RULE PROPOSAL
STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES AND EMISSION GUIDELINES FOR EXISTING SOURCES: SEWAGE SLUDGE INCINERATION UNITS

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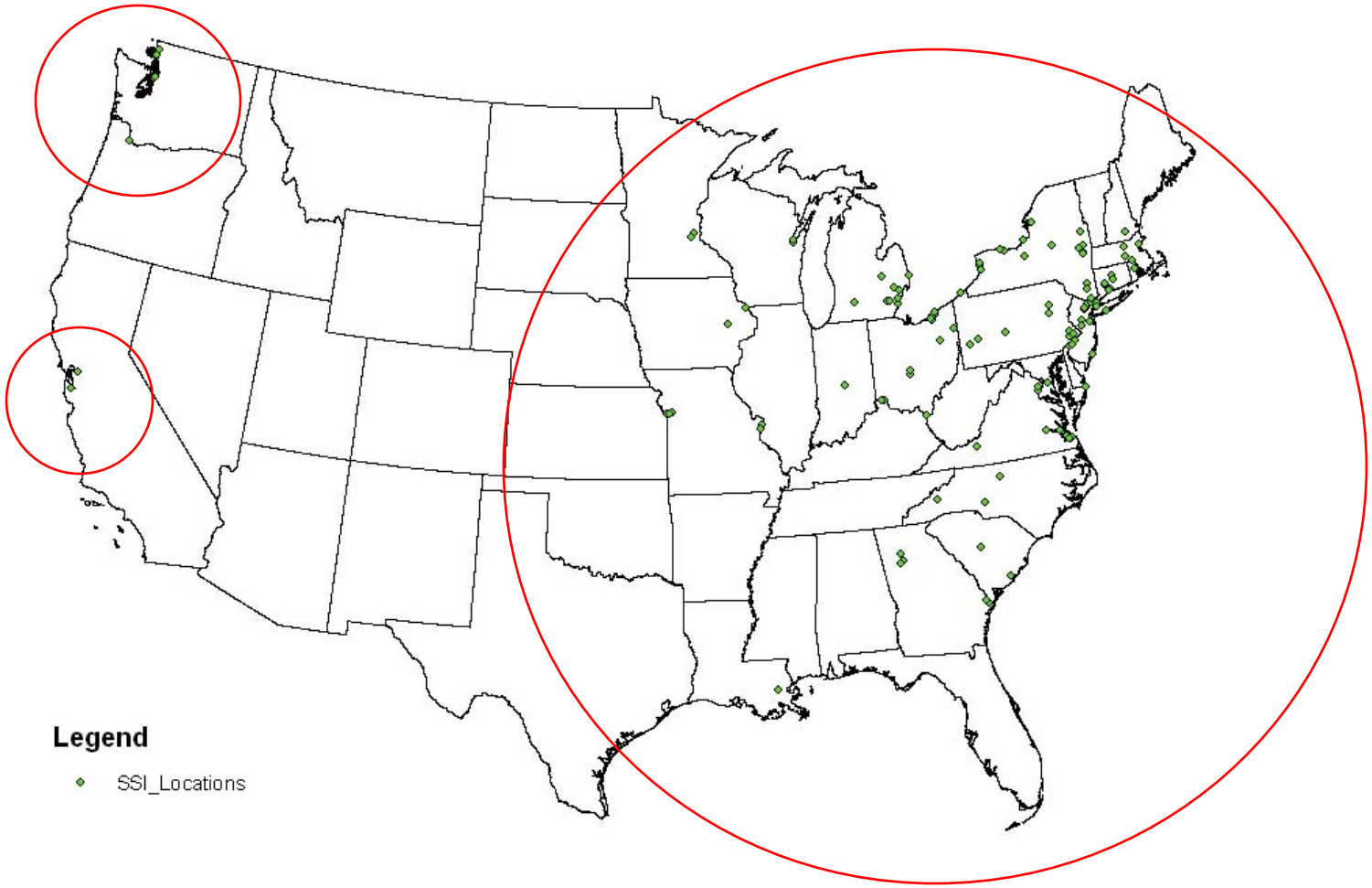
Purpose

- To provide a summary of the proposed rules
- Highlight key issues we are particularly requesting comment on
- Highlight how to comment
- Answer clarifying questions on the proposal
- Note: this is not a forum to take comment

Summary: Background

- June 4, 2010 OSWER proposes new definition of solid waste
  - Sewage Sludge is a solid waste
  - SSI will be regulated under CAA section 129
    - SSI was separated from the Other Solid Waste Incinerator rule (OSWI)
    - Section 112(k)(3)(B)(ii) and 112(c)(3), Urban air toxics
- SSI units are also regulated under the Clean Water Act (CWA) part 503 risk based standards
- 218 units owned by 97 entities in 24 states across the U.S and Puerto Rico
  - Majority are publicly owned municipalities
  - 0, Indian Country
  - Regions, all but R8
- Types of Units
  - 55 Fluidized Bed (FB)
  - 163 Multiple Hearth (MH)

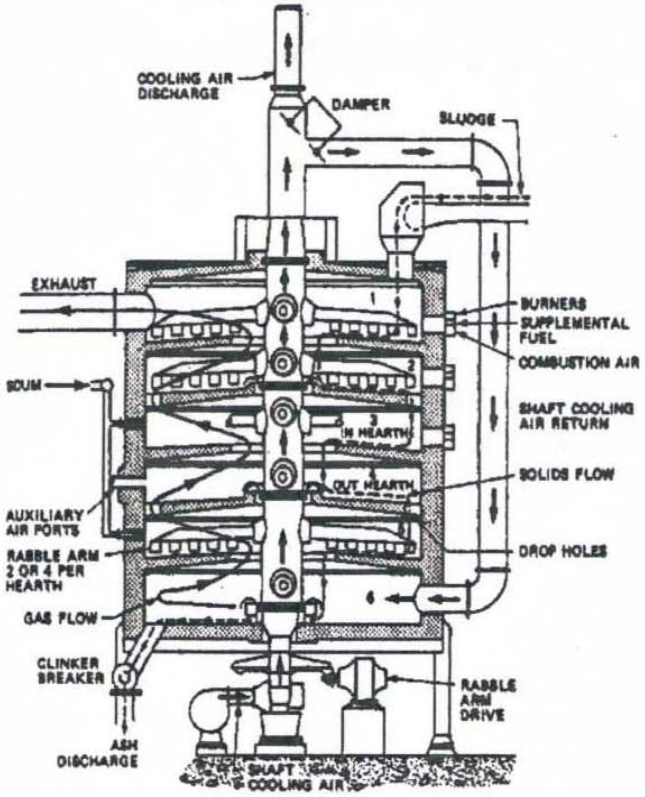
Summary: Current SSI Locations



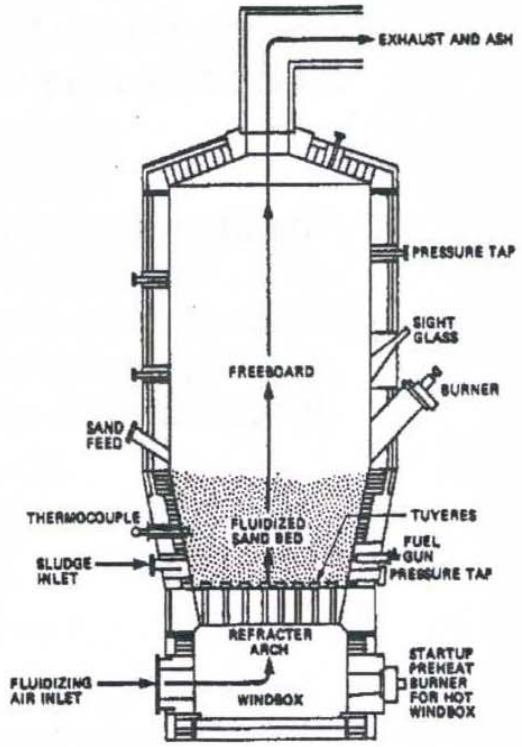
*Map does not show: AK, PR

Summary:
Unit Types (Proposed Subcategories)

Multiple Hearth



Fluidized Bed



Summary: Proposed Standards

- Recommended subcategories
  - Multiple Hearth (MH)
  - Fluidized Bed (FB)
- Proposed limits for 9 regulated pollutants for each subcategory including existing and new sources
  - Cadmium (Cd), Carbon Monoxide (CO), Dioxin/Furans (CDD/CDF TMB and TEQ), Hydrogen Chloride (HCl), Lead (Pb), Mercury (Hg), Oxides of Nitrogen (NO_X), Particulate Matter (PM), Sulfur Dioxide (SO_2), and Opacity
- No work practice standards
- No size distinctions (Area vs. Major)
- Maximum Achievable Control Technology (MACT) Floors
  - Existing Sources: Based on average emission limitations achieved by the best performing 12% of existing sources
  - New Sources: Based on emission limitations from the best controlled similar source
  - No work practice standards
- Technology: fabric filter (metals, PM), packed bed scrubber (acid gases), activated carbon injection (Hg, CDD/CDF)
- Beyond the floor emissions limits for mercury (Hg) for existing MH units

Summary: Proposed Emission Limits

		Existing Units		New Units	
Pollutant	**Normalized Units (7% O2)**	**MH**	**FB**	**MH**	**FB**
Cadmium (Cd)	mg/dscm	0.095	0.0019	0.00051	0.00051
Carbon Monoxide (CO)	ppmvd	3900	56	7.4	7.4
Dioxin/ Furans (D/F TMB)	ng/dscm	5.0	0.61	0.024	0.024
Dioxin/ Furans (D/F TEQ)	ng/dscm	0.32	0.056	0.0022	0.0022
Hydrogen Chloride (HCl)	ppmvd	1.0	0.49	0.12	0.12
Lead (Pb)	mg/dscm	0.30	0.0098	0.00053	0.00053
Mercury (Hg)	mg/dscm	0.02	0.0033	0.0010	0.0010
Oxides of Nitrogen (NOx)	ppmvd	210	63	26	26
Particulate Matter	mg/dscm	80	12	4.1	4.1
Sulfur Dioxide (SO2)	ppmvd	26	22	2.0	2.0
Opacity	%	10	0	0	0

Summary: Proposed Testing, Monitoring, Record Keeping, and Reporting

- Testing
  - Initial compliance tests
  - Annual performance tests or continuous emissions monitoring system (CEMS)
    - Allowance for less frequent testing (criteria)
- Monitoring
  - Process parameters (opacity, control calibration and monitoring, leak detection pressure drop, etc.)
- Recording Keeping and Reporting
  - Annual report
  - Deviation report
  - Qualified operator status report
- Continuous Compliance
  - Demonstrated by maintaining operating limits (process parameters)
  - Annual pollution control device inspections (self inspect)

Summary: How are the Proposed EG Standards Implemented & Enforced?

- EG are implemented and enforced through either
  - EPA-approved state plan ; or
  - Promulgated federal plan

- EPA-approved state plan
  - States are required to submit a plan to EPA no later than 1 year after EPA promulgates the EG
  - Must be as protective as the EG
  - Must be effective no later than 3 years after the state plan is approved or 5 years after the EG are promulgated, whichever is earlier

- EPA's procedures for submitting and approving state plans are set forth in 40 CFR part 60, subpart B
  - When a state plan is approved by EPA, the plan requirements become federally enforceable, but the state has primary responsibility for implementing and enforcing the plan

- Federal Plan
  - EPA is required to develop, implement, and enforce a federal plan for solid waste incineration units located in any state which has not submitted an approvable state plan within 2 years after the date of promulgation of the relevant EG
  - The federal plan must assure that each solid waste incineration unit subject to the federal plan is in compliance with all provisions of the EG not later than 5 years after the date the relevant guidelines are promulgated
  - EPA views the federal plan as a "place-holder" that remains in effect only until such time as a state without an approved plan submits and receives EPA approval of its state plan
  - Once an applicable state plan has been approved, the requirements of the federal plan no longer apply to solid waste incineration units covered by that state plan

Highlight: EPA Requests Comments

- EPA requests comments on many aspects of the proposal, notably the following:
  - Subcategories
    - Other combustor designs plus associated emissions data
  - Floor and beyond-the-floor analysis with associated cost analysis
    - Cost, technical, and other relevant information in support of any floor and beyond-the-floor alternatives
    - Variability analysis
  - Monitoring
    - Whether continuous monitoring of CO emissions should be required for all existing SSI
    - Appropriateness of using multi-metals CEMS instead of initial performance tests, coupled with PM CEMS and other surrogates
    - On an alternate initial accuracy determination procedure
    - Use of previously conducted performance tests
    - Ash handling
    - 4-hour rolling average time for compliance tests
    - Comply by monitoring sludge content
    - Need for a waste management plan
  - Impacts
    - Other potential impacts not considered by the proposed SSI standards
  - Other
    - Possible space constraints that would affect the feasibility and cost of installing air pollution control devices

Highlight: How To Comment

- Web: http://www.regulations.gov
  - Follow the on-line instructions for submitting comments for EPA-HQ-OAR-2009-0559
- E-mail
  - Send your comments via electronic mail to a-and-r-Docket@epa.gov, Attention Docket ID No. EPA-HQ-OAR-2009-0559
- Facsimile
  - Fax your comments to (202) 566-9744, Attention Docket ID No. EPA-HQ-OAR-2009-0559.
- Mail
  - EPA Docket Center (EPA/DC), Environmental Protection Agency, Mailcode 6102T, 1200 Pennsylvania Ave., NW, Washington, DC 20460, Attention Docket ID No. EPA-HQ-OAR-2009-0559. Please include a total of two copies. We request that a separate copy also be sent to Amy Hambrick (919-541-0964)
- Hand Delivery
  - EPA Docket Center (EPA/DC), EPA West Building, Room 3334, 1301 Constitution Ave., NW, Washington, DC, 20460, Attention Docket ID No. EPA-HQ-OAR-2009-0559. Such deliveries are accepted only during the normal hours of operation (8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays) and special arrangements should be made for deliveries of boxed information.

Schedule

- Public Comment Period
  - October 14, 2010 to November 29, 2010
- Public Hearing at EPA (RTP, NC)
  - October 29, 2010
  - Contact Joan C. Rogers for scheduling questions
    - 919-541-4487
    - rogers.joanc@epa.gov
- Final Action (Court-Ordered)
  - January 14, 2011

Further Information

- Amy Hambrick
  - 919-541-0964
  - hambrick.amy@epa.gov

- Website
  - http://www.epa.gov/ttn/atw/129/ssi/ssipg.html

Appendix A: CAA Section129 vs. CWA Part 503

	129 Technology Based	503 Risk Based (1:10,000)
Numerical Emissions Limits	PM, **CO**, D/F, SO SO_2, NO_X, HCl, **Pb**, **Hg**, **Cd**, opacity	Be, **Hg**, THC or **CO**
Performance Based Numerical Emissions Limits (varies by unit)		As, **Cd**, Cr, Ni, **Pb**
Testing	○ Initial ○ Annual or CEMS w/ RATA ○ 3 years allowance then less frequent ○ Quarterly visible ash test	○ Initial unit performance base ○ Quarterly- annual sludge content (prior to incineration) ○ 2 years allowance then less frequent
Monitoring	○ Annual or CEMS w/ RATA ○ Continuous for process parameters	○ CEMS for THC or alternative CO, O_2, moisture content in stack, temperature ○ Process parameters
Record Keeping	○ Maintain for 5 years	○ Maintain for 5 years
Reporting	○ Annual ○ Deviation ○ Qualified operator status	○ Annual