

ELEVEN NESHAP RULES ARE SIGNED

On November 26, 2002, the Administrator of the U.S. EPA signed National Emission Standards for Hazardous Air Pollutants (NESHAP) for eleven source categories (see Table 1 below). These standards are also referred to as Maximum Achievable Control Technology (MACT). Ten of these signed rules are proposed rules and one is a final rule. These proposed and final rules will be published in the Federal Register soon. When finalized, these rules will be codified as different subparts of Chapter 40 of the Code of Federal Regulations Part 63 (40 CFR 63).

Table 1. Summary of Proposed and Final Rules Signed on November 26, 2002

NESHAP SOURCE CATEGORY	STATUS	CFR SUBPART	PROPOSED DEADLINE FOR PART 2 APPLICATION
Industrial, Commercial, and Institutional Boilers and Process Heaters	Proposed	DDDDD	April 28, 2004
Combustion Turbines	Proposed	YYYY	October 30, 2003
Reciprocating Internal Combustion Engines	Proposed	ZZZZ	April 28, 2004
Plywood and Composite Wood Products	Proposed	DDDD	April 28, 2004
Lime Manufacturing	Proposed	AAAAA	October 30, 2003
Surface Coating of Automobiles and Light-Duty Trucks	Proposed	IIII	April 28, 2004
Iron Foundries	Proposed	EEEE	October 30, 2003
Metal Can Surface Coating	Proposed	KKKK	October 30, 2003
Primary Magnesium Refining	Proposed	TTTT	October 30, 2003
Taconite Iron Ore Processing	Proposed	RRRR	October 30, 2003
Municipal Solid Waste Landfills	Final	AAAA	May 15, 2003

Highlight of the Rules

NESHAP rules generally apply to major sources of Hazardous Air Pollutants (HAPs). There are 188 HAPs identified by the Clean Air Act (CAA) as amended. A major source is a source that emits more than 10 tons per year of a single HAP or 25 tons per year of combined HAPs. A highlight of these NESHAP rules is provided in Table 2. These rules generally have extensive testing, monitoring, recordkeeping, and reporting requirements. Some of them have operational or work practice standards. Regulated facilities are also required to develop a Startup, Shutdown, and Malfunction (SSM) Plan. Although these requirements are very important in achieving compliance, it is not practical to summarize them in this brief communication. Interested readers are encouraged to consult the full text of the proposed or final rules.

Compliance Date

In general, NESHAP compliance dates are 3 years from the time the rules are promulgated.

Case-by-Case MACT

CAA Section 112(j) requires facilities to make case-by-case MACT determinations if EPA has not promulgated the MACT standards for their source categories in 18 months after scheduled promulgation dates (most of them were November 15, 2002). The deadline for case-by-case determination was May 15, 2002. EPA divided the case-by-case MACT applications into two parts. Part 1 was mostly administrative information and was due on May 15, 2002. Part 2 will contain substantive case-by-case MACT determinations. According to the proposed settlement between the Sierra Club and the U.S. EPA, which was published on December 4, 2002, the deadlines for Part 2 have been set and are included in Table 1.

Table 2. Highlight of the Proposed NESHAP Rules

SOURCE CATEGORY	SAMPLES OF REGULATED FACILITY	PROPOSED REQUIREMENTS
Municipal Solid Waste Landfills (Subpart AAAA)	Solid waste landfills – most requirements of this subpart will not take effect until a landfill emits ≥ 50 megagrams per year of non-methane organic compounds (NMOC) and has a design capacity of ≥ 2.5 million megagrams and 2.5 million m ³ .	Same as Emission Guideline and New Source Performance Standard (EG/NSPS), 40 CFR 60 Subpart Cc or WWW, plus: <ul style="list-style-type: none"> • Startup, shutdown, malfunction (SSM) Plan; • Some monitoring and reporting requirements; and • Title V permit even for Title III area sources.
Industrial, Commercial, and Institutional Boilers and Process Heaters (Subpart DDDDD)	Boilers and process heaters at a broad range of sites. Exclusion: the units that have been covered by other NESHAP, fossil fuel-fired utility boilers, municipal waste combustors, commercial and industrial solid waste incinerators, medical waste incinerators, recovery boilers or furnaces, ethylene cracking furnaces, and hazardous waste combustion units.	<ul style="list-style-type: none"> • Various numeric emission limits in the unit of pounds per million British thermal unit (lb/MMBtu) based on sizes, types of fuel, and new or existing units: <ul style="list-style-type: none"> ✓ particulate matter (PM): 0.026-0.2 or N/A; ✓ selected metals: 0.0001-0.001 or N/A, ✓ hydrogen chloride (HCl): 0.0005-0.09 or N/A; ✓ mercury (Hg): 0.000003-0.000007 or N/A; and ✓ carbon monoxide (CO): 400 parts per million (ppm) or N/A. • Operational limits (e.g., scrubber liquid pH, pressure drop, etc.).
Combustion Turbines (Subpart YYYY)	Stationary combustion turbines (CT) (duct burners in a combined cycle system are not included).	<ul style="list-style-type: none"> • There are six subcategories. Although all of them are subject to the rule, only two (existing lean premix CT ≥ 1 megawatt and new CT ≥ 1 megawatt) have emission limitations, which are either reducing CO by $\geq 95\%$ if oxidation catalyst is used or reducing formaldehyde concentration to 43 parts per billion by volume dry (ppbvd) at 15% O₂ if oxidation catalyst is not used. • Other subcategories are subject to no requirements or initial notification only.
Reciprocating Internal Combustion Engines (Subpart ZZZZ)	Stationary reciprocating internal combustion engines (RICE) with > 500 brake horsepower (BHP).	<ul style="list-style-type: none"> • For new or existing 4 stroke rich burn (4SRB) RICE, reduce formaldehyde by 75% if SNCR is used, or limit formaldehyde to 350 ppbvd at 15% O₂ if SNCR is not used. • For new (a) 2SLB, (b) 4SLB, and (c) compression ignition RICE, reduce CO by 60% (a), 93% (b), and 70% (c), respectively, if oxidation catalyst is used; or limit formaldehyde to 17 ppmvd at 15% O₂ (a), 14 ppmvd (b), and 580 ppbvd (c), respectively, if oxidation catalyst is not used. • Except existing spark ignition 4SRB units, all other existing units are not subject to any requirements. • Emergency/limited use units and units that combust landfill gas or digester gas as primary fuel are only subject to initial notification.
Plywood and Composite Wood Products (Subpart DDDD)	Plants that manufacture plywood, veneer, particleboard, oriented strandboard, hardboard, fiberboard, medium density fiberboard, laminated strand lumber, laminated veneer lumber, wood I-joists, kiln-dried lumber, and glue-laminated beams.	Three options are given: <ul style="list-style-type: none"> • Comply with a limit without an add-on control [e.g., for green rotary dryers, if HAP emissions are < 0.058 lb/oven dried ton (ODT) of product, compliance is achieved]; • Add-on control to reduce HAP by 90% or 20 ppmv (or 1 ppmv measured by methanol or formaldehyde); and • Emission averaging to demonstrate compliance.

SOURCE CATEGORY	SAMPLES OF REGULATED FACILITY	PROPOSED REQUIREMENTS
Lime Manufacturing (Subpart AAAAA)	Information has not been released by the U.S. EPA.	Information has not been released by the U.S. EPA.
Surface Coating of Automobiles and Light-Duty Trucks (Subpart IIII)	Automobile and light-duty truck surface coating facilities.	<ul style="list-style-type: none"> For new sources, combined HAP emissions must be < 0.3 pound per gallon (lb/gal) of coating, or < 0.5 lb/gal if some operating limits are met. For exiting sources, combined HAP emissions must be < 0.6 lb/gal of coating, or < 1.1 lb/gal if some operating limits are met. HAP emissions must be < 0.01 lb/lb of adhesive and sealer. HAP emissions must be < 0.01 lb/lb of deadener. Possible add-on control devices: thermal or catalytic oxidizers, carbon adsorbers, condensers. A number of work practice standards are required.
Iron Foundries (Subpart EEEEE)	Information has not been released by the U.S. EPA.	Information has not been released by the U.S. EPA.
Metal Can Surface Coating (Subpart KKKK)	Information has not been released by the U.S. EPA.	Information has not been released by the U.S. EPA.
Primary Magnesium Refining (Subpart TTTTT)	Information has not been released by the U.S. EPA.	Information has not been released by the U.S. EPA.
Taconite Iron Ore Processing (Subpart RRRRR)	Information has not been released by the U.S. EPA.	Information has not been released by the U.S. EPA.

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