# CRCSD LEAD IN DRINKING

# WATER MANAGEMENT PLAN

for

Cedar Rapids Community School

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Prepared by

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# 1.0 INTRODUCTION

In the best interests of our students, staff, and community, the Cedar Rapids Community School District has elected to take a voluntary and proactive approach to the potential issue of lead in drinking water. The intent of this Management Plan (MP) is to identify the objectives and control measures implemented by Cedar Rapids Community School District (CRCSD) to control lead in drinking water throughout school district facilities. There are no federal or state laws requiring testing of drinking water in schools, except for schools that have their own water supply and would be subject to the Safe Drinking Water Act of 1974 as amended in 1986 and 1996. The 1988 Lead Contamination and Control Act (LCCA) is aimed at identifying and reducing lead in drinking water in school facilities. In response, the U.S. Environmental Protection Agency (USEPA) prepared guidance documents to assist school districts in meeting the requirements of the LCCA. This Management Plan uses the guidance documents issued by the USEPA to make educated decisions. The main document utilized by CRCSD is the 3Ts for Reducing Lead in Drinking Water in Schools published by the USEPA in October 2006. CRCSD is using these guidelines as a framework to thoroughly test, evaluate, and control lead in water throughout district facilities.

# 2.0 DESCRIPTION OF OBJECTIVES & RESPONSIBILITIES

## 2.1 Program Objectives

CRCSD believes it has a responsibility to proactively collect and report data regarding the concentrations of lead in drinking water throughout all facilities to provide a safe environment for students and staff. The main objectives of the plan include:

- Provide a safe and suitable environment for students and staff to learn, work, and visit, which is not impacted by the presence of lead in drinking water.
- Identify sources of lead in drinking water.
- Implement approved strategies to mitigate real and perceived issues.
- Continue implementing lead reducing practices in new construction and renovations of facilities.

Lead in drinking water will be detected by following established practices and guidance set forth by the USEPA. Sampling will be completed in all CRCSD facilities by trained staff that are proficient in water sample collection.

## 2.2 Program Responsibilities

The implementation of the MP is the responsibility of the Buildings & Grounds Department. Buildings & Grounds will test buildings to determine locations where there is potential for lead to be ingested by drinking water. Test results and appropriate lead in drinking water information is to be regularly updated to the district's website.

The individual who oversees lead in drinking water sampling program for CRCSD is the Preventive Maintenance Specialist. The Preventive Maintenance Specialist will be responsible for overseeing and coordinating the overall management of the sampling program including prioritizing the schools to be sampled, communicating with the sampling team, coordinating with State of Iowa certified laboratories, and insuring data is transmitted accurately.

# 3.0 PLAN IMPLEMENTATION

## 3.1 Program Definitions

**Action Level** – A threshold for when corrective actions are required to reduce concentrations of lead in drinking water. The action level is established as 15 parts per billion (ppb). The action level is consistent with the USEPA Lead and Copper Rule; however, it is lower than the action level of 20 ppb recommended in the USEPA 3T guidance for Reducing Lead in Drinking Water in Schools.

**First Draw Sample** – Drinking water sample collected immediately from a fixture without flushing.

**Flush Sample** – Drinking water sample collected after allowing water to flow from a fixture for 30 seconds. Used to help identify the source of lead contamination.

**Initial Building Screening** – Drinking water screening limited to first draw samples collected from hallway drinking fountains, nurse's office, at least one kitchen sink, and selected classrooms.

**Drinking Water Survey** – The process of following the guidelines of this MP to collect water samples from drinking water fixtures throughout a building.

**Periodic Follow-up Monitoring** – Ongoing program implemented to monitor district drinking water.

**Point of Entry** – Location where drinking water enters a facility.

**Sampling Technician** – The person responsible for completing lead in water sampling in a facility. This person must be either an employee or subcontractor of the district.

## 3.2 Sampling Protocols

Facilities will be tested on a revolving five-year schedule. The testing schedule will evolve as initial building data is compiled and evaluated.

In order to identify potential issues throughout CRCSD facilities in a timely manner, CRCSD has elected to complete an initial building screening to identify the presence of lead in specified areas of facilities. Initial building screening samples are to be collected from: hallway drinking fountains, nurse's offices sink, any point of entry used for cooking food, and selected classrooms.

Following the completion of all initial building screenings, all CRCSD facilities will be scheduled for periodic monitoring of lead in drinking water.

CRCSD will utilize a lead action level of 15 ppb rather than the USEPA's guidance which recommends action be taken for taps with detected lead concentrations greater than 20 ppb. CRCSD currently receives all drinking water from a public water utility.

# 4.0 SAMPLE COLLECTION PROCEDURES

Samples are collected in containers provided by the State Hygienic Laboratory. Attempts are made to start sampling closest to the point of water entry into the building, and the furthest-away tap.

Each sample will be properly identified on the sample bottle, the laboratory chain of custody, and the site map provided by the Preventive Maintenance Specialist. CRCSD has developed a sample identification system that provides specific information regarding collection location, date, and fixture types.

Drinking water samples will be collected from fixtures after a stagnation period. Samples collected from sinks will be collected from the cold water tap. During the initial building screening, the first draw samples will be collected following a stagnation period. First draw samples will be collected by placing the sample container under the tap before turning the water on. Flush samples will be collected following a 30-second purge.

Samples will be submitted under proper chain of custody to an Iowa-licensed laboratory for analysis by EPA Method 200.8, or other methods approved by the EPA for the analysis of lead in drinking water.

## 4.1 Initial Building Screening

The initial building screening will be limited to collecting samples from:

- Hallway drinking fountains
- Nurse's office sink
- All points of entry used for cooking food (locations verified by kitchen staff)
- Randomly selected classrooms

In locations where the initial building screening identify lead concentrations greater than the action level, a flush sample will be collected from the fixture to further determine the nature of potential lead levels.

Drinking water will be sampled from the outlets after any existing filter. Existing filters will not be replaced until the sampling is complete. Aerators and screens will not be removed prior to or during the sampling event. Utility sinks, science classroom sinks, and outside spigots will not be sampled during the initial building screening.

## 4.2 Full Building Survey

In the event lead concentrations in first draw samples collected from early childhood or elementary classroom sinks or sink-mounted bubblers are detected above the action level, first draw samples will be collected from all drinking water sources throughout the facility. The results of the samples collected during the full building survey will be evaluated, and any fixtures found to contain lead greater than the action level will be repaired or replaced.

## 4.3 Periodic Monitoring

A periodic monitoring schedule will be established based on the results of the initial building screening and full building surveys, where completed. Periodic monitoring may include the collection of samples from the following areas:

- Classroom bubblers
- Classroom sinks
- Drinking water fountains
- Kitchen fixtures
- Cafeteria fixtures
- Teacher lounge fixtures
- Nurse's office fixtures
- Home economics classroom fixtures
- Bathroom fixtures
- Outside spigots
- Point of entry
- Spigots at practice facilities (weather permitting)

Drinking water will be sampled from the outlets after any existing filter. Existing filters will not be replaced until the sampling is complete. Aerators and screens will not be removed prior to or during the sampling event. Utility sinks and science classroom sinks will not be sampled during periodic monitoring.

Periodic monitoring samples will be collected using flush methods to replicate water conditions during typical use. Available guidance and training will be addressed to staff and occupants of district facilities to inform them of the importance of allowing the water to run prior to use.

One point of entry sample will be the last sample collected during periodic monitoring. The point of entry sample will be a flush sample intended to determine the lead concentration from the service connection. The result will be compared to other samples taken throughout the facility.

# 5.0 CORRECTIVE ACTIONS

Following drinking water sample collection and analysis, the district will determine the most appropriate corrective actions, where required. Corrective actions will be based on the available laboratory test results, institutional knowledge and regulatory guidelines.