

EPA's Rules for Sewage Sludge Incineration Units: A Regulatory Overview & Status Update

Connecticut SIPRAC Meeting
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Patrick Bird and Steve Rapp
U.S. EPA Region 1

Purpose



- History of sewage sludge incineration regulations
- Sewage sludge incinerators in New England
- Proposed Federal Plan requirements
- Highlight of specific provisions of interest
 - Alternative operating parameters
 - Site specific monitoring plans
 - Operator training
- Update on Federal Plan and delegation to CT DEEP

History of SSI Regulations



- **March 21, 2011**, EPA promulgated new source performance standards (NSPS) and emissions guidelines (EG) for new and existing sewage sludge incineration units located at wastewater treatment facilities designed to treat domestic sewage sludge.
 - Clean Air Act (CAA) section 129 “Solid Waste Combustion”
 - 40 CFR part 60 subparts LLLL (new) and MMMM (existing)
 - CAA section 129(f)(1): NSPS are directly enforceable
 - CAA section 129(b)(2): EG are implemented via a State or Federal Plan
 - Established two (2) subcategories: multiple hearth and fluidized bed incineration units
- **August 20, 2013**, the US Court of Appeals for the District of Columbia remanded portions of the 2011 SSI rule for further explanation. (National Association of Clean Water Agencies v. EPA, 734 F.3d 1115)
 - The Court DID NOT vacate the NSPS or EG, and, therefore, the requirements of the rules remain in place.
- **April 27, 2015**, EPA proposes the Federal Implementation Plan for sewage sludge incineration units constructed on or before October 14, 2010
- EPA is aware of 185 SSI in 25 States across the U.S and Puerto Rico

Sewage Sludge Incinerators



Sewage Sludge Incinerators



New Hampshire

Manchester

Connecticut

Mattabassett

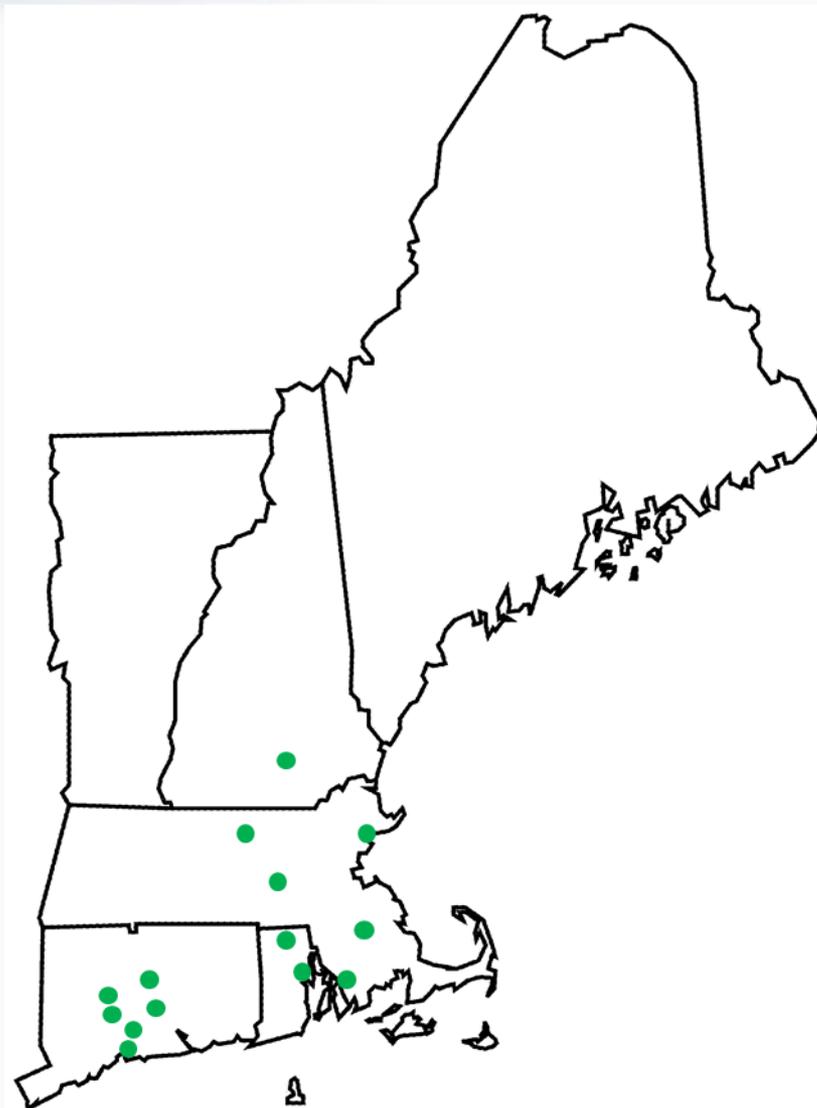
Metropolitan District

Naugatuk

New Haven

Waterbury

West Haven



Massachusetts

Brockton

Fall River

Fitchburg (closed)

Lynn

Upper Blackstone

Rhode Island

Cranston

Woonsocket

Proposed Federal Plan Requirements



- **March 21, 2016 is the final compliance date**
- Emissions limits for 9 regulated pollutants for each subcategory (multiple hearth and fluidized bed)
 - Cadmium (Cd), Carbon Monoxide (CO), Dioxin/Furans (CDD/CDF TMB or TEQ), Hydrogen Chloride (HCl), Lead (Pb), Mercury (Hg), Oxides of Nitrogen (NO_x), Particulate Matter (PM), Sulfur Dioxide (SO₂)
- Testing (E-reporting)
 - Initial compliance tests
 - Annual performance tests or continuous emissions monitoring system (CEMS)
 - Allowance for less frequent testing (per meeting the criteria)
- Continuous Compliance
 - Annual pollution control device inspections (self inspect)
 - Monitoring of operating parameters and limits
- Recording Keeping and Reporting (E-reporting)
 - Initial compliance report
 - Annual report
 - Deviation report
 - Qualified operator status report
 - Notification of intent

Proposed Federal Plan Emission Limits



Pollutant	Units (7% O2)	Multiple Hearth	Fluidized Bed
Cadmium (Cd)	milligrams per dry standard cubic meter	0.095	0.0016
Carbon Monoxide (CO)	parts per million by dry volume	3,800	64
Dioxin/ Furans (D/F TMB)	nanograms per dry standard cubic meter	5	1.2
Dioxin/ Furans (D/F TEQ)	nanograms per dry standard cubic meter	0.32	0.10
Hydrogen Chloride (HCl)	parts per million by dry volume	1.2	0.51
Lead (Pb)	milligrams per dry standard cubic meter	0.30	0.0074
Mercury (Hg)	milligrams per dry standard cubic meter	0.28	0.037
Oxides of Nitrogen (NOx)	parts per million by dry volume	220	150
Particulate Matter	milligrams per dry standard cubic meter	80	18
Sulfur Dioxide (SO2)	parts per million by dry volume	26	15
Fugitive Emissions from Ash Handling	Visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) for no more than 5 percent of any compliance test hourly observation period		

Highlight of Specific Provisions of Interest



- Alternative operating parameters for wet scrubber, fabric filter, electrostatic precipitator, activated carbon injection, or afterburner and control technologies not identified in Table 4
 - § 62.15965

“... Petition the Administrator for specific operating parameters, operating limits, and averaging periods to be established during the initial performance test and to be monitored continuously thereafter.”
- Site Specific Monitoring Plan
 - § 62.15995

“You must develop and submit to the Administrator for approval a site specific monitoring plan for each continuous monitoring system...”

Includes Site Specific Ash Handling Monitoring Plan – “You must also submit a site-specific monitoring plan for your ash handling system...”
- Operator Training
 - § 62.15920 through 62.5950

“An SSI unit cannot be operated unless a fully trained and qualified SSI unit operator is accessible, either at the facility or can be at the facility within 1 hour...”

Delegation of Federal Plan to CT DEEP



- EPA strongly encourages States without approved State Plans to request delegation of the Federal Plan so that they can have primary responsibility for implementing the revised EG
- EPA is working to finalize SSI Federal Plan for Existing Source SSI Units (40 CFR Part 62, Subpart LLL)
- CT DEEP intends to request delegation of Federal Plan.
 - Delegation requests require a demonstration of legal authority to implement and enforce the regulation, demonstration of adequate resources, an inventory of affected sources and associated emissions, and certificate of a public hearing.
- EPA will evaluate the delegation request. Approval will be published in the Federal Register and codified at 40 CFR Part 62 Subpart H.
- EPA is working with CT DEEP on all alternatives and site-specific plans to ensure smooth transfer of implementation upon delegation.



Questions?

Steve Rapp

617-918-1551

rapp.steve@epa.gov

Patrick Bird

617-918-1287

bird.patrick@epa.gov