

State Environmental Commission Proposed Regulation Amendments R194-08

Public Water Systems

NAC 445A.450-.540; 445A.607 & .610; 445A.65505-.6731; 445A.67561

**Nevada Division of
Environmental
Protection**

October 6, 2009

Overview of Proposed Amendments

- Adopt Two New Federal Rules
- Revise Existing Regulations to obtain Primacy Approval
- Perform Administrative Name Changes & Some General "Clean-up"

Primacy...what's that?



Overview of Proposed Amendments

- Adoption of Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2)
- Adoption of the Long Term 2 Enhanced Surface Water Treatment Rule (Long Term 2)
- Associated New Rule Amendments to NACs for Design, Construction, Operation and Maintenance
- Revisions to Existing NACs to attain Primacy Approval
- Amendments to Design, Construction, Operation & Maintenance Regulations & General Clean-up

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Public Participation

- Regulation Development
 - Meetings with major stakeholders
 - Presentations through Conferences & UNR Distance Learning Broadcast Opportunities
- Public Workshops
 - Las Vegas, NV - June 23, 2009
 - Carson City, NV - June 24, 2009
 - Elko, NV - June 25, 2009
- Written Comments
- E-mail Comments

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Fluoridation Section (Removed)

- Primary Authority for oral health fluoridation of Public Water Systems resides with the State Board of Health
- Amendments were drafted in concert with staff of the State Health Division to clarify respective Roles and Responsibilities
- LCB removed the proposed Section in deference to the Board of Health

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Adoption of New Federal Regulations

- Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2)
 - Promulgated Federally: January 4, 2006
- Long Term 2 Enhanced Surface Water Treatment Rule (Long Term 2)
 - Promulgated Federally: January 5, 2006

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Stage 2 Disinfectant & Disinfection Byproducts Rule (Stage 2 DBPR)

- Impacted Water Systems in Nevada
- Disinfection
 - Chlorine, chloramines, ozone, chlorine dioxide
- Disinfection Byproducts (DBP)
Disinfection + organics/inorganics → DBP

Excess Disinfectants and DBPs cause increased adverse risk to public health

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Stage 2 DBPR—Health Affects

- Disinfection
- Maximum Disinfectant Residual Level (MRDL)
 - Chlorine & Chloramines
 - Chronic health risk
 - Chlorine Dioxide
 - Acute health risk
- Disinfection Byproduct
- Maximum Contaminant Level (MCL)
 - Total Trihalomethane & Haloacetic Acids
 - Chronic health risk & Increased cancer risk
 - Bromate
 - Chronic health risk & Increased cancer risk
 - Chlorite
 - Acute health risk

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Stage 2 DBPR—History

- Total Trihalomethane Rule—1979
- Stage 1 Disinfectant & Disinfection Byproducts Rule (Stage 1 DBPR)—1998
- Stage 2 DBPR—2006
 - Consecutive systems
 - Highest risk locations monitored
 - Each location must comply
 - Ancillary modifications

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Stage 2 DBPR—Two Steps

- Initial Distribution System Evaluation
 - New data
 - Determine highest risk locations
- Compliance Monitoring
 - Consecutive Systems
 - Population based monitoring
 - Site Selection
 - Compliance Calculation

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Stage 2 DBPR Compliance Schedule

| Sch. | Systems Serving | IDSE Plan Submittal | Complete IDSE Monitoring | Submit IDSE Report and/or Compliance Sites | Compliance Monitoring Begins |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------|--------------------------------------------|------------------------------|
| 1 | ≥ 100,000 | 10/1/2006 | 9/30/2008 | 1/1/2009 | 4/1/2012 |
| 2 | 50,000 – 99,999 | 4/1/2007 | 3/31/2009 | 7/1/2009 | 10/1/2012 |
| 3 | 10,000 – 49,999 | 10/1/2007 | 9/30/2009 | 1/1/2010 | 10/1/2013 |
| 4 | < 10,000 | 4/1/2008 | 3/31/2010 | 7/1/2010 | 10/1/2013 or 10/1/2014 |
| 11 | <p>Schedule for systems in a combined distribution system is based on that of largest system in the combined distribution system</p> <p>Possible 24 month Extension</p> | | | | |

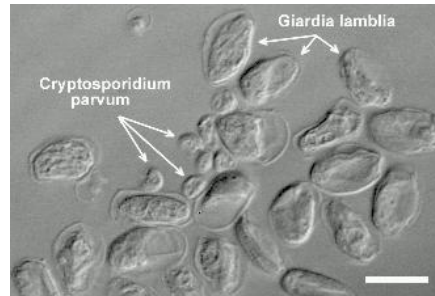
Long Term 2 Enhanced Surface Water Treatment Rule (LT2)

- Impacted Water Systems in Nevada
- History
 - Surface Water Treatment Rule (SWTR)—1989
 - Giardia, viruses, bacteria
 - Interim Enhanced SWTR—1998
 - Cryptosporidium- Large Systems
 - Long Term 1 Enhanced SWTR—2002
 - Cryptosporidium- Small Systems
 - Long Term 2 Enhanced SWTR—2006
 - Extra Cryptosporidium treatment

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LT2—Cryptosporidium

- Cryptosporidium
 - Protozoan parasite
 - Common in surface water
 - Resistant to traditional disinfectants
 - Can pass through filters
 - Causes cryptosporidiosis
 - Filtration and alternative disinfectants can remove and/or inactivate



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LT2—Two Steps

- Source Water Monitoring
 - Minimum of two rounds
 - Additional rounds based on watershed updates
- Additional Treatment
 - Based on Source Water Monitoring results
 - Bin Classification—Filtered
 - Average of results—Filtration Avoidance
 - Must install additional disinfection
 - Microbial Toolbox
 - Disinfection Profile and Benchmark

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LT2—Compliance Schedule

- Install chosen treatment to meet Treatment requirements:
 - Schedule 1 – April 1, 2012
 - Schedule 2 – October 1, 2012
 - Schedule 3 – October 1, 2013
 - Schedule 4 – October 1, 2014
- Possible 24 month extension
- Various capital construction loan and grant programs are available to assist with funding

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Other NAC Amendments for LT2

Affects on Design, Construction, Operation & Maintenance Regulations (DCO&M)

- Design of Water project
 - Source Water Monitoring
 - Disinfection Profile & Benchmark
- Design of Water Project that includes Disinfection for microbial inactivation
 - Ultraviolet light, ozone, chlorine dioxide
 - Meet requirements of surface water regulations

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Primacy Revisions

- Revisions to Nevada Administrative Code (NAC) to attain Primacy for Previously Adopted Rules
 - Public Notice Rule
 - Interim Enhanced Surface Water Treatment Rule (Interim Enhanced)
 - Long Term 1 Enhanced Surface Water Treatment Rule (Long Term 1)
 - Variances and Exemptions Process
 - Lead and Copper Rule Minor Revisions

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Primacy Revision ~ Public Notice Rule

- Conflict between certain Notification requirements in the Public Notice Rule and the Surface Water Treatment Regulations
 - Notification of Certain Events
 - NAC 445A.538: Amended to reconcile requirements also in NAC 445A.485
 - Requirements for notification of persons served by system
 - NAC 445A.540: Amended to strike in part; Included outdated Notice language for Treatment Technique Violations; NAC 445A.485 now includes the required language

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Primacy Revision ~ Interim Enhanced SWTR

(Interim Enhanced Surface Water Treatment Rule)

- Significant Deficiencies
 - NAC 445A.4665: Amended to require Significant Deficiencies that are identified in a Sanitary Survey be corrected on a Schedule approved by the Division.
 - Applies to all Public Water Systems (PWS)

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Primacy Revision ~ Interim Enhanced SWTR & Long Term 1

- Composite Correction Program (CCP)
 - Definitions
 - Composite Correction Program
 - Comprehensive Performance Evaluation
 - Comprehensive Technical Assistance
 - CCP Requirements
 - Performed by approved party
 - Additional information document
 - Triggers to Conduct CCP based on Turbidity
- Turbidimeters
 - Clarification of Location and Quantity Requirements

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Primacy Revision ~ Variances & Exemptions

- 445A.487: Variances – Conditions & Procedures for Granting
 - Amendment to tie Best Available Technology (BAT) for Variances to the EPA BAT approval process via recognition of the role of the US EPA Administrator in defining BAT.
 - Amendment to adopt by reference: BAT for Variances as listed in 40 CFR Part 141 and Part 142
- Repeal of NAC 445A.4874 Variances: Unique circumstances – In Conflict with NAC 445A.487

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Primacy Revision ~ Lead and Copper Rule Minor Revisions

- Methods of obtaining samples of water
 - Lead and Copper monitoring with first draw sample
 - More representative of lead and copper concentrations in the home

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Administrative Name Changes

- 2005 Legislative Action – SB395
- Administrative Name Changes:
 - “Health Division” to “Division” or “Division of Environmental Protection”; or
 - “Health Authority” to “the Division or the appropriate district board of health”
 - Currently: the Washoe County Health District and the Southern Nevada Health District
- NAC 445A.66645: Updates formal appeal processes for permitting issues to the State Environmental Commission from the State Board of Health

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Miscellaneous Amendments

- Addition of missing cross-references to engineering design standards adopted by reference.
- NAC 445A.6603: Amends authority to determine “Groundwater under the direct influence of surface water” to include County Health Departments
- NAC 445A.66645: Amends procedures for persons aggrieved by decisions made under Design, Construction, Operation & Maintenance Regulations
- NAC 445A.6665: Amendment adds the ability for a County Health District to grant special engineering exceptions “with the concurrence of the Division”

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Questions?



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