

Continuing Education for Water Operators



Mariana Islands
Water Operator Association

February 5, 2014
Pacific Islands Club, Saipan

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Today's Agenda

- About Continuing Education
- Current Events: Drought in California
- Current Events: RO Membrane Maintenance
- Main Events: WA Membrane WWTP
- Main Events: WV Chemical Spill
- Association Business

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Continuing Education for Water Operators



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Is THIS training required?

➤ NO

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Why have continuing education?

- DEQ Regulations require certified operators to have 10 contact hours of continuing education per year (30 contact hours in 3 years) to maintain certification.
- DEQ is not required to offer training (and no longer offers training – no \$\$\$)
- Where would operators get training?

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Other training options

- Professional training provided by your employer (safety, pump maintenance, lab procedures, etc.)
- College classes
- Conferences or workshops by professional organizations or agencies
- Correspondence courses
- On-line opportunities

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NOT continuing education

- Meetings with DEQ or EPA
- Surveys or inspections by DEQ or EPA
- Reading journal articles or textbooks by yourself
- Googling water operator stuff on the internet

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When should training be offered?

- DEQ surveyed all certified operators
- Results
 - One 3 hour session every 3 months
 - In morning
 - On a Wednesday
- First session September 6, 2006

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2006 – 2008 (DEQ)

- September 6, 2006: Chlorination
- November 8, 2006: Using a Pump Curve
- February 7, 2007: Cross Connection
- May 9, 2007: Regulations - CCR, PNR
- August 8, 2007: Sizing Pressure Tanks
- November 26, 2007: PWS workshop
- February 20, 2008: Fluoridation
- May 2008: Process Controls (Robert Brokate)
- August 2008: Slow Sand Filters
- November 12, 2008: TCR and Control Valves

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2009 MIWOA

- March 25, 2009: Security and Filters
- May 13, 2009: Alt. Energy, CCR, Compliance
- August 5, 2009: Geology of Saipan, GWR
- October 9, 2009: GWR Workshop
- December 2, 2009: Valves, Spills, Walkerton

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2010 MIWOA

- February 3, 2010: Safety, Haz Materials
- May 5, 2010: BEH & DEQ, Cross Connections
- August 11, 2010: Waste Water Collection/Treatment
- November 3, 2010: Response to disease outbreak

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2011 MIWOA

- February 2011: Chemical Injection Pumps (HRWA)
- May 2011: Radiation, Radionuclide Rule
- July 2011: Utility Policies & Procedures; Standard Operating Procedures (HRWA)
- November 2011: Leak detection

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2012 MIWOA

- February 2012: Bottled Water; Reverse Osmosis; Bottle Sanitation
- May 2, 2012: Inspecting Tanks, Water Meters
- August 8, 2012: Wastewater membrane filtration (Lau Lau Golf Hotel)
- November 2012: Metering and measuring flow

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2013 MIWOA

- February: Corrosion Control for Pb & Cu
- May: Pipe for Water & Sewer
- September: Grease Traps
- December: Cook Islands Water System / Military RO / Calcium Hypochlorite

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2014 MIWOA

- February: West Virginia Chemical Spill
- March: Texas A&M Engineering Extension Service
- May:
- August:
- November:

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THIS TRAINING IS FOR YOU!

We'll do what we can to make it
what YOU want it to be!

Mariana Islands
Water Operator Association

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Suggestions for training

- Possible topics for upcoming sessions:
 - Backflow prevention device testing
 - Rainwater
 - Local Water System
 - How Reverse Osmosis Works
 - Energy efficiency
 - Storm water and erosion control
 - Introduction to waste water treatment
 - Field trip
 - Cleaning and handling bottles
 - Leak detection

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Announcements

- Certificates from the last 11 classes are posted on the website (May 2011 – December 2013)

www.MarianasOperators.org

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CE Credit

- Make sure to sign-in and pay to get credit for class
- Certificates made from sign in list (and receipt book).
- Name – as it appears on sign-in sheet
- Note e-mail address change on sign-in sheet

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Current Events

Drought in California

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CNN Video

- Jan 17, 2014: California is in its worst drought in a century.
- Link to video: [here](#)

➤ http://www.youtube.com/watch?v=L_hQCtyy8

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PBS News Hour Video

- Jan 22, 2014: California calls for water conservation in response to drought
- Link to video: [here](#)

➤ <http://www.youtube.com/watch?v=45cWDAUICak>

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PBS News Hour Video

- Jan 31, 2014: California to cut off state supplied water
- Link to video: [here](#)

➤ <https://www.youtube.com/watch?v=OwBQt3XwFzE>

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Advanced Technology Dispels Membrane Cleaning Myths

- Myth 1: Generic cleaners work as well as formulated cleaners
- Myth 2: One size fits all
- Myth 3: Spiking pH improves cleaning
- Myth 4: Adding air improves cleaning
- Myth 5: One step cleaning is possible

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End Current Events

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Main Event

Arlington, WA Membrane WWTP

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Break - 10 minutes



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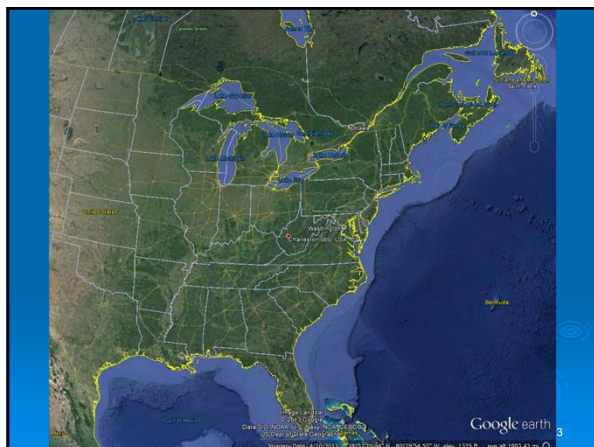
Main Event

Chemical Spill near Charleston, WV
January 9, 2014

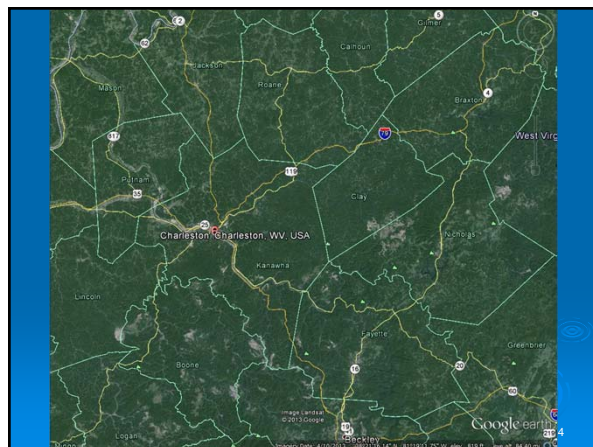
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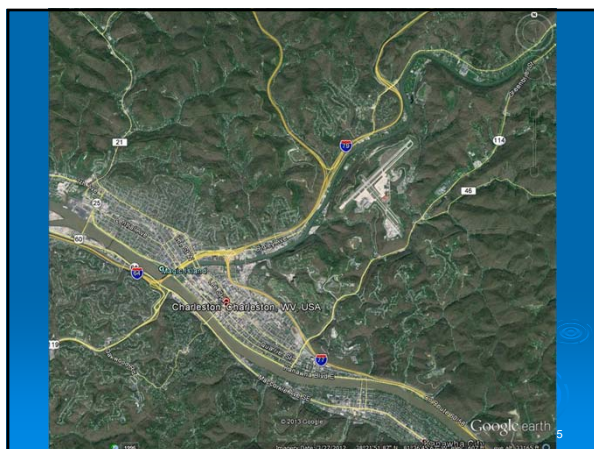
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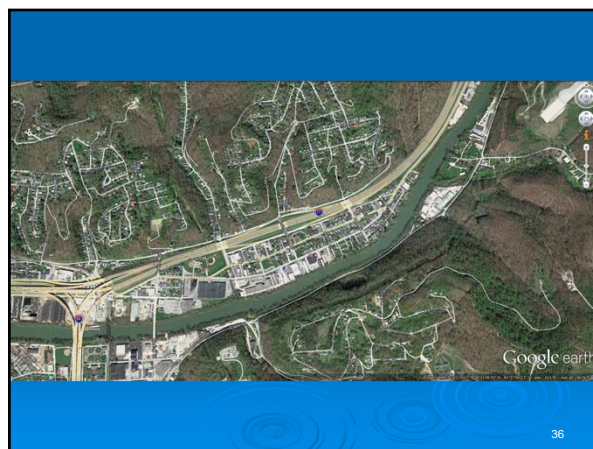
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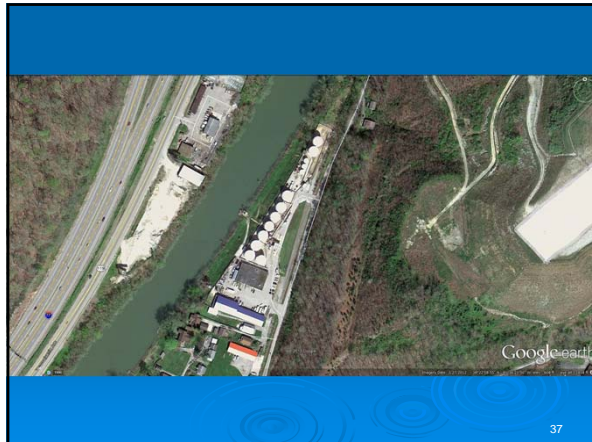
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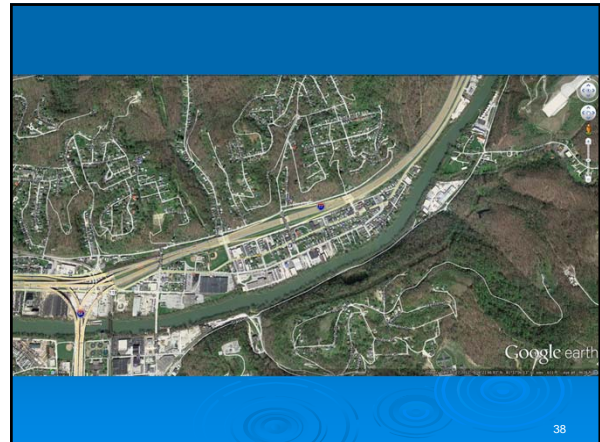
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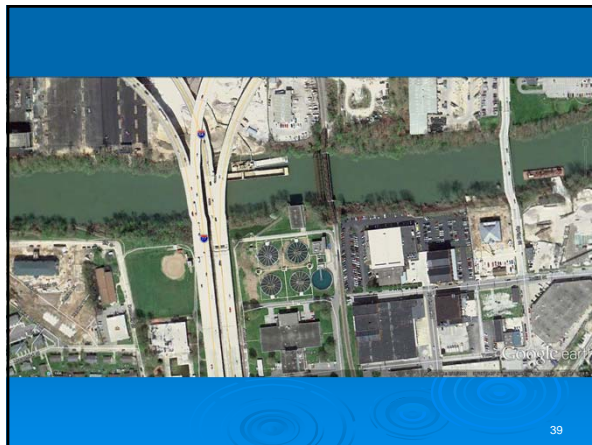
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Thursday January 9, 2014

- 7-8 am people start complaining about a smell
- 10:30 am employees discover the leak – no one reports leak to state/local officials
- 11:05 am after receiving complaints, DEP officials show up at site
- 12:05 pm Freedom Industries reports spill to spill hotline

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Thursday January 9, 2013

- 9:32 pm Gov. Tomlin declares a state of emergency in nine counties

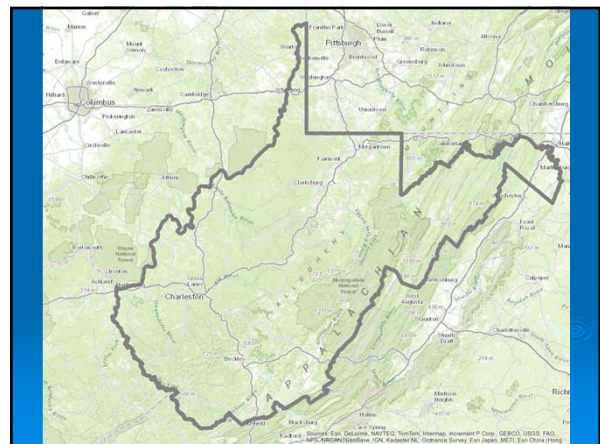
01-09-13 @ 9:32PM GOVERNOR TOMLIN DECLARES STATE OF EMERGENCY IN 9 COUNTIES

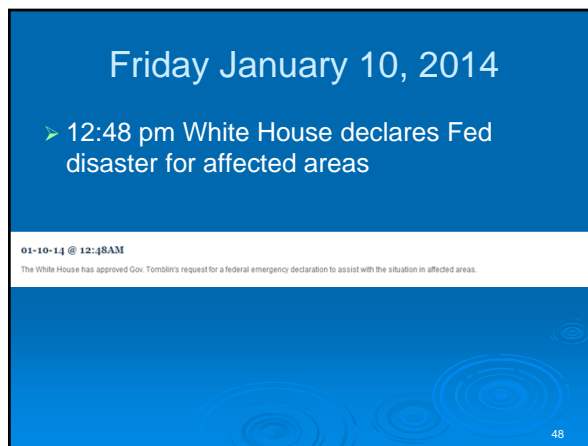
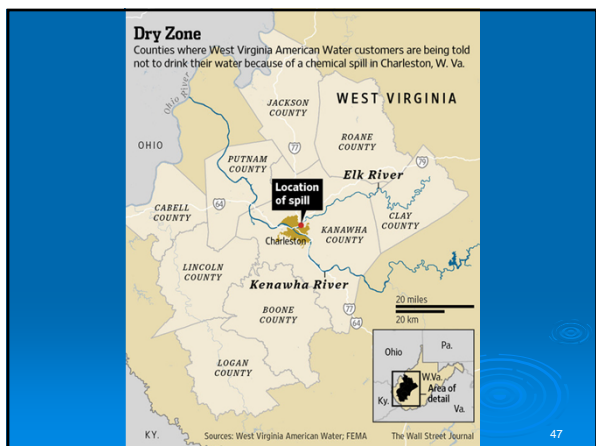
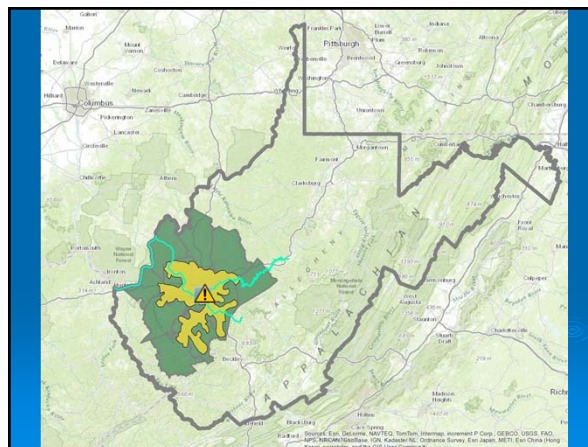
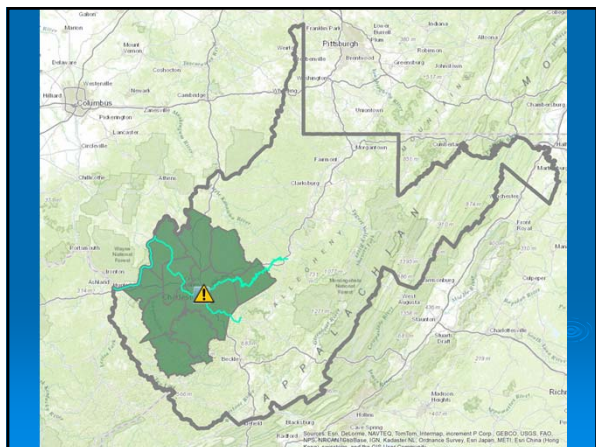
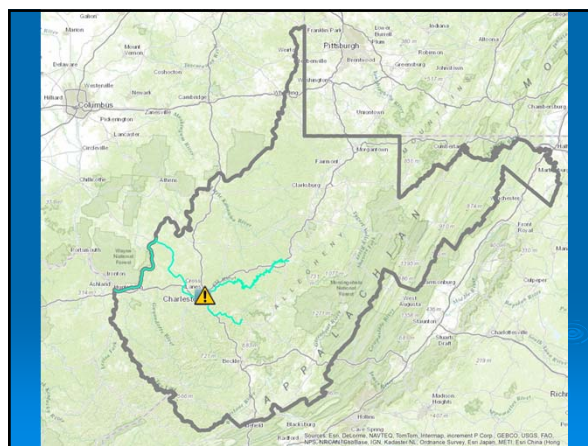
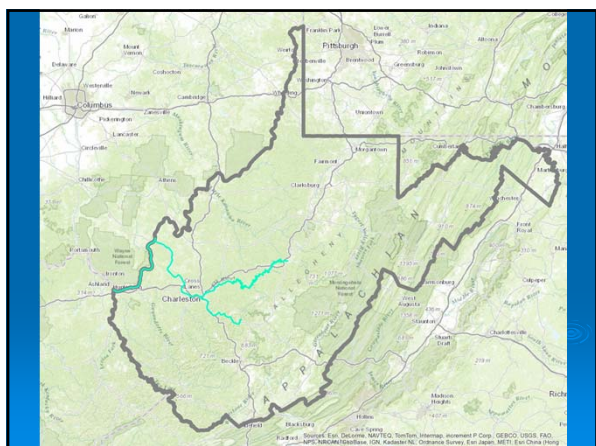
Water to be available through the county offices of emergency services

CHARLESTON, W.Va. – Gov. Earl Ray Tomlin this evening issued a State of Emergency for Boone, Cabell, Clay, Jackson, Kanawha, Lincoln, Logan, Putnam, and Roane counties. This declaration follows a notice from West Virginia American Water Company that its water supply had become contaminated. Residents served by Lincoln PSD, Queen Shelia PSD, Reamer PSD, City of Culloden PSD, and City of Hurricane PSD are also affected.

"West Virginians in the affected service areas are urged NOT to use tap water for drinking, cooking, washing or bathing," Gov. Tomlin said. "Right now, our priorities are our hospitals, nursing homes, and schools. I've been working with our National Guard and Office of Emergency Services in an effort to provide water and supplies through the county emergency services offices as quickly as possible."

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Friday January 10, 2014

- CBS Morning News Video: West Virginia facing an environmental catastrophe
- Link to video: [here](#) (0:25)
- FOX News: West Virginia water crisis
- Link to video: [here](#) (4:00)
- <https://www.youtube.com/watch?v=7hXuT5ktzLU>
- https://www.youtube.com/watch?v=U7_1lIhopGk

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Friday January 10, 2014

- CBS Evening News Video: Truckloads of water rushed to West Virginia after chemical spill
- Link to video: [here](#) (2:00)
- <https://www.youtube.com/watch?v=dAbsWfHzxXo>

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Friday January 10, 2014

- PBS News Hour video: No end in sight for West Virginia water emergency
- Link to video: [here](#) (5:16)
- Mayor: he knows the water company is not at fault, but he wants them to fix it
- <https://www.youtube.com/watch?v=-EJZ3Cjjobc>

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Friday January 10, 2014

- 7:30 pm WV American Water issues DO NOT USE WATER NOTICE

01-10-14 @ 7:30PM

West Virginia American Water issued a DO NOT USE WATER NOTICE for all West Virginia American Water customers in Kanawha, Boone, Putnam, Lincoln, Logan, Clay, Roane and Jackson counties, as well as customers in Culloden in Cabell County. All other WVAV customers in Cabell County are NOT affected, as they receive their water from the Huntington Water Treatment Plant. Customers who are served by the City of Hurricane, St. Albans, Putnam PSD, Montgomery and Cedar Grove/East Bank are NOT affected.

Please Note: West Virginia American Water is NOT shutting off water to any customers as a result of the "do not use" order currently in place in the Kanawha Valley system.

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Friday January 10, 2014

- 7:45 pm WV American Water announces how to find water distribution points

01-10-14 @ 7:45PM

For assistance locating a water distribution point in your county, please contact your local emergency management office.

- Boone County – 304 369-8913
- Cabell County – 304 743-5391
- Clay County – 304 587-2019
- Jackson County – 304 373-2208 or 304 372-2000
- Kanawha County – 304 744-6843
- Lincoln County – 304 824-3443
- Logan County – 304 752-7952 or 304 752-8817 or Sharples VFD 304-369-2630
- Putnam County – 304 586-0246
- Roane County – 304 527-0911

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The screenshot shows the West Virginia American Water website. At the top, there's a navigation bar with links like CUSTOMER SERVICE, ABOUT US, WATER QUALITY & STewardSHIP, LEARNING CENTER, and WORKING WITH US. A prominent red banner reads "DO NOT USE WATER" with a "CUSTOMER SERVICE" button. Below this, there's a section for "MY H2O ONLINE" with links for bills, payments, and service requests. A "Bill Redesign and Customer Service Update!" section is also visible. On the right, there's a "HEADLINES" section with news items. The footer contains copyright information and social media links.

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Monday January 13, 2014

- Fox News Video: Day five of West Virginian water crisis
- Link to video: [here](#) (3:21)

➤ <https://www.youtube.com/watch?v=9f2eOMYXVsl>

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Monday January 13, 2014

- West Virginia American Water issues "How to Flush Your Plumbing" document.
- Link to pdf: [here](#)

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Monday January 13, 2014

- PBS News Hour video: Will West Virginia water emergency spur greater oversight?
- Link to video: [here](#) (10:00)

➤ <https://www.youtube.com/watch?v=PTEWYhZVJEU>

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Tuesday January 14, 2014

- West Virginia American Water issues document explaining pressure zones.
- Link to pdf [here](#)

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Friday January 17, 2014

- CBS Evening News video: West Virginia water troubles continue: company responsible for spill files for bankruptcy
- Link to video: [here](#) (1:46)

➤ <https://www.youtube.com/watch?v=WbctXrcnSnQ>

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Saturday January 18, 2014

- CBS Evening News: West Virginia residents skeptical of reports that water is safe
- Link to video: [here](#) (2:23)

➤ <https://www.youtube.com/watch?v=9TOK8aTdCLI>

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Sunday January 19, 2014

- West Virginia American Water issues "Our Next Steps" document
- Link to [pdf](#)

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Sunday January 19, 2014

- CBS Evening News video: Many west Virginia residents do not consider their water safe despite assurances.
- Link to video: [here](#) (2:00)

➤ <https://www.youtube.com/watch?v=B-ibo9tWfY8>

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Wednesday January 22, 2014

- West Virginia American Water releases info about a second contaminant - PPH

1/22/2014 at 3:00 PM
Updated Statement
PPH Statement

Yesterday after learning that Freedom Industries identified an additional chemical, referred to as "PPH" that was part of the January 9, 2014 chemical spill, the interagency response team – including the U.S. Bureau for Public Health, West Virginia American Water and National Guard – met to determine the best course of action for re-testing historical samples for this newly disclosed material.

According to a statement to the U.S. Bureau for Public Health yesterday evening, the CDC indicates that given the small amount of PPH in the tank and the initial review of currently available toxicologic information, the information does not suggest any new health concerns associated with the release of PPH. The interagency team has determined that the WVDOHHR is best positioned to discuss additional health-related questions about this chemical.

West Virginia American Water has multiple laboratories, including MATRIC (Mid-Atlantic Technology, Research & Innovation Center) in South Charleston, testing water samples and analyzing data, and we will share those results when available. The water samples being tested are samples collected both before and after the "Do Not Use" order was lifted. Customers do not need to flush or take any additional action at this time. The interagency team will communicate with our customers the water sample results we obtain from this new round of testing.

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Wednesday January 29, 2014

- West Virginia American Water releases a statement about a 3rd contaminant – formaldehyde.
- Link to Press Release [pdf](#)

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Thursday January 30, 2014

- PBS News Hour video: Concerns remain about West Virginia water supply
- Link to video: [here](#) (5:19)

➤ <https://www.youtube.com/watch?v=C1FVpdDxKI>

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Thursday January 30, 2014

- PBS News Hour video: Concerns remain about west Virginia water supply
- Link to video: [here](#) (2:36)

➤ <https://www.youtube.com/watch?v=XZ4wGUzUp8w>

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That's the story so far...

- We'll monitor this as it continues to develop...
- But just what is (are) this/these chemicals?
- For more in depth info listen to the NPR Fresh Air story from Jan 29:
<http://www.npr.org/2014/01/29/268201454/how-industrial-chemical-regulation-failed-west-virginia>

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Break - 10 minutes



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Main Event

So what is MCHM anyway?

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End Training

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Association Business

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May Annual Meeting

- Next training in May
- Annual meeting
 - Treasurer's report

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Board Member Terms

- Larry Manacop – May 2016
- Gary Byrd – May 2016
- Derek Chambers – May 2016
- Cecilio Raiukiulipiy – May 2015
- Mariano Iglecias – May 2014

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