



New EPA Combustion Regulations and Implications for the Utility Industry

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Latest MACT “News”

- First Final “New” NESHAP Rule

- LLL MACT for cement industry
- New standards
- Implementation



- Related Regulatory Changes

What Is in New Rule?

- 40 CFR 63 Subpart LLL Revised
- Rule Applicable to Portland Cement Kilns
- Revamped Standards for Kiln and Main Sources
 - New standards for Hg, THC, HCl
 - Revised standards for PM
 - Continued D/F standards
- Applies During All Operations
 - Normal and Malfunctions
 - Startup & shutdown (separate limits from normal)

What Is in New Rule (con't)?

- Longer Opacity Readings on Other Regulated Sources
- CEMS and CMS Monitoring Requirements
- New Outside Storage Pile Requirements
- 3 Years Compliance Timeframe

- Companion Rule: Revised NSPS
- Potentially Overlapping Rule: CISWI (Final Expected December 2010)

Revised LLL MACT Standards (Pre-publication Version)

	Previous Standards (existing new)	Existing Kilns (normal/SS)	New Kilns (normal/SS)
PM	0.3 #/ton feed ~ 0.5 #/ton clinker ~0.04 gr/dscf	0.04 #/ton clinker 0.004 gr/dscf	0.01 #/ton clinker 0.0008 gr/dscf
D/F	0.4 ng/dscm or 0.2 ng/dscm @<400°F	Same (10°F increase in Temp during SS)	

30-day rolling average for normal operations
7-day rolling average for startup-shutdown operations

Additional MACT Standards

	Existing Kilns (normal/SS)	New Kilns (normal/SS)
Hg	55 #/MM ton clinker 10 ug/dscm	21 #/MM ton clinker 4 ug/dscm
THC	24 ppmvd @ 7% O ₂ 24 ppmvd (no O ₂ correction)	
HCl (Major Sources)	3 ppmvd @ 7% O ₂ 3 ppmvd (no O ₂ correction)	

30-day rolling average for normal operations
7-day rolling average for startup-shutdown operations

Companion Rule - NSPS

Kiln Standards	Standard Previous to 6/16/08	Construct/ Reconstruct/Modify after 6/16/08
PM	≤ 0.3 #/ton dry feed	≤ 0.01 #/ton clinker
Opacity	$\leq 20\%$ (if no CEMS)	None
NO _x	None	≤ 1.5 #/ton clinker
SO ₂	None	≤ 0.4 #/ton clinker (or 90% removal across APCD)

30-day rolling averages

Additional Rule Components

- Malfunctions Limits Same as Normal
 - Affirmative defense approach
- CEMs and CMSs Required for Continuous Compliance
 - PM, Hg, THC, HCl (if no wet scrubber)
- Testing - Initial Compliance Test
 - First 30 days of CEMS use
 - 180 days for stack testing
- Operating Plans – O&M, CMS-QA, SOPs

MACT Implementation

-- 3 Year Timeline --

- Digest Rule
- Strategy 'Team' Meetings
- Collect and Analyze Data
- Conduct Gap Analysis
- Develop Detailed Timeline/Actions
- Evaluate, Order & Install APCD(s) and CEMs
- Permit New Equipment/Update Title V
- Prepare Operating Plans, Recordkeeping System & Train Employees

Compliance Planning Questions

- How Will Compliance with New Rule Impact Operations?
- What New Control Technology May Be Required?
- What Actions Need Accomplished When for 3-year Compliance Timeline?