the storm water drainage system?

Response 9:

The "clean out benchmark" of 6 inches was selected as a minimal, yet measurable, accumulation. The permit requires that "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)." See footnote 2 of the Best Management Practice Plan.

Comment 10:

The Draft Permit requires increased water storage volumes where feasible but does not define feasibility. The concept and definition of feasibility in regard to the installation of flow monitoring equipment is also not provided. Feasibility is an important concept to define. Will the feasibility of a storage method or a flow monitoring device be based on cost? On technologic limitations? Will environmental and information needs be the omnipotent factor in the feasibility determination? While cost and technology are valid considerations, they are more minor factors in this instance and the data needs and protecting the integrity and quality of the receiving waters should remain the preeminent factor in deciding feasibility.

Response 10:

Requirements to "increase water storage volume where feasible" and "install (where feasible) continuous flow monitoring" are found in BMP2.A, and pertain to the short term OWS enhancements. Feasibility is therefore defined by the schedule found in Part B of the BMP plan, which anticipates that these short-term improvements will be completed within 4 to 6 months.

Longer-Term OWS-Related Activities are found in BMP2.B and include studies evaluating further enhancements for solids removal, as well as PCB sampling to assess the effectiveness of the improved solids removal. Upon review of this section, EPA realized that it had not required the installation of continuous flow meters for those OWS where it was determined infeasible in the short term. EPA has added this requirement to the Final Permit, and now requires that all OWS be provided with continuous flow meters within eighteen months of the effective date. Continuous and accurate flow measurements are necessary to establish the load of pollutants discharged from the facilities, determine the effectiveness of runoff reduction efforts, and determining whether the treatment facilities are effective and appropriately sized.

Ongoing routine dry weather monitoring of the discharges from these facilities will show whether the PCB effluent limitation are attained. If the OWS optimization requirements are shown to be inadequate to achieve the limitations, further conditions can be added to the permit through a permit modification, including requiring additional storage volume if necessary to achieve water quality standards.

Comment 11:

We support the requirement for the Permittee to look at baseline effectiveness of each oil and water separator. The draft permit requires the Permittee to analyze samples for total PCBs and TSS after OWS enhancements but the permit does not specify and detail how to sample the discharge. A single grab sample per discharge event would be insufficient and not provide a

good measure of effectiveness. A flow weighted composite sample would be the preferred method of sampling pre and post OWS enhancement.

Response 11:

EPA agrees with the comment and has required the samples to be flow proportioned 24-hour composites.

Comment 12:

The updated storm water pollution prevention plan will need to include PCB, zinc and flow monitoring during the second and fifth year of the permit for the 17 storm water point sources currently under the general permit. The monitoring needs to include TSS, priority pollutants and oil & grease as well since these are probable constituents in runoff from an industrial site. Please consider more frequent monitoring initially since there will be increased activity at the site including building demolition (and the potential to release PCBs) and redevelopment and BMP installation.

Response 12:

The Final Permit requires inspection of yard drains once per month during dry weather for the first year of the permit and sampling for any drain found to be discharging during dry weather (see Part I.A.13). The Final Permit also requires annual sampling of the yard drains in wet weather (see Part I.C.2.b). TSS and oil and grease have been added to sampling requirements. EPA does not believe that complete priority pollutant scans are necessary, based on the result or priority pollutant scans collected by EPA at outfalls 01A, 05A, 005, 006, 009, which showed that all pollutants were below detection levels except for acetone at 13 ug/l in the 006 discharge, which was were found only in a trace amount. Three other VOCs, were detected, but they were caused by lab contamination. EPA also collected metals and PCB analysis on 01A, 05A, 005, 006 and 009 during wet weather. The measured metals concentrations met water quality criteria.

Comment 13:

The BMP plan for this site requires the hydraulic pressure washing of the interior surfaces of approximately 67,500 LF of existing storm sewer piping. (Fact Sheet pg 18) The discharge of this hydraulic wash water is a great concern as it may release a large quantity of total suspended solids, PCBs and other pollutants into the receiving waters. Has there been any analysis of this method of reducing debris materials from storm water pipes in a highly contaminated drainage area? Will the wastes be allowed to run into the receiving waters without any additional treatment.