



**Environmental
Protection Agency**

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

NOTICE OF VIOLATION – ACTION REQUIRED

December 13, 2011

RE: LORAIN COUNTY
CITY OF ELYRIA
COMMUNITY PUBLIC WATER SYSTEM
PWS ID # OH4700411

Mr. Sam Jacob, Superintendent
City of Elyria Water Plant
3628 West Erie Avenue
Lorain, Ohio 44053

Subject: Violation of Turbidity Levels

Dear Mr. Jacob:

The City of Elyria is in violation of the maximum turbidity levels established by Ohio Administrative Code (OAC), Rule 3745-81-73. Failure to meet the maximum turbidity levels of one (1) NTU in conjunction with failure of an individual treatment process is a Treatment Technique violation subject to Tier 1 public notification as required by OAC 3745-81-32(B)(1)(g).

On December 6, 2011, you attempted to contact this office to inform Ohio EPA of the failure to feed aluminum chlorohydrate beginning at approximately 1:00 p.m. that day. The duration of the "no-feed" incident lasted approximately two hours. It is unknown at this time why the chemical feed pump was shut off during that time, but it appears to be an equipment malfunction. Upon discovering that the pump was not running and that filter effluent turbidities were rising, plant personnel began taking filters out of service and washing them, took a settling basin out of service, increased chlorine feed, and began running the plant at reduced flows. Turbidity leaving the plant peaked above 1.0 ntu to 6.2 ntu at approximately 7:00 p.m. on December 6, 2011 and remained above 1.0 ntu until 7:00 a.m. on December 7, 2011.

After not being able to reach this office on the evening of December 6, you contacted the Ohio EPA spill hotline and spoke with Ohio EPA Central Office personnel. At approximately 9:30 p.m., Central Office personnel advised you to issue a system-wide boil advisory pursuant to the above OAC citations. Immediate public notice was issued and was required to remain in effect pending the safe results of total coliform sampling conducted on December 6, 2011 in the Elyria and Amherst distribution systems. The boil advisory was issued at approximately 10:30 p.m. At that time, bacteria samples were collected and chlorine residuals were read at eight locations throughout the distribution system. All chlorine residuals were within the acceptable range.

You spoke with this office on the morning of December 7, 2011 at which time we requested additional total coliform samples be collected throughout distribution. The plant continued to run at reduced flows to avoid filling the towers. Systematic flushing was conducted throughout the system to keep the high turbidity water from entering the water towers. We were informed that the bacteria results would be available at 4:00 am on December 8, 2011 and we requested that the boil advisory remain in effect until we could discuss the results with you and ensure that the plant was running normally.

Between 4:00 p.m. and 7:00 p.m. on December 7, 2011, turbidities at the plant had dropped to below 0.3 ntu and the plant was running at normal flows. The boil advisory was lifted at 7:00 a.m. on December 8, 2011 after the safe bacteria results were obtained.

ACTIONS REQUIRED:

1. **Notify the people served by this water system of the boil advisory in effect.** Provide a public notice as soon as practical. The appropriate methods for notifying the public are as described in the following table.

Community Public Water System Tier 1 Public Notification
<ul style="list-style-type: none">• Appropriate broadcast media (such as radio or television) within 24 hours of being notified by Ohio EPA followed by mail delivery of the notice to all persons served by the water system within 30 days of being notified; or• Posting of the notice in conspicuous locations through the area served by the water system;• Hand delivery of the notice to persons served by the water system;• Another delivery method approved in writing by the Director.
Posted notices must remain in place for as long as the violation exists. The language in italics on the enclosed public notice is mandatory and must be included, as written. Do not make changes to the public notice without consulting with Ohio EPA beforehand.

2. **Complete the enclosed verification form within 10 days of issuing the Public Notice** and mail it to Ohio EPA's Northeast District Office. Include a copy of each notice distributed, published or posted.
3. **Prepare an investigation report evaluating the entire event.** The report must contain a detailed timeline of critical events. Additionally, the City must provide raw turbidities, individual filter turbidities, combined filter effluent levels, turbidity and chlorine levels leaving the plant, and verification that contact time was met throughout the event. Explanation of what happened, resulting changes in standard operating procedures, and additional assurances required at the plant to ensure this type of event will not happen in the future must be provided, at a minimum.

If you have any questions, contact me at (330) 963-1202.

Sincerely,

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Anne Karney, Environmental Engineer
Division of Drinking and Ground Waters

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Enclosures: Tier 1 Public Notification
Public Notice Instructions and Verification Form

cc: Lorain County Health Department
City of Elyria Health Department
Kim Eters, Ohio EPA, NEDO, DDAGW
Dan Underwood, Ohio EPA, NEDO, DDAGW
Information Management Section, Central Office, DDAGW