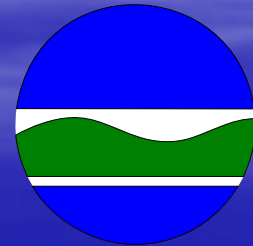


NYS Permitting Requirements for Stationary Sources of Air Pollution: Wood Biomass Combustion

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Air Permit Applicability

- 6 NYCRR Part 201 – Permits and Registrations
- Any wood-fired stationary combustion installation with a maximum heat input of 1 million Btu/hour or greater requires an air permit or registration certificate

Permitting Options

- Types
 - Air Facility Registration
 - Air State Facility Permit
 - Title V Permit
- Case-by-case depending on the facility's potential to emit (PTE) and how it compares to major source threshold (per regulated air pollutant)
 - PTE: maximum annual emissions under facility's physical and operational design (assumes 8760 hrs/yr operation @ maximum conditions)

Major Source Thresholds – Upstate NY

Air Contaminant	Quantity (TPY)
NOx	100
VOC	50
PM, CO, SO ₂	100
HAPs (single/total)	10 / 25

Air Facility Registrations

- Minor facilities with emissions below 50% of major source thresholds
- Sources can cap by rule (201-7.3)
- Simple process
- One page certificate with general description and list of applicable regulations
- Facility must maintain records

Air State Facility Permits

- Minor facilities with emissions between 50% and 100% of major source thresholds
- Synthetic minors – facility can accept caps on source PTEs to become minor and avoid other requirements (e.g. NNSR or PSD)
- More involved application process
- Requirements (i.e., emissions limits, testing, reporting, recordkeeping) are specified

Title V Permits

- Major facilities with emissions greater than any of the major source thresholds
- Requirements are specified - testing and reporting are typically more frequent
- Subject to US EPA review prior to issuance
- Sources may be subject to NNSR (Subpart 231-2) and/or PSD (40 CFR 52.21)
 - allows for capping from these requirements

Base Regulatory Requirements - Independent of Boiler Size

- Part 200 – General Provisions
- Part 201 – Permits and Registrations
- Part 211 – General Prohibitions
- Subpart 225-1 – Fuel Sulfur Limitations
 - Oil
 - Solid fuel
- Subpart 227-1 – Stationary Combustion Installations
 - Particulate emissions
 - Opacity standard: < 20 percent

Requirements: Boiler Heat Input Capacity < 10 mmBtu/hr

- Likely eligible for Air Registration
- PM emission rate = 0.60 lb/mmBtu (Subpart 227-1)

Requirements: Boiler Heat Input Capacity @ 10-100 mmBtu/hr

- Either Registration, State Facility Permit, or Title V Permit
- 40 CFR 60, Subpart Dc applicable
 - PM limit = 0.10 lb/mmBtu if boiler heat input greater than or equal to 30 mmBtu/hr
 - Monitoring/testing, recordkeeping, reporting
- Subpart 227-1 PM limits (0.47-0.60 lb/mmBtu) applicable if boiler heat input < 30 mmBtu/hr
- NNSR, PSD, and/or 40 CFR 64 (CAM) applicability is possible only if facility is subject to Title V major source permit
- Subpart 227-2 NO_x RACT applicability if facility is major source for NO_x

Requirements: Boiler Heat Input Capacity > 100 mmBtu/hr

- Likely Title V Permit, perhaps State Facility Permit
- 40 CFR 60, Subpart Db applicable
 - PM limit = 0.10 lb/mmBtu
 - Monitoring/testing, recordkeeping, reporting
 - NOx limit for natural gas with wood = 0.30 lb/mmBtu
- NNSR, PSD, and/or 40 CFR 64 (CAM) applicability is possible only if facility is subject to Title V major source permit
- Subpart 227-2 NOx RACT applicability (0.33 lb/mmBtu) if facility is major source for NOx

Other Considerations

- $PM_{2.5}$
 - DEC Policy: CP-33 / Assessing and Mitigating Impacts of Fine PM Emissions
 - EPA Final NSR Rule for $PM_{2.5}$ - signed 5/8/08
 - 24-hr background values vs. 24-hr NAAQS
- Sensitive receptors (population) at certain facilities (e.g., schools)
 - Stack locations and heights
 - Emissions testing – upcoming studies
 - Cleaner biomass combustion technologies
- Upcoming regulatory promulgation and upgrades
 - New climate change performance standards (Part 251)
 - Revisions to Part 201, Part 231, and perhaps Subpart 227-1 (PM limits, especially for smaller solid fuel boilers)

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