



Update on CTDEP's Amendment to the NO_x Regulation

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SIPRAC

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Drivers

- NAAQS Attainment
- Encourage Regional Consistency
- Future Drivers
 - State Energy Planning
 - NAAQS attainment
 - 2006 OTC ICI boiler limits
 - HEDD



RCSA 22a-174-22

Highlights

- Applicability
- Exemptions
- Emission limits
- Tune-up Program
- Trading Program
- Control Strategy Plans



Applicability

- All standards & requirements apply:
 - Premises actuals $\geq 25^*/50$ tpy
 - Unit actuals $\geq 137^*/274$ lbs/day during ozone season
 - Boiler MRC ≥ 50 MMBtu/hr
 - Tune-up & record keeping only apply:
 - Premises pte $\geq 25^*/50$ tpy
 - Unit pte $\geq 137^*/274$ lbs/day during ozone season
 - Boiler MRC 5 to 50MMBtu/hr
- (*no longer includes Middlesex and New Haven)



Exemptions

- Mobile sources
- MWCs
- Emergency engines at NRC licensed facilities
- Test stand or test cell (d) through (n) not applicable
- Only those subject to schedule modification are still subject



Emission Limitations

- May 1, 2009 Effective Date
- Recommendations
 - Corrected turbine size threshold
 - Tightened “other” fuel oil limit for boilers 50 to 250 MMbtu/hr

	Gas	Residual	Other	Coal
Gas Turbine engine 5 MMBtu/hr (in ppmvd corrected to 15% oxygen)	25	N/A	42	N/A
Cyclone furnace & Fast-response double-furnace Naval boiler 5 MMBtu/hr (in lb/MMBtu)	0.17	0.17	0.17	0.17
Fluidized bed combustor 5 MMBtu/hr	N/A	N/A	N/A	0.17
Boiler 5 MMBtu/hr to 50 MMBtu/hr	0.20	0.25	0.20	0.30
Boiler 50 MMBtu/hr to 250 MMBtu/hr	0.10	0.20	0.12	0.20
Boiler 250 MMBtu/hr or more	0.17	0.17	0.17	0.17
Reciprocating engine 3 MMBtu/hr (in gm/bk hp-hr)	1.5	N/A	2.3	N/A



Annual Tune-up Program

- Applicable to boilers, gas turbines and reciprocating engines
 - NO_x CEM exemption
- Submit one page certification
- Tune-up requirements are less prescriptive.
 - Now focuses on mfg recommendation
- Tune-ups will require:
 - Post tune-up NO_x test only
 - Combustion efficiency test



NO_x Trading Program

- Use CAIR NO_x allowances
- DERC generation and use allowed to January 1, 2012
- Incorporated trading protocol in regulation
- Request part of Compliance Plan
- 1:1 ratio (7:1 ratio for peakers)



Control Strategy Plans

- Part of Compliance Plan
- DEP review and approval
 - If technically or economically infeasible
 - use allowances or DERCs
- Resources
 - Hiring and training – 3 new engineers and existing staff
 - Delegation of authority – revisit to allow compliance plan approval at Director level
 - Forms and instructions – draft completed and will be released for comment shortly
 - Outreach Initiative

Next Steps

- Remaining Milestones
 - Formal AG approval
 - 20 day Notice of Availability
 - Submit to LRRC, 1st Tuesday of the Month
 - LRRC Hearing, 3rd Tuesday of the month of submittal
 - Approval & file with Sec. of State (effective upon approval)
- Implementation Timeline
 - Submission of Compliance Plans – November 2008
 - New Emission Limits Effective – May 2009