



# Connecticut Department of Energy and Environmental Protection



Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

# Draft Combined Heat and Power Permit-By-Rule Section 22a-174-3d

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SIPRAC



Connecticut Department of Energy and Environmental Protection

# Background

- The permit-by-rule is:
  - Based on DEEP's experience with approximately 26 CHP units recently permitted in CT.
  - A major step forward in DEEP's permitting transformation
  - Another tool in DEEP's Air Permitting tool box.
- The permit-by-rule will:
  - Complement CHP incentive programs (PURA, CEFIA)
  - Give regulatory certainty for sources.
  - Provide for protection of public health and the environment.
  - Incorporate BACT levels of control as compared to similarly permitted units.



# Applicability

- Same applicability threshold as Sec. -3a & 3b sources. (i.e. PTE>15tpy; not a new major source or major modification).
- Applies to both IC engines and turbines.
- Less than 10 MW for both a single unit and in aggregate for all electrical generating units on the premises.
- Must have an overall system efficiency of 55%.
- Natural gas is the only fuel allowed, except that turbines may have up to a 10% capacity factor for 15ppm distillate.



# Operating Requirements

- Annual emissions are capped at < 15 tpy for the criteria pollutants and < 3 tpy in aggregate for HAP.
- Annual tune-ups and maintenance.
- Must operate in CHP mode and meet the actual system efficiency. (i.e. no simple cycle operation, limitations on the length of startup/shutdown events)
- Required performance testing with recurring tests every 5 years.
- Must comply with all applicable NSPS and/or NESHAP.



# Short Term Emissions Limits

## Turbines

<u>Pollutant</u>	<u>Gas</u>	<u>Oil</u>
NOx	2.5 ppm	9.6ppm
CO	10 ppm	10 ppm
PM10/2.5	2 lbs/hr	3 lbs/hr
Ammonia	5 ppm	5 ppm

## IC Engines

NOx	0.8 lbs/MMBtu
CO	0.17 lbs/MMBtu
PM10/2.5	0.02 lbs/MMBtu



# Monitoring, Record Keeping, and Reporting

- Monitoring and record keeping is required to show compliance with the conditions of the rule:
  - Must develop and have a written monitoring plan on site.
  - Sufficient record keeping to reflect operating conditions and monitoring requirements.
  - CEM or parametric monitoring allowed.
- Reporting to DEEP is required:
  - Initial Notification/Certification of construction.
  - Performance test results.
  - Self-reporting of deviations/violations.
  - Annual emissions report.



# Comments

The Department is requesting comments on the draft rule and specifically on the following topics:

## Practical:

- Will the regulated community choose to operate under this rule rather than a NSR permit?
- If not, what factors influenced your decision?
  - Emission Limitations
  - Operating Restrictions
  - Monitoring & Testing
  - Record Keeping and Reporting





# Comments

## Understandable:

- Are the conditions/requirements clear and concise for sources operating under this rule?
- If not, what could be changed to make compliance obligations easier to understand for owner/operators of these units?



# What's Next?

- Subcommittee meeting April 26<sup>th</sup> in the Holcombe Room from 9am – 12 noon.
- Subcommittee meeting following May's SIPRAC.
- Our goal is for the Public Notice to be published by May 31<sup>st</sup>.
- Anyone that would like to be on the Subcommittee can let me know:

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