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

February 22, 2006

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

Dear Mr. Giani:

In response to your submittal of the Lead and Copper Report for July- December 2005, and subsequent information submitted to EPA in response to inquiries, EPA has determined that 12 samples from the July – December 2005 monitoring period must be invalidated. The samples are listed in the enclosure to this letter.

Pursuant to 40 CFR 141.86(f), EPA may invalidate a lead or copper tap water sample if it meets any one of four conditions set out in 40 CFR 141.86(f)(i-iv). For purposes of 40 CFR 141.86(f), the term "invalidate" means that the sample should not be included when determining the lead or copper 90th percentile levels under 40 CFR 141.80(c)(3) or counted toward meeting the minimum monitoring requirements of 40 CFR 141.86(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 responses and supporting documentation to our request for clarification of WASA's July - December 2005 lead and copper report. WASA must collect additional replacement samples to reach the minimum number of samples required for the monitoring period under 40 CFR 141.86(c) no later than 20 days from receipt of this letter from appropriate tier 1 locations. Replacement samples from the invalidated sample sites are not appropriate because the sites do not meet the tier 1 site selection requirements of 40 CFR 141.86(a)(3). Replacement samples taken after the end of the applicable monitoring period may not be used to meet the monitoring requirements of a subsequent monitoring period. The replacement samples must be taken at locations other than those already used for sampling during the monitoring period. (40 CFR 141.86(f)(4).

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

Sincerely,

Karen D. Johnson, Chief
Safe Drinking Water Act Branch

Enclosure

cc: Avis Russell, WASA
John Dunn, WASA

Invalidation of samples submitted by WASA (DC 0000002) for July-December 2005 Compliance Monitoring Period for Lead and Copper

On January 3, 2006, the District of Columbia Water and Sewer Authority (WASA) submitted the Lead and Copper Report for the July-December 2005 monitoring period. Pursuant to 40 CFR 141.90(a)(1), the water system must submit the results of all tap samples including the location and criteria under which the site was selected for the system's sampling pool. EPA requested additional information regarding a number of samples to clarify the site selection criteria. (See letter of January 12, 2006 and electronic messages of January 27 and February 8, 2006 from EPA to WASA.) EPA reviewed WASA's responses, which included chains of custody, laboratory reports, and housing related information (see letters of February 3 and 10, 2006), and has concluded that there is insufficient evidence to support selection of 12 samples as tier 1 locations, as described below.

The requirements for invalidation are set out in 40 CFR 141.86(f). If one or more of four conditions listed in 40 CFR 141.86(f)(i-iv) are met, the state, or EPA, may invalidate a sample. WASA did not request that these samples be invalidated.

Invalidated Samples

	Address	Sample date	Reason for invalidation
1	[redacted] Florida Ave. NE	10/26/2005	40 CFR 141.86(f)(1)(ii)
2	[redacted] V St. NW	11/2/2005	40 CFR 141.86(f)(1)(ii)
3	[redacted] 19th St. NW	11/2/2005	40 CFR 141.86(f)(1)(ii)
4	[redacted] Monroe NW	7/27/2005	40 CFR 141.86(f)(1)(ii)
5	[redacted] Klingle NW	7/27/2005	40 CFR 141.86(f)(1)(ii)
6	[redacted] Belmont NW	7/27/2005	40 CFR 141.86(f)(1)(ii)
7	[redacted] Highland NW	7/28/2005	40 CFR 141.86(f)(1)(ii)
8	[redacted] Yuma NW	10/25/2005	40 CFR 141.86(f)(1)(ii)
9	[redacted] 13th St. NW	9/1/2005	40 CFR 141.86(f)(1)(ii)
10	[redacted] Summit NE	10/25/05	40 CFR 141.86(f)(1)(ii)
11	[redacted] L St NE	7/20/05	40 CFR 141.86(f)(1)(ii)
12	[redacted] G St NE	11/30/05	40 CFR 141.86(f)(1)(ii) and (iv)

Invalidation Rationale

A. For the first nine addresses in the above table, EPA has found that the samples were taken from sites that did not meet the site selection criteria of 40 CFR 141.86 (40 CFR 141.86(f)(1)(ii)). These addresses had copper service lines (both the public and private portions) at the time of sampling during the July-December 2005 monitoring period. WASA submitted information on housing age, showing

that the houses were built in the early or mid 1900's, and also submitted information showing that samples collected in early 2004 showed elevated lead levels. No information was submitted to show that the houses had copper pipes with lead solder installed after 1982 and before 1988 (DC lead ban effective date). Because these addresses are neither served by a lead service line nor contain lead pipes or copper pipes with lead solder installed after 1982, they do not meet the tier 1 definition as set in 40 CFR 141.86(a)(3). Accordingly, the samples taken at these sites must be invalidated, i.e., should not be counted to determine the lead or copper 90th percentile levels under 40 CFR 141.80(c)(3) or toward meeting the minimum monitoring requirements of 40 CFR 141.86(c).

B. For the addresses [redacted] Summit Avenue NE, and [redacted] L Street NE, EPA has found that the samples were taken from sites that did not meet the site selection criteria of 40 CFR 141.86(a) (40 CFR 141.86(f)(1)(ii)). These addresses had service lines of unknown material at the time of sampling during the July-December 2005 monitoring period. EPA had agreed in 2004 that locations with unknown service lines that had second-draw sampling results above 15 ppb in a previous monitoring period would be presumed to be served by a lead service line, and therefore be considered tier 1 (40 CFR 141.86(a)(3)(ii)). Because neither of these two addresses had been sampled prior to the July- December 2005 monitoring period, they can not be presumed to be served by a lead service line. Accordingly, these two addresses do not qualify as tier 1 sampling locations until WASA determines that there was interior lead pipes or copper pipes with lead solder installed after 1982 and before 1988 (DC lead ban effective date) or confirmed that the addresses were served by lead service lines. WASA submitted information on housing age, showing that the houses were built in the early or mid 1900's. No information was submitted to show that the houses had copper pipes with lead solder installed after 1982. In addition, for [redacted] Summit Avenue, there was considerable confusion on the part of the occupant as to whether there had been interior plumbing modifications in recent years. Because these addresses do not meet the tier 1 definition in 40 CFR 141.86(a)(3)(i), they must be invalidated. Accordingly, the samples taken at these sites must be invalidated, i.e., should not be counted to determine the lead or copper 90th percentile levels under 40 CFR 141.80(c)(3) or toward meeting the minimum monitoring requirements of 40 CFR 141.86(c).

C. For [redacted] G Street NE, EPA has found that the chain of custody associated with the sample collected on 11/30/05 was modified and therefore subject to invalidation under 40 CFR 141.86(f)(1)(iv). WASA submitted information indicating that the occupant was given two sets of bottles. The first set was left by a WASA contractor at the address for collection of a sample after a service line replacement that is required to be collected under 40 CFR 141.84(d)(1), the post-lead service line replacement sampling program. The occupant was given a separate set of sample bottles from WASA's Water Quality program office for tap sampling under 40 CFR 141.86. After the occupant took the samples, the Water Quality program office picked up sample bottles from this address and found that the

bottles and chain of custody were associated with the post-replacement sampling program. The post-replacement samples typically are picked up by a commercial carrier and sent to a different laboratory for analysis than those samples collected for purposes of routine monitoring and calculation of the 90th percentile level lead. A different chain of custody was completed by WASA and attached to the sample bottles and submitted with the sample to the Washington Aqueduct laboratory for analysis. Because this chain of custody was modified, it must be invalidated. Accordingly, the sample taken at this site must be invalidated, i.e., should not be counted to determine the lead or copper 90th percentile levels under 40 CFR 141.80(c)(3) or toward meeting the minimum monitoring requirements of 40 CFR 141.86(c). In addition, WASA's letter of February 3, 2006 notes that the service line is galvanized, which also calls into question the ability to show that this location is tier 1 under 40 CFR 141.86(a)(3)(i). Because the location does not have a lead service line, and WASA did not show that the location has copper pipes with lead solder installed after 1982 and before 1988, the location does not meet tier 1 criteria, it cannot be re-sampled for compliance with 40 CFR 141.86(c).

Calculation of 90th Percentile for Lead and Copper

The invalidated samples cannot be used to compute the 90th percentile for the lead and copper samples. 40 CFR 141.86(f)(4) requires the water system to collect replacement samples if they have not collected the minimum number of samples required for the monitoring period. WASA was required to collect 100 samples for the July –December 2005 monitoring period. They collected 106 samples, three of which were invalidated by EPA in a letter dated January 5, 2006. Of the remaining 103 samples, there were 101 unique locations. With these additional 12 invalidations, WASA has collected samples from 89 tier 1 locations. WASA is therefore required to collect samples at 11 additional tier 1 locations within 20 days of receipt of a letter from EPA that announces the invalidations. If WASA does not collect a sufficient number of samples within 20 days, they are subject to a violation of 40 CFR 141.86(c) for failure to collect the minimum number of samples required for a monitoring period. A 90th percentile value can still be calculated based on the number of samples collected, pursuant to a March 9, 2004 guidance memorandum "Compliance Calculation Under the Lead and Copper Rule" signed by Cynthia Dougherty, Director of the Office or Ground Water and Drinking Water.