UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

January 5, 2006

Mr. Rich Giani
Water Quality Manager
District of Columbia Water and Sewer Authority
301 Bryant Street, NW
Washington, DC 20001

Dear Mr. Giani:

This letter is in response to your electronic message of December 14, 2005, that requests three samples from the July-December 2005 monitoring period be invalidated, specifically:

- [redacted] Kenyon St., NW, sample collected on October 27, 2005
- [redacted] Columbia Rd., NW, samples collect on July 27, 2005 and October 26, 2005

Pursuant to 40 CFR 141.86(f), EPA may invalidate a lead or copper tap water sample if, among other things, EPA learns that the sample was taken from a site that did not meet the site selection criteria of 40 CFR 141.86. For purposes of 40 CFR 141.86(f), the term "invalidate" means that the sample should not be counted to determine the lead or copper 90th percentile levels under 40 C.R 141.80(c)(3) or toward meeting the minimum monitoring requirements of 40 CFR 141.80(c). Pursuant to 40 CFR 141.90(g), data collected in addition to those data which are required by the regulations should be reported within the first ten days following the end of the applicable monitoring period, even if that data is not used to calculate the lead or copper 90th percentile requirements.

EPA has reviewed WASA's request and its supporting documentation and agrees that the three samples can be invalidated and should not be used to calculate the 90th percentile levels for lead and copper. A copy of EPA's rationale for this decision is enclosed. EPA notes that WASA has already collected a replacement sample from [redacted] Kenyon St., NW. A replacement sample would not be appropriate from [redacted] Columbia Rd., NW, because that site no longer meets the Tier 1 site selection requirements of 40 C.F.R. 141.86. Please note that WASA must collect the minimum number of samples required for the monitoring period. If WASA does not have the minimum number of samples required for the monitoring period, WASA must collect additional samples as soon as possible, but not later than 20 days from the date of this letter, from appropriate Tier 1 locations to replace the samples taken at [redacted] Columbia Rd, NW.

In addition, we note that, according to the information recently provided to WASA by the customer at [redacted] Columbia Rd., NW, this site did not meet the selection requirements of 40 C.F.R. 141.86 when samples were taken in February 2005. Accordingly, we believe that the data collected from [redacted] Columbia Rd., NW, should be invalidated and should be excluded from calculation of the lead and copper 90th percentile values for the time period January – June 2005. We note that exclusion of the data does not change the 90th percentile value for the January – June 2005 time period.

If you have any questions, I can be reached at 215-814-5445.

Sincerely,

Karen D. Johnson

Karen D. Johnson, Chief
Safe Drinking Water Act Branch

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SUBJECT: Invalidation Request by WASA (DC 0000002) for July-December 2005 Compliance Monitoring Period for Lead and Copper; Invalidation of sample for January–June 2005

FROM: Lisa M. Donahue, Environmental Scientist (3WP32) 4 Jan 06

TO: File

THRU: Karen D. Johnson, Chief 1/5/06
Safe Drinking Water Act Branch (3WP32)

On December 14, 2005, Rich Giani, Water Quality Manager of the District of Columbia Water and Sewer Authority, sent an electronic message asking EPA to invalidate three samples taken during the July-December 2005 monitoring period for Lead and Copper. The samples were taken at two different addresses. One sample was taken on October 27, 2005 at [redacted] Kenyon Street NW. Two samples were taken at [redacted] Columbia Road NW, on July 27, 2005 and October 26, 2005. The message included the chain of custody and the laboratory results for each of the samples in question. There was one additional sample for [redacted] Kenyon Street NW sent, which WASA did not ask to invalidate. The table below outlines the requirements for invalidation set out in 40 CFR 141.86(f). Each address is discussed separately.

WASA Sample invalidation analysis for July-Dec 05 monitoring period

Regulatory Requirement	[redacted] Kenyon St, NW	[redacted] Columbia Rd NW
An invalidated sample does not count toward determining the 90th percentile level. Samples can be invalidated if one of the following 4 conditions are met:		
141.86(f)(1)(i) the lab establishes that improper analysis caused erroneous results	NA	NA

141.86(f)(1)(ii) the state (EPA) may invalidate a sample if the state determines that the sample was taken from a site that did not meet the site selection criteria of this section.	From Rich Giani: "in reviewing the chain of custody and discussing with the customer, it was confirmed that the sample collected on 10/27/05 was actually taken from a filter."	According to Rich Giani, the site does not meet any of the Tier 1 requirements of 141.86(a)(3). It does NOT (i) contain copper pipes with lead solder; it does not contain lead pipes, (ii) it does not have a lead service line.
141.86(a)(1) "sample site location" sampling sites may not include faucets that have a point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants	This was not a WASA-distributed filter. The Chain of Custody indicates that the filter was a Genesis Water Filter. Genesis Water filter, countertop model EQ-10, is certified by Underwriters Laboratory for lead (Pb) reduction under ANSI/NSF standard 53.	NA
(f)(1)(iii) the sample container was damaged in transit	NA	NA
(f)(1)(iv) substantial reason to believe that sample was subject to tampering	NA	NA
(f)(2) requires that the system report the results and supporting documentation for samples they believe should be invalidated.	Email sent 12/14/05 5:57 pm requesting invalidation. Attachments include chains of custody and lab reports for samples. EPA replied via email of 12/20/05 with clarifying questions. WASA response to questions sent 12/23/05. Chain of custody for 10/27/05 sample has box checked off that the water filter system was not bypassed. "Genesis water filter system" listed by customer. Chain of custody for 12/2/05 sample confirms that filter was bypassed.	Email sent 12/14/05 5:57 pm requesting invalidation. Attachments include chains of custody and lab reports for samples. EPA replied via email of 12/20/05 with clarifying questions. WASA response to questions sent 12/23/05. Chain of custody resent 12/23/05 because original was not clear. For the service line, the Oct 8, 2004, Appendix B to the LSLR report lists this address as being replaced on 8/16/04. However it is NOT listed as a full replacement. WASA statement on 12/23/05 email indicates that both public and private portions of service line were replaced on 08/16/04. Margin notes on the chain of custody about a full replacement and plumbing modifications were taken by WASA during a November 28, 2005 phone conversation with customer. Also, this location is listed on page 4 of the January – June 2005 sampling report as having had a full service line replacement in August of 2004. The data for this

		location were included in the 90th percentile calculation for lead and copper for the January-June 2005 monitoring period.
(f)(3) requires the state to document the rationale for the decision in writing.	Memo to file necessary with decision. If invalidation OK, letter to WASA should include statement about reporting results but not including in 90th percentile calculation.	Memo to file necessary with decision. If invalidation OK, letter to WASA should include statement about reporting results but not including in 90th percentile calculation.
(f)(4) requires the water system to collect replacement samples if they have too few samples to meet the minimum.	WASA has indicated that they have minimum number without the 10/27/05 sample. The 12/5/05 samples replaces the 10/27/05 sample at this location.	WASA has indicated that they have minimum number without the samples from this location. Replacement samples not appropriate for this location, as it is not a Tier 1 location.

Conclusion:

[redacted] **Kenyon Street NW:** The sample taken on 10/27/05 can be invalidated. It has met the requirement of 141.86(f)(1)(ii) which indicates the state [EPA] may invalidate a sample if the state [EPA] determines that the sample was taken from a site that did not meet the site selection criteria of this [40 CFR 141.86] section. Paragraph 141.86(a)(1) states that sampling sites may not include faucets that have a point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants. This address does not meet the site selection criteria because it was taken from a site that had a filter that removed inorganic contaminants. WASA took another sample from this location on 12/5/05. The 12/5/05 sample can be considered a replacement sample under 141.85(f)(4) because the Chain of Custody indicates that the filter was bypassed before the customer collected the sample. The 10/27/05 sample should not be used to calculate the 90th percentile value for lead and copper, but should be reported separately pursuant to 141.90.

[redacted] **Columbia Rd NW:** The samples taken on July 27, 2005 and October 26, 2005 can be invalidated. They meet the requirement of 141.86(f)(1)(ii) which indicates the state [EPA] may invalidate a sample if the state [EPA] determines that the sample was taken from a site that did not meet the site selection criteria of this [40 CFR 141.86] section. This location does not meet any of the Tier 1 requirements of 141.86(a)(3) because, as of January 1, 2005, it did not have a lead service line and it underwent plumbing renovations that removed lead solder from the interior plumbing. The two samples taken during the July-December 2005 monitoring period should not be used to calculate the 90th percentile value for lead and copper, but should be reported separately pursuant to 141.90.

Additional Invalidation: A sample was collected at [redacted] Columbia Road NW on February 4, 2005, during the January – June 2005 monitoring period. When this sample

was reported, WASA was aware that the location had had a full lead service line replacement, and reported that information to EPA. However, WASA was not able to determine if the location also no longer met the Tier 1 requirements of a location with lead pipes or copper pipes with lead solder. During the review of the data from this monitoring period, EPA directed WASA to keep the results from this address, and others, in the 90th percentile calculation in the absence of conclusive evidence to remove the locations. EPA also advised WASA to change its Chain of Custody questionnaire to gather information on interior plumbing to determine if Tier 1 criteria would be met for locations that did not have lead service lines. Because the customer at [redacted] Columbia Road NW provided additional information in November 2005 on interior plumbing renovations done in late 2004, EPA has sufficient information to invalidate the sample taken on February 4, 2005. When this location's data are removed from the 90th percentile calculations for lead and copper, it has no effect on the 90th percentile value.