Connecticut Department of Energy and Environmental Protection
2013 Emission Statements Reporting Season Kickoff

1/9/2014
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SIPRAC / DEEP HQ
2013 Emission Statement Reporting

- Emission Statements are Due on Friday March 1, 2014.
- Stack Data Completeness – DEEP has a list of missing data for each stack.
- EMIT User Cleanup – DEEP is weeding out expired accounts and confirming e-mail contacts for system users.
- Link to: electronic signature authorization forms
Items to Remember

1. Fix stacks that have missing data
2. Report the Stack Test Date when emission factors are based upon a stack test
3. Identify control devices and efficiencies even if not used to estimate emissions
4. PM10 >= PM2.5 - Report PM2.5 primary emissions when PM10 primary emissions are greater than zero.
5. Account for Controls when estimating HAP emissions
6. Ensure that summer day activity is correct (i.e. it should not be greater than annual activity).
Help Desk

• General help requests or bug reports
  – DEEP eGov helpdesk (860) 424-3882
• As in the past, you can always make direct calls to Technical Services staff
• TS email – deep.bam.ts@ct.gov
• Still no way for users to reset/maintain their own passwords. DEEP prioritizes these requests to minimize downtime for the user
User Accounts – Typical Questions

• Taken from a real EMIT User
  – Is there a form to be submitted to remove the previous submitter along with the new “e-signature & subscriber agreement form - submitter Certification” or does the new one just automatically remove the previous submitter?
  – For existing editors - Does a new editor agreement need to be submitted on behalf of the new submitter or do existing ones remain effective?
  – If a previous editor is no longer employed or contracted by us, how do we remove them from the system?
  – If a previous editor only had the “Emission Statement” box checked but will now also be performing Title V Reporting, does a new editor certification need to be submitted?
User Accounts – Typical Answers

- Taken from a real EMIT User
  - All user maintenance is performed by DEEP Air Bureau staff. Emit users can manage contact information, but not logins and user accounts
  - Subscriber/eSignature agreements remain in force and do not need to be resubmitted each year
  - DEEP can remove/deactivate a user account for you. Send a request by email, or call us.
  - User Rights are easy to update and do not require any additional paperwork. User Types/Roles (Editor, Submitter) do require a new form. Remember that Submitter also have all Editor rights, so you do not need two accounts if you are performing both roles.
GPLPE Jets/Peakers

- Jet/Peaking Units operating under GPLPE
  - Required to report unit level emissions for 2012
  - Will be required to update that data for 2013
  - No expansion of this program at this time
  - Allows for better statewide generation analyses
  - Allows for comparison of peaking-unit emissions to the premises total
Stack Data Fixes

• Continuation of 2012 Stack Data Fix process
• DEEP has cataloged the missing data and will be sending a summary to each permittee
• Completeness allows EMIT to better mirror the permit conditions
• Some EPA data requests include stack and control equipment data
Fixing Stacks That Have Missing Data

To edit Stack data first select a source to which the stack is assigned on the Sources tab.
Fixing Stacks With Missing Data

To edit the stack parameters click on the select link on the Source to Stack tab.

Then select the Source to Stack Tab.
Never change the stack number. Call DEEP, (860) 424-4152, if you think the stack number is incorrect.

Data must be provided for all fields with asterisks.

Never deactivate or delete a stack.
Fixing Stacks With Missing Data

Never Change the Stack Number. Call DEEP, (860) 424-4152, if you think the stack number is incorrect.

Never deactivate or delete a stack.

If Stack Exit Direction is Fugitive then the following defaults can be used if not known:
- Stack Height = 1
- Diameter = 1
- Minimum Flow at Maximum Capacity = 1
- Lining = Other
- Rain Hat = No
- Stack Temperature = 86

Select Update to save data.
If you reported emission factors based upon a stack test then please remember to fill in the stack test date on the Stack Information panel located on the Source to Stack tab.

Do not assign emission factor origins “Stack Test –After Control” and “Stack Test –Prior Control” when emission factors are based upon stack tests that have not been approved by the DEEP. Instead use “Engineering Judgment” and provide supporting documentation (i.e. stack test results).
### Stack Test Date

Emission factors based upon stack test

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<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor Origin</th>
<th>Emission Factor (lbs/EMT)</th>
<th>Actual Control % Efficiency</th>
<th>Actual Emission Ant (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatile organic compounds (VOC)</td>
<td>CEMS - CONTINUOUS EMISSION MONITORING SYSTEM</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Nitrogen oxides (NOx)</td>
<td>CEMS - CONTINUOUS EMISSION MONITORING SYSTEM</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Carbon monoxide (CO)</td>
<td>CEMS - CONTINUOUS EMISSION MONITORING SYSTEM</td>
<td>0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>PM10, primary</td>
<td>STACK TEST - AFTER CONTROL</td>
<td>6.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>PM2.5, primary</td>
<td>EPA EMISSION FACTOR</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>PM2.5, non-fibrous</td>
<td>EPA EMISSION FACTOR</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Sulfur Dioxide (SO2)</td>
<td>EPA EMISSION FACTOR</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Lead</td>
<td>EPA EMISSION FACTOR</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Ammonia</td>
<td>STACK TEST - AFTER CONTROL</td>
<td>0.5</td>
<td>0.0</td>
<td>1.75</td>
</tr>
</tbody>
</table>

### Summer Day Pollutants

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor Origin</th>
<th>Emission Factor (lbs/EMT)</th>
<th>Actual Control % Efficiency</th>
<th>Actual Emission Ant (tons/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatile organic compounds (VOC)</td>
<td>EPA EMISSION FACTOR</td>
<td>2.1</td>
<td>73.5</td>
<td>39.0</td>
</tr>
<tr>
<td>Nitrogen oxides (NOx)</td>
<td>EPA EMISSION FACTOR</td>
<td>120.0</td>
<td>11200.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Carbon monoxide (CO)</td>
<td>EPA EMISSION FACTOR</td>
<td>82.0</td>
<td>2870.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

**Non-Photo Chemically Reactive VOC HAPs (No Pollutants)**

**Other HAPs (No Pollutants)**
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Stack Test Date

Needs to be Filled in

Stack Test Date: 1,000,000 ACFM

Latitude: 41.222566
Longitude: -72.863161
Identifying Control Devices

Control Equipment should be reported even though not used to calculate emissions at this source (Emission factor origins - Stack Test After Control and CEM).
Control Devices Identified

Control Equipment Identified

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Reporting Control Efficiencies

No Control Efficiencies have been assigned
Reporting Control Efficiencies

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Control efficiencies identified

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**Nitrogen oxides (NOx)**

<table>
<thead>
<tr>
<th>Control Name</th>
<th>Control Type</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx Control</td>
<td>1222: SELECTIVE CATALYTIC REDUCTION</td>
<td>Off</td>
</tr>
</tbody>
</table>

**Rated Efficiency**
- 93.0%

**Captured Efficiency**
- 100.0%

**Adjustment for Malfunction (Effectiveness)**
- 97.0%

**Actual Efficiency**
- 90.21%

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**Carbon monoxide (CO)**

<table>
<thead>
<tr>
<th>Control Name</th>
<th>Control Type</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO Control</td>
<td>45: CATALYTIC REDUCTION</td>
<td>Off</td>
</tr>
</tbody>
</table>

**Rated Efficiency**
- 83.0%

**Captured Efficiency**
- 100.0%

**Actual Efficiency**
- 83.33%
• If the emission factor origin for PM2.5, primary is “EPA Emission Factor” and the PM2.5 primary emission factor is zero and you are reporting PM10 primary emissions greater than zero then you must change the PM2.5 primary’s emission factor origin to another value such as “Engineering Judgment” and enter in the emission factor.
Reporting PM2.5 primary emissions

PM10, primary emissions are greater than zero and no PM2.5, primary emissions are being reported (PM2.5, primary emission factor origin defaults to “EPA Emission Factor” and the emission factor defaults to zero)
Reporting PM2.5 primary emissions

Two approaches for reporting PM2.5 emissions when a specific emission factor is not known, is to sum PM, Condensable and PM2.5, Filterable emissions if they are known or to set the PM2.5 primary emissions equal to the PM10 primary emissions by setting PM2.5 emission factor equal to the PM10, primary emission factor. Updated EMIT FAQ document on the DEEP website outlines other options, see http://www.ct.gov/dep/lib/dep/air/emit/frequently_asked_questions_emit.pdf
Control efficiency entered and applied to VOC emissions but not to Benzene.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor Origin</th>
<th>Emission Factor</th>
<th>Actual Control % Efficiency</th>
<th>Actual Emission Amt (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatile organic compounds (VOC)</td>
<td>Engineering Judgment</td>
<td>0.0</td>
<td>98.21</td>
<td>35.8</td>
</tr>
<tr>
<td>Other pollutants</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Accounting for Controls when estimating HAP Emissions

No Controls associated to Benzene
Assigned the VOC related controls to Benzene as well. In this example, it was assumed that the Rated and Capture Efficiencies for VOC are the same for Benzene. Determining the Rated and Capture Efficiencies for each HAP is the site’s responsibility.
Accounting for Controls when estimating HAP Emissions

Benzene Emissions now account for reductions due to the Activated Carbon Adsorption unit.
It appears that the site incorrectly reported their summer usage instead of their summer day usage. The summer day usage is the average daily use on days the source is operated during the period of June 1 through August 31, inclusive. It should not be the entire summer usage, unless the source operated for only 1 day in the summer. It is expected that the summer day usage will be calculated as follows:

Annual Usage*(Jun-Aug/100)/(DaysPerWeekOperatedInSummer*WeeksOperatedInSummer)

Assuming the site operated 5 days per week for all 13 weeks in the summer then
The expected summer day use = 1,000 E3GAL/Year* 0.25 / (5 * 13)
= 3.85 E3GAL/Day
In this example, the summer day use of 250 E3Gal/Day results in NOx summer day emissions of 6,000 pounds, while the summer day use of 3.85 E3Gal/Day results in NOx summer day emissions of 92.4 pounds.
Remember to Zero Out Summer Day Use When Unit Was Not Used.
Director Steve Page has made 2018 Emissions modeling platform data available for public review.

www.epa.gov/ttn/chief/emch/index/html#2011

EPA will be accepting comments on the 2018 emissions modeling platform through June 30, 2014.

Comments will not be in time for the proposed transport rule for the 2008 Ozone standard. However, they will be considered for the modeling associated with the final transport rule.
Questions?

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