

SSI NSPS 40 CFR 60 subparts LLLL and MMMM

Subpart LLLL: New
Subpart MMMM: Existing (EG)

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New versus Existing (§ 60.4775):

A new sewage sludge incinerator (SSI) unit meets either of the below criteria:

1. Unit commence construction after October 14, 2010
2. Unit commenced a modification September 21, 2011

Introduction and Applicability:

The final standards and guidelines apply to owners or operators of sewage sludge incinerators (SSI units) located at wastewater treatment facilities designed to treat domestic sewage sludge. A SSI unit is an enclosed device or devices using controlled flame combustion that burns sewage sludge for the purpose of reducing the volume of the sludge.

These final standards apply to new and existing SSI units. The affected facility in these rules is each individual SSI unit. The final standards define two subcategories of new and existing SSI units: Multiple Hearth (MH) incinerators and Fluidized Bed (FB) incinerators.

Testing and Monitoring:

The standards require all new and

existing SSI units to demonstrate initial and annual compliance with the emission limits. **For existing SSI units**, the EG requires initial and annual emissions performance tests (or continuous emissions monitoring or continuous sampling as an alternative), bag leak detection systems for fabric filter (FF) controlled units, continuous parameter monitoring, and annual inspections of air pollution control devices if they are used to meet the emissions limits. Visible emissions test of the ash handling operations are required during each compliance test. **For new SSI units**, initial and annual performance tests (or continuous emissions monitoring or continuous sampling as an alternative), bag leak detection systems for FF controlled units, as well as continuous parameter

monitoring and annual inspections of air pollution control devices that may be used to meet emissions limits.

Applicability dates for standards:

New SSI units that commence construction after October 14, 2010 or that are modified 6 months or more after the date of promulgation must meet subpart LLLL limits by 6 months after the date of promulgation or upon start-up (whichever is later).

Existing SSI units: States are required to submit state plans containing the existing source emission limits or subpart MMMM. This plan must be submitted to U.S. EPA by March 21, 2012. Compliance dates for existing sources is depended on the state plan submission.

Related Point of Interest:

U.S. EPA has finalized a definition of non-hazardous solid waste to include sewage sludge. This determination establishes that facilities that burn sewage sludge will be regulated as incinerators under CAA section 129 rather than CAA section 112.

Pollutants Regulated:

CAA Section 129 limits:

- Cadmium
- Hydrogen chloride
- Lead
- Mercury
- Nitrogen oxides
- Particulate matter
- Polychlorinated dibenzo-p-dioxins
- Polychlorinated dibenzofurans
- Sulfur dioxide

Other Requirements for New and Existing SSIs

New and existing SSI units are required to meet operator training and qualification requirements. New SSI units are required to conduct a siting analysis (60.4800 and 60.4805). New and existing SSI units are required to submit a monitor-

ing plan for any continuous monitoring system or bag leak detection system used to comply with this rule.

Title V: All new and existing SSI units regulated by these rules must apply and obtain a Title V permit.

Table 1. Emission Limits for Existing SSI Units

Pollutant	Units	Emission limit for MH incinerators	Emission limit for FB incinerators
Cd	mg/dscm @ 7% O ₂	0.095	0.0016
CO	ppmvd @ 7% O ₂	3800	64
HCl	ppmvd @ 7% O ₂	1.2	0.51
Hg	mg/dscm @ 7% O ₂	0.28	0.037
NO _x	ppmvd @ 7% O ₂	220	150
Pb	mg/dscm @ 7% O ₂	0.3	0.0074
PCDD/PCDF, TEQ	ng/dscm @ 7% O ₂	0.32	0.1
PCDD/PCDF, TMB	ng/dscm @ 7% O ₂	5.0	1.2
PM	mg/dscm @ 7% O ₂	80	18
SO ₂	ppmvd @ 7% O ₂	26	15

Table 2. Emission Limits for New SSI Units

Pollutant	Units	Emission limit for MH incinerators	Emission limit for FB incinerators
Cd	mg/dscm @ 7% O ₂	0.0024	0.0011
CO	ppmvd @ 7% O ₂	52	27
HCl	ppmvd @ 7% O ₂	1.2	0.24
Hg	mg/dscm @ 7% O ₂	0.15	0.001
NO _x	ppmvd @ 7% O ₂	210	30
Pb	mg/dscm @ 7% O ₂	0.0035	0.00062
PCDD/PCDF, TEQ	ng/dscm @ 7% O ₂	0.045	0.013
PCDD/PCDF, TMB	ng/dscm @ 7% O ₂	0.0022	0.0044
PM	mg/dscm @ 7% O ₂	60	9.6
SO ₂	ppmvd @ 7% O ₂	26	5.3