



plan energy assessments ahead of time to meet January 2016 deadline

does my facility need to complete an energy assessment?

The final boiler MACT (maximum achievable control technology) rule regulating major sources* of hazardous air pollutants (HAPs) from boilers and process heaters was promulgated in January 2013**.

The rule requires owners to conduct, before January 31, 2016, a one-time assessment of the energy used by existing boiler and process-heater systems (see box on reverse) to identify cost-effective energy conservation measures.

what exactly is an energy assessment?

An assessment must include these seven items:

1. a visual inspection of boiler or process-heater systems
2. an evaluation of operating characteristics and O&M procedures
3. an inventory of major energy-use systems under control of the owner or operator
4. a review of architectural and engineering plans, O&M logs, and fuel usage
5. a list of current energy-management practices and recommendations for improvement
6. a list of cost-effective energy conservation measures within the facility's control, and potential savings from them
7. a comprehensive report on potential improvements, costs, benefits, and time frames to recoup investment

*Major sources are those with the potential to emit 10 tons or more per year of a single HAP or 25 tpy or more of combined HAPs.

**40 CFR 63 Subpart DDDDD

The U.S. Environmental Protection Agency has attempted to limit the assessment scope by setting maximum onsite technical hours depending on the facility-wide capacity of affected boilers and process heaters, but owners may exceed those at their discretion. **Note:** the EPA does not require that the owner implement energy conservation measures identified by the assessment.

what are the options for completing an assessment?

Any energy assessment completed on or after January 1, 2008, satisfies the requirement, provided all necessary assessment items are addressed; an ISO 50001-compatible energy management program may also satisfy the requirement if it includes affected boilers and process heaters. If neither of those situations applies, your facility must conduct an assessment before January 31, 2016, using internal resources and/or third-party assessors (see next page). **Note:** the EPA has proposed that management programs compliant with Energy Star guidelines fulfill the assessment requirement—but that is not yet an official provision.

what is the time frame for completing assessments?

Energy assessments and their corresponding reports must be completed by January 31, 2016. Because assessments require collecting facility background data, visiting sites, reviewing data, and finalizing reports, they can take three to eight months from start to finish, depending on the facility-wide capacity of affected boilers and process heaters. As the deadline draws closer, the availability of energy assessors will be limited—meaning that facility owners can best ensure on-time completion by scheduling assessments for early 2015.

Although facility owners do not have to submit assessments to the EPA, they must notify the agency that they have complied with this requirement. Since reports can be requested by the EPA or public, it's important to balance regulatory requirements with confidential business information when developing the report.

who can conduct energy assessments?

Assessments must be completed by qualified energy assessors who possess:

- the background, experience, and recognized abilities needed to perform assessment activities, analyze data, and prepare reports
- familiarity with O&M practices for steam or process-heating systems
- knowledge of potential steam-system innovations such as turbine-operation improvements and steam-demand reduction
- an understanding of process-heating system improvements such as utilization of waste heat and use of proper process-heating methods
- experience with boiler-steam turbine cogeneration systems
- expertise with industry-specific steam end-use systems

Teams of internal or third-party personnel whose collective qualifications fulfill the above requirements are also considered qualified energy assessors.

boiler GACT area-source energy assessments

Although the deadline for performing boiler GACT (generally available control technology) energy assessments for area HAP sources was March 31, 2014, Barr can still provide assistance with assessments and agency communication for facilities that missed the deadline.

definitions

Boiler system means a boiler's burner and its associated components, such as systems providing fuel, steam, feedwater, blowdown, combustion air, combustion control, and condensate return.

Process heaters are enclosed devices using controlled flames, whose primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or a heat-transfer material (e.g., glycol or a mixture of glycol and water) for use in a process unit rather in steam generation. They are devices in which combustion gases do not directly contact process materials. Process heaters do not include autoclaves or units used for comfort or space heat or to prepare food for onsite consumption.

Energy-use systems are those using steam, hot water, or electricity produced by affected onsite boilers and process heaters, including process heating and cooling units; HVAC, hot-water, and compressed-air systems; machine drives (motors, pumps, fans); building envelopes; and lighting. Other systems that use steam, hot water, heat, or electricity provided by affected boilers or process heaters are also considered energy-use systems.

why choose us?

Barr has been helping clients comply with air quality regulations since the federal government introduced them nearly 25 years ago, and we've been designing steam- and process-heating systems for half a century. This background, combined with our staff of energy auditors certified by the Association of Energy Engineers, offers companies the confidence that energy assessments will be performed with thoroughness and accuracy. We work with clients to identify energy conservation measures that are practical but also fulfill regulatory requirements.

Contact Barr to schedule an assessment, learn more about the requirements, or find out how an energy assessment may lower your air emissions and/or fuel costs:

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