



Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

Charles D. Baker
Governor

Karyn E. Polito
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BUREAU OF WATER RESOURCES

DRINKING WATER PROGRAM (DEP/BWR/DWP) POLICY 87-04

Procedures for use of EPA's Proposed Maximum Contaminant Levels (PMCLS)
(YEAR 2018 PRINTING)

Effective Date: 10-18-96

Policy, SOP or Guideline #87-04

Program Applicability:

Supersedes Policy SOP or Guidance #:

Approved by: Arleen O'Donnell

BACKGROUND AND RATIONALE

This procedure was developed by the Drinking Water Program ~~Division of Water Supply~~ with the aid of the Office of Research and Standards (ORS) and Wall Experiment Station (WES) to give the DWSP staff a uniform set of guidelines for dealing with water supply contaminants with concentrations which exceed a benchmark level. A bench mark includes: an EPA or MassDEP proposed maximum contaminant level (PMCL), ORS Guideline level (ORSG), or an EPA Health Advisory level (HA). This procedure will be used until the ~~PMCL(s)~~ benchmark level becomes an MCL regulated by the Commonwealth of Massachusetts.

POLICY

Scenario I

If any water supply source exceeds one or more benchmark levels ~~PMCL(s)~~ a second sample should be taken immediately from the same location and sent to a Massachusetts or EPA certified laboratory, or one approved by MassDEP for this purpose, for a confirmation analysis. If the results of this confirmation sample validate the first sample, or the arithmetic mean of the two samples exceeds the benchmark level ~~PMCL~~ then the regional staff must:

1. Contact the DWSP Director/~~Deputy Director/WQA program manager~~ and immediately consult with ORS to determine whether an immediate public health threat or an unacceptable risk exists thereby requiring shut down or other remedial action. (A DEP team of ~~WSDWP~~ Regional, WSDWP Boston, and ORS will decide on the actions to be taken when necessary. WES may be included in this team).
2. Inform the Regional Bureau of Waste Site Cleanup (BWSC), site discovery for possible action under Chapter 21E.
3. Inform the water supplier of the results by telephone within 2 days of results confirmation, and by letter within 10 days of results confirmation. And request a meeting to discuss the situation. (Sample letter A enclosed).

Upon meeting the water supplier, DEP staff will:

- a) Advise the water supplier to utilize only uncontaminated supplies when possible - even when non-threshold contaminants are present at levels below benchmark levels ~~PMCL(s)~~ the use of alternative existing uncontaminated supplies should be encouraged.
- b) Explain the adverse health effects associated with the contaminants.
- c) Explain the EPA and MassDEP processes for adopting the benchmark levels ~~PMCLs~~ as MCLs. (The system will be required to reduce the level following the adoption of the MCL.)
- d) Offer technical assistance to the water supplier to help them develop a plan of action.

The goal of the meeting is to encourage the system to start a plan of action that should include one or more of the following alternatives:

- Taking the contaminated source out of service (this is the best solution).
- Treatment to reduce the concentration below the benchmark level ~~PMCLs~~ (a schedule of the necessary steps should be drafted).
- Adding water from an uncontaminated supply to the contaminated supply so that the concentration to the affected distribution system will be reduced below the benchmark level ~~PMCL~~ and routinely monitored for proof of effectiveness.

The plan should also include the following:

- Monitoring and reporting of results (suggest monthly)
 - An investigative survey to locate the source(s) of contamination. (Report findings to BWSC)
 - An emergency contingency plan which could be implemented if the contaminant(s) exceed a critical level (as determined by DEP). This plan should include a public notification and education plan.
- e) Ask the system to sample all applicable sources for the DEP specified suite of contaminants associated with the contaminant(s) detected (e.g. VOCs).
 - f) Inform the system of DEP and other State and/or Federal grant or loan programs that could be used.

Scenario II

If a public water supply detects a contaminant that has a benchmark level ~~PMCL~~ but the levels do not exceed the benchmark, ORS should be notified of the sampling results quarterly ~~monthly~~. ORS will be given a contaminant printout from WQTS for this notification. Therefore it will not be necessary for each region to submit this information to Boston.

If a public water supply detects more than one contaminant with a benchmark level ~~PMCLs~~ but the levels do not exceed the benchmark ~~PMCL~~, the DWPS will ask ORS to evaluate the data with an eye towards additive effects.

1. If ORS determines the use of the water poses an unacceptable health hazard to the consumer, Scenario I procedures should be implemented.
2. If ORS determines that the risk posed to the consumer is acceptable, the DWP shall inform the water supplier of the benchmark levels ~~EPA's PMCLs~~ (Sample Letter B) and suggest that in the best interest of public health the system do the following:
 - a) Find, develop and utilize an uncontaminated source whenever possible.

- b) Resample all applicable sources in the system for the DEP specified suite of contaminants associated with the contaminant(s) detected (e.g. VOCs) Send the samples to a Massachusetts or EPA certified laboratory or one approved by MassDEP for this purpose. to be analyzed and send copies of the results to the Regional office.
- c) Establish a special monitoring schedule for the contaminant(s) present. Analyze all samples at a Massachusetts or EPA certified laboratory or one approved by MassDEP for this purpose. Send copies of the reports to the Regional office.
- d) Institute an investigative survey program to identify and locate the source(s) of contamination and develop a plan to actively pursue their resolution.
- e) Develop and institute a contingency plan which could be immediately activated should the ~~PMCL~~ benchmark level be exceeded. This plan shall include a public notification and education plan.

Scenario III

If during a new source approval a ~~PMCL~~ benchmark level is exceeded and the exceedance is verified, the source should not be approved and alternate option should be pursued.

If during a new source approval the new source analysis detects a contaminant that has a ~~PMCL~~ benchmark level but the levels do not exceed a the benchmark ~~PMCL~~ the DWP will ask ORS to evaluate the data.

1. If ORS determines the use of the water poses an unacceptable health hazard to the consumer, the source should not be given approval unless there is a plan for treatment.
2. If ORS determines that the risk posed to the consumer is acceptable, the DWP shall inform the water supplier of the benchmark level ~~EPA's PMCLs~~ and suggest that in the best interest of public health the system do the following:
 - Resample all the applicable sources in their systems for the DEP specified suite of contaminants associated with the contaminant(s) detected (e.g. VOCs). Send the samples to a Massachusetts or EPA certified laboratory or one approved by MassDEP for this purpose, to be analyzed and send copies of the results to the Regional office.
 - Institute an investigative survey program to locate the source(s) of contamination and develop a plan to actively pursue their resolution.
 - Look for an alternative source, if no other reasonable alternative is available the source can be approved with the following provisions:
 - i) Treatment
 - ii) Establish a special monitoring schedule for the contaminant(s) present. Analyze all samples at a Massachusetts or EPA certified laboratory or one approved by MassDEP for this purpose. Send copies of the reports to the Regional office.
 - iii) A contingency plan which could be immediately activated should the ~~PMCL~~ benchmark level be exceeded. This plan should include a public notification and education plan.

Please note that each case will be reviewed on its own merit by the team of ~~WS~~ DWP Regional/~~WS~~ DWP Boston and ORS.

Date:10-8-96
 Adopted: 10-8-96
 Effective Date: 10-8-96

 Arleen O'Donnell, Assistant Commissioner

Bureau of Water Resources

Corrected September 5, 2018

Sample letter

SAMPLE LETTER A

Town:
PWS Name:
PWS ID #:

Dear: _____

The Division of Water Supply has received and reviewed the analytical results of samples collected from each of your water sources listed below. The results are were as follows:

<u>Source ID #</u>	<u>Contaminant Name</u>	<u>Concentration mg/1</u>	<u>EPA PMCL (mg/1)</u>	<u>Date Sampled</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

The EPA has proposed maximum contaminant levels (PMCLs) for drinking water contaminants including the compound(s) found in your source(s). The concentrations of the contaminants found in your system are not over the EPA's PMCLs but are of concern. Therefore, in the interest of preserving the quality of your water supply, it is suggested that the following actions are quickly undertaken:

- Utilize only uncontaminated supplies if available.
- Within 30 days, resample all the above sources for the suite of contaminants specified in the attachment. Send the samples to a Massachusetts or EPA certified laboratory to be analyzed, and send copies of the results to the Regional and Boston offices.
- Establish a monitoring schedule for future sampling.
- Institute an investigative survey program to locate the source(s) of contamination and develop a plan to actively pursue their resolution.
- Develop and institute a contingency plan which could be immediately activated should the PMCL be exceeded. This plan must include a public notification/education plan.

Please contact your Water Supply Chief, at _____ if you have any questions.

Very truly yours,

Regional Environmental Engineer

Attachment

cc: Town Official
Local Board of Health
Boston/DWS
Regional Bureau of Waste Site Cleanup/Site Discovery

SAMPLE LETTER B

Town:
PWS Name:
PWS ID #

Dear: _____

The Division of Water Supply has received and reviewed the analytical results of samples collected from each of the water sources listed below. The results were as follows:

<u>Source ID #</u>	<u>Contaminant Name</u>	<u>Concentration mg/1</u>	<u>EPA PMCL/mg/1</u>	<u>Date Sampled</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

The EPA has proposed maximum contaminant levels (PMCLs) for drinking water contaminants including the above noted compound(s) found in your source(s). The concentration(s) found in your source(s) are over the EPA's PMCL. The EPA's PMCLs are on schedule to become maximum contaminant levels (MCLs). Therefore it is extremely important that you contact _____, your Water Safety Section Chief, at _____, at your earliest convenience to arrange a meeting to discuss this situation.

Very truly yours,

Regional Environmental Engineer

Attachment

cc: Town Official

Local Board of Health

Boston/DWS

Regional Bureau of Waste Site Cleanup/Site Discovery