



ENVIRONMENTAL AND SAFETY UPDATE

Fall 2014

Smoke and Dye Test for Permittees under the Georgia General Storm Water Permit

Permittees under the Georgia Industrial Storm Water General Permit must document, on the annual report, that they have evaluated for the presence of non-storm water discharges annually and that all unauthorized discharges have been eliminated.

If there are any floor drains in the production area and/or sinks that are not in the bathroom, kitchen, breakroom, etc., evaluation is required.

The evaluation includes:

- Locating potential connections to your storm water system.
- Verification that floor drains and connections go to municipal sewer.

The above needs to be verified from as-built drawings and/or by conducting a smoke and dye test at least once during the term of the permit. The smoke and dye test must be conducted to evaluate for the presence of non-storm water discharges into the storm sewer system from all floor drains, and from all sinks in industrial areas excluding eyewash stations that were installed prior to 1/1/2006.

Facilities must document, in the annual report, the date of the last smoke, dye or equivalent test, or why this test is not applicable to the facility.

Examples of acceptable equivalent tests include television surveillance, and analysis of as-built drawings and piping and drainage schematics. Facilities that certify on their annual report that they have made an analysis within the last 5 years of as-built drawings and/or piping and drainage schematics and found them current and accurate have met this requirement.

Smoke and Dye Testing Services

(Required by the Georgia Industrial Storm Water General Permit)

Services provided by CTI:

- Locate potential connections to your storm water system
- Verify that floor drains and connections go to municipal sewer
- Prepare reports showing compliance with the General Permit



Dye Test



Smoke Test

Meeting Compliance Schedule and Requirements of Boiler MACT

The purpose of this article is to walk you through the Boiler MACT applicability, compliance dates and what regulations are applicable to your facility's boiler and/or process heater. The full names of Boiler MACT and GACT as published in the Federal Register 40 CFR Part 63, is as follows: Boiler GACT (Generally Achievable Control Technologies), in short refers to the USEPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) for Area Source: Industrial, Commercial and Institutional Boilers. Boiler MACT (Maximum Achievable Control Technology) refers to the USEPA's NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.

The Four Rules

To figure what rule applies to your facility, you first need to understand the Boiler MACT basic 4 rules. Boiler MACT is used in a generalized form to include the following specific rules:

1. Boiler Area Source is a boiler located at a facility (industrial, commercial or institutional) that has potential emissions of Hazardous Air Pollutants (HAP) less than 10 tons per year of any single HAP or less than 25 tons per year of all HAPs combined. EPA allows Boiler Area Source facilities the use of Generally Available Control Technologies (GACT) or management practices to reduce emissions of hazardous air pollutants (as compared to Boiler MACT facilities explained later requiring stricter practices). Therefore, the Boiler Area Source is also referred to as Boiler GACT. See the Applicability Chart to determine how your boiler is classified.
2. The Boiler MACT rule applies to new and existing boilers and process heaters at major source emitters (commercial or institutional) of Hazardous Air Pollutants (HAPs). In the context of this rule, major sources are defined as having potential emissions of HAPs in excess of 10 tons per year of any single HAP or 25 tons per year of all HAPs combined. If your facility possesses a Title V or Part 70 (Major Source) Air Quality Permit, this does not necessarily mean that the Boiler MACT applies to you. A Title V Air Quality Permit signifies that actual emissions of at least one criteria pollutant (e.g. particulate matter, carbon monoxide, volatile organic compounds, etc.) exceed 100 tons per year for non-HAP pollutants or the 10/25 ton per year HAP thresholds previously stated. If permitted emissions of HAPs are below the major source thresholds, Boiler MACT does not apply to you; however, Boiler GACT may. See the Applicability Chart to determine how your boiler is classified.
3. Non-Hazardous Secondary Materials (NHSM) regulations identify which materials can be burned in Boiler MACT or GACT. In general, materials are considered

NHSM and can be burned in boilers or process heater that are considered Boiler MACT or GACT if:

- The material used as a fuel remains within the control of the generator (whether at the site of generation or another site the generator has control over) and meets the legitimacy criteria. (for the definition of legitimacy criteria, please see 40 CFR 241.3 (d)).
 - The material is used as an ingredient in a manufacturing process (whether by the generator or outside the control of the generator) that meets the legitimacy criteria.
 - The material has been sufficiently processed to produce a fuel or ingredient product that meets the legitimacy criteria.
 - The material that has been determined through a case-by-case petition process not to have been discarded and to be indistinguishable in all relevant aspects from a fuel product.
 - The material has been identified as a categorical non-waste fuel. Materials that have received a categorical non-waste determination from the EPA are:
 - Scrap tires that are managed under established tire collection programs;
 - Resinated wood;
 - Coal refuse that has been recovered from legacy piles and processed in the same manner as currently-generated coal refuse;
 - Dewatered pulp and paper sludges burned on-site at facilities that use a significant portion of materials as fuels, where such dewatered sludges are managed in a manner that preserves the meaningful heating value of the materials.
4. A Commercial and Industrial Solid Waste Incinerator (CISWI) unit is a device that is used to burn solid waste at a commercial or industrial facility.

Boiler MACT and GACT apply to many industrial facilities with boilers and process heaters. NHSM and CISWI applies to only a small portion of industrial facilities. Therefore, the rest of this article will focus on Boiler MACT and GACT. See the applicability chart below to determine which of the four rules apply to your facility, or whether your facility is exempt from any of the four rules.

What is required?

Boiler MACT - You should have submitted the Initial Notification Report and Notification Compliance Status to the State and to the US EPA by 5/31/2013.

Meet emission limitations through performance tests and/or fuel analyses. There are a few exceptions, including limited-use boilers, boilers or process heaters associated with a source already subject to another rule, and boilers

Meeting Compliance Schedule and Requirements of Boiler MACT (Cont)

or process heaters used as emission control devices (e.g. thermal oxidizers). The emission limits in the rule are set quite low. It is conceivable that some older boilers currently in operation will require updated pollution control technologies.

Additionally, all facilities must conduct regular tune-ups and perform a onetime boiler energy assessment of at least one boiler.

Boiler Area Source - You should have submitted the Initial Notification Report and Notification of Compliance Status to the State and US EPA by January 20, 2014.

Under the current Boiler Area Source rule, all new or reconstructed boilers, and existing coal-fired and oil-fired boilers must meet emission limitations through performance tests and/or fuel analyses. The emission limits in the Area Source rule are generally set lower than those in the MACT rule. Existing biomass boilers are not required to meet emission limitations.

Additionally, the facility must conduct boiler tune-ups and perform a onetime boiler energy assessment of at least one boiler.

For existing units, the tune-up and the one time comprehensive energy assessment were required to be completed by March 21, 2014 by a qualified energy assessor.

GACT VS MACT	Initial Notificaiton	Compliance Deadline
Area Source (GACT) - Facilities that are not a Major Source for Hazardous Air Pollutants (HAPs)	January 20, 2014	March 21, 2014
Major Source (MACT) - Facilities that are Major Source for HAPs	May 31, 2013	January 31, 2016

So What do I do Now?

1. Determine if and how Boiler MACT is applicable to you using the applicability chart in this article.
2. If you determine that your facility is Boiler Area Source, the deadlines have passed. You should submit Initial Notification now and conduct tune-up and Energy Assessment as soon as possible.
3. If you determine that your facility is Boiler MACT, the deadline for Initial Notification has passed. You should submit the notification now.

You need to start planning, as soon as possible, for your boilers and/or process heaters to come into compliance with the rule. January 31, 2016, the compliance deadline, might seem far away, but it is not if you need to complete the following:

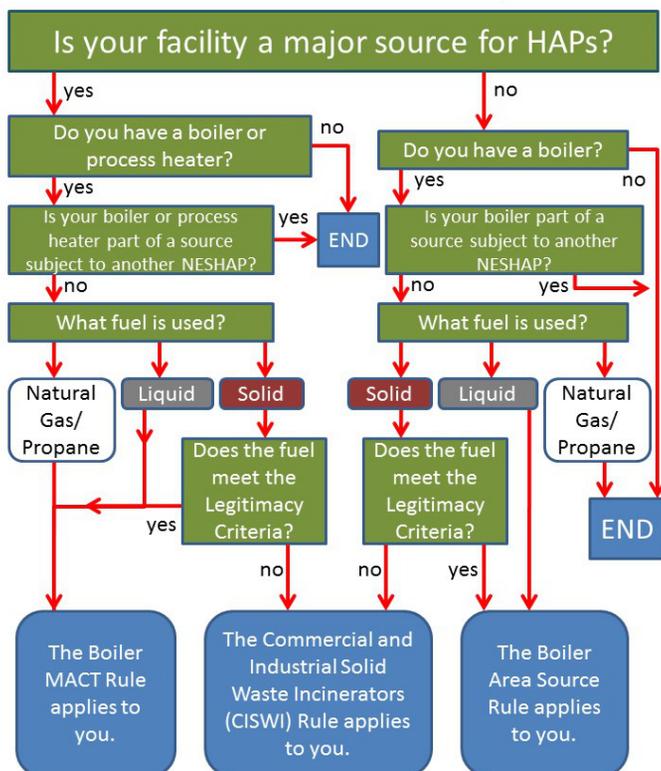
- Conduct an energy assessment
- Conduct a tune-up
- Boiler and process heater, not fueled by only natural gas, will be required to meet more stringent emission limitations. Careful and timely planning is required to design and optimize how to meet those limitations in the most efficient way.

4. If you determine that there is a possibility that your boiler or process heater will be fueled by fuel that will not be classified NHSM or will not meet the Legitimacy Criteria after January 31, 2016, you need to start taking action immediately to address this problem.
5. If you determine that the facility uses a CISWI, you need to start taking action to ensure that the unit is in compliance.

How Can Conversion Technology Inc. (CTI) help?

- 1) Help you determine which of the above rules apply to your facility.
- 2) Provide consulting to optimize the process of ensuring that your Boiler MACT, Process Heater, Area Source, NHSM or SISWI are in compliance by the deadlines..
- 3) Provide boiler tune-up.
- 4) CTI's engineers are qualified energy assessors and can perform the required energy assessment.

APPLICABILITY CHART OF THE BOILER GACT/MACT RULES



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CTI's Network of Websites:
www.conversiontechnology.com
www.boilermactcompliance.com
www.comdustsafety.com
www.airleakagetest.net
www.gogreencti.com



- ◆ AIR QUALITY
- ◆ AIR LEAKAGE TESTING
- ◆ ARC FLASH SAFETY
- ◆ AUDITS & EVALUATIONS
- ◆ COMBUSTIBLE DUST SAFETY
- ◆ ESH MANAGEMENT SYSTEM

- ◆ ESH PROGRAMS AND TRAINING
- ◆ ESH PROJECT IMPLEMENTATION
- ◆ HAZARDOUS MATERIALS
- ◆ GROUNDWATER QUALITY
- ◆ INDOOR AIR QUALITY
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- ◆ LEED CONSULTING SERVICES
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- ◆ PROCESS SAFETY/RISK MANAGEMENT
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- ◆ WASTE MANAGEMENT
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