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

April 12, 2012
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SIPRAC
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 (PURIA, 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

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Gas</th>
<th>Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
<td>2.5 ppm</td>
<td>9.6 ppm</td>
</tr>
<tr>
<td>CO</td>
<td>10 ppm</td>
<td>10 ppm</td>
</tr>
<tr>
<td>PM10/2.5</td>
<td>2 lbs/hr</td>
<td>3 lbs/hr</td>
</tr>
<tr>
<td>Ammonia</td>
<td>5 ppm</td>
<td>5 ppm</td>
</tr>
</tbody>
</table>

### IC Engines

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>NOx</th>
<th>CO</th>
<th>PM10/2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.8 lbs/MMBtu</td>
<td>0.17 lbs/MMBtu</td>
<td>0.02 lbs/MMBtu</td>
</tr>
</tbody>
</table>
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.
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
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 26th 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 31st.
• Anyone that would like to be on the Subcommittee can let me know:
  
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