


1. General Requirements: *Any air emission source to be built or modified at any facility in New York State must be evaluated to determine if an air permit is required, or if an exemption from permitting must be obtained, to be incorporated into the facility permit prior to the start of construction. The facility itself typically has, or will be required to have, a permit covering all of its sources. The start of construction is usually identified as the installation of foundations where the source will be installed, or the ordering of the equipment that is the source of air emissions. It is essential to assess permit requirements in the early design stages of a project, since this may be critical to construction schedules.*

Some emission sources may be “exempt”, such as kitchen hoods, hot water heaters, or ventilation fans that are part of a large campus or institution; but these may still be required to be identified in a facility-wide air permit. A small boiler or generator may even require a specific permit or approval, as described below. The primary emissions of concern include particulate matter (PM), nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), and volatile organic compounds (VOC); other limited contaminants include asbestos fibers and lead. Specific requirements follow. Combustion sources in particular, such as boilers or emergency generators, are strictly regulated. A boiler permitting flowchart is attached for guidance.

2. Rules and Regulations:
 - a. Title 6, New York Codes Rules and regulations, Parts 200, 201, 227, and 231, among others.
 - b. Title 40, Code of Federal regulations, Parts 50, 51, 60 and 61, among others
 - c. Title 15, Rules of the City of NY; or other local jurisdictions (e.g., Rockland and Westchester Co.)
3. Definitions:
 - a. An Emission source (‘source’) is defined by the U.S. Environmental Protection Agency (the EPA) and the New York State Department of Environmental Conservation (the DEC) as “any apparatus, contrivance or machine capable of causing emission of any air contaminant to the outdoor atmosphere”.
 - b. An air contaminant is any “chemical, dust, fume, gas, mist, odor, smoke, vapor, pollen or any combination thereof.” ‘Source’ and ‘Contaminant’ are very broadly interpreted by DEC and EPA.
 - c. A Facility is a group of emission sources on contiguous or adjacent properties, under common ownership or control. A hospital or college campus consisting of many separate buildings would generally be a “facility”, even if streets separate some of the buildings or sources.
4. Source Permits: Some examples of sources installed on DASNY projects include “Combustion sources”, such as boilers, emergency generators, gas-fired heaters or hot water heaters; and coating or painting operations. Many of these are exempt from permitting, but some are not, and still others require controls; either for a particular unit, or for the facility overall. Facility staff must be contacted to assess the requirements of the facility overall. Code Compliance staff can also look up facility status.
 - a. Boilers are the primary examples of emission sources needing permits on DASNY projects.

- If smaller than 10 million BTUs per hour heat input (often stated as 10 mmBTU/hr) then the boiler will not typically require a DEC or EPA permit, but still may require a permit or certificate from the code enforcement official.
 - In NYC, units > 350,000 BTU/hr typically require certificates. For wood or coal, boilers \geq 1 mmBTU/hr require permits.
 - Even a small boiler must still be reviewed in the context of the entire facility; if an entire facility has a limit on NOx emissions for example, as is common in NY City, then all sources must be taken into account. In that case, even facility gas-fired hot water heater emissions must be counted.
- b. Emergency Generators are technically “exempt” from NYS permitting, but are still required to meet EPA emission standards – the manufacturers are required to meet these standards, limiting NOx, PM, and other emissions. Emergency generators are limited to 500 hours per year of operation, and may not be used to reduce “peak” energy costs at times of high demand. Hours must be tracked to demonstrate that the units qualify for the exemption, including hours of operation for routine testing. Many EPA-required permit conditions now apply, even though they are NYS “exempt”.
5. DEC Facility Permits – These permits, when required, govern air emissions at the entire facility. It may be a “State Facility Permit” or a “Title V Permit” in NY. These permits fulfill both State and Federal air quality requirements, and involve monitoring of emissions from all sources; exempt sources are also identified and emissions may be monitored. It is important to discuss the details of the Facility Permit with the Facility contacts. This should be identified as part of the design criteria, at the start of the project design phase. It may be critical to the project construction schedule.
6. Specific Sources and Controls or Authorizations:
- a. Emergency Generators. The DEC defines “Emergency Generators” as those providing electricity, heat and, fire protection services (such as diesel fire pumps) when normal sources of power are not available. Generating power for a remote site where “line service” is not available would not be emergency power. As noted above, these sources must still meet EPA and DEC emission limits, and be identified in the “Facility Permit”, if the facility has one. Prior to ordering the equipment, the Design Professional must assess the facility permit status, and meet with the facility representatives to assess potential impacts. Specific requirements for generators according to size are found in the reference DEC regulations.
 - b. Boilers. As noted above, boilers generally require State and local permits or authorizations, and may also be EPA-regulated. Permit planning should commence early in the design review process.
7. NYC DEP Permits – Separate permits are required in NY City for Combustion Sources (e.g. generators and boilers), as well as Rockland and Westchester Counties as noted above.
- a. Any combustion source >350,000 BTU/hr requires a registration with the NYC DEP. If fuel-oil fired, the DOB also requires a registration for the tank, independent of the NYS DEC registration.

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- b. Any combustion source >2.8 million BTU/hr requires a DEP Certificate to Operate (CTO). The CTO takes significantly more information, and more time to process by DEP. Forms and details are found at <http://www.ci.nyc.ny.us/html/dep/html/air/index.shtml>