



Connecticut Department of Energy and Environmental Protection



Status of RCSA Section 22a-174-22 – The Next Generation

October 9, 2014
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Connecticut Department of Energy and Environmental Protection

Individual meetings held so far...

- PSEG
- Yale
- Navy Sub Base
- UTC
- Dominion
- NRG
- UCONN (written comments only)
- MIRA (meeting to be scheduled)



Common Issues

- **Applicability**
 - Define non-road engine applicability.
 - NY-type applicability is very clear.
 - Define the universe impacted by 137/274 lb/day provisions.
- **Emissions limits**
 - Averaging times and startup/shutdown are important considerations.
 - Averaging provisions across units could be useful.
 - NY-type stratification of boiler limits by size and fuel makes more sense than a “one-size fits all” limit.
 - Concerns raised about feasibility of trading in Phase 1.
- **Implementation of the requirement not to test engines on bad ozone days** can be logistically challenging.
- **Compliance testing.**
 - Allow the schedule for retesting to prevent test creep.
 - Test requirements (especially with respect the capacity at the time of the test) should be consistent with federal requirements (i.e., MATS, Boiler MACT, RICE NESHAP, NSPS).



Current Thinking

- For Phase 2, divide boiler emissions limits by size and fuel.
- Include clarifying language regarding non-road engines.
- Considering whether the goal of the 137/274 lb/day applicability requirement could be met with a different provision or whether to maintain as is.
- Redefine Phase 1 with no trading (program feasibility in doubt) and other compliance options.
- Redefine Phase 2.
- Considering Phase 1/Phase 2 requirements specific to High Electric Demand Day (HEDD) units.



NJ and NY NOx limits for Boilers Serving EGUs and ICI boilers

| NJ | Coal | Natural gas | Other gas (not refinery) | No. 2 oil | Other liquid fuels | Dual fuel |
|---|-------------|--------------------|-------------------------------------|------------------|-------------------------------|------------------|
| Boilers serving EGUs | 1.50 lb/MWh | 1.00 lb/MWh | _____ | 1.00 lb/MWh | 2.00 lb/MWh | _____ |
| ICI boilers* 25 MMBtu/hr up to 100 MMBtu/hr | _____ | 0.05 lb/MMBtu | 0.20 lb/MMBtu | 0.08 lb/MMBtu | 0.20 lb/MMBtu | 0.12 lb/MMBtu |
| ICI boilers* 100 MMBtu/hr or greater | _____ | 0.10 lb/MMBtu | 0.20 lb/MMBtu | 0.10 lb/MMBtu | 0.20 lb/MMBtu | 0.20 lb/MMBtu |

*Whether or not at a major NOx facility

| NY | Coal | Gas only | Gas/Oil |
|---------------------------------------|---|-----------------|--|
| Mid size boilers 25-100 MMBtu/hr | _____ | 0.05 lb/MMBtu | 0.08 lb/MMBtu (distillate oil/gas) 0.20 lb/MMBtu (residual oil/gas) |
| Large boilers 100-250 MMBtu/hr | 0.20 lb/MMBtu (pulverized) 0.08 lb/MMBtu (fluidized bed) | 0.06 lb/MMBtu | 0.15 lb/MMBtu |
| Very large boilers 250 MMBtu/hr and > | 0.12 lb/MMBtu 0.20 lb/MMBtu (cyclone) 0.08 lb/MMBtu (fluidized bed) | 0.08 lb/MMBtu | 0.15 lb/MMBtu 0.20 lb/MMBtu (cyclone) |



Single Fuel ICI Boilers in 2013 EMIT

| Design Capacity (MMBtu/hr) | Natural Gas | No. 2 Oil | No. 4 Oil | No. 6 Oil | Other Fuels | Total No. Units | % |
|----------------------------|-------------|-----------|-----------|-----------|-------------|-----------------|------|
| 0 - <5 | 118 | 195 | 94 | 1 | 21 | 429 | 33.4 |
| 5 - <25 | 202 | 363 | 175 | 45 | 13 | 798 | 62.1 |
| 25 - <100 | 31 | 4 | 6 | 8 | 2 | 51 | 4.0 |
| 100 - <250 | 6 | 1 | | | | 7 | 0.5 |
| 250> | 1 | | | | | | 0.1 |
| Total No. Units | 358 | 563 | 275 | 54 | 36 | 1286 | |
| % Total | 27.8 | 43.8 | 21.4 | 4.2 | 2.8 | | |



Next steps

- If any other source would like to come in and meet with us, please let us know ASAP.
- Focus on applicability, emissions limitations, and compliance options in Phase 1 and Phase 2 in October.
 - Develop an outline and perhaps rule language for the first two areas.
- Share draft regulation outline/language with SIPRAC subcommittee by November 13th SIPRAC meeting.

