

Working Through the Maze of the New SSI Rules – Lessons from Mattabassett



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WRIGHT-PIERCE 
Engineering a Better Environment

Presentation Overview

- New SSI rules
- Operator Training
- Demonstrating continuous compliance
- Monitoring Plan



Who Needs to Address Rules?

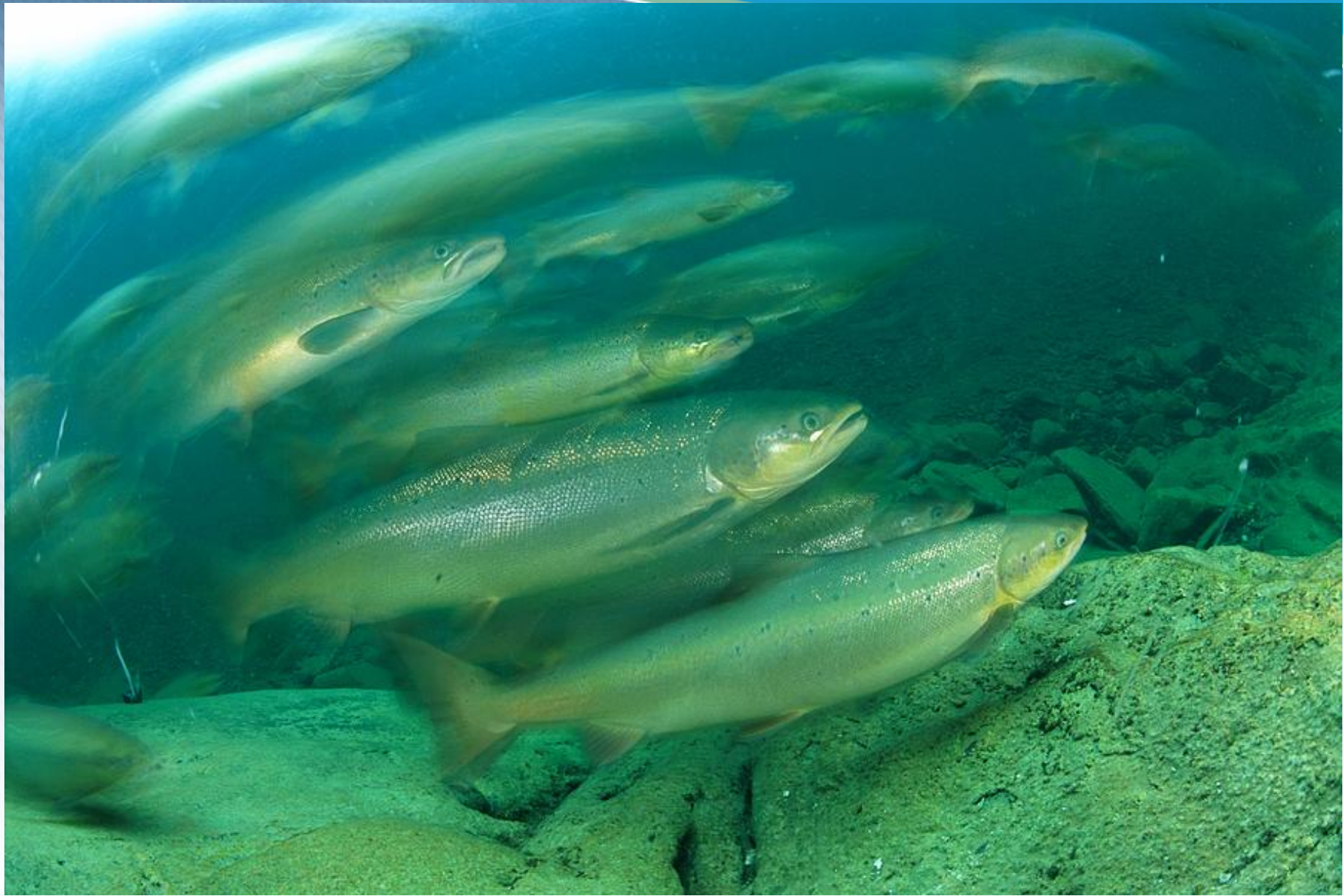
Who Needs to Address Rules?

Every SSI facility in the US

New SSI Rules

- Issued March 21, 2011
- Rules include:
 - 4 sets of new Emissions limits
 - Operating Limits
 - Operator Training Requirements
 - Demonstrating Continuous Compliance
 - Monitoring Plans





Emissions Limits

- Must meet by March 21, 2016
- Must meet at all times
- Applies to bypass stacks and vents



Operating Limits

- Must meet when sludge is burning
- Must set if not using CEMS
 - For pollution control equipment
- Update at each stack test

Compliance Averaging

- CEMS unit – 24-hour average
 - Applies when operating
- Operating parameters – use 12-hour average
 - Applies when burning sludge

Operator training

- Need a Certified Operator to Run SSI
- Program must be
 - State Approved
 - Address list of 10 topics



10 Training Topics

- Environmental Concerns
- Combustion Principles, Controls & Monitoring
- Operation of specific SSI & Emission Controls
- Inspection & Maintenance
- Actions to Prevent Malfunctions
- Bottom & Fly Ash
- Federal, State, & Local Regulations
- Pollution Prevention

Mattabassett's Approach

- First SSI to need training
- No programs were available
- Developed own program
 - Used Equipment Vendors
- Developed Test for operators



Demonstrating Continuous Compliance

- Two options:
 - Continuous Emission Monitoring System
 - Annual Stack Test
- If use Annual Stack Test
 - Must also use Continuous Parameter Monitoring

Monitoring during Stack Test

- Done Annually
- Verifies meeting emissions limits
- Determines monitoring parameter limits for next year

Monitoring Plan

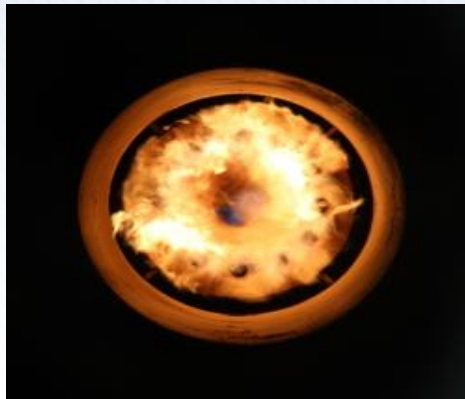
- Includes CEMS and Operating Parameters
- Addresses 8 topics for each Parameter
- Develop as early as possible.



SSI Rules

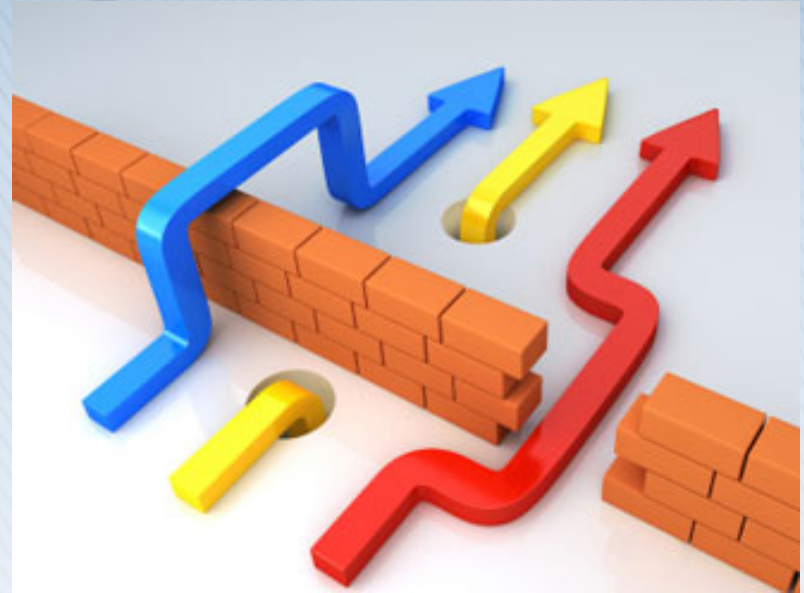
Suggest Monitoring for

- Combustion
- Scrubber Systems
- Fabric Filters
- Electrostatic Precipitators
- Activated Carbon Injection



Alternative Monitoring Plans

- Have backup information
- Address all rules
- EPA cannot eliminate or reduce monitoring requirements



Example: Fugitive Emissions

- Need plan to meet fugitive emissions
- District generates a wet ash
- 1st Submittal – Monitoring not needed
 - Due to wet system
- 2nd Submittal – Observe that ash is wet
 - Check off on daily operator check sheet



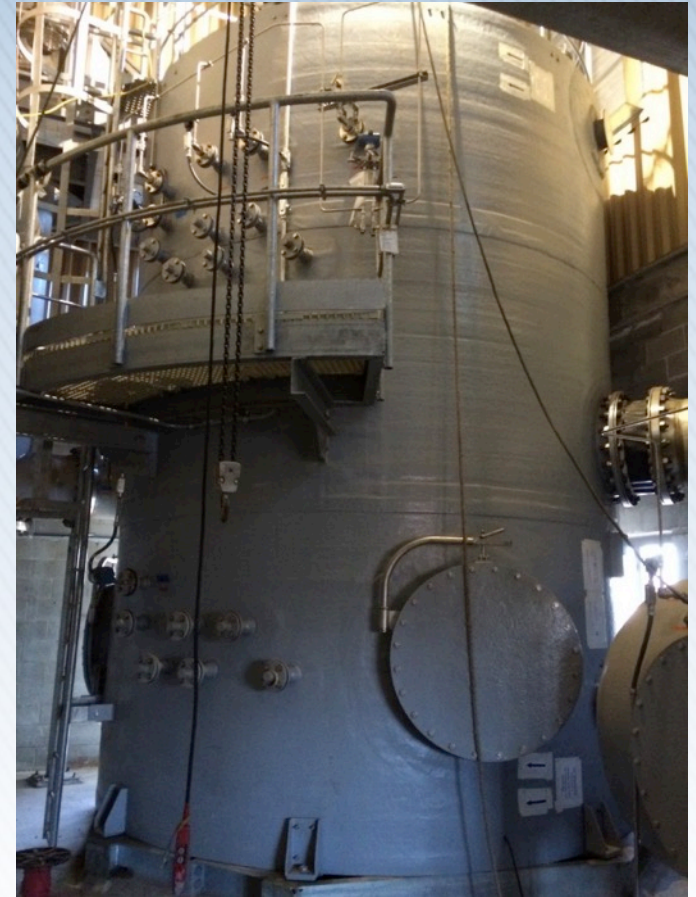
Example – Monitoring WESP

- SSI Rules – Monitor Water flowrate from WESP
 - Lowest flowrate of 3 stack tests
- WESP spray 2x/day for 30 sec
- Alternative Monitoring
 - Monitor – 12-hr total flow
 - Limit: 90% of flow during stack test



Example: Carbon System

- Fixed Bed with Preheat
- Alternative Monitoring:
 - Temperature Rise in Preheater
 - Pressure drop across Carbon
 - Sampling of carbon



Summarize

- The new rules are here
- They are more formal than previous
- We need to develop monitoring plans
- We will get through the transition

Questions?

