



Connecticut Department of Energy and Environmental Protection



Connecticut Minor Source Permitting

- Connecticut's Minor Source Air Permitting Program began in 1972

At that time the regulations were one page that essentially exempted everything that had a “*less than*” standard for various source categories. Over time the applicability evolved primarily to PTE > 5 tpy.

- For the most part, today's threshold for permitting is any source with PTE > 15 tpy for any pollutant. Some sources such as incinerators require permits regardless of PTE.
- The Department issues a single CP/OP for both major and minor sources.



Connecticut Minor Source Permitting

Permitting Support

Applicants have access to online permitting support:

- Permitting Wizard: Interactive questionnaire to help determine permit applicability
- Fact Sheets for certain source categories
- Connecticut BACT database
- Ambient Impact Analysis Guideline and Inventory Radius Search Tool
- Emission Calculators
- Air Permitting FAQ online
- Pre-Application Meetings are strongly recommended
- *Engineer of the Day* can answer general questions by phone



Permitting

- There are *Boiler Plate* templates for most sources categories that can be tailored to the applicants operating needs.
- All sources that are issued a permit require NAAQS compliance: (i.e. stack height analysis, screening, refined modeling)
- Air Toxics evaluation based on *Maximum Allowable Stack Concentrations* (MASC). Compliance is based on a Gaussian equation using stack height, emission rate, distance to the property line and a *hazard limiting value* (HLV) for each HAP.
- All sources with controls require initial and recurring stack testing.



Permitting

- Department is supposed to issue a determination on the application within 180 days.
- Required 30-day comment period for both the public and applicant to submit comments on the draft permit.
- There is opportunity for a hearing if requested.

Connecticut's minor source permitting structure is primarily due to the fact that at one time most of the state was classified as non-attainment for Particulate Matter/Carbon Monoxide and continues to be classified non-attainment for ozone.



Permitting

- Environmental Justice could be applicable for certain source categories and locations.
- Minor source permits will contain the requirements for federal rules if Connecticut has delegation.
- Connecticut does issue minor source permits at major facilities. This issue comes up quite frequently with the Engineer of the Day calls.
- Minor source permits do not expire and are only updated if and when they are modified.



BACT

- A BACT review is required for all pollutants with PTE > 15 tpy. This requirement, along with a policy of requiring a top-down approach, has been responsible for controls on many minor source that typically were not required prior to 2002.

Prior to and soon after the regulation change in 2002, the typical BACT determination for minor sources was a limit on emissions to < 15 tpy. Once the top-down approach began, it became apparent that controls were not always cost prohibitive.

- Connecticut does not use a *Presumptive* BACT standard or \$/ton threshold.



Permit-by-Rule

- For sources with PTE > 15 tpy there is a *permit-by-rule* regulation for the following source categories:
 1. Small boilers: <50 MMBtu (gaseous fuels); <25 MMBtu (distillate); <15 MMBtu (Residual) along with fuel limitations
 2. Automotive Refinishing: <2,000 gallons of coating & solvents
 3. Emergency Engines: <300 hours/yr; fuel oil must be ULSD
 4. Non-metallic Mineral Processing Equipment: Limitations on fuel use and sulfur content for liquid fuel; electric powered units must have actual PM emissions <15 tpy
 5. Surface Coating: VOC/HAP content <6.3 lb/gallon, as applied; total coating and solvent <3,000 gal/yr



Permit-by-Rule

Separate regulations for Combined Heat and Power and Distributive Generation sources

Combined Heat and Power

1. Minimum thermal efficiency of 55% or greater. Nameplate capacity <10 MW, including all other fossil fuel fired electricity generating units at the facility, excluding emergency generators.
2. Natural gas and/or ULSD. Turbines firing ULSD must be less than 10% capacity factor.
3. Stack height requirements in lieu of ambient impact analysis
4. Emission Limitations for NO_x, CO, PM_{10/2.5}, and Ammonia (if applicable)
5. Performance testing or CEM



Permit-by-Rule

Combined Heat and Power Sources

7. Annual emissions limitation for all criteria pollutants <15 tpy and aggregate emissions of federal HAP <3 tpy.
 8. Annual tune-up
 9. Monitoring, record keeping and reporting requirements (including initial notification of construction)
 10. Cannot be a new major stationary source or major modification of an existing source.
- Distributed Generation has similar requirements to CHP but hours of operation are limited by an equation based on CO emissions, which seems to be too limiting for most sources.



Questions?

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