CASE STUDY: LEAD IN DRINKING WATER (SCHOOLS AND CHILD-CARE CENTERS)

Project Description: EPA 3Ts for Reducing Lead in Drinking Water

News Alert: ABC Eyewitness News: "New Jersey Education officials stated 21 school districts have reported elevated levels of lead in drinking water." Testing is mandated in NJ for all drinking water outlets by July 2017. USA Today decrees hundreds of schools and child-care centers throughout the US have high lead levels in their drinking water. Young children are at greatest risk. Children with elevated blood lead may not exhibit any symptoms, however lead health effects can be far reaching and irreversible.

Scope of Services: AET was contracted by Public School Systems and Charter Schools to conduct lead in drinking water testing at water outlets (fountains, sinks, etc.) throughout their school facilities. Generally, testing is completed in a specific school facility in one day (before school opens). Testing is performed from cold water outlets after drinking water remains static in the plumbing system for at least 8 hours but not more than 48 hours.

STANDARDS

The EPA's Lead Safe Drinking Water Standard (3T's for Reducing Lead in Drinking Water in Schools) was designed to protect public health within school buildings by implementing testing procedures to document lead levels within drinking water. Standards were developed to ascertain potential corrosion of plumbing materials, which can contain lead, and to determine the extent of lead concentrations within the water distribution system. Materials which may be present within the water distribution system may include but are not limited to; lead-based solder, brass and chrome-plated faucets (not designated as lead free), and lead piping connected from the main to the buildings water system. The EPA's Lead Safe Drinking Water Standards are a component of the EPA Safe Drinking Water Act (40 CFR Part 141) which established an action limit of 15 ppb for lead.

The EPA's 3T program requires schools to implement simple strategies for managing health risks of lead in school drinking water including:

- **Training** to identify potential sources of lead in the facilities and establish a testing plan.
- **Testing** to monitor school drinking water for elevated lead levels and take corrective actions (where necessary)
- **Telling** to communicate to students, parents, and staff testing results and remediation actions taken**.**

AET's Investigative Approach/Sampling/Testing (Three-steps)

- **Step 1** - Identify all drinking water outlets in your school facility; collect initial first draw sampling of cold water outlets.
- **Step 2** - Perform flush sampling of cold water outlets where initial sampling results exceed 15ppb. Flush samples are utilized to determine if the lead concentrations found are from the fixture or from the interior feed piping. Flush samples are collected from the outlet after the water has run for 30 seconds.
- **Step 3** - Implement control measures on outlets which exceed 15 ppb. Take outlets out-of-service until control measures provide acceptable results.

AET's Experience: AET's lead in drinking water testing team has proven proficiency in lead testing and routinely provides a written report of our findings within 7 days of on-site testing. Professional decision-making by AET's CIH Management Staff includes instructions/recommendations for corrective measures to address elevated lead levels where found.

When you need professional lead advice email Alan Sutherland, CIH, CHMM at a.sutherland@aetinc.biz or call 610-891-0114. We provide nationwide services; phone consultations are free. Check out the full range of environmental contracting/consulting services on our website www.aetinc.biz.

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