

# FEDERAL REGULATIONS

Related to Sanitary Surveys

## LAWS VS REGULATIONS

- What is the difference between a LAW and a REGULATION?
- LAW -> written by Congress or State Legislature, signed by President or Governor
  - Grants a power or authority to do something
  - Example: Safe Drinking Water Act -> says EPA can make regulations about drinking water, gives some outline of authority
- REGULATION-> written by an agency, based on the LAW
  - Example: National Primary Drinking Water Regulations, National Secondary Drinking Water Regulations, ...

## REGULATIONS



- First published in the Federal Register (date, volume page)
- Then codified under the Code of Federal Regulations (CFR)
- There are 50 Titles in the CFR
- EPA regulations are found in Title 40 or 40 CFR
- National Primary Drinking Water Regulations are Chapter 141 (40 CFR 141)
- National Secondary Drinking Water Regulations are Chapter 143 (40 CFR 143)
- What is in Chapter 142 (40 CFR 142)?
  - National Primary Drinking Water Regulations Implementation
  - Sanitary Surveys are mentioned in these regulations

## WHAT ABOUT RULES?

- Ground Water Rule
- Surface Water Treatment Rule
- Total Coliform Rule
- A Rule is a portion of a regulation
- Usually a Rule is promulgated as a separately, then incorporated into the full set of regulations.
- Once added to the regulations – it is hard to figure out what part of the regulations belongs to which rule
- Really – it doesn't matter which paragraph is GWR, SWTR, LCR because they all have to be enforced.

## EXAMPLE OF A RULE - RTCR

- Published in FR Vol. 78, No 30 on Wed February 13, 2013
- Added Subpart Y – Revised Total Coliform Rule (§§141.851-861)
- Added definitions in §141.2
- Revised variances in §141.4
- Added a paragraph in §141.21
- Revised MCLG in §141.52
- Revised MCL in §141.63
- etc...



## WHAT RULES CAN YOU NAME?

- RTCR
- SWTR
- LCR
- GWR
- DBPR
- Radionuclide Rule
- Arsenic Rule
- PNR
- CCRR
- Phase II & V Monitoring
- UCMR
- Is there are sanitary survey rule or a certified operator rule?

### REGULATIONS – SANITARY SURVEYS

- 40 CFR 141 – defines what responsibilities **public water systems** have regarding sanitary surveys
- 40 CFR 142 – defines what responsibilities **States** have in conducting sanitary surveys
- Look through CFR 141 and 142 to find where sanitary surveys and/or on-site inspections are mentioned. (Also we'll add Level 1/Level 2 assessments)

### 40 CFR 141 – SANITARY SURVEYS

- **§ 141.2 Definitions:** *Sanitary Survey* means an onsite review of the water source, facilities, equipment, operation and maintenance of a public water system for the purpose of evaluating the adequacy of such source, facilities, equipment, operation and maintenance for producing and distributing safe drinking water.
- The definition is fairly broad and can encompass the sanitary survey required under the GWR, the on-site inspection and the watershed sanitary surveys required under the SWTR

### 40 CFR 141 – SANITARY SURVEYS

- **§141.21** **Criteria for sampling**
  - (1) **Sanitary Surveys.** (i) Public water systems which do not collect five or more routine surface water samples that undergo an initial sanitary survey by June 25, 1994, under the Sanitary Surveys Act, and June 25, 1995, for non-routine water systems, shall collect five or more routine surface water samples using chlorinated and disinfected ground water as defined by the State, that undergo an on-site inspection for sanitary surveys under the Sanitary Surveys Act. The State may make the results of such sanitary surveys to determine whether the existing monitoring frequency is adequate and what additional measures, if any, the system needs to undertake to improve drinking water quality.
  - (ii) In conducting a sanitary survey of a system using ground water as a public water system, the State shall make a monitoring program and section 142 of the Sanitary Surveys Act, and information on progress of the monitoring program under the Sanitary Surveys Act, and information on the results of the monitoring program was conducted under the Sanitary Surveys Act, and information on the results of the monitoring program was conducted under the Sanitary Surveys Act.
  - (3) Sanitary surveys conducted by the State or an agency approved by the State. **The system is responsible for covering the monitoring costs.**
  - (4) Sanitary surveys conducted by the State under the provisions of Sec. 142.26(d)(2) of this chapter may be used to meet the sanitary survey requirements of this section.
- This requirement only applies to PWS that collect less than 5 routine samples per month.

### 40 CFR 141 – SANITARY SURVEYS

- **§141.43** **Record maintenance**
  - (c) Copies of any written reports, summaries or communications relating to sanitary surveys of the system conducted by the system staff, by a private consultant, or by any local, State or Federal agency shall be kept for a period not less than 10 years after completion of the sanitary survey involved.
- Sanitary Survey records must be kept (by the PWS) for at least 10 years.

### 40 CFR 141 – SANITARY SURVEYS

- **§141.71** **Criteria for avoiding filtration**
  - (3) The public water system must be subject to an annual on-site inspection to assess the watershed control program and disinfection program. The on-site inspection must be conducted by a certified individual such as a sanitary and civil engineer, hydrologist or hydrogeologist who has experience and knowledge in the operation and maintenance of a public water system, and who have a broad understanding of public health protection and drinking water treatment. The on-site inspection must include a review of the effectiveness of the watershed control program and the disinfection program. The on-site inspection must include:
    - (i) A review of the physical condition of the source intake and how well it is protected;
    - (ii) A review of the system's equipment maintenance program to ensure that it is properly followed; the disinfection program;
    - (iii) An inspection of the disinfection equipment for physical deterioration;
    - (iv) A review of operating procedures;
    - (v) A review of data records to ensure that all required tests are being conducted and recorded and disinfection is effectively practiced; and
    - (vi) Identification of any improvements which are needed in the equipment system maintenance and operation, or data collection.
- SWTR (Subpart H)
- Annual on-site inspections are required for PWS that are avoiding filtration.
- However, special primary requirements in 142.16(b)(3)(i) require all SW systems have periodic sanitary surveys.

### 40 CFR 141 – SANITARY SURVEYS

- **§141.75** **Reporting and recordkeeping requirements**
  - (4) No later than ten days after the end of each Federal fiscal year (September 30), each system must provide to the State a report on the on-site inspection conducted during that year pursuant to Sec. 141.71(b)(3), unless the on-site inspection was conducted by the State. If the inspection was conducted by the State, the State must provide a copy of its report to the public water system.
- SWTR (Subpart H)
- Either PWS gives copy of report to State or State gives copy of report to PWS

## 40 CFR 141 – SANITARY SURVEYS

- **§141.171** Criteria for sanitary filtration
- (b) During the **onsite inspection** conducted under the provisions of Sec. 141.171(b)(3), the State must determine whether the watershed control program established under Sec. 141.171(b)(2) is adequate to limit potential contamination by *Cryptosporidium* oocysts. The adequacy of the program must be based on the comprehensiveness of the watershed review, the effectiveness of the system's program to monitor and control detrimental activities occurring in the watershed, and the extent to which the water system has maximized land ownership and/or controlled land use within the watershed.
- SWTR – Enhanced Filtration and Disinfection – Systems Serving 10,000 or More People (Subpart P)
- *Cryptosporidium* specific

## 40 CFR 141 – SANITARY SURVEYS

- **§141.822** How does the State determine whether my system's watershed control requirements are adequate?
- During an **onsite inspection** conducted under the provisions of Sec. 141.171(b)(3), the State must determine whether your watershed control program is adequate to limit potential contamination by *Cryptosporidium* oocysts. The adequacy of the program must be based on the comprehensiveness of the watershed review, the effectiveness of your program to monitor and control detrimental activities occurring in the watershed, and the extent to which your system has maximized land ownership and/or controlled land use within the watershed.
- SWTR – Enhanced Filtration and Disinfection – Systems Serving Fewer Than 10,000 People (Subpart T)

## 40 CFR 141 – SANITARY SURVEYS

- **§141.401** Sanitary surveys for ground water systems
- (a) Ground water systems must provide the State, at the State's request, any existing information and enable the State to conduct a sanitary survey.
- (b) For the purposes of this subpart, a "sanitary survey" as conducted by the State, includes but is not limited to, an onsite review of the water source (i) Identify sources of contamination to water supply (i.e. source water assessments where available), facilities, equipment, operations, facilities, equipment, operation, maintenance, and monitoring compliance of a public system or evaluate the adequacy of the system, its facilities and operations and the distribution of safe drinking water.
- (c) The sanitary survey must include an evaluation of the applicable components listed in paragraphs (c)(1) through (8) of the section:
  - (1) Source.
  - (2) Treatment.
  - (3) Distribution system.
  - (4) Finished water storage.
  - (5) Pumps, pump facilities, and controls.
  - (6) Monitoring, reporting, and data verification.
  - (7) System management and operation, and
  - (8) Operator compliance with State requirements.
- GWR requires all PWS using a GW source have periodic sanitary surveys
- First time the eight components of a sanitary survey are identified in regulations in 40 CFR 141.

## 40 CFR 141 – SANITARY SURVEYS

- **§141.716** Source to the components
- (a) Watershed control program. Systems receive 0.5-log *Cryptosporidium* treatment credit for implementing a watershed control program that meets the requirements of this section.
- (5) Systems must complete the actions in paragraphs (a)(5)(i) through (ii) of this section to maintain the 0.5-log credit.
- (i) Submit an annual watershed control program status report to the State.
- (ii) Undergo a watershed sanitary survey every three years for community water systems and every five years for noncommunity water systems and submit the survey report to the State. The survey must be conducted according to State guidelines and by persons the State approves.
- (A) The watershed sanitary survey must meet the following criteria:
  - (A) The watershed sanitary survey must encompass the region identified in the State-approved watershed control plan as the area of influence, assess the implementation of actions to reduce source water *Cryptosporidium* levels, and identify any significant new sources of *Cryptosporidium*.
- (ii) If the State determines that a system is not carrying out the approved watershed control plan, the State may withdraw the watershed control program treatment credit.
- Enhanced Treatment for *Cryptosporidium* (Subpart W) – "watershed sanitary survey" components and frequency
- Watershed sanitary survey needed to receive 0.5-log credit for *Cryptosporidium* treatment

## 40 CFR 141 – SANITARY SURVEYS

- **§141.723** Requirements to respond to significant deficiencies identified in sanitary surveys performed by EPA.
- (a) A sanitary survey is an onsite review of the water source (including source water assessments where available), facilities, equipment, operations, maintenance, and monitoring compliance of a PWS to evaluate the adequacy of the PWS, its sources and operations, and the distribution of safe drinking water.
- (b) For the purposes of this section, a significant deficiency includes a defect in design, operation, or maintenance, or a failure or malfunction of the source, treatment, storage, or distribution system that EPA determines to be causing, or has the potential for causing, the introduction of contamination into the water delivered to consumers.
- (c) For sanitary surveys performed by EPA, systems must respond in writing to significant deficiencies identified in sanitary surveys that include the date that the system will address significant deficiencies and on what schedule the system will address significant deficiencies noted in the survey.
- (d) Systems must correct significant deficiencies identified in sanitary survey reports according to the schedule approved by EPA, or if there is no approved schedule, according to the schedule reported under paragraph (c) of this section for such deficiencies as within the control of the system.
- Enhanced Treatment for *Cryptosporidium* (Subpart W) – "watershed sanitary survey" components and frequency
- Requires PWS to correct significant deficiencies that are identified directly by EPA

## 40 CFR 142 – SANITARY SURVEYS

- This is the IMPORTANT stuff
- Defines the components of a sanitary survey
- Defines SIGNIFICANT DEFICIENCY
- Outlines the requirements of a State's sanitary survey program

### 40 CFR 142 – SANITARY SURVEYS

- §142.16 Requirements for a determination of primary enforcement responsibility.
- (2) A systematic program for conducting sanitary surveys of public water systems in the State, with priority given to sanitary surveys of public water systems not in compliance with State primary drinking water regulations.
- One of the requirements for PRIMACY is having a sanitary survey program

### 40 CFR 142 – SANITARY SURVEYS

- §142.16 Special primary requirements
- (b) Requirements for States to adopt 40 CFR part 141, subpart H Filtration and Disinfection.
- (b)(1)(i) States must have the appropriate state or other authority to assure that PWSs submit a report to significant deficiencies outlined in sanitary survey reports pursuant to paragraph (b)(3)(i) of this section no later than 45 days after the receipt of the report, indicating how and on what schedule the system will address significant deficiencies noted in the survey.
- (b)(1)(ii) States must have the appropriate state or other authority to assure that PWSs take necessary steps to address significant deficiencies outlined in sanitary survey reports pursuant to paragraph (b)(3)(i) of this section, if such deficiencies are within the control of the PWS and its governing body.
- (b)(3) Sanitary Survey. In addition to the general requirements for sanitary surveys contained in § 142.103(c), an application must describe how the State will implement a sanitary survey program that meets the requirements in paragraphs (b)(3)(i) through (i) of the section. For the purposes of this paragraph, "sanitary survey" means an on-site review of the water source (identifying sources of contamination using results of source water assessments where available), facilities, equipment, operation, maintenance, and monitoring compliance of a public water system to evaluate the adequacy of the system, its sources and operations and the distribution of safe drinking water.
- SWTR PRIMACY requirements
- States must have authority to:
  - Require PWS to respond in writing to a sanitary survey report
  - Require PWS to take action to address significant deficiencies
- Defines "sanitary survey"

### 40 CFR 142 – SANITARY SURVEYS

- §142.16 Special primary requirements
- (b) Requirements for States to adopt 40 CFR part 141, subpart H Filtration and Disinfection.
- (b)(3) Sanitary Survey. In addition to the general requirements for sanitary surveys contained in § 142.103(c), an application must describe how the State will implement a sanitary survey program that meets the requirements in paragraphs (b)(3)(i) through (i) of the section. For the purposes of this paragraph, "sanitary survey" means an on-site review of the water source (identifying sources of contamination using results of source water assessments where available), facilities, equipment, operation, maintenance, and monitoring compliance of a public water system to evaluate the adequacy of the system, its sources and operations and the distribution of safe drinking water.
- SWTR PRIMACY requirements
- Defines "sanitary survey"

### 40 CFR 142 – SANITARY SURVEYS

- §142.16 Special primary requirements (continued)
- (b)(3)(i) The State must conduct sanitary surveys for all surface water sources, including ground water under the criterion that **EXCEEDS** the eight sanitary survey components listed in paragraphs (b)(3)(A) through (H) of this section no less frequently than every **five years** for non-Community systems and no less frequently than every **three years** for Community systems and no less frequently than every **five years** for non-Community systems. The State may allow sanitary surveys conducted after October 1995 to serve as the first set of required sanitary surveys if the eight sanitary survey components listed in paragraphs (b)(3)(A) through (H) of this section:
  - (A) Source.
  - (B) Treatment.
  - (C) Distribution system.
  - (D) Finished water storage.
  - (E) Pumps, pump facilities, and controls.
  - (F) Monitoring and reporting and data verification.
  - (G) System management and operation.
  - (H) Operator compliance with State requirements.
- SWTR PRIMACY requirements
- Frequency
  - Every 3 years for CWS
  - Every 5 years for NCWS
- Address the 8 components

### 40 CFR 142 – SANITARY SURVEYS

- §142.16 Special primary requirements (continued) . . .
- (b)(3)(ii) For community systems determined by the State to have outstanding performance based on sanitary surveys, independent sanitary surveys may be conducted no less than every five years. In its primary application, the State must describe how it will decide whether a system has outstanding performance and is thus eligible for sanitary surveys at a reduced frequency.
- (b)(3)(iii) Components of a sanitary survey may be completed as part of a staged or phased state review process within the established frequency.
- (b)(3)(iv) When conducting sanitary surveys for systems required to comply with the disinfection profiling requirements in § 141.172 of this chapter, the State must also review the disinfection profile as part of the sanitary survey.
- (c) In its primary application, the State must describe how it will decide whether a deficiency identified during a sanitary survey is significant for the purposes of paragraph (b)(1)(i) of this section.
- SWTR PRIMACY requirements
- Frequency
  - Outstanding performance = Every 5 years for CWS
- Phasing allowed
- Review disinfection profile
- State must describe how it decides what is SIGNIFICANT

### 40 CFR 142 – SANITARY SURVEYS

- §142.16 Special primary requirements (continued) . . .
- (c) Total conform requirements
- (2)(iv) Section 141.21(d) (Sanitary surveys) – A description of the State's criteria and procedures for approving agents other than State personnel to conduct sanitary surveys.
- TCR PRIMACY requirements
- State describes procedure for approving people (other than State personnel) to conduct sanitary surveys

### 40 CFR 142 – SANITARY SURVEYS

- §142.16 Special primary requirements (continued)...
- (c) Requirements for States to adopt 40 CFR part 141, subpart S.
  - GWR PRIMACY requirements
  - Same definition for sanitary survey
- (2) State practices or procedures for sanitary surveys. In addition to the general requirements for sanitary surveys contained in § 142.103(c), a primary application must describe how the State will implement a sanitary survey program that meets the requirements of paragraph (c)(2)(i) of this section. A "sanitary survey" as conducted by the State, includes but is not limited to, an on-site review of the water sources (identifying sources of contamination by using results of source water assessments or other relevant information where available), facilities, equipment, operation, maintenance, and monitoring compliance of a public water system to evaluate the adequacy of the system, its inspection and operations and the distribution of safe drinking water.

### 40 CFR 142 – SANITARY SURVEYS

- §142.16 Special primary requirements (continued)...
- (c) Requirements for States to adopt 40 CFR part 141, subpart S.
  - GWR PRIMACY requirements
  - Frequency
    - Every 3 years for CWS
    - Every 5 years for NCWS
  - Address the 8 components
- (c)(2)(ii) The State must conduct sanitary surveys that address the eight sanitary survey components listed in this section not less frequently than every three years for community water systems, except as provided in paragraph (c)(2)(iii) of this section, and every five years for non-community water systems. The State may conduct more frequent sanitary surveys for any system. The initial sanitary survey for each community water system must be conducted by December 31, 2012, unless the system meets the requirements of paragraph (c)(2)(ii) of this section. The initial sanitary survey for each non-community water system must be conducted by December 31, 2014. The sanitary survey must include an evaluation of each of the following elements as applicable:
  - (A) Source
  - (B) Treatment
  - (C) Distribution system
  - (D) Finished water storage
  - (E) Pumps, pump facilities, and controls
  - (F) Monitoring, reporting, and data verification
  - (G) System management and operation, and
  - (H) Operator compliance with State requirements.

### 40 CFR 142 – SANITARY SURVEYS

- §142.16 Special primary requirements (continued)...
- (c) Requirements for States to adopt 40 CFR part 141, subpart S.
  - GWR PRIMACY requirements
  - Phasing allowed
  - Frequency
    - Outstanding performance = Every 5 years for CWS
    - State must describe how it determines outstanding performance
- (3) The State may use a phased review process to meet the requirements of (c)(2)(ii) of this section if all the applicable elements of paragraphs (c)(2)(i)(A) through (c)(2)(i)(H) of this section are evaluated within the required interval.
- (3) The State may conduct a sanitary survey once every five years for community water systems if the system either provides at least 4 mgd treatment of surface water (inactivation, removal or a State-approved combination of a log inactivation and removal) or is at the first consumer for all its ground water sources, or if it has an outstanding performance record, as determined by the State and documented in previous sanitary surveys and has no history of total coliform MCL or monitoring violations under § 141.27 of this chapter since the last sanitary survey. If a primary application, the State must describe how it will determine whether a community water system has an outstanding performance record.

### 40 CFR 142 – SANITARY SURVEYS

- §142.16 Special primary requirements (continued)...
- (c) Requirements for States to adopt 40 CFR part 141, subpart S.
  - GWR PRIMACY requirements
  - State must provide at least one example of a SIGNIFICANT deficiency from each of the 8 components of a sanitary survey.
  - State must provide PWS with written notice about significant deficiencies
- (c) The State must define and describe in the primary application at least one specific significant deficiency in each of the eight survey elements in paragraphs (c)(2)(i)(A) through (c)(2)(i)(H) of this section. Significant deficiencies include, but are not limited to, defects in design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system that the State determines to be causing, or have the potential for causing, the introduction of contamination into the water delivered to consumers.
- (4) As a condition of primacy, the State must provide a round water system with written notice describing any significant deficiency no later than 30 days after the State identifies the significant deficiency. The notice may specify corrective actions. The State may provide the written notice at the time of the sanitary survey.

### 40 CFR 142 – SANITARY SURVEYS

- §142.16 Special primary requirements (continued)...
- (c)(iv)...**Significant deficiencies** include, but are not limited to, defects in design, operation, or maintenance, or a failure or malfunction of the sources, treatment, storage, or distribution system that the State determines to be causing, or have the potential for causing, the introduction of contamination into the water delivered to consumers

### FEDERAL REGULATIONS - SUMMARY

<p><b>WHAT THEY DO</b></p> <ul style="list-style-type: none"> <li>• Requires written report</li> <li>• Outline components (8)</li> <li>• Minimum frequency (5 years)</li> <li>• Allows States to develop own program</li> </ul>	<p><b>WHAT THEY DON'T</b></p> <ul style="list-style-type: none"> <li>• Say who can conduct survey</li> <li>• Say how long the report has to be</li> <li>• Provide examples of significant deficiencies</li> </ul>
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