



An Overview of the Radionuclides Rule

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Office of Ground Water and Drinking Water
June 29, 2004

Web Cast Series for Radionuclides and Arsenic

Web Cast 2: Radionuclides Rule

August 4, 2004

- ✓ Treatment/Disposal
- ✓ POU/POE
- ✓ Operator Safety
- ✓ SPARRC Model Demo

Web Cast 3: Arsenic Rule

September 15, 2004

- ✓ Monitoring schedules
- ✓ Compliance Calculations
- ✓ Lab Analysis
- ✓ Exemptions, Health Effects

Web Cast Series for Radionuclides and Arsenic, cont.

Web Cast 4: Arsenic Rule

October 20, 2004

- ✓ Treatment
- ✓ Disposal
- ✓ POU
- ✓ Case Studies/Update on Arsenic Demonstration Projects

EPA Websites:

<http://www.epa.gov/safewater/new.html>

<http://www.epa.gov/safewater/rads/implement.html>

<http://www.epa.gov/safewater/ars/implement.html>

For Downloading Presentations:

<http://www.epa.gov/safewater/dwa/rules.html>



AGENDA
RADIONUCLIDES WEB CAST
JUNE 29, 2004
2:00 - 4:00 PM ET

| BEGIN TIME | END TIME | TOPIC | SPEAKER |
|------------|----------|--|--|
| 2:00 | 2:05 | INTRODUCTION AND INSTRUCTIONS | WEB CAST MODERATOR |
| 2:05 | 2:20 | RADIONUCLIDES RULE OVERVIEW | ANDREA MATZKE EPA OFFICE OF GROUND WATER AND DRINKING WATER |
| 2:20 | 2:50 | COMPLIANCE, MONITORING, AND SUBSTITUTION | KEVIN KEENAN THE CADMUS GROUP, INC. |
| 2:50 | 3:00 | QUESTIONS | |
| 3:00 | 3:25 | METHODS AND DETECTION | JOHN GRIGGS EPA OFFICE OF AIR AND RADIATION – NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY |
| 3:25 | 3:30 | QUESTIONS | |
| 3:30 | 3:55 | HEALTH EFFECTS | NEAL NELSON EPA OFFICE OF RADIATION & INDOOR AIR - CENTER FOR SCIENCE AND RISK ASSESSMENT |
| 3:55 | 4:00 | QUESTIONS | |

Overview Agenda

- ❖ MCLs
- ❖ Monitoring
- ❖ Compliance
- ❖ Variances and Exemptions

The Final Radionuclides Rule

FR Notice: December 7, 2000

Effective: December 8, 2003

➤ Sets a new MCL for:

Uranium

➤ Retains the existing MCLs for:

Radium-226/228

Gross alpha particle
radioactivity

Beta particle and photon
activity

➤ Revises monitoring
requirements

Standardized
Monitoring
Framework

➤ Applies to all CWSs

Groundwater and
Surface water
Sources

Maximum Contaminant Levels

| Radionuclide MCLs | |
|--|--------------|
| Ra 226/ Ra228 | 5 pCi/L |
| Gross alpha particle | 15 pCi/L |
| Uranium (new MCL) | 30 μ g/L |
| Beta/photon emitters* | 4 mrem/year |
| *A total of 179 individual beta particle and photon emitters may be used to calculate compliance with the MCL | |

Monitoring Requirement Dates



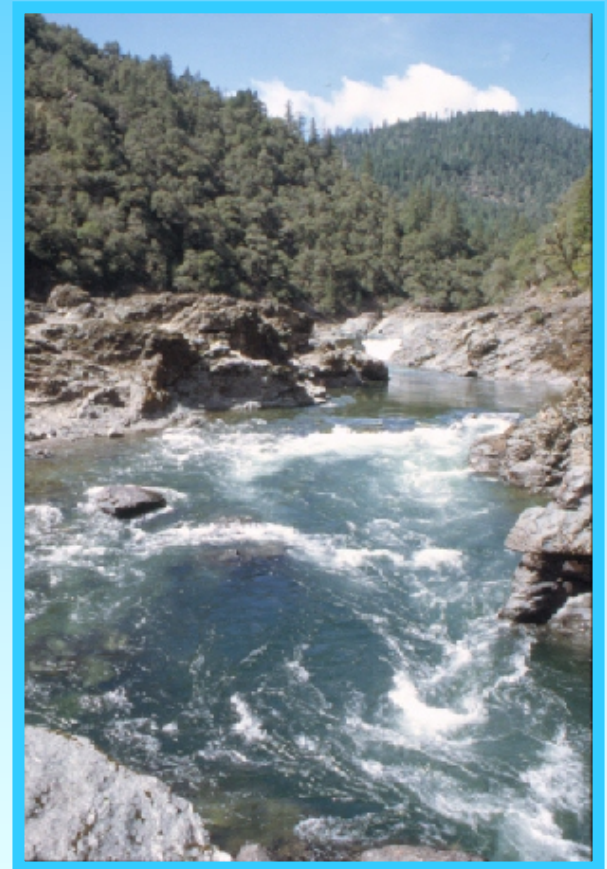
- If State allows, systems can use grandfathered data from EPTDS or distribution to comply w/ initial monitoring requirements
- Systems collect 4 consecutive quarterly samples at each EPTDS
- Results determine monitoring frequency

How Is Compliance Determined?

- Determined immediately based on the annual average of initial quarterly samples or results from appropriate grandfathered data
- Water systems with existing radionuclides monitoring data which is out of compliance with new provisions would have been out of compliance on December 8, 2003
- Water systems with existing data that demonstrates non-compliance with the 1976 Rule are currently in violation

Variations

- Generally allows a system to exceed an MCL due to source water quality, as long as it's still protective of human health
- *General Variations* are available for all radionuclide MCLs
- *Small System Variations* are not available for any of the radionuclide MCLs



Exemptions

only available for uranium

- Provides Additional Time for Systems to:
 - ✓ Obtain Financial Assistance
 - ✓ Restructure
 - ✓ Plan, Construct & Start-up Treatment
- Informing the Public is Required
 - ✓ Consumer Confidence Report/PN
 - ✓ Public hearing



Exemptions

Eligibility Requirements

- Due to compelling factors:
 - Unable to comply with the MCL(e.g. economically); or,
 - It cannot develop an alternative source of supply;
- Must be in operation before December 2003; or,
 - If operating after 12/03 and there is no reasonable alternative source of supply;
- Management and/or restructuring changes will not lead to compliance or improve the quality of water.
- The exemption will not result in an unreasonable risk to public health

Exemptions

Eligibility Requirements, cont.

➤ Unable to Achieve Compliance

No exemption shall be granted unless:

- Capital improvements cannot be completed before effective date
- System has entered into an agreement to obtain financial assistance
- System has entered an agreement to become part of a regional PWS

Exemptions

Compliance Requirements

- If granted an exemption, a PWS has up to **3** additional years to comply with the uranium MCL
- Systems serving 3,300 persons or fewer may be able to extend their exemptions for up to **6** years

HQ Contact Information

Holly Fleming (202) 564-9909

EPA Radionuclide Contacts

| | | | |
|-----------------|--------------------------------------|------------------|------------------------------------|
| HQ | Andrea Matzke (202) 564-3842 | Region 5 | Miguel Del Toral (312) 886-5253 |
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