storm sewers, even though the discharge from 001 is very similar to those municipal discharges. Oil-Water Separator ("OWS") 31W, which receives municipal runoff and other water going to Outfall 001, can, under certain flow conditions, remove solid materials. However, because this system is not designed specifically to reduce TSS, and does so effectively only under certain conditions, application of technology-based limits, such as those in the Draft Permit, should be limited to situations where the OWS is performing to reduce TSS. GE's analysis indicates that when 24-hour average flow is above 0.432 million gallons in response to wet weather events, the performance of OWS 31W may not be representative of the conditions on which the monthly average mass limit was based. Therefore, for determining compliance with the monthly average 'wet weather' TSS limit, data collected over a 24-hour period should be used if the 24-hour flow is less than or equal to 0.432 million gallons. When the 24-hour flow is greater than 0.432 million gallons, the data and mass result should be reported but not used for compliance assessment.

Response 6:

As discussed previously, outfall 001 is no longer included in the GE permit because it was transferred to PEDA as part of a land transfer. However, EPA disagrees with GE that the oil/water separator for outfall 001 should not be required to achieve TSS limits under storm conditions because it was not designed to remove TSS. As discussed earlier in this response, the prior permit authorized the discharge of storm water through this outfall, included monthly average and daily maximum limits for TSS, and did not include weather conditions under which sample that were required to be met. Therefore, it is clear that the previous permit limits applied under all conditions, including storm events. If the facilities were unable to achieve the limits during storm events, the permittee should have upgraded the facilities to achieve the limits.

Further, it does not appear that the amount of surface area discharging to the oil water separators (and thus the volume of storm water flow) has increased since issuance of the prior permit.

As was discussed in GE Response B.4 and will discussed in greater detail in GE Response B.7, the sampling requirements for samples taken to determine compliance with the BPJ limits from the 1992 permit (now included only for outfalls 005 and 09B) have been changed back to the sampling requirements in the 1992 permit.

Comment 7:

B. <u>GE Technical Exhibit 5 (Analysis and Recommendations Regarding Mass Effluent Limits for Outfalls 001, 005 and 009)</u>

GE Recommendation: The conditions and requirements related to the mass limits in the Draft Permit for Outfalls 001, 005 and 009 are inappropriate and should be revised.

Prior to discharge, flows from Outfalls 001, 005 and 009 (as presented and corrected in GE Technical Exhibit 1) are subject to treatment by oil-water separator ("OWS") 31W (for Outfall 001); the 64T and 64G water treatment facilities (for Outfall 005); and OWS 119W (for Outfall

009). Although there are continuous dry weather sources of water to these wastewater treatment systems, discharges can be dominated by storm water in response to certain rain events. In these cases, the storm water component mixed with the dry weather flow (hereafter referred to as "co-mingled treated discharge") is treated by the wastewater treatment systems prior to discharge. The Draft Permit refers to these system characteristics as "wet weather" discharge.

The Draft Permit imposes effluent limitations, including discharge conditions and sampling and analytical requirements, for total suspended solids ("TSS") and oil and grease ("O&G") at Outfalls 001, 005 and 009 during "wet weather." The draft fact sheet provides the following explanation for the limitations:

> The proposed draft permit retains the same limitations on TSS and oil and grease required in the current permit in accordance with antibacksliding regulations.

For several reasons, GE objects to the imposition of the mass limitations, particularly in relation to the discharge conditions and sampling and analytical requirements, and to the justification provided for imposition of the mass limitations. As a general matter, it is inappropriate to subject discharges of storm water runoff to numeric limits. This is especially true for TSS mass limits.[13] Assuming, though, that EPA retains mass limits at Outfalls 001, 005 and 009, then the discharge conditions and sampling/analytical requirements related to those limits need to be revised.

It is important to note, as an initial matter, that the mass effluent limitations proposed in the Draft Permit are not the same as, and in fact are more stringent than, those in GE's existing NPDES permit, because of the way in which they are applied through the discharge conditions and sampling and analytical requirements. Therefore, EPA's use of antibacksliding as a justification for these limits is incorrect. These new discharge conditions and sampling and analytical requirements are inappropriate, and should be revised to reflect changes in facility operations and conditions and more relevant technology considerations. These comments provide GE's recommendations on appropriate provisions for these Outfalls. These suggested revisions to the discharge conditions and sampling/analytical requirements are not prohibited by the antibacksliding regulations, and these revisions need to be included in the final permit.

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[13] The reasons why it is generally inappropriate to issue numeric limits for storm water are detailed in Section V.A of the GE comments on the Draft Permit. In addition, it should be noted that the effluent from Outfall 001 is very similar to municipal runoff. EPA has not required numeric limits for municipal runoff for TSS or other parameters. *See* 40 C.F.R. § 122.34(a) (reflecting EPA's preference for "narrative effluent limitations requiring implementation of best management practices"). Nor has EPA required treatment of all municipal runoff. In fact, the control program for municipal storm sewer discharges is very flexible, focusing on the following types of control measures: public education and outreach, public participation/involvement, illicit discharge detection and elimination, construction site runoff control, post-construction runoff control, and pollution prevention/good housekeeping. *See* 40 C.F.R. § 122.34(b). The control requirements that the Draft Permit imposes regarding the discharge from Outfall 001 are markedly more stringent than those measures that EPA requires municipalities to follow.

I. MASS EFFLUENT LIMITATIONS IN DRAFT PERMIT AS COMPARED TO THOSE IN CURRENT PERMIT

GE Recommendation: The mass limits in the Draft Permit, with associated discharge conditions and sampling/analytical requirements, are more stringent than those in the current permit. As a result, EPA's use of antibacksliding to justify these new limits is incorrect.

The draft fact sheet states that the mass limitations in the Draft Permit are the same as those in the current permit. This is not correct. In fact, as applied the mass limitations are more stringent than the current permit.

Although the numerical values from the current permit also appear in the Draft Permit, the limitations are not the same. Limitations also include the conditions under which sampling is required, the specified weather conditions prior to and during the sampling event; and the sampling and analytical requirements (when to sample, type of sample). When one considers the complete picture, it is quite clear that the limitations in the current permit are distinctly different from the limitations proposed in the Draft Permit.

Table 1 highlights the differences between current and proposed TSS mass limitations based on required sample discharge conditions for Outfalls 001, 005 and 009.[14] For each outfall, the highlighted boxes compare the conditions that apply during wet weather under the current permit and under the Draft Permit.

[14] Please note that similar revisions to the O&G limitations appear in the Draft Permit.

Table 1. Comparison of Current and Proposed Permit Conditions for Total Suspended Solids

Permit	Sample Conditions	Weather Restrictions	Sample Type	Sample Frequency	Monthly Average Limit	Daily Maximum Limit
Outfall 001						
Current Permit	Dry or Wet*	None	24-hr composite	Monthly	**138 lbs/day**	**628 lbs/day**
Draft Permit	Dry only	< 0.1 inch rain and no snow melt	24-hr composite	Quarterly	No limit; No report	No limit; report
Draft Permit	Wet only	>0 .1" during collection; < 0.1" previous 72 hours	Initial Grab & 3-hr flow-weighted composite	Monthly	**138 lbs/day**	**628 lbs/day**
Outfall 005						
Current Permit	Dry or Wet	None	24-hr composite	Monthly	**188 lbs/day**	**270 lbs/day**
Draft Permit	Wet only	> 0.1" during collection; < 0.1" previous 72 hours	Initial Grab & 3-hr flow-weighted composite	Monthly	**188 lbs/day**	**270 lbs/day**
Outfall 009						
Current Permit	Dry or Wet	None	24-hr composite	Monthly	**213 lbs/day**	**876 lbs/day**
Draft Permit	Wet only	> 0.1" during collection; < 0.1" previous 72 hours	Initial Grab & 3-hr flow-weighted composite	Monthly	**213 lbs/day**	**876 lbs/day**

Notes:
* Dry weather conditions are < 0.1 inch of rain and no snow melt
* Wet weather is defined in the Draft Permit

Note that the current permit does not distinguish between dry and wet weather conditions – samples can be taken at any time; and the current permit does not specify weather conditions prior to or during the sample collection. In contrast, the Draft Permit clearly distinguishes between dry and wet weather conditions, and applies the mass-based limitations only during wet weather discharges. This is problematic because mass is a function of flow, and the proposed limitations have not been adjusted to reflect first flush flow through the treatment systems and associated outfalls during wet weather conditions.

Furthermore, the wet weather sampling requirements are different between the two permits. The sample type for TSS during wet weather is a flow-weighted composite for each hour up to three hours, which is very different from a 24-hour composite. Furthermore, the Draft Permit states that wet weather sampling must be taken during a storm event with at least 0.1 inch of precipitation which occurs at least 72 hours from the previous storm event of at least 0.1 inch. In contrast, the current permit has no definition of wet weather as applied to reporting or monitoring.

For these reasons, the Draft Permit's mass limitations – which are proposed to apply only during wet weather discharges in accordance with revised monitoring requirements – are actually more stringent than those in the current permit. Therefore, the antibacksliding requirements cannot be

used as support for imposition of the limitations, because the limitations are not the same as those in the current permit. Antibacksliding restrictions can apply (subject to exceptions described below) when the limitations contained in a renewal permit are less stringent than the limitations in the current permit; they certainly do not apply when new limitations are more stringent. Therefore, antibacksliding cannot be used to justify the more stringent limitations in GE's Draft Permit.

The draft fact sheet states that effluent data show that the outfall discharges achieve the current permit limitations. Generally speaking, this is a correct statement. However, it is incorrect to use that logic to establish a BPJ limit and assume that the outfall discharges can achieve the proposed limitations and monitoring requirements in the Draft Permit. For several reasons, the data generated as required by the current permit have no relationship to the database that would be generated under the Draft Permit requirements. A sample of a continuous discharge independent of weather conditions is not equivalent to a sample of a first surge of a continuous discharge under specifically defined wet weather conditions. For TSS, a 24-hour composite is not equal to a 3-hour composite. For O&G, a grab sample taken during the first 30 minutes of a discharge is different from a grab taken at any time during a discharge. As a result, the current database cannot be used to assess compliance with the proposed limitations in the Draft Permit. Without an outfall-specific data set that corresponds to the monitoring requirements established in the Draft Permit, it is not possible to understand or assess the potential ramifications of the proposed monitoring changes in terms of compliance with the discharge limitations. However, it is reasonable to assume that the sampling provisions included in the Draft Permit (*i.e.*, an initial grab sample within the first 30 or 60 minutes of a storm event and a flow-weighted composite sample collected over the next 3 hours) will result in TSS and O&G concentrations that are higher than those obtained as part of the monitoring conducted under GE's current permit (*i.e.*, a 24-hour composite sample). Therefore, there is an increased potential that -- even under existing conditions and without any physical changes in the nature, quantity and quality of flow discharged from Outfalls 001, 005 and 009 -- GE will exceed the discharge limitations established in the Draft Permit. This is inconsistent with EPA's assertion that GE will be able to achieve these discharge limits.

II. RECOMMENDATIONS FOR MONITORING OF CO-MINGLED TREATED DISCHARGES

GE's technical rationale for recommendations to clarify the characterization and monitoring of Outfalls 001, 005 and 009 when the treated discharge is a combination of dry and wet weather include three main issues:

1) sampling approach;
2) definition of monitoring condition (*i.e.*, wet weather); and
3) the applicability of TSS mass limits.

1) **Sampling Approach (Sample Compositing)**
Permit Reference: Footnotes 1 and 2
Page #: 15
GE Recommendation: For those outfalls where the wet weather discharge may also include a dry weather flow component (*i.e.*, Outfalls 001, 005 and 009), EPA should

modify the composite sampling approach described in footnote No. 2 of the Draft Permit. GE proposes to replace the collection of an initial grab sample, as well as a flow-weighted composite sample for the first 3 hours of a storm event, with the collection and compositing of 24-hour time-weighted samples (See Row 19 of GE's Technical Comments Summary Chart).

The Draft Permit proposes the collection of 3-hour flow weighted composites for TSS monitoring at Outfalls 001, 005 and 009, and also requires (in Footnote 2) the collection of an initial grab sample for TSS. As an initial matter, GE notes that the requirement for an initial grab sample is not appropriate. Footnote 2 of the Draft Permit governs parameters where composite samples are required, but also contains a statement requiring an initial grab. No reason is provided. There are other parameters (such as oil and grease) where a grab sample makes sense, and the Draft Permit requires grabs in those situations. In the case of measuring TSS levels of a discharge that includes dry and wet flow that has been routed through treatment systems, there is no basis for requiring an initial grab sample. The reference to grab samples in Footnote 2 should be deleted.

The use of 3-hour flow weighted composite samples is not appropriate or justified for a continuous discharge from a treatment system (OWS or OWS and GWTP). Future compliance sampling for these outfalls should reflect the fact that flow discharge is not solely an intermittent discharge of storm water runoff, but instead is continuous in nature, composed on both dry and wet weather flow components, and subject to treatment prior to discharge by OWS 31W (for Outfall 001); the 64T and 64G water treatment facilities (for Outfall 005); and OWS 119W (for Outfall 009). It is GE's belief that these considerations are the underlying rationale for the site-specific sampling approach that has long been implemented at the Pittsfield facility - *i.e.*, the characterization of these outfall discharges through the collection and analysis of 24-hour, time-weighted composite samples. The use of a 24-hour time-weighted composite will capture entire runoff events, thus providing more representative data, and will provide data that are consistent with historic data sets.

A 24-hour time-weighted composite sample is a single sample comprised of 24 individual sample aliquots collected over the entire runoff event and concurrently with the 24-hour flow. This is a typical method for generating discharge characteristics for the effluent from treatment systems. There are no data or evidence provided in the draft fact sheet, that a 3-hour period captures the representative flow associated with a co-mingled (dry and wet) treated discharge. Typical flow and concentration hydrographs for storm water collected in a storm water conveyance system and then discharged cannot be assumed to apply to a conveyance system that already contains flow that then is routed through wastewater treatment systems. GE contends that sampling over a longer time period of discharge (*e.g.*, a 24-hour duration) provides the best and most appropriate approach for representing the various flow components within each drainage basin, over a representative time period. As such, GE sees no reason to modify the historic/current and site-specific sampling approach for these outfalls, and proposes that the current sampling approach remain intact.

The 24-hour composite sample approach is not only the preferred technical approach to measuring compliance for these outfalls, it also is consistent with EPA's fundamental views regarding wastewater and storm water sampling. From a wastewater perspective, effluent

characteristic assessment for NPDES permit applications, as set forth in 40 C.F.R. § 122.21(7)(g)(i) requires a 24-hour composite sample. If such a sample is required for effluent characteristic assessment with regard to permit applications, the Agency could logically conclude that similar sampling should be required for effluent compliance purposes.

The addition of storm water to the effluent does not affect this conclusion. In its original storm water regulations, EPA discusses appropriate sampling requirements and then sets forth minimum sampling to ensure that industries would be able to develop effective storm water management programs. 55 Fed. Reg. at 48,005 (November 16, 1990). In this discussion, EPA clearly is balancing the benefits derived from flow or time-proportioned sampling throughout the entire hydrograph of a storm event versus the cost and practicality of mandating such sampling as a minimum requirement. EPA recognized the need for flexibility and stated that "industries may vary from [EPA's] requirements to the extent that their implementation is at least as stringent" as EPA's regulations. *Id.*

EPA's focus in developing the storm water program has been on quality of data for decision-making and compliance purposes. The Agency ultimately allows storm water permit applicants to choose between a three hour and an "entire discharge" composite. Fifteen years later, EPA should not now confuse the establishment of the three-hour minimum requirement with a site-specific determination of what is appropriate. In this instance, a 24-hour composite, consistent with the "entire discharge" approach is the appropriate management and compliance tool.

In addition to being technically inappropriate, the Draft Permit condition to use 3-hour flow-weighted composites is not representative of the current compliance monitoring database, which is comprised of 24-hour flows and 24-hour time-weighted composite results. The current database does include discharge characteristics in response to wet weather (rain or snow melt) events. However, the results (flow and concentration) represent the response of the system over 24 hours, not just the first 3 hours. Hence, the current database cannot be used to determine if the outfall discharge will comply with the proposed mass limits. This significant change to compliance assessment is inappropriate and not needed. EPA should retain the 24-hour, time-weighted composite sampling approach that is contained in the current permit.

2) <u>Monitoring Condition (Wet Weather Definition)</u>

Permit Reference: Footnotes 1 and 2
Page #: 5
GE Recommendation: In Footnotes No 1 and No. 2 of the Draft Permit, EPA should modify the definition of wet weather conditions (for the purposes of sampling) to specify a preceding dry-period interval of 24 hours instead of 72 hours.

The Draft Permit recommends that monitoring, in the form of reporting requirements and/or numeric limits, be conducted at a number of discharge locations (*i.e.*, 001, 004, 005, 006, 007, 009 and associated overflow/bypass discharges) for a number of parameters (*e.g.*, TSS, O&G, PCBs) during wet weather. In addition, the Draft Permit proposes application of the monthly average mass limits to this specific discharge condition at Outfalls 001, 005 and 009.

In the Draft Permit, "wet weather" is defined as "a storm event with at least 0.1 inches of precipitation, providing the interval from the preceding storm is at least 72 hours." No technical or other rationale has been provided for the inclusion of a 72-hour "dry period" requirement in the definition of "wet weather". The inclusion of a 72-hour dry period requirement (which includes both precipitation and snow melt) in the definition of wet weather is not justified or appropriate, and this requirement will result is the collection of fewer and less representative data. In particular, assessment of compliance with daily maximum limits may be problematic due to the lack of monitoring opportunities, and assessment of compliance with monthly average limits may be impossible.

Table 2 (below) presents an analysis of the number of potential wet weather sampling days in 2003 and 2004 based on a 72 hour and 24 hour dry period requirement prior to the start of rainfall. The summary and analysis focuses on the months of April through November as the presence of snow melt conditions from December through March preclude this type of analysis during these months. The raw data have not been provided with these comments as the raw data set is quite large (*e.g.*, there are approximately 35,000 data points per year). GE can provide this data on CD or as zipped electronic files at the request of the Agency.

Using the 72 hour rule, the presence of any significant snow melt or precipitation would preclude the collection of monitoring samples for the following 72 hours. A review of rainfall data for the Pittsfield facility for the past 2 years for April through December indicates that, using the 72 hour criteria, only 1 to 3 days per month (average of 2.9 days per month) in 2003 and 1 to 3 days per month (average of 2.5 days per month) in 2004 would have met the "dry period" criteria for wet weather. It is unlikely that the once per month sampling frequency could be routinely met during these months, or that sufficient data would be routinely available to calculate a monthly average. During the months of January, February and March, the presence of snow melt alone could make it very difficult to conduct the required monitoring sampling. Observable snowmelt is likely in any 3 day window during this timeframe, excluding certain periods of extremely cold weather.

Alternatively, the use of a 24 hour dry period requirement (preceding a wet weather event), would provide for significantly more opportunities to collect required monthly wet weather monitoring samples. A review of rainfall data for the Pittsfield facility for the past 2 years for April through December indicates that, using the 24 hour criteria, 4 to 7 days per month (average of 5.3 days per month) in 2003, and 1 to 7 days per month (average of 4.4 days per month) in 2004 would have met the "dry period" criteria for wet weather sampling. Although relatively few days met the 24 hour criteria on a monthly basis, the use of the 24 hour criteria provides significantly more opportunities (in some cases more than twice the number compared to using the 72 hour criteria) to conduct wet weather sampling.

Table 2. Number of Days Meeting Dry Prior Requirement for Wet Weather Sampling (April to November, 2003 and 2004)

		Dry Period Requirement	
Year	**Month**	**72 hr.**	**24 hr.**
2003	April	2	4
	May	3	5
	June	2	5
	July	3	4
	August	4	7
	September	3	7
	October	3	5
	November	3	5
	Average	**2.9**	**5.3**
2004	April	2	3
	May	3	7
	June	3	4
	July	3	6
	August	2	6
	September	3	4
	October	1	1
	November	3	4
	Average	**2.5**	**4.4**

The use of a 72 hour dry period requirement may be justified for monitoring at active industrial facilities, where significant deposition of contaminants can occur in a relatively short time frame. We do not believe, nor have we seen any data to support the assumption that the watershed associated with the Pittsfield facility drains an area that receives frequent or significant deposition on an ongoing basis. The use of longer "dry period" criteria will, therefore, not provide more relevant or useful wet weather monitoring data. To the contrary, the use of the 72 hour dry period criteria as part of the definition of wet weather will limit the amount of representative monitoring data collected in the future. We therefore propose that a 24-hour dry period be used in the definition of wet weather. The use of a 24-hour dry period criteria will allow for the opportunity to collect more wet weather data, therefore providing a more representative data set that can routinely support calculation of monthly averages.

EPA's choice of the 72-hour antecedent period between rain events that triggers sampling is arbitrary. In the original storm water rule, 55 Fed. Reg. at 48018, EPA had proposed a 96-hour period, and again was forced to balance the perceived benefits of antecedent periods, storm event characterizations, and the effort to collect samples. In settling on 72-hours, EPA made clear that the rule was flexible and that "the Director may allow or establish site specific requirements such as the minimum duration between the previous measurable storm event and the storm event sampled." *Id.* While it never has changed the 72-hour presumption - or its 50 percent variation limitation on storm depth or duration - subsequent experience has shown that the Agency has

openly accepted samples collected that are inconsistent with these limitations if appropriately justified.

States also have modified their programs to eliminate problems associated with the 72-hour rule. Most notably, the State of Washington requires only that the "storm event sampled is preceded by at least 24-hours of no greater than trace precipitation." Washington Industrial General Permit as modified on December 1, 2004 at 26 of 72. EPA's Multi-Sector General Permit and many state permits (*e.g.*, Nevada, Wyoming) allow industrial facilities to waive the 72-hour requirement based on local storm event patterns and frequencies.

It is also important to note that in those situations when a 72 hour dry period requirement is applied, the required sampling frequency is typically much lower (*e.g.*, quarterly or semi-annually) than the monthly sampling proposed by EPA in the Draft Permit. The lower sampling frequency mitigates the impact of the 72 hour rule on collection of sufficient wet weather data to meet monitoring requirements. If the application of a 24 hour dry period criteria is not acceptable to EPA, we suggest that the required sampling frequency be changed to a quarterly requirement, to support monitoring that can reasonably be achieved. If that is done, then the applicable limits would also need to be changed from monthly average to quarterly average, to be consistent with the monitoring provisions.

Response 7:

EPA agrees with GE's characterization of the discharges from outfalls 001, 005, and 009 made in the first paragraph of this comment. These discharges include both continuous dry weather flows and storm water runoff flows (during storm events). The flows are commingled and treated in OWS 31 (outfall 001), 64T and 64G (outfall 005) and OWS 119W (outfall 009). The only clarification EPA would provide is that treatment plant 64G does not accept any storm water runoff. The Draft Permit does define conditions under which the discharges include storm water runoff as "wet weather." The Draft Permit also required that the technology-based effluent limitations for TSS and O&G for Outfalls 001, 005, and 009 be achieved under wet weather conditions. The Fact Sheet for the Draft Permit cited antibacksliding considerations as the justification.

The commenter mistakenly suggests that it is inappropriate to subject discharges of storm water from Outfalls 001, 005 and 009 to numeric limits. The commenter's view is presumably based on the Interim Permitting Policy. As discussed previously, the Interim Permitting Policy recommends the use of BMPs in initial rounds of storm water permits in lieu of numeric water quality-based permit limitations, and expanded or better tailored BMPs in subsequent permits. However, the limits in question are not water quality-based limits, but technology-based limitations established using BPJ.

In the Final Permit, EPA has reverted to the sampling conditions in the 1992 permit for determining compliance with the BPJ limitations for TSS, BOD, and oil and grease for outfalls 005 and 009 (again, outfall 001 is no longer included in the permit). Specifically, a 24-hour composite sample is required, with no conditions for rainfall. EPA will expect that GE sample these outfalls according to a routine sampling schedule which will result in sampling during whatever weather conditions are occurring on that day. The 1992 permit's lack of specificity

regarding the conditions under which samples were to be collected did not obviate the requirement that samples be representative of the discharge, or allow samples to be collected only under dry weather conditions. The 1992 permit required that monitoring be conducted irrespective of weather conditions. Thus, a representative sampling program would result in samples being collected under both wet and dry conditions.

With regard to the specific comments raised in the section titled "1) Sampling Approach (Sample Compositing)," these comments address language in footnotes 1 and 2 of the Draft Permit, which define wet weather conditions and establish composite sampling requirements for wet weather discharges. To the extent that the comments concern the wet weather monitoring required in the Draft Permit to determine compliance with the technology-based limitations for outfalls 001, 005 and 009, these issues have been addressed in earlier responses, and sampling for compliance with these conditions is no longer required to be conducted only in wet weather, and the sample type has been established as a 24-hour composite, the same as in the 1992 permit.

However, GE's comments in this section also concern the use of 3-hour flow weighted composite samples for wet weather composite sampling and the need for the separate collection and analysis of a grab sample within the first 30 minutes of the discharge. GE contends that the use of a 3-hour sample is inappropriate and unjustified, that the collection of the initial grab sample is inappropriate and recommends the use of 24 hour time-weighted composite samples, conducted during both wet and dry conditions, to characterize the "entire discharge."

EPA's general approach in the Draft Permit was to require both wet and dry weather sampling for those discharges with continuous flow (see for example the monitoring requirements for outfall 001) or to prohibit dry weather discharges and require wet weather sampling (see for example the requirements for outfall 004). EPA believes that it is critical that discharges with continuous flow be characterized during both wet and dry weather. This sampling will provide important information regarding the source of pollutants (*i.e.*, contaminated groundwater vs. storm water runoff), the adequacy of treatment facilities under both wet and dry conditions, and the adequacy of BMPs. Such targeted sampling will generate results quickly, as opposed to GE's recommended random "entire discharge" samples, which would not necessarily result in sampling under wet weather conditions and would not allow the non-storm water and storm water impacts to be discriminated.

Regarding the definition of composite sampling in footnote 2, the 3-hour flow weighted sample definition is taken directly from 40 C.F.R. § 122.21(g)(7)(ii), which concerns sampling protocols for permit applications for storm water discharges. The requirement for analysis of the initial grab is also from 40 C.F.R. § 122.21(g)(7)(ii) and is required for storm water discharges associated with industrial activity. As discussed previously, there is no provision in these regulations that differentiates between sampling of treated storm water effluent or for storm water discharges that include non-storm water flows. Why GE believes that these two factors would make these storm water sampling protocols inappropriate is not clearly explained, but the company appears to believe that the required wet weather sampling was intended to characterize the average performance of the facilities under both wet and dry weather conditions, which it was not.

GE then proposes using 24-hour time weighted samples in lieu of the required 3-hour samples, and cites consistency with the 1992 permit (although the 1992 permit, in Part II Section E.1 actually defines composite sample as a flow proportioned (weighted) sample), EPA regulations at 40 C.F.R. §122.21(g)(7)(i) for permit application sampling for existing manufacturing, commercial, mining, and silviculture dischargers for discharges except storm water, and EPA storm water regulation published in 1990, which indicate that EPA would allow flexibility in establishing sampling requirements.

In general, EPA does not agree that storm water sampling requirements must be consistent with the 1992 permit. This is particularly true since the prior permit required no specific storm water monitoring (EPA does agree that the sampling for determining compliance with the technology-based requirements must be consistent and have already described those changes). EPA also does not believe that there is any reason to use the regulations at 40 C.F.R. § 122.21(g)(7)(i) (which apply only to non-storm water discharges) to define the storm water sampling requirements in the permit, although as described later in this document EPA has required 24-hour composite sample to characterize certain pollutants in dry weather discharges.

Finally, EPA agrees that it has flexibility in establishing storm water sampling requirements in NPDES permits. For example, the regulations at 40 C.F.R. § 122.21(g)(7)(i) allow a continuous composite sample for the entire discharge. In consideration that the discharger has continuous flow measurement at each of its major discharges, which would allow for the use of automatic composite samplers, EPA has changed the wet weather composite sampling definition to be collection of a flow-weighted composite collected over the duration of the storm. EPA has also removed the requirement to collect and analyze an initial grab sample because EPA believes that the required flow weighted sample will adequately characterize any first flush effect.

In the Section titled "Monitoring Condition (Wet Weather Definition)," GE comments on the required 72-hour duration between storms in the definition of wet weather, found in footnote 2 of the permit. GE request that the duration be reduced to 24 hours. GE's main argument is that the definition severely restricts the number of days available for sampling, given its analysis of rainfall patterns and states that no technical or other rationale has been provided for the inclusion of a 72-hour "dry period" requirement in the definition of "wet weather." As mentioned previously, the 72-hour duration was taken from the regulations at 40 C.F.R. part 121.21(g)(7)(ii) and could certainly be supported on this basis. However, as a practical matter, EPA agrees with GE that the duration specified in the Draft Permit is overly restrictive, especially in light of the Final Permit now requiring more than one wet weather sample each month. Accordingly, EPA has reduced the duration between storms to 24 hours.

Comment 8:

3) <u>Applicability of TSS Limits (Specific to Outfall 001)</u>

Permit Reference: Part I.A.2
Page #: 3
GE Recommendation: In determining compliance with the TSS discharge limits for Outfall 001 during wet weather, TSS data corresponding to a 24-hour discharge flow

greater than 0.432 million gallons should be excluded from the calculation of the average monthly TSS mass. The mass result in those flow situations should remain subject to reporting requirements only.

OWS 31W, which receives municipal runoff and other water going to Outfall 001, can, under certain flow conditions, remove solid materials. However, because this system is not designed specifically to reduce TSS, and does so effectively only under certain circumstances, application of technology-based limits, such as those in the Draft Permit, should be limited to situations where the OWS is performing to reduce TSS. GE's analysis indicates that when 24-hour average flow is above 0.432 million gallons in response to rain events, the performance of OWS 31W may not be representative of the conditions on which the monthly average mass limit was based. Therefore, for determining compliance with the monthly average 'wet weather' TSS limit, data collected over a 24-hour period should be used if the 24-hour flow is less than or equal to 0.432 million gallons. When the 24-hour flow is greater than 0.432 million gallons, the data and mass result should be reported but not used for compliance assessment.

The draft fact sheet (page 12) provides that the TSS limits[15] for Outfall 005 are technology-based and were established using best professional judgment ("BPJ"). The draft fact sheet does not explicitly present the origin of the limits for Outfalls 001 and 009. However, without statements to the contrary in the draft Fact Sheet, it can also be assumed that the TSS limits[16] for Outfalls 001 and 009 were established based on BPJ, because they are similar in nature to the limit for Outfall 005. Also as stated in the draft fact sheet, the current limitations[17] required for Outfall 001 in the current permit are found in this permit in accordance with antibacksliding regulations. Therefore, it is assumed that the current Outfall 001 TSS monthly average mass limit is based on a BPJ evaluation of treatment technology.

The current monthly average mass limit of 138 lb/d applies independent of weather conditions and to 24-hours of operation as monitored by 24-hours of flow and sample collection. The proposed limits in the Draft Permit are to be monitored under significantly different conditions than the current permit. This alters the applicability of the current numeric mass limits. Instead of being applicable to continuous operations, the limits are to apply to a specific set of conditions for which no specific set of monitoring data exist to assess compliance. However, using BPJ to assess the OWS treatment technology, representative operating conditions, based on the current permit assessment (138 lb/d) of TSS, can be developed for use under the Draft Permit's proposed conditions.

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[15] "Limits" meaning the specific numeric mass values, not the associated monitoring conditions, sample type, or sample frequency.

[16] "Limits" meaning the specific numeric mass values, not the associated monitoring conditions, sample type, or sample frequency.

[17] "Limitations" meaning the specific numeric mass values, the associated monitoring conditions, sample type and sample frequency.

The OWSs currently present within the GE facility were originally designed, constructed and operated to support GE's active manufacturing activities, with the primary intent of removing oils and other floatable materials from plant waters prior to discharge. While not specifically designed to remove solids from such water, the OWSs can, under certain flow conditions, remove solid materials. Because OWS systems are not designed specifically to reduce TSS, and do so effectively only under certain circumstances, application of technology-based limits should be limited to situations where the OWS system is performing to reduce TSS. Reduction of TSS using an OWS will be a function of:

- the influent TSS composition, *e.g.*, particle size distribution and density;
- the residence time in the OWS, which is related to both influent flow and volume of OWS bays;
- the depth of water maintained in the OWS bays;
- the complete mix or routing of flow through the OWS, *e.g.* short circuiting; and
- the impact of turbulent flow on settling and scouring.

OWS 31W, which treats waters going to Outfall 001, poses unique challenges with regard to reduction of TSS. Unlike the other OWSs at the site, 31W receives municipal runoff from a large off-site drainage area (about 90 acres). The runoff from that area will contain a variety of solid materials that are not present on-site and which pose treatment difficulties for OWS 31W that are not presented for other site discharges.

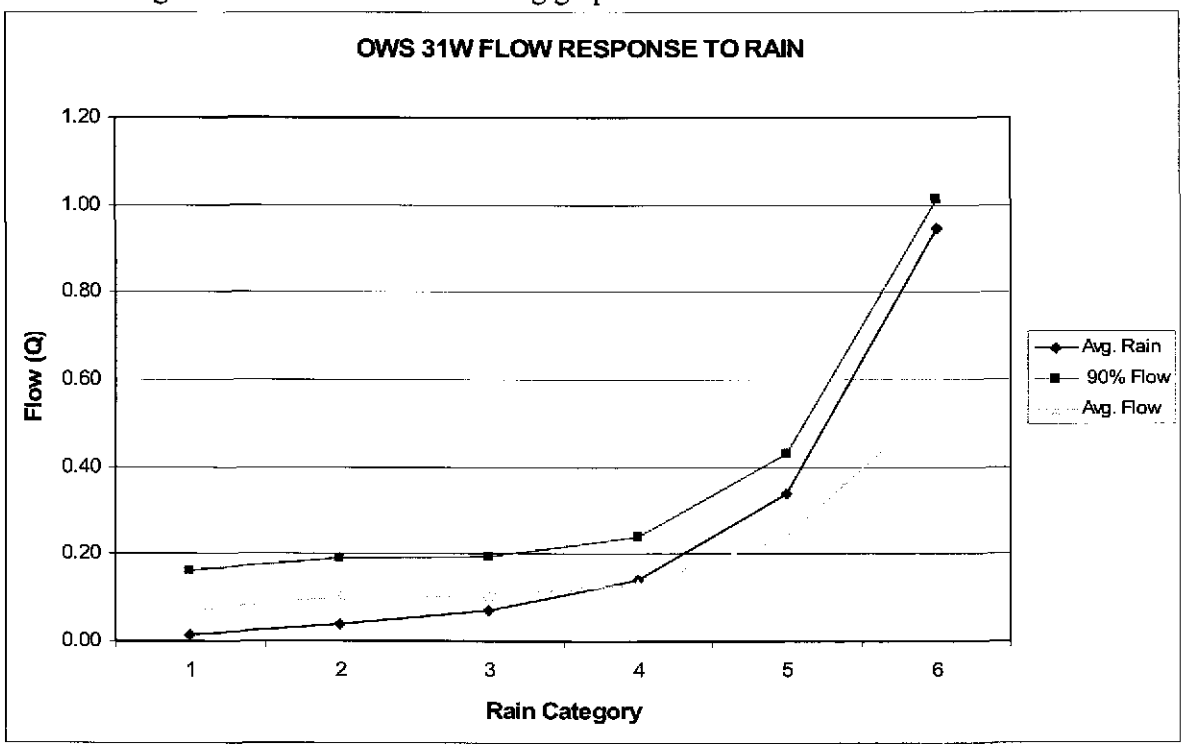
Flow can be used as an indication of the potential ability for the 31W OWS to reduce influent TSS. Using Outfall 001 flow generated from 2002 to current, it is apparent that the OWS conditions during certain rain events are distinctly different from the representative OWS conditions assumed to have been the basis of the technology-based 138 lb/d. For instance, in response to rain events, there where will be a time period[18] when flow through the system surges (increases), thereby reducing residence time for particle settling and causing turbulent flow through the OWS. One method to determine the average 24-hour flow that is representative of the conditions applicable to the 138 lb/d, is to evaluate the relationship between flow and rain events. The focus of this evaluation is to determine when there is a statistically noticeable flow response of the OWS (over a 24-hour period) to rain events. To have a rugged database, a rain event is defined as the sum of all rain or snow melt for the 72 hours prior. As there is a difference between flow during periods of rain (average = 0.17 mgd) and no rain (0.089 mgd), the relationship between increments of rain and the flow corresponding to those increments was used to evaluate the response of the OWS to rain-influenced flow. The increments of rain summarized into rain categories are:

- Category 1 = 0.01" to 0.029"; 85 flow measurements
- Category 2 = 0.03" to 0.059"; 68 flow measurements
- Category 3 = 0.06" to 0.099"; 48 flow measurements

[18] The specific time period is not known, but should occur during the 24-hour monitoring period, but not necessarily during the first 3 hours.

- Category 4 = 0.10" to 0.19"; 82 flow measurements
- Category 5 = 0.20" to 0.49"; 92 flow measurements
- Category 6 = 0.50" and greater; 70 flow measurements

The relationship between the rain categories and statistical summaries of Outfall 001 concurrent with the categories is shown in the following graph:



For specific categories of rain amounts, there is a response in average flow and 90th percentile flow when rain amounts are greater than 0.1 inch (Category 4). When rain exceeds 0.2 inches (Category 5), the 24-hr average 90th percentile flow is statistically related (*i.e.*, similar line slope) to the average rainfall. In addition, the average flow line slope also noticeably changes above Category 5. Therefore, the conclusion can be drawn that the flow through the OWS distinctly changes in response to rain events more than 0.2 inches. The 90th percentile flow for rain events greater than 0.20 inches is 0.432 mgd. The implication of this analysis is that the OWS, for a 24-hour period, will be operating in conditions distinctly different than conditions assumed to be applicable for the TSS mass limit of 138 lb/d (*i.e.*, ability to settle particles, lack of turbulent flow).

The maximum flow in the historic DMR TSS database, when rain occurred (either 72-hr or 24-hr prior to the end of the 24-hr composite period), is 0.554 mgd with a mass result of 221.7 lb/d. This TSS mass result is greater than the proposed monthly average TSS limit of 138 lb/d. The next highest recorded flow, when rain occurred, is 0.226 mgd with a TSS mass result that is below the proposed monthly average TSS mass limit of 138 lb/d.

The results of the analysis presented above suggests that flow conditions within OWS 31W undergo a significant increase due to rain events above 0.2 inches and the 90th percentile flow rate is about 0.432 mgd. At a flow rate of up to approximately 0.432 mgd, there appears to be a relatively consistent flow through the OWS, suggesting a relatively steady-state performance of the OWS. As discussed above, one of the primary factors influencing the effectiveness of the OWS in solids removal is the retention time within the OWS, which in turn is a function of the influent flow rate. So, at a constant flow rate, the performance of the separator will also remain constant. However, as the rainfall/snowmelt-induced flow through the OWS approaches and exceeds approximately 0.432 mgd, the conditions within the separator are much more dynamic, resulting in conditions that would likely reduce its effectiveness in solids removal (relative to the conditions present within the OWS at lower flow rates).

When the 24-hour average flow is above 0.432 million gallons in response to rain events, the performance of OWS 31W may not be representative of the conditions that were used to determine the monthly average mass limit of 138 lb/d TSS. Therefore, for determining compliance with the monthly average 'wet weather' TSS limit, data collected over a 24-hour period should be used if the 24-hour flow is less than or equal to 0.432 million gallons.[19] When the 24-hour flow is greater than 0.432 million gallons, the data and mass result should be reported but not used for compliance assessment.

Response 8:

This comment entirely pertains to effluent limitations for Outfall 001, which is no longer included in the permit, so there is no need to respond to the specific issues raised in the comment. However, the general theme of this comment is that the BPJ effluent limitations included in the 1992 permit should be made less stringent based on concerns that storm water flows greater than approximately 0.4 MGD may cause violation of the limits. It is unclear what relevance GE's record of compliance with the permit limit has to the validity of the permit limit itself. This comment seems to contend that BPJ limits established in the prior permit should be made less stringent if operational data shows that the limits are not being achieved, and that a new limit should be established to reflect actual performance of the existing treatment facilities. This conclusion is incorrect. Exceedances of BPJ limitations are enforceable conditions of NPDES permits. If the BPJ limitations are not being attained by the existing facility, the permittee should provide additional treatment in order to achieve the limits.

The commenter's assertion that differences in monitoring requirements between the 1992 and current permit alter the applicability of the numeric mass limitations reflects a misunderstanding of the sampling requirements in the 1992 permit. Under the 1992 permit, the permittee was required to achieve the effluent limitations under *all* weather conditions. While that permit did

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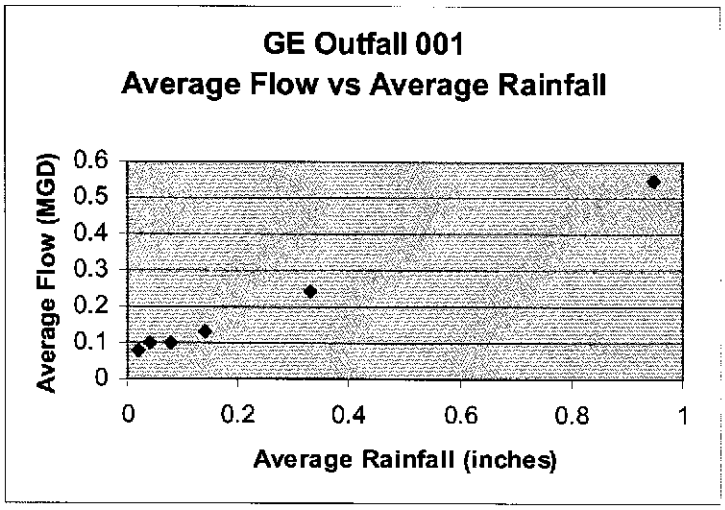
[19] This analysis assumes that the final permit would require 24-hour composite samples and specify a 24-hour dry-period interval, as suggested in these comments. If those recommended revisions to the Draft Permit's provisions are not made, the appropriate flow threshold would need to be recalculated for the monthly average limits and also would need to be calculated for the daily maximum limits.

not mandate sampling under specific weather conditions, it also did not allow the permittee to sample only on days it believed it would comply with the limits.

EPA disagrees with the implication that the oil water separators were not designed to accept storm water. The 1990 *Stormwater Management Plan*, which is a component of the 1992 permit, clearly shows that the oil water separators were intended to accept storm water. Part I.A.11.a of the 1992 permit authorizes discharges through OWS bypasses only in accordance with the 1990 *Stormwater Management Plan,* which specifies the wet weather flow capacities of the OWS. Therefore, the OWS were expected to receive significant storm water flows before bypasses were authorized. For example, the 1990 *Stormwater Management Plan* lists the flow capacity of OWS 31W as 5000 gpm (7.2MGD), meaning that the permit did not authorize the discharge through outfall 01A (the OWS bypass) until flows reached this amount. (The 7.2 MGD appears to be a peak flow capacity and therefore cannot be directly compared to the maximum daily flow limit in the permit of 2.55 MGD or the monthly average flow of 1.1 MGD.) In the DMR data submitted for the period from January 1998 to April 2005, the monthly average flow from outfall 001 ranged from 0.01 MGD to 0.302 MGD, and the maximum daily flow ranged from 0.15 MGD to 2.483 MGD, indicating that the facility operates well within its design flow, with no violations of the TSS mass limits. If compliance were due to bypasses of the OWS at less than the flows mandated in the 1990 *Stormwater Management Plan* this would be a serious violation of the permit.

Finally, as to the specific information relating the measured flow through outfall 001 as a function of rainfall, GE has shown that as rainfall increases, flow through 001 also increases. This is not surprising, although the rate of increase shown on GE's diagram is exacerbated due to the way GE grouped storms and presented the data. The grouping of storms into "categories" rather than simply presenting the rainfall amounts resulted in a shortening of the scale on the x axis and a showed a more dramatic rate of increase than actually occurs. A presentation of the average rainfall per category versus the average flow per category (scaled off GE's graph, since EPA did not have all of the raw rainfall data) shows the increase to be fairly linear. The fact that the rate of flow increase increases is quite small for very small storms is also not surprising, given that small storms generate little runoff because of depression storage (puddles and storage in pore spaces), infiltration in pervious areas, and evaporation.



Comment 9:

III. APPLICATION OF ANTIBACKSLIDING REQUIREMENTS

GE Recommendation: The revisions of discharge conditions and sampling/analytical requirements that are suggested in these comments are not prohibited by the antibacksliding regulations. These revisions are appropriate and should be included in the final permit.

As discussed above, there are substantial reasons for revising the discharge conditions and sampling and analytical requirements associated with the TSS and O&G mass limitations that apply to the co-mingled treated discharges from Outfalls 001, 005 and 009. It is not clear that such revisions would make the limitations less stringent than those in the current permit, because the limitations will be applied in a very different manner than the limitations are currently applied. However, assuming that the limitations arguably could be interpreted to be less stringent than those in the current permit, the antibacksliding requirements do not prohibit revision of the limitations.

The applicability of antibacksliding is based on the type of effluent limitation. The effluent limitations in the current permit are technology-based, and were established using best professional judgment (BPJ). The applicable antibacksliding provision concerning revision of technology-based BPJ limitations based on updated BPJ considerations is 40 C.F.R. §122.44(l)(1):

> Except as provided in paragraph (l)(2) of this section when a permit is renewed or reissued, interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under §122.62.)

This provision allows revisions of limitations if the circumstances on which the previous permit was based have materially and substantially changed. Specifically, 40 C.F.R. §122.62(a)(1) contains the following cause for permit modification:

> *Alterations.* There are material and substantial alterations or additions to the permitted facility or activity (including a change or changes in the permittee's sludge use or disposal practice) which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

Consistent with 40 C.F.R. §122.44(l)(1), the limitations may be revised, because the circumstances on which the current permit was based have materially and substantially changed since the time that permit was issued, and would constitute cause for permit modification or revocation and reissuance §122.62(a)(1).

As discussed above, material and substantial changes have occurred at the Pittsfield facility to justify revision of the discharge conditions and sampling and analytical requirements associated with the TSS and O&G mass limitations. In fact, the fact sheet correctly recognizes the changes in facility operations, as follows:

Page 3 - GE has made many changes to the wastewater discharges since the current individual permit was issued. Major changes include: (1) separation of non-groundwater flows from the storm drain system in cases where GE determined this change was feasible, and (2) discontinuing the discharge of treated process water, contact cooling water, and non-contact cooling water. The current status and flow schematic, showing the flow components through each permitted outfall, is also shown on **Figure 2** of this fact sheet.

Page 10 – Facility operations contributing flow to Outfall 001 have substantially been altered since 1992 as cooling water discharges have been eliminated.

Page 12 – Facility operations contributing flow to Outfall 005 have substantially been altered since 1992 as cooling water and process water discharges have been eliminated.

Page 15 and Page 16 – Facility operations contributing flow to Outfall 009 have substantially been altered since 1992 as there are no dry weather discharges to the collection system and operations discharging from Building 120X have been eliminated.

Response 9:

Under applicable antibacksliding requirements, the alterations to the facility described by the commenter do not justify the application of less stringent effluent limitations than established under previous permit on a BPJ-basis. Antibacksliding provisions are designed to further the statutory goals of the CWA by ensuring that the improvements in water quality that have already been achieved under the CWA are maintained. The composition and amount of flow discharged to the oil/water separators has changed since the current permit was issued, but the changes have simply served to reduce pollutant loadings and flows to the oil/water separators. The changes to the TSS and O&G mass limitations requested by the commenter could result in an increased

loading of such pollutants into the receiving waters beyond what is currently being obtained under the existing BPJ-based permit limits.

Moreover, the potential for further pollutant loadings as a result of weakening the BPJ-based permit limits for TSS and O&G would also be inconsistent with CWA § 402(o) given that the receiving waters are already impaired for PCBs and have no further assimilative capacity. EPA and MassDEP adopt a reasonably conservative approach when establishing PCB limitations because PCBs are persistent, tend to associate with other particles (making them prone to transport—around and off-site—with sediments in storm water and groundwater, and settling in sediments in the receiving water) and are bioaccumulative.

Comment 10:

C. OTHER TECHNICAL COMMENTS:

G.E. also submitted technical comments requesting modifications and clarifications of various aspects of the permit. These included comments on various parts of the draft permit as well as revised permit attachments. These are presented in the table below.

II. TECHNICAL COMMENTS SUMMARY CHART

	Permit Reference	Proposed Change	Summary Supporting Rationale	EPA response
1	Part I.A.1	Confirm that "prior to discharging into Silver Lake" means that GE (and, following transfer, PEDA) will continue to use the current discharge monitoring point located at the effluent end of Oil-Water Separator ("OWS") 31W	For consistency with GE's existing permit.	This is a correct interpretation. The Final Permit to PEDA will include this clarification.
2	Part I.A.1, Part I.A.2, Footnotes *3 and *4	Clarify that footnote *3 applies to dry weather flow and *4 applies to wet weather flow. In Part I.A.1, change reference in effluent characteristic column for flow from footnote *4 to footnote *3. In Part I.A.2, change reference in measurement frequency column for flow from footnote *3 to footnote *4 (consistent with related footnote in effluent characteristic column).	Clarifies flow reporting requirements and corrects typographic errors.	In the Draft Permit, footnote *3 was intended to apply to continuous discharges and * 4 to apply to intermittent wet weather discharges. In the Final Permit, there are now three footnotes related to reporting of flow on the DMR. Footnote *1 applies to continuous discharges and requires that average monthly and maximum daily flow be reported. Footnote *3 applies to intermittent discharges and requires that the monthly average and daily maximum flow be reported, with monthly average defined as the average flow per day of discharge. Footnote *4 applies to the specific sampling requirements for each outfall and requires that the average and maximum flow for each sample taken to satisfy the sampling

				requirements be reported. Note that these footnotes all pertain to DMR reporting. The Final Permit also requires a summary of all daily data for each discharge.
3	Permit Attachment A	Revise description of outfalls and discharges consistent with corrected Attachment A (See GE Technical Exhibit 1).	Revisions are consistent with recent site changes and the discharges reported by GE in its NPDES permit application materials.	EPA has made the requested revisions, with the exception of authorizing dry weather discharges from relief overflows (see item number 5 below). However, with these revisions, which authorize dry weather discharges from outfalls 006 and 009, which were not previously authorized to discharge in dry weather, EPA has included dry weather monitoring requirements and effluent limitations.
4	Parts I.A.1 through I.A.13	Option 1: Remove narrative discharge descriptions and, in their place, cross-reference Attachment A, which provides accurate discharge descriptions for each covered outfall. Option 2: Revise narrative discharge descriptions so that they are consistent with Attachment A. Option 3: Maintain proposed narrative discharge	For consistency with Attachment A discharge descriptions.	EPA has revised the narrative descriptions to be consistent with Attachment A of the Final Permit.

		descriptions but add at the bottom of each page: "See Attachment A for a comprehensive description of discharges from outfall(s)."		
5	Parts I.A.3, I.A.7, I.A.8, I.A.9 and I.A.10	Remove dry weather flow prohibition at outfalls 01A, 05A, 05B, 006, 06A and SR05.	For consistency with Attachment A, which accurately identifies dry weather flow source(s) at these outfalls.	The prohibition is intended to prohibit the discharge from these outfalls under dry weather conditions, rather than to prohibit the discharges from including "dry weather" flow components (e.g., groundwater infiltration). EPA has clarified the dry weather prohibition language in the permit to read "Discharges during dry weather are prohibited."
6	Part I.A.2	Add footnote to TSS discharge limitations that reads as follows: "In determining compliance with the wet weather TSS limits for Outfall 001, TSS data for periods with 24-hour discharge flow from Outfall 001 above 0.432 million gallons shall not be included in calculating average monthly mass."	OWS 31W treats waters going to Outfall 001. Above a 24-hour discharge flow of 0.432 million gallons, the performance of OWS 31W is not representative of the conditions on which the mass limits were based. See Section V.D and GE Technical Exhibit 5.	As described earlier, this outfall is no longer included in the permit. However, as discussed in GE Comment B.8, the TSS limit proposed in the draft permit is the same as was in the 1992 permit and was based on a design flow of 1.1 MGD. EPA would not have revised a limit merely to ensure that there were no violations of the limit.
7	Part I.A.5	Change references in measurement frequency column for VOCs and SVOCs from footnote *5 to footnote *15.	Corrects typographic error.	EPA has made the requested correction. However, footnote comment *15 is now footnote *20.
8	Part I.A.5	Clarify that the sampling point	For consistency with water balance	The sampling point for the 64G

		excludes flow from the recharge pond used by GE in connection with its CD-related groundwater treatment requirements, as well as process backwash.	diagram and Consent Decree.	discharge (Part I.A.5 in the draft permit and I.A.1 in the final permit) may exclude flow from the recharge pond, but must include process backwash. Any pollutants discharging from the recharge pond would be included in samples taken at outfall 005.
9	Part I.A.6	Clarify that when the 005 discharge pipe is flooded, GE will be entitled to collect flow-weighted composite samples of the effluent from 64T and 64G, consistent with GE's existing NPDES permit.	Under flooding conditions, sampling "at the end of the 005 discharge pipe" is infeasible.	This clarification has been added to the Final Permit. The Final Permit also requires that the days the outfall is flooded be reported to EPA on the monthly summary of all samples collected.
10	Part I.A.7	Clarify that sampling is not required when Outfall 05A is flooded.	The required sampling point at Outfall 05A is frequently flooded. Sampling is infeasible during flooding events.	This clarification has been added to the Final Permit. The Final Permit also requires that the days the outfall is flooded be reported to EPA on the monthly summary of all samples collected.
11	Part I.A.7	Delete "and untreated" before effluent.	All discharges from Outfall 05A first pass through OWS 64W.	EPA has made the requested change.
12	Part I.A.8	Delete "at a point that includes all flow components."	Requirements apply to four separate outfalls (05B, SR02, SR03 and SR04). As a result, there is no single point for sample collection.	The permit requirement was intended to ensure that the monitoring at each of the outfalls included all flow components discharging through that outfall. EPA has removed the language since it was extraneous. Sampling done at the outfalls under the prescribed flow condition would necessarily include all flow

				components
13	Part I.A.10	Replace "(overflows from the 006 drainage system)" with "(flows that exceed the capacity of OWS 64X and its related piping system)."	For consistency with water balance diagram.	EPA has made changed the language to read "flows from the 006 drainage system that exceed the capacity of OWS 64X and its related piping capacity."
14	Part I.A.11	Replace "to the Housatonic River" with "to the City of Pittsfield storm sewer system."	For consistency with NPDES application materials.	The authorization for Outfall 007 has been removed, because GE reported it was permanently blocked in March of 2007.
15	Parts I.A.12 and I.A.13	Move discharge limitations from Part I.A.13 to Part I.A.12.	As depicted on the flow diagram for OWS 119W (See GE Technical Exhibit 2), 009 is the combined flow of the 09B discharge and the OWS 119W bypass. For consistency with EPA's approach to other outfalls with and without oil-water separators, the discharge limitations should apply to 09B in Part I.A.12, not 009 in Part I.A.13.	Based on the 1992 permit and the 1990 Stormwater Management Plan, the technology-based limits in the 1992 Permit were placed on Outfall 009, which included the discharge of flows from OWS119W (09B), untreated bypass of OWS 119W and non-contact cooling water (9A). The approach was inconsistent with the approach taken for the technology-based limits for outfalls 001 and 005, which are for treated discharges, without bypass flows, so EPA believes the specified sampling point was in error. EPA has therefore changed the sampling point for compliance with the technology-based limits to outfall 09B.
16	Part I.A.14	Add YD14 to list of outfalls, and replace dry weather discharge prohibition with list of allowable non-storm water discharges set	For completeness and consistency with EPA's regulatory approach in the Multi-Sector General Permit.	For all yard drains, EPA has required inspections for the first year of the permit to determine whether the drains discharge during

		forth in § 1.2.2.2 of EPA's Multi-Sector General Permit.		dry weather. Dry weather discharges are required to be sampled for pH, TSS, and PCBs. (see Part I.A.13). Based on the results, EPA may either extend the monitoring period if the monitoring data is inconclusive via certified letter, or modify the permit to remove the dry weather sampling requirements (if the flows are shown to be uncontaminated, or add limits if the discharge(s) are shown to have the reasonable potential to cause or contribute to exceedances of water quality standards).
17	Part I.A.21	Revise footnote to read: "Except for treatment chemicals used at the 64G groundwater treatment plant, the 64T treatment plant and the Lyman Street groundwater recovery system, the permittee will not add chemicals to any of the discharges at this facility."	GE is required to add treatment chemicals for proper operation of these plants and systems.	Part I.A.20 has been revised to read: "Except as part of treatment operations at the 64G and 64T treatment plants, the permittee will not add chemicals to any of the discharges at the facility." Changes to chemical additions at the treatment plants will be subject to the notification requirements in Part I.A.19 and Part II.D.1. of the permit.
18	Part I.D.1	Change the deadline for completing a PCB treatment capability study of the 64G treatment system from 9 months to 12 months following the effective date of the permit.	To account for uncertainty associated with the timing of issuance of the final permit and to ensure that representative data are collected, GE requests 12 months to collect seasonal (*i.e.*, spring and fall) performance data.	EPA believes that the schedule is reasonable and appropriate because the 9 month timeframe is sufficient time to collect representative sampling data.
19	Footnotes *1	Combine footnotes to read as	The 24-hour wet weather interval is	EPA has revised the definition of

	and *2	follows: "For purposes of sampling and reporting, wet weather is defined as any day on which more than 0.1 inch of total precipitation falls or on which snow melt occurs, provided that the interval from the previous wet weather event is at least 24 hours. The 24-hour wet weather interval is waived when the preceding wet weather event did not yield a measurable discharge, or if the permittee is able to document that less than a 24-hour interval is representative of local wet weather events during the sampling period. The permittee will collect a time-weighted 24-hour composite when a composite sample is required." Apply combined footnote to all discharge limitations and monitoring requirements applicable to wet weather conditions.	more appropriate for the site-specific situation than the 72-hour interval in the Draft Permit, and it will result in a more representative data set with which to measure compliance. The 24-hour composite requirement is technically appropriate for the site's commingled dry/wet flow discharge, and it will provide more representative data than the Draft Permit's requirement for an initial grab sample and a 3-hour composite. See Section V.D and GE Technical Exhibit 5.	wet weather (now in Footnote *7) to include a 24-hour precedent dry period. (See Response to GE Comment B.7)
20	Footnote *5	Strike footnote *5, which would apply independently to multiple outfalls, and replace it with a new reporting condition in Part I.E that reads as follows: "The permittee will collect wet weather data and temperature using a heated rain gauge and temperature sensor that	For consistency with definition of wet weather, and to clarify collection and reporting requirements.	The permit footnotes have been revised to require that GE collect precipitation data as described in its comment (see footnote *11 of the Final Permit). GE is required to report this data for each day and in addition is required to provide specific precipitation data from this

		is maintained for one on-site location, or use the National Weather Service data for Pittsfield, MA. The permittee will report wet weather (volume) and temperature for the site for each calendar day		record on its DMRs. In order to better correlate peak flows with rainfall events, the reporting of the rainfall duration and the peak rainfall intensity has also been required.
21	Footnote *9	GE is willing to use Modified Method 8082, with associated minimum detection level target and reporting protocols, at all outfalls subject to footnote *9 in the Draft Permit.	For consistency in implementation, more precise results, and, in light of the added costs and rigor, for balance with the relief requested by GE elsewhere in these comments.	EPA agrees with GE's comment and required all required PCB analyses to be done using Modified Method 8082. The requirements to use this method are now found in footnotes *13 and *14.
22	Footnote *13	Add at end of footnote: "After two years, if all IC25 results are 100%, then the monitoring requirement will cease. GE will notify the Director and the State 14 days prior to the cessation of monitoring."	Absent measurable toxicity, GE should not be required to monitor for chronic toxicity. As reported in its application materials, GE has a large monthly toxicity testing database that demonstrates full compliance with toxicity permit limits for over 12 years (93 data sets).	A provision has been added to the Final Permit allowing GE to propose elimination of the WET testing requirement if after two years of testing all IC25 results are 100%. Upon approval from EPA in the form of a certified letter, the requirement will end. See footnote *18.
23	Footnote *13	In the chart, change "Submit Results By" dates to "May 30, August 31, November 30 and February 28."	For consistency with GE's existing permit and to accommodate data processing and report preparation by the laboratory.	The reporting schedule in the draft permit is a standard requirement in NPDES permits issued in Massachusetts and, in EPA's experience, has not posed an unacceptable burden on permittees. The submittal dates have not been changed for administrative convenience and to streamline EPA's data collection efforts.
24	Footnote *15	Add at end of footnote: "After two years, if all results are ND, then the	GE has VOC/SVOC data that do not demonstrate a history of	There is extensive contamination of volatile and semi-volatiles within

		monitoring requirement will cease. GE will notify the Director and the State 14 days prior to the cessation of monitoring	detected and quantifiable concentrations of VOCs/SVOCs in the discharge in question. Absent such a history, GE should not be required to monitor for these parameters.	the 005 and 006 drainage basins. The data collected to date indicate effective removal of these pollutants by the treatment plant. To ensure continued removal, sampling for these compounds will be retained in place for the duration of the permit.
25	Footnote *16	Revise footnote to read: "The pH of the effluent will not be less than 6.5 or greater than 9.0 at any time, unless due to natural causes."	Addresses out-of-range readings (both high and low).	EPA has changed the word "nor" to "or." See footnote*21.
26	Permit Attachment B	Strike references to and requirements associated with fathead minnow (Pimephales promelas).	For consistency with footnote *13.	Attachment B is the standard protocol for the test. (Please note that an updated version of the protocol has been substituted for the version attached to the Draft Permit.) The specific testing requirements of the Final Permit supersede the standard language in the attachment.
27	Permit Attachment C	In BMP 3.A, insert "subject to PEDA approval" before "abandon existing storm sewer piping and related manholes and catch basins located in Drainage Basin 004."	As proposed by EPA, BMP 3.A is inconsistent with the NPDES transfer agreement between GE and PEDA.	Outfall 004 is no longer in the GE permit because it was transferred to PEDA. Also, GE has reported that outfall 004 was sealed in May of 2005.
28	Fact Sheet Attachments D, F, G, M, N and Q	Replace data sets with those provided by GE (See GE Technical Exhibit 3).	Data sets identified in the Fact Sheet Attachments are not the most current data sets proved by GE and are inadequate to support reasonable potential determinations.	EPA does not modify fact sheets at the time of final permit issuance because the fact sheet is written to support the draft permit. EPA has reviewed the data submitted by GE and determined that they do not change EPA's decisions regarding

				reasonable potential because the more recent monitoring data are very similar to past data, and therefore supports the Draft Permit decisions. The data are part of the administrative record.
29	Fact Sheet Attachment O	Add footnote: "Since operations discharging from Building 120X were eliminated in 2001, this discharge monitoring location has been removed from the permit."	For consistency with site changes.	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.
30	Fact Sheet Attachment R	Add time period for data and explanatory footnote that GE previously provided to EPA (See GE Technical Exhibit 4).	For accuracy and consistency with GE's application materials.	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.
31	Fact Sheet	Delete reference to "small Lexan sheet operation."	This operation was shutdown in May 2003.	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.
32	Fact Sheet	Delete references to SR01.	SR01 was removed as part of GE's ½-mile removal action.	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