

## RACT Certification

### Follow-up to New Hampshire's Submission on September 6, 2018

#### General Methodology

New Hampshire's Reasonably Available Control Technology (RACT) limits and regulations were developed using a combination of inputs including emission inventories from stationary sources, EPA Control Techniques Guidelines (CTG) and Alternative Control Techniques (ACT) documents, rules from other states, stakeholder feedback within NH as well as model rules or recommendations coordinated and compiled by regional partnerships with Northeast States for Coordinated Air Use Management (NESCAUM) and Ozone Transport Commission (OTC). These various data sources helped define the initial rules and initial cost analysis. More recent rule revisions have been prompted by emissions test data, updated emission data from specific source categories, initiatives to address other environmental impacts such as regional haze, as well as ongoing stakeholder comments on proposed changes.

#### NOx RACT – Limits that were not changed

In 2018, New Hampshire revised regulations for NOx RACT sources under Env-A 1300. The September 6, 2018 submission outlined several sections that were not revised under Appendix F, Section 3.11. These sections included Env-A 1308, Asphalt Plant Rotary Dryers; Env-A 1310, Wallboard Manufacturing Facilities; Env-A 1312, Auxiliary Boilers; and Env-A 1313, Miscellaneous Stationary Sources. The active sources in these categories represent 1.5% of the NOx emissions emitted from all RACT sources in 2017 for a total of 34 tons per year. The emissions from these sources are already minimal in terms of overall emissions from NOx RACT sources, therefore no changes were proposed.

In addition, New Hampshire does not currently have any Asphalt Plant Dryers subject to RACT under Env-A 1308. Active operating asphalt facilities have accepted a cap on NOx emissions below 50 tons per year in order to stay below the RACT threshold. There are four facilities subject to the auxiliary boiler category under Env-A 1312 and emissions from these sources totaled 6.6 tons in 2017. Due to the limited nature of auxiliary boiler operations the existing limits are still considered RACT. Finally, only one source is subject to Env-A 1313 -- a solid waste landfill operating several flares for landfill gas management. The landfill has been issued a site-specific RACT order to manage and minimize NOx from the combustion of landfill gas. Emissions from the flare operations total less than a half a ton of NOx per year. RACT for miscellaneous sources would be determined on a case-by-case basis as outlined in the rule.

Annual boiler tune-up requirements contained in Env-A 1303.03 which apply to Utility, Steam Electric and Industrial boilers covered under Env-A 1303 through Env-A 1305 were revised to match federal requirements in 40 CFR 63, Subpart JJJJJ and Subpart DDDDD. Emission limits for Industrial Boilers, Env-A 1305.03 through 1305.14, (emission units listed in Appendix F, Section 3.5.2 of the RACT Certification submittal) were not revised for several reasons:

- There are no longer any remaining sources subject to Env-A 1305.03 (Industrial boilers between 50-100 MMBtu/hr). At the time the RACT Certification was written the one unit in this category had not been installed yet. Ultimately the installed unit was below 50 MMBtu/hr.
- The only unit in NH subject to Env-A 1305.07 (Boilers firing gas) had total NOx emissions under 2 tons in 2017. Consequently, RACT limits for boilers firing natural gas were not adjusted.
- There are no longer any sources in NH subject to Env-A 1305.12 (Boilers firing oil and/or gas > 100 MMBtu/hr). Two units subject to Env-A 1305.12 were nearing their end of life, shutdown in 2021, and were replaced with a smaller NG fired boiler below 50 MMBtu/hr subject to Env-A 1305.02. The only other emission source subject to Env-A 1305.12 was derated below 100 MMBtu in 2018, switching its applicable RACT category to Env-A 1305.05 (Boilers firing oil between 50-100 MMBtu/hr).

**VOC RACT**

NH used the general methodology described above to develop VOC RACT requirements. The OTC model rule process is described on the [OTC website](#). Specifically, NH used model rules for Industrial Cleaning Solvents, Consumer Products, and Architectural and Industrial Maintenance Coatings to develop VOC regulations.

NH has several VOC RACT requirements that exceed the recommendations in the Control Techniques Guidelines. Here are some examples:

NH Rule Citation	Category	Description of requirement exceeding CTG
Env-A 1213.06(b) & (c)	Touch-up and repair activities at wood furniture, wood burial casket and gunstock coating facilities	5 gal/day limit on touchup or repair with conventional air spray methods;  10 gal/day limit for touch-up and repair with aerosol cans or non-compliant coatings.
Env-A 1215.02(c) & 1215.03	Rotogravure	Control efficiencies for carbon absorption and incinerator higher (~90%) than CTG recommendation of 65-70%. VOC content limit on inks of 0.5 g VOC/kg solids.
Env-A 1217.09(d)	Bulk Gasoline Plants	Additional requirements during ozone season with specific limits and monitoring of gauge pressure, leak detection and repair within 16 days
Env-A 1218.02(b) & (c)	Cutback and Emulsified Asphalt	Limited use of cutback asphalt during June-September  Limits on maximum solvent content of emulsified asphalt for several scenarios (as recommended in <a href="#">EPA memo dated Oct 4, 1979</a> )
Env-A 1221.02	Industrial Cleaning Solvents – Cold cleaning	Vapor pressure of solvent in cold cleaners limited to <1 mm Hg at 20C ( <a href="#">OTC Model Rule 2001 – Solvents and Cleaners Phase I</a> )  Sale of solvents exceeding 1 mm Hg vapor pressure are not permitted in the state
Env-A 1221.07(d)	Industrial Cleaning Solvents	Alternative to 50 g VOC/L with 80% controls and 200 g VOC/l or limit of 60 gal/month on fresh solvent