

MHOA 2010

Drinking Water Program Updates
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MassDEP Public Health Orders
 Ground Water Rule
 Emergency Response Requirements
 New Chemical Safety Control Requirements
 Private Wells
 Well Drillers Program

MassDEP-Public Health Orders associated with Public Water Systems (PWS)

- Orders are issued to PWS by MassDEP as preventative measures to protect public health
- Immediate public notices are required for violations of the Drinking Water regulations and situations with significant potential to have serious and immediate adverse effects on human health as a result of short-term exposure
- Types of Public Health Orders
 - **Boil Water Order**
 - **Do Not Drink Order**
 - **Do Not Use Order**

MassDEP-Public Health Orders

- **Communication is a Key Component**
 - Timely notice within 24 hours or sooner to:
 - PWS consumers
 - Local Boards of Health and Town/City Officials
 - Massachusetts Department of Public Health
 - EPA

MassDEP-Public Health Orders

Roles of the Board of Health during Order:

- Oversee food establishments, health care facilities, schools, etc. to ensure operating in accordance with MassDEP Order
- May impose more stringent requirements
- Coordinate as needed with town/city officials, MassDPH, MassDEP
- Public resource for information
- May be needed to assist PWS with distribution of Public Notice

MassDEP-Public Health Orders

Helpful links for BOH:

- <http://www.mass.gov/dep/water/drinking/orders.htm> (Additional Health Order info)
- http://www.mass.gov/Eeohhs2/docs/dph/environmental/foodsafety/emergency_action_plans.pdf (DPH Guidance for Food Establishments)

Boil Water Orders

- Issued when microbial contamination presents a threat to public health and safety
- Directs a PWS to issue a public notice advising users to boil water or use an alternate source of drinking water
- Directs PWS to take corrective actions to eliminate contamination

Boil Water Orders

- PWS deficiencies that may require boil orders:
 - E.coli detected in distribution system
 - Fecal contamination found in untreated source water
 - Failure/interruption of key water treatment process
 - Confirmed waterborne disease outbreak
 - Loss of positive water pressure
 - Cross-connection incident
 - Natural disasters, such as floods
 - Pathogens found in finished water

Boil Water Orders

- Water can be used for non-consumptive purposes
- Cooking, dish washing, food-prep must use boiled or bottled water
- For non-residential facilities, bottled or bulk water may need to be brought in
- Businesses that serve the public may need to provide bottled water to their customers (hotels, service facilities)

Boil Water Orders

- Corrective Actions may include:
 - Addition of chlorine disinfectant to PWS
 - Correcting treatment process
 - Flushing of waterlines to eliminate contamination
 - Identifying and eliminating source of contamination
 - Increased water quality monitoring

Do Not Drink Orders

- Naturally occurring & man-made chemicals may contaminate drinking water
- Orders are necessary when levels of a contaminant exceeds MassDEP specified levels
- Levels are based on guidance from MassDEP's Office of Research and Standards
- Water can be used for flushing, bathing, or washing

Do Not Drink Orders

Nitrate is an example of an acute contaminant if found in the water supply at levels exceeding the Maximum Contaminant Levels would trigger a Do Not Drink Order.

Do Not Drink Orders

- Do not drink restrictions include:
 - Drinking
 - Making coffee, tea, or other drinks
 - Making ice cubes
 - Food washing
 - Dish washing
 - Using water in food prep
 - Any water-using equipment that requires the water be ingested, or
 - Brushing teeth

Do Not Use Orders

- Triggered when water supplies contain a naturally occurring or man-made chemical that causes acute health effects by:
 - Ingestion
 - Inhalation
 - Skin contact
 - A risk of flammability

Do Not Use Orders

- Do not use restrictions include:
 - Drinking
 - Making coffee, tea, or other drinks
 - Making ice cubes
 - Food washing
 - Dish washing
 - Using water for food prep
 - Other water-using equipment where water may be ingested
 - Brushing teeth
 - Bathing, showering, hand washing, or any type of skin contact
 - Activities that promote water vapor inhalation
 - Supplying water to animals, aquatic life, or plants

Do Not Use Orders

- Depending on the inhalation & flammability risk, toilet flushing may not be allowed
- Consumers MUST use an alternative source of water for ALL uses

*Criteria for Terminating
MassDEP-Public Health Orders*

- Orders are terminated when MassDEP determines the problem has been addressed and water meets all standards
- Decisions are case-specific and include:
 - System completing corrective actions (such as taking contaminated source off-line, adding/repairing/replacing treatment, flushing of waterlines, etc.
 - Obtaining satisfactory lab results

*Terminating Public Health
Orders*

Updated Public Notice is provided to the PWS consumers and officials when MassDEP terminates the Public Health Order.

Ground Water Rule

- MassDEP Drinking Water Regulations revised in December 2009 to adopt EPA's new Ground Water Rule (GWR) requirements.
- Purpose of the GWR is to protect public health from fecal contamination and associated viruses in groundwater PWS sources.

Ground Water Rule

- Any PWS not meeting GWR treatment requirements must test the source water for fecal indicator.
- Fecal indicator – small PWS (under 3,300) *E.coli*, large systems can be *E.coli* or *Enterococci*
- If the ground water source test positive for the fecal indicator it must provide public notice to its customers within 24 hours (Tier 1 Public Notice) of learning of positive result.

Ground Water Rule

- Tier 1 Public Notification to PWS consumers if fecal indicator is found in ground water source not meeting GWR treatment standards:
 - Notice tells consumers of situation and what to do
 - Must include EPA required health effects language
 - May trigger the issuance of a MassDEP-Public Health Boil Order

Ground Water Rule

- If fecal contaminant is detected in initial sample, PWS must collect additional samples within 24 hours.
- If additional samples are negative, Public Health Order may be terminated and no additional action per the GWR is required by PWS.

Ground Water Rule

- If one or more samples have positive indicator, MassDEP may maintain Public Health Order
- Evaluate PWS for a significant deficiency
- Require PWS to take one of four actions: correct deficiency, provide new source of drinking water, eliminate contamination source, or install 99.99% viral treatment

Ground Water Rule

- GWR Tier 1 Public Notification is a federal requirement with a low trigger threshold (one sample result)
- Most PWS' existing disinfection treatment systems are not sufficient to meet GWR treatment standards
- Facilities regulated by BOH may be subject to more Boil Orders.

Emergency Response Requirements

- Revisions to MA Drinking Water Regulations in 2008 define an emergency as *“any situation or event, natural or man-made, which causes or threatens to cause damage to a water supply system such that there will be a disruption of normal water supply functions. The effects can be on a portion or all of the system and may require an immediate action in order to protect public health”*.

Emergency Response Requirements

- PWS must notify MassDEP & local BOH after occurrence of emergencies meeting specific conditions:
 - Within 2 hours for most serious emergencies
 - Within 24 hours
- PWS are required to file an Emergency Response Report within 30 days

Emergency Response Requirements

- PWS required to have an Emergency Response Plan
- An Emergency Response Plan must include:
 - Detailed steps a PWS will take to respond to specific potential or actual emergencies
 - A description of the procedures, structures, & equipment used to respond to emergencies

New Chemical Safety Control Requirements

- MassDEP's Chemical Safety Initiative reviewed requirements for handling and storage of treatment chemicals at PWS facilities
- Improper use of PWS treatment chemicals can pose a risk to health and safety of users and operators
- MassDEP developed new guidance for improved chemical safety controls and alarms for chemical feed systems to protect health and safety of PWS users and operators
- All PWS must comply with the strategy by June 30, 2010

Private Wells

- Water systems that do not meet the definition of a Public Water Supply (PWS) fall under the authority of the local Boards of Health
- To be a PWS it has to have at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year

Private Wells

- MassDEP has created Private Well guidance documents for Boards of Health:
 - *Model Board Of Health Regulations For Private Wells*. It is recommended language for local BOH to use in writing regulations for private wells.
 - *Private Well Guidelines*. Intended to assist BOH and well drillers in developing consistency regarding well construction standards from town to town.

Private Wells

- MassDEP's Model Board Of Health Regulations For Private Wells and Private Well Guidelines includes suggested process and standards for:
 - Issuance of private well construction permits
 - Well location and use
 - Water quantity evaluations
 - Water quality testing
 - Well construction and decommissioning
 - Enforcement

Private Wells

- MassDEP encourages cities/towns to adopt Model Board Of Health Regulations For Private Wells
- For more info, see MassDEP website page:
<http://www.mass.gov/dep/water/drinking/privatew.htm#guidance>

MassDEP Well Drillers Program

- Recently transferred to MassDEP from MassDCR
- Ongoing project to update state well inventory database by entering data from Well Completion Reports (WRC)
- Review of local Board of Health records for verification

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