

# Worldwide Pollution Control Association

## WPCA-Duke Energy

Is Your Precipitator Ready For MATS?

August 28, 2012 – Plainfield

September 11, 2012 – Charlotte

### Reference Material

MATS Existing Facilities Emission Limit Tables

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D. What emission limits and work practice standards must I meet and what are the subcategories in the final rule?

We are finalizing the emission limitations presented in Tables 3 and 4 of this preamble. Within the two major subcategories of "coal" and "oil," emission limitations were developed for new and existing sources for seven subcategories, two for coal-fired EGUs, one for IGCC EGUs burning synthetic gas derived from coal- and/or solid oil-derived fuel, one for solid oil-derived fuel-fired EGUs, and four for liquid oil-fired EGUs, as described in more detail below. The limited-use liquid oil-fired subcategory, discussed elsewhere in this preamble, is not presented in Table 3 because only work practice standards apply to this subcategory.

TABLE 3. EMISSION LIMITATIONS FOR COAL-FIRED AND SOLID OIL-DERIVED FUEL-FIRED EGUS

Subcategory	Filterable particulate matter	Hydrogen chloride	Mercury
Existing - Unit not low rank virgin coal	3.0E-2 lb/MMBtu (3.0E-1 lb/MWh)	2.0E-3 lb/MMBtu (2.0E-2 lb/MWh)	1.2E0 lb/TBtu (1.3E-2 lb/GWh)
Existing - Unit designed low rank virgin coal	3.0E-2 lb/MMBtu (3.0E-1 lb/MWh)	2.0E-3 lb/MMBtu (2.0E-2 lb/MWh)	1.1E+1 lb/TBtu (1.2E-1 lb/GWh) 4.0E0 lb/TBtu <sup>a</sup> (4.0E-2 lb/GWh <sup>a</sup> )

This document is a prepublication version, signed by EPA Administrator, Lisa P. Jackson on 12/16/2011. We have taken steps to ensure the accuracy of this version, but it is not the official version.

Existing - IGCC	4.0E-2 lb/MMBtu (4.0E-1 lb/MWh)	5.0E-4 lb/MMBtu (5.0E-3 lb/MWh)	2.5E0 lb/TBtu (3.0E-2 lb/GWh)
Existing - Solid oil- derived	8.0E-3 lb/MMBtu (9.0E-2 lb/MWh)	5.0E-3 lb/MMBtu (8.0E-2 lb/MWh)	2.0E-1 lb/TBtu (2.0E-3 lb/GWh)
New - Unit not low rank virgin coal	7.0E-3 lb/MWh	4.0E-4 lb/MWh	2.0E-4 lb/GWh
New - Unit designed for low rank virgin coal	7.0E-3 lb/MWh	4.0E-4 lb/MWh	4.0E-2 lb/GWh
New - IGCC	7.0E-2 lb/MWh <sup>b</sup> 9.0E-2 lb/MWh <sup>c</sup>	2.0E-3 lb/MWh <sup>d</sup>	3.0E-3 lb/GWh <sup>e</sup>
New - Solid oil-derived	2.0E-2 lb/MWh	4.0E-4 lb/MWh	2.0E-3 lb/GWh

Note: lb/MMBtu = pounds pollutant per million British thermal units fuel input

lb/TBtu = pounds pollutant per trillion British thermal units fuel input

lb/MWh = pounds pollutant per megawatt-hour electric output (gross)

lb/GWh = pounds pollutant per gigawatt-hour electric output (gross)

<sup>a</sup> Beyond-the-floor limit as discussed elsewhere

<sup>b</sup> Duct burners on syngas; based on permit levels in comments received

<sup>c</sup> Duct burners on natural gas; based on permit levels in comments received

<sup>d</sup> Based on best-performing similar source

<sup>e</sup> Based on permit levels in comments received

TABLE 5. ALTERNATE EMISSION LIMITATIONS FOR EXISTING COAL- AND OIL-FIRED EGUS

Subcategory / Pollutant	Coal-fired EGUs	IGCC	Liquid oil, continen tal	Liquid oil, non- continen tal	Solid oil- derived
SO <sub>2</sub>	2.0E-1 lb/MMBtu (1.5E0 lb/MWh)	NA	NA	NA	3.0E-1 lb/MMBtu (2.0E0 lb/MWh)
Total non- mercury metals	5.0E-5 lb/MMBtu (5.0E-1 lb/GWh)	6.0E-5 lb/MMBtu (5.0E-1 lb/GWh)	8.0E-4 lb/MMBtu (8.0E-3 lb/MWh) <sup>a</sup>	6.0E-4 lb/MMBtu (7.0E-3 lb.MWh) <sup>a</sup>	4.0E-5 lb/MMBtu (6.0E-1 lb/GWh)
Antimony,	8.0E-1	1.4E0	1.3E+1	2.2E0	8.0E-1

Sb	1b/TBtu (8.0E-3 lb/GWh)	1b/TBtu (2.0E-2 lb/GWh)	1b/TBtu (2.0E-1 lb/GWh)	1b/TBtu (2.0E-2 lb/GWh)	1b/TBtu (8.0E-3 lb/GWh)
Arsenic, As	1.1E0 lb/TBtu (2.0E-2 lb/GWh)	1.5E0 lb/TBtu (2.0E-2 lb/GWh)	2.8E0 lb/TBtu (3.0E-2 lb/GWh)	4.3E0 lb/TBtu (8.0E-2 lb/GWh)	3.0E-1 lb/TBtu (5.0E-3 lb/GWh)
Beryllium, Be	2.0E-1 lb/TBtu (2.0E-3 lb/GWh)	1.0E-1 lb/TBtu (1.0E-3 lb/GWh)	2.0E-1 lb/TBtu (2.0E-3 lb/GWh)	6.0E-1 lb/TBtu (3.0E-3 lb/GWh)	6.0E-2 lb/TBtu (6.0E-4 lb/GWh)
Cadmium, Cd	3.0E-1 lb/TBtu (3.0E-3 lb/GWh)	1.5E-1 lb/TBtu (2.0E-3 lb/GWh)	3.0E-1 lb/TBtu (2.0E-3 lb/GWh)	3.0E-1 lb/TBtu (3.0E-3 lb/GWh)	3.0E-1 lb/TBtu (4.0E-3 lb/GWh)
Chromium, Cr	2.8E0 lb/TBtu (3.0E-2 lb/GWh)	2.9E0 lb/TBtu (3.0E-2 lb/GWh)	5.5E0 lb/TBtu (6.0E-2 lb/GWh)	3.1E+1 lb/TBtu (3.0E-1 lb/GWh)	8.0E-1 lb/TBtu (2.0E-2 lb/GWh)
Cobalt, Co	8.0E-1 lb/TBtu (8.0E-3 lb/GWh)	1.2E0 lb/TBtu (2.0E-2 lb/GWh)	2.1E+1 lb/TBtu (3.0E-1 lb/GWh)	1.1E+2 lb/TBtu (1.4E0 lb/GWh)	1.1E0 lb/TBtu (2.0E-2 lb/GWh)
Lead, Pb	1.2E0 lb/TBtu (2.0E-2 lb/GWh)	1.9E+2 lb/MMBtu (1.8E0 lb/MWh)	8.1E0 lb/TBtu (8.0E-2 lb/GWh)	4.9E0 lb/TBtu (8.0E-2 lb/GWh)	8.0E-1 lb/TBtu (2.0E-2 lb/GWh)
Manganese, Mn	4.0E0 lb/TBtu (5.0E-2 lb/GWh)	2.5E0 lb/TBtu (3.0E-2 lb/GWh)	2.2E+1 lb/TBtu (3.0E-1 lb/GWh)	2.0E+1 lb/TBtu (3.0E-1 lb/GWh)	2.3E0 lb/TBtu (4.0E-2 lb/GWh)
Mercury, Hg	NA	NA	2.0E-1 lb/TBtu (2.0E-3 lb/GWh)	4.0E-2 lb/TBtu (4.0E-4 lb/GWh)	NA
Nickel, Ni	3.5E0 lb/TBtu (4.0E-2 lb/GWh)	6.5E0 lb/TBtu (7.0E-2 lb/GWh)	1.1E+2 lb/TBtu (1.1E0 lb/GWh)	4.7E+2 lb/TBtu (4.1E0 lb/GWh)	9.0E0 lb/TBtu (2.0E-1 lb/GWh)
Selenium, Se	5.0E0 lb/TBtu (6.0E-2 lb/GWh)	2.2E+1 lb/TBtu (3.0E-1 lb/GWh)	3.3E0 lb/TBtu (4.0E-2 lb/GWh)	9.8E0 lb/TBtu (2.0E-1 lb/GWh)	1.2E0 lb/TBtu (2.0E-2 lb/GWh)

NA = Not applicable