


Local Water Supply Issues

2010 MassDEP/ MHOA
Winter Health Officers Seminar

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Bottled Water

- All source water used for bottled water must:
 - Meet federal EPA National Primary Drinking Water Standards, and
 - Meet additional requirements set by MassDEP



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Bottled Water (con't)

- Licenses & Permits
 - Local Boards of Health issue licenses to in-state bottled water plants
 - MassDPH issues permits to all out-of-state plants that sell bottled water to MA
 - Both agencies inspect in-state plants every 3 yrs.
- Resources
 - Executive Office of Health & Human Services
Website : www.mass.gov/eohhs
 - Public Health Contact: Kim Foley @ 617.983.6747

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Unregistered PWS

- Definition of a public water system
 - If a location has its own source of water & serves 25 or more people for more than 60 days a year, it is a public water system
 - All systems meeting the above criteria MUST be reviewed, approved, and registered by MassDEP

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Unregistered PWS

- Property conversions affecting drinking water status:
 - A change in the number of permitted occupancy (e.g. increase number of children & staff at a daycare or business to 25 or more persons per day)
 - A change in type of permitted occupancy (changing from a residential home to a daycare or doctor's office; changing from a small office or gas station to a facility that would supply water to 25 or more persons per day)

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Unregistered PWS

- Questions concerning property conversion? Contact regional Drinking Water Program Staff:
 - Western Region: Doug Paine, 413.755.2281, douglas.paine@state.ma.us
 - Northeast Region: James Dillon, 978.694.3231, james.dillon@state.ma.us
 - Central Region: Kelly Momberger, 508.849.4023, kelly.momberger@state.ma.us, OR Marielle Stone, 508.767.2827, marielle.stone@state.ma.us
 - Southeast Region: Dan DiSalvio, 508.946.2793, dan.disalvio@state.ma.us, OR Terry Dayian, 508.946-2765, therese.dayian@state.ma.us

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Public Health Orders

- Orders are issued by MassDEP as preventative measures to protect public health
- Public notices are required for violations & situations with significant potential to have serious & 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



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Public Health Orders

- Communication Strategy
 - Timely notice to
 - DPH
 - Local Boards of Health
 - EPA
 - Water suppliers need to provide consumers with immediate & specific actions to take (within 24 hrs)



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Boil Water Orders

- Directs a PWS to issue a public notice to boil water or use an alternate source of drinking water
- Issued when microbial contamination exists at a level that may present a threat to public health & safety



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Boil Water Orders

- Deficiencies that may require boil orders:
 - Acute Total Coliform Rule violation
 - Groundwater Rule violation
 - Surface water treatment technique violation
 - Failure/interruption of key water treatment process
 - Confirmed waterborne disease outbreak
 - Loss of positive water pressure in distribution system
 - Unusual & significant loading of microbes in source water
 - Cross-connection incident
 - Natural disasters
 - Pathogens found in finished water
 - Plant performance problems and failures

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Boil Water Orders

- Orders are terminated when MassDEP determines the problem has been addressed & water meets all standards
- Decisions are case-specific and are based on:
 - System completing corrective action
 - Disinfection/flushing of sufficient volume of water to achieve satisfactory lab results
 - Obtain satisfactory lab results 3 consecutive days
 - The minimum number of samples for population served have been bacteria free

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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

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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
 - Brushing teeth



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Do Not Drink Orders

- For more information
 - MassDEP's www.mass.gov/dep
 - Yvette DePeiza, 617.292.5857
yvette.depeiza@state.ma.us

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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

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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



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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 consumptive uses

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Do Not Use Orders

- Criteria to lift a Do Not Use order
 - Terminated when MassDEP determines the problem has been addressed & water meets all standards
 - Case-specific and should include:
 - Completion of necessary corrective actions by
 - Taking contaminated source off-line
 - Adding/repairing/replacing treatment
 - Using blended sources to lower concentration
 - Displacing/flushing sufficient volume of water through the system to achieve satisfactory lab results

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Do Not Use Orders

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New 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*”.

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New Emergency Response Requirements

- 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

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New 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
- PWSs are required to file an Emergency Response Report within 30 days
- PWS must demonstrate compliance with ER requirements by completing an ERP checklist

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New Chemical Safety Control Requirements

- MassDEP's chemical safety initiative reviews handling & storage of treatment chemicals at facilities
- MassDEP evaluated requirements & guidance for controls& alarms for chemical feed systems
- MassDEP's emergency response group developed a chemical safety control strategy
- All PWSs must comply with the strategy by June 30, 2010

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Pandemic Flu Preparedness

- Workshops are being held throughout the state on emergency response planning related to a pandemic flu
 - Workshops will enhance the ability of the PWS to prepare, respond, and manage a drinking water emergency resulting from the pandemic
 - Workshops include a tabletop exercise designed to simulate an actual incident
 - 2 workshops have already been held & others are scheduled for January and March. See MassDEP's [web site](#) for more information.

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Ground Water Rule

- MassDEP adopted EPA's Ground Water Rule Regulations Dec. 2009
- All PWSs, regardless of size or type, are affected if ground water is not treated to remove 99.99% viruses
- Any PWS not meeting treatment requirement must test for fecal indicator
 - If positive, Tier 1 notification must be issued within 24 hours of learning of positive result

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Ground Water Rule

- Tier 1 notification for PWS
 - Notice tells consumers what to do
 - Must include EPA required language
 - PWS must collect additional samples within 24 hrs
 - If negative, order is lifted & no additional action is required by PWS.
 - MassDEP will conduct investigation if PWS has a history of problems
 - If one or more samples have positive indicator, MassDEP will evaluate PWS
 - If a significant deficiency is found, PWS takes one of four actions: correct deficiency, provide new source of drinking water, eliminate contamination source, or install 99.99% viral treatment

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Ground Water Rule

- This rule affects many of the entities regulated by the local Boards of Health
- Tier 1 notification is a federal GWR requirement
- PWSs with UV disinfection kill no more than 0.5 log or 68.4% of viruses
- Most PWS with chlorination do not have adequate contact time or dose to kill 99.99% of viruses

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