Air Quality Permitting 101
Keys to Air Compliance Excellence

Day 2 – May 26, 2021

Air Quality Division
Mecklenburg County Land Use and Environmental Services Agency
Welcome & Logistics!

- **Workshop Objective** - To explain local air quality requirements related to permitting and compliance for businesses and industries present in Mecklenburg County. Point you to tools for Air Compliance Excellence!

- Day 1 focus – When Do You Need an Air Quality Permit?
- Day 2 focus – How Do You Comply with that AQ Permit?

- The workshop is intended to be engaging and interactive, with Q/A and polling questions.
- WebEx Logistics
WebEx Logistics

• Audio, video settings
• Chat – Ask questions or comment. We want this to be interactive!
• Polling
• Questions – Ask throughout the program via chat or at end of each presentation if you’d prefer to unmute
• Zoom in/out controls for slides
• Chat to Ivonne if any technical issues
Thinking of making a change...

* Contact your AQ Specialist *

• Common changes that require a permit modification:
  • Adding an emission source
  • Adding a control device
  • Moving equipment from indoors to outdoors
  • Name/Ownership Change

*Modification – any physical change or change in operation that results in a change in emissions or affects the compliance status of the source of the facility*
Permit Applicability Determination Questionnaire

MCAQ webpage
So, I Need A Permit...

• For application forms, visit airquality.mecknc.gov
• Click “Regulated Industry” button
  • Click on the “Permitting Forms” link.
• Review the General Instructions to get started.
Questions?

Chuck.Greco@MeckNC.gov
704-608-0739
Air Quality Permit Overview

Donna Cavaliere
Sr. Air Quality Specialist
Permit Overview

- Cover Letter
- Permit Sections
  - Title Page
  - Emission Source Table
  - General Conditions & Limitations
  - Specific Conditions & Limitations
  - Appendices
    - A: NC State Toxics
    - B: Insignificant Activities (i.e. Exempt Equipment)
Polling Question

• Do you know how to find a copy of your permit?
  • Yes
  • No
  • Not Applicable
In accordance with your application dated June 23, 2015, Mecklenburg County Air Quality (MCAQ) forwards herewith Permit to Construct/Operate (Permit) No. 15-065-678 for the construction/operation of air pollution emission sources or abatement equipment. This permit has been amended to include a diesel oxidation catalyst (CD-01) as a control device for the 1825 Kw generator (ESEG-1).

Review the Permit and attached enclosures carefully. Please note the following:

- **Facility Category:** The category for this facility is “Select B.” This category is based on the information supplied to MCAQ and is used to determine appropriate annual and application processing fees.
- **Permit Conditions and Limitations:** This Permit contains General Conditions and Limitations, which are applicable to your facility, and Specific Conditions and Limitations, which are applicable to emission sources as identified in the Emission Source Table.
- **Monitoring and Recordkeeping:** This permit requires monitoring and recordkeeping in accordance with Specific Condition and Limitation No(s). S-4.
- **Performance Testing Requirements:** This permit requires performance testing of Emission Sources ESEG-1, ESEG-2, and ESEG-3 in accordance with Specific Condition and Limitation Nos. S-2 and S-5.
- **Notifications and Reporting:** This permit requires notifications and reporting in accordance with Specific Condition and Limitation No(s). S-6.
What First – The Cover Letter

- **Commencement of Operation Notice:** This Permit requires notification of the completion of construction and intent to commence operation of all new equipment which shall be submitted in accordance with Specific Condition and Limitation No. S-6.
- **Appendix A** contains information related to toxic air pollutant emissions at your facility. Please refer to General Condition and Limitation No. G-22 to comply with the air toxics requirement.
- **Appendix B** identifies insignificant activities at your facility. Some of these insignificant activities may have associated recordkeeping and reporting requirements.
- This Permit contains certain new or revised requirements including but not limited to monitoring and recordkeeping related to the new control device.
- This Permit is transferable to future owners and operators only through action of the Director of MCAQ and shall be subject to the conditions and limitations as specified therein.

If any new or revised parts, requirements, or limitations contained in this Permit are unacceptable to you, you have the right to a hearing before the Air Quality Commission upon written demand to the Director within thirty (30) days following receipt of this Permit. The hearing request must identify the specific issues to be contended as described in MCAPCO Regulation 1.5306 - "Hearings" Paragraph (b). Unless such demand is made, this Permit shall be final and binding.

If there are any questions regarding this matter, please do not hesitate to contact me at (704)336-5430.

Sincerely,

**Appendix A:** NC State Toxic Air Pollutants (TAPs)

**30-Day Comment Period:**
- If you note any errors in your permit, MCAQ will revise if we are notified within this time
AIR QUALITY
PERMIT TO CONSTRUCT/OPERATE
15-065-678

In accordance with the provisions of the Mecklenburg County Air Pollution Control Ordinance,

PERMISSION IS HEREBY GRANTED TO

<table>
<thead>
<tr>
<th>COMPANY NAME</th>
<th>FACILITY LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FOR THE INSTALLATION AND OPERATION OF
A municipal water reclamation facility with associated air emission sources as listed in the emission source table.

shall be subject to the General and Specific Conditions and Limitations, Emission Limits, Monitoring Requirements, Reporting and Recordkeeping Requirements contained herein.

This Permit shall be effective from the date of its issuance unless modified or voided.

Appendices A and B are included to provide information relevant to this Permit.

Air Quality Supervisor / Date
## Permit Sections: Emission Source Table

**Source ID:** most often generic (ES-1, ES-2). Can be descriptive but should be short (GEN-1, GEN-2).

### EMISSION SOURCE TABLE

- **Permit Issue Date:** September 18, 2015
- **Facility Name:** [Redacted]
- **Facility Address:** [Redacted]
- **Permit to Construct Operate No.:** 15-065-678

<table>
<thead>
<tr>
<th>Emission Source ID</th>
<th>Emission Source Description</th>
<th>Installation (I), Modification (M) Dates</th>
<th>Control Device (ID) or Method</th>
<th>Permitted Pollutant(s) Emitted from Emission Source</th>
<th>Applicable Specific Conditions and Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESEG-1</td>
<td>One (1) Caterpillar diesel-fired, 1825 kW peak shaving generator</td>
<td>I=2001</td>
<td>CD-01: One (1) Caterpillar Diesel Oxidation Catalyst (DOC) to control CO emissions</td>
<td>CO, NOX, HAPs</td>
<td>S-1, S-2, S-3, S-4, S-5, S-6</td>
</tr>
<tr>
<td>ESEG-2</td>
<td>One (1) Detroit Diesel diesel-fired, 600 kW emergency generator</td>
<td>I=1979</td>
<td>None</td>
<td>CO, NOX, HAPs</td>
<td>S-1, S-2, S-3, S-4, S-5, S-6</td>
</tr>
<tr>
<td>ESEG-3</td>
<td>One (1) Detroit Diesel diesel-fired, 600 kW emergency generator</td>
<td>I=1979</td>
<td>None</td>
<td>CO, NOX, HAPs</td>
<td>S-1, S-2, S-3, S-4, S-5, S-6</td>
</tr>
</tbody>
</table>

**Source Description:** from the application

**Permitted Pollutant - Listed if:** Facility-wide uncontrolled potential exceeds permitting threshold; or Source is subject to a rule that regulates its emissions
These conditions apply to all facilities and cover basic requirements for all facilities with AQ permit.

GENERAL CONDITIONS AND LIMITATIONS

ADMINISTRATIVE

G-1. The facility shall be operated in accordance with the Mecklenburg County Air Pollution Control Ordinance ("MCAPCO") including but not limited to the conditions specified herein and any other applicable State or Federal regulations.

The provisions of this permit are severable. Upon any administrative or judicial challenge, or if any provision of this permit is held invalid, all permit requirements, except those being challenged, will remain valid and enforceable.

G-2. Ownership of this permit is transferable to another party only by written approval by the Director. Application for ownership transfer shall be made by letter to the Director in accordance with MCAPCO Regulation 1.5212 - "Applications", and accompanied by the applicable fee.

G-3. Compliance with MCAPCO, including the specific conditions herein, shall be determined by source testing, surveillance, visual observations, data review, plant inspections, and any other methods applicable to the facility.

G-4. The facility shall be operated in accordance with MCAPCO Regulation 1.5211 - "Applicability". An owner or operator shall have received a permit from Mecklenburg County Air Quality ("MCAQ") and shall comply with the conditions of such permit before constructing, modifying or operating any air pollution source or entering into a contract to construct or install any air cleaning device. This permit does not relieve the facility from the responsibility of acquiring any other permits that may be required.

G-5. This permit and its conditions, unless otherwise stated, shall be applicable only to the items, processes and/or air pollution control equipment specifically enumerated herein.

G-6. In accordance with MCAPCO Regulation 1.5104 - "General Duties and Powers of the Director, With the Approval of the Board", the
Notify MCAQ of commencement of operation.

Comply with Asbestos NESHAP requirements.

Visible emissions should generally stay below 20% opacity.

Don’t allow dust to cross your property lines.
Permit Sections - General Conditions & Limitations

G-21. **Odorous Emissions**
The facility shall be operated in accordance with MCAPCO Regulation 1.5110 - “Control and Prohibition of Odorous Emissions”. The owner or operator of a facility shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility’s boundary.

Don’t cause objectionable odors to cross your property lines

Comply with TAP requirements

G-22. In accordance with MCAPCO Section 1.5700 - “Toxic Air Pollutant Procedures” and/or Regulation 2.1104 - “Toxic Air Pollutant Guidelines”, the toxic air pollutants (“TAP”) emitted by existing processes have been reviewed for regulatory applicability by MCAQ. If applicable, an Appendix A lists the associated TAPs.

In accordance with MCAPCO Regulations 1.5111 - “General Recordkeeping: Reporting: Monitoring Requirements”, 2.0605 – “General Recordkeeping and Reporting Requirements”, and/or 2.0903 – “Recordkeeping: Reporting: Monitoring”, the facility shall report any process additions, modifications or deletions which affect the emissions of any TAP listed in MCAPCO Regulation 1.5711 - “Emission Rates Requiring a Permit”, as prescribed by the following:

A. If the process modifications will result in a facility-wide TAP emission rate that exceeds the rate listed in MCAPCO Regulation 1.5711 for any TAP, apply and receive an air toxics permit before the process modification occurs; or
B. If the process modifications will result in facility-wide TAP emission rates that are below the rates listed in MCAPCO Regulation 1.5711, submit the new emission rates to MCAQ 15 days prior to the initial change; or
C. If the process modifications will not result in a net TAP emission increase, provide MCAQ with demonstration (15 days prior to the initial change) that the proposed modification will not result in a net TAP emission increase at the facility.

The facility is required to maintain documentation such that upon request by MCAQ, the facility can make a demonstration that facility-wide emissions of TAPs have or have not exceeded the rates listed in MCAPCO Regulation 1.5711.
Permit Sections

• Specific Conditions & Limitations:
  • Procedural – Voids previous permit
  • Emission Standards – Lists MCAQ-specific regulations and other federal rules the site is subject to
  • Emission Limits – Lists any SM or toxics limits
  • Monitoring & Recordkeeping (covered later)
  • Performance Testing – Table listing subject sources, rules requiring testing, and testing frequency
  • Notifications & Reporting (covered later)
Permit Sections - Specific Conditions & Limitations

Procedural: Voids previous permit

Emission Standards: Lists MCAQ-specific regulations and other federal rules the site is subject to
Permit Sections - Specific Conditions & Limitations

**EMISSION LIMITS**

The maximum emissions of Nitrogen Oxides (NOx) from all sources at the facility shall be less than 100 tons per year as determined by any consecutive 12-month period. This limit is assumed by the facility in order to preclude applicability to MCAFCO 1.5500 – “Title V Procedures.”

To comply with these requirements, the facility shall be operated in accordance with the following limitation(s):

- No more than **410,580 gallons** of distillate oil may be burned at the facility in any calendar year.

Emissions for the above-referenced pollutant(s) shall be determined using one or more of the following methods as applicable:

1. Emission rates and control efficiencies obtained through MCAQ approved emission source testing;
2. Material (mass) balance based on product usage;
3. Emission factors or rates found in the latest edition of the “Compilation of Air Pollutant Emission Factors”, EPA document AP-42;
4. Other emission factors or rates as approved by MCAQ.

**MONITORING AND RECORDKEEPING REQUIREMENTS**

In accordance with MCAFCO Regulations 1.5111 - “General Recordkeeping, Reporting and Monitoring Requirements” and 2.0005 – “General Recordkeeping and Reporting Requirements” the facility shall monitor and record the following operating parameters for the emission sources and or control devices as listed below:

<table>
<thead>
<tr>
<th>EMISSION SOURCE</th>
<th>OPERATING PARAMETER</th>
<th>PARAMETER RANGE</th>
<th>MINIMUM MONITORING FREQUENCY (Once per..)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E8EG-1 (CD-01)</td>
<td>Diesel oxidation catalyst pressure drop</td>
<td>3.3 – 10 inches water column</td>
<td>Month</td>
</tr>
<tr>
<td></td>
<td>Diesel oxidation catalyst inlet temperature</td>
<td>≥ 450°F and &lt;3350°F</td>
<td>Continuous</td>
</tr>
<tr>
<td>40 CFR 63 Subpart ZZZZZ emission sources</td>
<td>Refer to 40 CFR 63.8, 63.10, 63.6580-63.6675, and Specific Condition and Limitation S.2 of this permit for specific monitoring and recordkeeping requirements related to 40 CFR 63 emission sources</td>
<td>Refer to 40 CFR 63.8, 63.10 and 63.6580 – 63.6675</td>
<td></td>
</tr>
<tr>
<td>Emergency Generators(s)</td>
<td>Number of hours each emergency generator operated</td>
<td></td>
<td>Month</td>
</tr>
</tbody>
</table>

The facility shall maintain the above-specified operating records as well as any maintenance records for activity conducted on the equipment for a period of not less than 5 years, unless otherwise specified by the permit. The records shall be available for inspection by MCAQ personnel upon request.
Permit Sections - Specific Conditions & Limitations

Performance Testing:
Table listing subject sources, rules requiring testing, and testing frequency

Notifications & Reporting (covered later)

**PERFORMANCE TESTING REQUIREMENTS**

The facility shall, at its own expense and using the most recent versions of the performance test methods contained in 40 CFR Part 60 (Appendix A) or Part 63 or as approved by the Administrator of the USEPA or MCAQ, demonstrate compliance with the appropriate regulatory requirement as follows:

<table>
<thead>
<tr>
<th>EMISION SOURCE DESCRIPTION AND ID</th>
<th>DEMONSTRATE COMPLIANCE WITH...</th>
<th>SCHEDULED TESTING FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 CFR 63 Subpart ZZZZ emissions sources</td>
<td>Refer to 40 CFR 63.7, 63.6580 – 63.6675 and Specific Condition and Limitation S-2 of this permit for specific testing requirements related to 40 CFR 63 emission sources</td>
<td>Refer to 40 CFR 63.7 and 63.6580-63.6675</td>
</tr>
</tbody>
</table>

All performance tests shall be made by, or under the direction of, a person qualified by training and/or experience in the field of air pollution testing. MCAQ shall be notified at least 60 days in advance of the proposed performance test so that it may have a representative present to observe the test at its option. The notification shall include a detailed description of the performance test procedures so that MCAQ may review and approve them. The final performance test results shall be submitted to MCAQ for review within 90 calendar days after completion of on-site testing. The performance test(s) specified in this condition do not preclude MCAQ from requesting performance testing for other emission sources or for other purposes as defined in MCAPCO Regulation 1.5104 - “General Duties and Powers of the Director, With the Approval of the Board”, and referenced in General Condition and Limitation No. G-8 of this Permit.

**NOTIFICATION AND REPORTING REQUIREMENTS**

The facility shall be operated in accordance with MCAPCO Regulations 1.5111 - “General Recordkeeping, Reporting And Monitoring Requirements”, 2.0605 - “General Recordkeeping and Reporting Requirements”, and/or 2.0903 - “Recordkeeping: Reporting: Monitoring”, such that the following specific reports and/or notifications shall be submitted to MCAQ by the specified dates.

<table>
<thead>
<tr>
<th>POLLUTANT/PARAMETER</th>
<th>NOTIFICATION REQUIREMENT</th>
<th>SUBMITTAL DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance test notification report</td>
<td>Detailed description of the proposed test procedures to be used on emission sources listed in Specific Condition and Limitation S-2.</td>
<td>60 days prior to proposed test date</td>
</tr>
<tr>
<td>Emergency Generator(s)</td>
<td>Emergency generator(s) operating for more than 500 hours for the calendar year, provide the anticipated number of operating hours and fuel usage for the remaining months of the calendar year</td>
<td>15 days after exceedance</td>
</tr>
<tr>
<td>40 CFR 63 Subpart ZZZZ emission sources</td>
<td>Refer to 40 CFR 63.9 and 63.6580 - 63.6675 for all specific notification requirements.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix A - Toxic Air Pollutant (TAP) Review

<table>
<thead>
<tr>
<th>Reviewed Toxic Air Pollutant (TAP)</th>
<th>CAS No.</th>
<th>Is TAP also a Hazardous Air Pollutant (HAP)?</th>
<th>Last Reviewed ( Permit Number)</th>
<th>Compliance Demonstration</th>
<th>Are Actual Emissions Above TPER?*</th>
<th>Model or Avoidance Limit?</th>
</tr>
</thead>
<tbody>
<tr>
<td>toluene-2,4-diisocyanate</td>
<td>584-84-9</td>
<td>Y</td>
<td>15-004-002</td>
<td>Y</td>
<td>Model</td>
<td></td>
</tr>
</tbody>
</table>

*The toxic air pollutant permitting emission rates (TPER) for each TAP can be found in MCAPCO Regulation 1.5711 – “Emission Rates Requiring a Permit”. The applicable TPER values depend on release point type and stack characteristics.

- Shows which TAPs the facility has reviewed
- Individual TAPs may or may not be permitted, depending on total emissions per TAP
- Total emissions are compared to the Toxic Air Pollutant Emission Rate (TPER), which may be an hourly, daily, or yearly rate
Appendix B - Insignificant Activities Table

Helps MCAQ keep track of which equipment has already been reviewed for regulatory purposes

### Insignificant Activities Due to Size and Production Rate

<table>
<thead>
<tr>
<th>Process/Equipment</th>
<th>Exemption Reference and Explanation</th>
<th>Recordkeeping/Reporting Requirements</th>
<th>Submittal Date (No Later Than...)</th>
</tr>
</thead>
<tbody>
<tr>
<td>One (1) 2.5 MMBtu/hr oil heater fueled exclusively with natural gas</td>
<td>MCAFCO 1.5211, Subpart (g)(2)(B)(ii): fuel combustion equipment firing exclusively natural gas with a heat input rating less than 65 MMBtu/hr</td>
<td>Amount of fuel used (in cubic feet) for the previous calendar year</td>
<td>April 30 of the following year</td>
</tr>
</tbody>
</table>

### Insignificant Activities Due to Category

Operation of the following processes/equipment are exempted from permitting pursuant to MCAFCO Regulation 1.5211 - “Applicability” Subparagraph (g)(1). There are no recordkeeping or reporting requirements associated with these activities.

<table>
<thead>
<tr>
<th>Process/Equipment</th>
<th>Exemption Reference and Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

### Activities Exempted Due to Facility Potential

Operation of the following processes /equipment are exempted from permitting for the pollutant(s) indicated pursuant to MCAFCO Regulation 1.5211 – “Applicability” Paragraph (f). Facility-wide potential emissions of the listed pollutant are less than five tons annually. There are no recordkeeping or reporting requirements associated with these pollutants.

<table>
<thead>
<tr>
<th>Process/Equipment</th>
<th>Pollutant Emitted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate emissions from combustion sources</td>
<td>TSP/PM10/PM2.5 potential to emit &lt; 5 tons/year</td>
</tr>
<tr>
<td>SO2 emissions from combustion sources</td>
<td>SO2 potential to emit &lt; 5 tons/year</td>
</tr>
</tbody>
</table>
Questions?

Donna.Cavaliere@MeckNC.gov
980-314-3356
Monitoring & Recordkeeping Requirements

Cecilia Tierney
Air Quality Specialist
Poll Question

• T/F – All permitted facilities have monitoring requirements.
Why Does MCAQ Require Monitoring and Recordkeeping?

• it’s a way to verify compliance with emission standards and limits without real-time pollutant measurement

• It’s a way to assure compliance and proper operation of pollution control devices.

• Many and Federal rules in your permit will require monitoring or recordkeeping:
  
  • New Source Performance Standards (NSPS)
  • Maximum Achievable Control Technology (MACT)
  • Greatest Achievable Control Technology (GACT)
How to Comply

• You are responsible for recordkeeping format – there may be some existing recordkeeping/reporting forms for certain types of records, but most facilities design their own

• Records must be available for review during MCAQ inspections and kept on site for at least 2 years, longer if you are a major source or subject to federal rules

• When readings are shown to be outside of the indicator ranges, associated explanations and/or maintenance logs should be available as well

• Be cognizant of the required frequency – continuous, daily, monthly, per shift, etc.

• If the equipment did not run during the monitoring time frame, make a note of that. Do not just leave it blank.
Poll Question

• What was the percentage of permitted sites that received an Air Compliance Excellence (ACE) Award in FY2020?
  • A.) 50%  B.) 60%  C.) 65%  D.) 70%
Violations in 2020

• Reporting – 38%
• Monitoring and Recordkeeping – 15%
• Operating Unpermitted Equipment – 15%
• Work Practices – 15%
• Emissions Exceedances – 15%
### Monitoring Table

**MONITORING AND RECORDKEEPING REQUIREMENTS**

S-12. In accordance with MCAPCO Regulation 1.5111 “General Recordkeeping, Reporting and Monitoring Requirements”, the facility shall monitor and record the following operating parameters for the emission control devices as listed below:

<table>
<thead>
<tr>
<th>EMISSION SOURCE/CONTROL DEVICE</th>
<th>OPERATING PARAMETER</th>
<th>PARAMETER RANGE</th>
<th>MINIMUM MONITORING FREQUENCY (Once per...)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regenerative thermal oxidizer (RTO, CD-01)</td>
<td>Chamber Temperature</td>
<td>&gt; 1500 °F</td>
<td>Operating shift</td>
</tr>
<tr>
<td>Fabric Filter (CD-02)</td>
<td>Pressure drop across the fabric filter</td>
<td>3 – 8” Water</td>
<td>Month</td>
</tr>
<tr>
<td><strong>NSPS</strong> 40 CFR 60 Subpart SSS emission sources</td>
<td>Refer to 40 CFR 60.7, 60.714 and Specific Condition and Limitation S-5 of this permit for specific monitoring and recordkeeping requirements related to 40 CFR 60 (NSPS) emission sources</td>
<td></td>
<td>Refer to 40 CFR 60.7 and 60.714</td>
</tr>
<tr>
<td><strong>MACT</strong> 40 CFR 63 Subpart 6X emission sources</td>
<td>Refer to 40 CFR 63.10 and 63.11517 for specific monitoring and recordkeeping requirements related to 40 CFR 63 (MACT) emission sources</td>
<td></td>
<td>Refer to 40 CFR 63.10 and 63.11517</td>
</tr>
</tbody>
</table>

- Listed as a specific condition in the permit
- Equipment being monitored can be an emission source or its control equipment
Parameter Range AKA Indicator Range

- Range of normal operation for the equipment
- Ranges are provided by you in your application – usually derived from manufacturer specifications
- If no specific range is listed, alternative monitoring requirements may be referred to in the federal rule
- Readings outside of the normal range are not necessarily violations – They are an indication that maintenance or adjustments may be required
  - CAUTION: Readings outside of the normal range can be a violation if there is a regulatory requirement or permit limit which requires the equipment be operated within the indicator range

<table>
<thead>
<tr>
<th>EMISSION SOURCE/CONTROL DEVICE</th>
<th>OPERATING PARAMETER</th>
<th>PARAMETER RANGE</th>
<th>MINIMUM MONITORING FREQUENCY (Once per...)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regenerative thermal oxidizer (RTO, CD-01)</td>
<td>Chamber Temperature</td>
<td>&gt; 1500 °F</td>
<td>Operating shift</td>
</tr>
<tr>
<td>Fabric Filter (CD-02)</td>
<td>Pressure drop across the fabric filter</td>
<td>3 – 8” Water</td>
<td>Month</td>
</tr>
<tr>
<td>NSPS 40 CFR 60 Subpart SSS emission sources</td>
<td>Refer to 40 CFR 60.7, 60.714 and Specific Condition and Limitation S-5 of this permit for specific monitoring and recordkeeping requirements related to 40 CFR 60 (NSPS) emission sources</td>
<td></td>
<td>Refer to 40 CFR 60.7 and 60.714</td>
</tr>
<tr>
<td>MACT 40 CFR 63 Subpart 6X emission sources</td>
<td>Refer to 40 CFR 63.10 and 63.11517 for specific monitoring and recordkeeping requirements related to 40 CFR 63 (MACT) emission sources</td>
<td></td>
<td>Refer to 40 CFR 63.10 and 63.11517</td>
</tr>
</tbody>
</table>
Monitoring & Recordkeeping Examples

- Monitoring requirements for three of our most common equipment types:
  - Pressure Drop Monitoring Records (baghouses, scrubbers, etc.)
  - MACT Subpart 4Z Maintenance & Recordkeeping Records (engines)
Example: Pressure Drop Monitoring

MONITORING AND RECORDKEEPING REQUIREMENTS

In accordance with MeCPCO Regulations 1.5111 - “General Recordkeeping, Reporting and Monitoring Requirements” and 2.0605 - “General Recordkeeping and Reporting Requirements” the facility shall monitor and record the following operating parameters for the control devices as listed below:

<table>
<thead>
<tr>
<th>CONTROL DEVICE</th>
<th>OPERATING PARAMETER</th>
<th>PARAMETER RANGE</th>
<th>MINIMUM MONITORING FREQUENCY (Once per...)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabric Filters: CD-1</td>
<td>Pressure drop across the fabric filter</td>
<td>2.0’’ – 8.0’’ W.C.</td>
<td>Monthly</td>
</tr>
</tbody>
</table>

- May apply to scrubbers, baghouses, etc.
- Table details which control devices need to be monitored (CD-1)
- States that pressure drop across the fabric filter should be recorded monthly
Example: Pressure Drop Monitoring

Concrete Industries, Inc.

2016 Baghouse CD-2 Monthly Pressure Drop Log Monitoring

<table>
<thead>
<tr>
<th>Reading Taken</th>
<th>Differential Pressure Reading (3 – 8” water)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month</td>
<td>Day</td>
</tr>
<tr>
<td>January</td>
<td>18</td>
</tr>
<tr>
<td>February</td>
<td>21</td>
</tr>
<tr>
<td>March</td>
<td>17</td>
</tr>
<tr>
<td>April</td>
<td>19</td>
</tr>
<tr>
<td>May</td>
<td></td>
</tr>
<tr>
<td>June</td>
<td></td>
</tr>
<tr>
<td>July</td>
<td></td>
</tr>
<tr>
<td>August</td>
<td></td>
</tr>
<tr>
<td>September</td>
<td></td>
</tr>
<tr>
<td>October</td>
<td></td>
</tr>
<tr>
<td>November</td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
</tr>
</tbody>
</table>

- Record should include any malfunctions or maintenance conducted
- Pressure drop can be found on the gauge associated with the control device
Example: MACT 4Z Monitoring Requirements

In accordance with MCAPCO Regulations 1.5111 - “General Recordkeeping, Reporting and Monitoring Requirements” and 2.0605 - “General Recordkeeping and Reporting Requirements” the facility shall monitor and record the following operating parameters for the emission sources as listed below:

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>OPERATING PARAMETER</th>
<th>PARAMETER RANGE</th>
<th>MINIMUM MONITORING FREQUENCY (Once per...)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 CFR 60 Subpart III emission sources</td>
<td>Refer to 40 CFR 60.7, 60.4209, 60.4214 and Specific Condition and Limitation No. S-5 of this permit for specific monitoring and recordkeeping requirements related to 40 CFR 60 emission sources</td>
<td>Refer to 40 CFR 60.7, 60.4209 and 60.4214</td>
<td></td>
</tr>
<tr>
<td>40 CFR 63 Subpart ZZZZ emission sources</td>
<td>Refer to 40 CFR 63.10, 63.6625, 63.6635, 63.6655, 63.6660 and Specific Condition and Limitation No. S-4 of this permit for specific monitoring and recordkeeping requirements related to 40 CFR 63 emission sources</td>
<td>Refer to 40 CFR 63.10, 63.6625, 63.6635, 63.6655 and 63.6660</td>
<td></td>
</tr>
</tbody>
</table>

- For facilities that have MACT 4Z listed as a specific condition in the permit
- Applies to certain engines
- MACT 4Z states facility should keep maintenance records and track monthly engine runtime
Example: MACT 4Z Maintenance Records

<table>
<thead>
<tr>
<th>40 CFR 63 Subpart 4Z Maintenance Summary Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generator</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>ES-1</td>
</tr>
</tbody>
</table>

*Maintenance due by hour reading for next inspection or annually, whichever comes first

- Keep records of inspections that were completed that show:
  - Company that performed activity
  - Items addressed
  - Date performed
Example: MACT 4Z Recordkeeping Requirements

<table>
<thead>
<tr>
<th>ES ID</th>
<th>April Start Meter Hours</th>
<th>April Maintenance Hours</th>
<th>April Non-Emergency Hours</th>
<th>Code</th>
<th>April Emergency Hours</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES-1</td>
<td>199</td>
<td>1</td>
<td>0</td>
<td>-</td>
<td>2</td>
<td>A</td>
</tr>
<tr>
<td>ES-2</td>
<td>251.4</td>
<td>0.5</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>ES-3</td>
<td>134.6</td>
<td>2</td>
<td>0</td>
<td>-</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

Emergency Codes
A - Power Outage
B - Used During Fire
C - Used During Flood

Non-Emergency Codes
1 - Emergency demand response (EDR) when Energy Emergency Alert Level 2
2 - Voltage or frequency deviates by 5% or more below standard
3 - Engine is dispatched by local transmission/distribution system operator
4 - Dispatch intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse of line overloads
5 - Dispatch follow reliability, emergency operation, or similar protocols that follow specific NERC, regional, state, public utility commission, or local standards or guidelines
6 - Power provided only to facility or to support local distribution system

- States total amount of hours the engine was run
- Details how the engine was used during operation
Questions?

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980-314-3367
Notifications and Reporting

Katie Nordin
Air Quality Specialist
### Notification Table

**Notifications may need to be submitted for:**
- Commencement of Operation of new equipment
- Pollutant exceedances
- Malfunctions of equipment
- Required performance testing

<table>
<thead>
<tr>
<th>POLLUTANT/PARAMETER</th>
<th>NOTIFICATION REQUIREMENT</th>
<th>SUBMITTAL DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOCs regulated under MCAPO 2.0000</td>
<td>For each new coating or solvent, calculations that demonstrate compliance with the applicable VOC standard (pounds VOC/gallon solids)</td>
<td>20 days prior to initial use</td>
</tr>
<tr>
<td>Performance test notification report</td>
<td>Detailed description of the proposed test procedures to be used on ES-1.</td>
<td>30 days prior to proposed test date</td>
</tr>
<tr>
<td>Emergency Generator(s)</td>
<td>Emergency generator(s) operating for more than 500 hours for the calendar year, provide the anticipated number of operating hours and fuel usage for the remaining months of the calendar year</td>
<td>15 days after exceedance</td>
</tr>
</tbody>
</table>
| 40 CFR 60 Subpart III emission sources | Refer to 40 CFR 60.7, 60.404214 and Specific Condition and Limitation S-4 of this permit for all specific notification requirements. Requirements include:
  - Notification of Commencement of Construction postmarked within 30 days of construction start date
  - Notification of Startup submitted postmarked within 15 days of startup | Refer to 40 CFR 60.7 and 60.4214       |
Poll Question

• Annual emissions are due in April, but after what date are they considered late?
  • A.) April 1\textsuperscript{st}  B.) April 15\textsuperscript{th}  C.) April 30\textsuperscript{th}
### Reports to MCAQ may include:
- Annual emissions reports
- Details on hours of operation of facility or equipment
- Performance test reports

### Reporting Table

<table>
<thead>
<tr>
<th>Requirement Description</th>
<th>Submittal Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>A report of facility-wide emissions (in tons) emanating from the emission sources listed on this permit to include, at a minimum, the following information:</td>
<td>April 30 of the following year</td>
</tr>
<tr>
<td>- Emission calculations including all supporting documentation. (Calculations for previously submitted periods do not need to be re-submitted)</td>
<td></td>
</tr>
<tr>
<td>For each product used:</td>
<td>April 30 of the following year</td>
</tr>
<tr>
<td>- Product Name</td>
<td></td>
</tr>
<tr>
<td>- VOC Content</td>
<td></td>
</tr>
<tr>
<td>- Annual Usage</td>
<td></td>
</tr>
<tr>
<td>- Annual VOC Emissions</td>
<td></td>
</tr>
<tr>
<td>The total weight (lbs) processed by ES-1 for the calendar year</td>
<td>April 30 of the following year</td>
</tr>
<tr>
<td>The number of hours ES-1 operated for the calendar year</td>
<td>April 30 of the following year</td>
</tr>
<tr>
<td>Performance Test Report</td>
<td>Within 60 days of test</td>
</tr>
<tr>
<td>Emergency Generator(s)</td>
<td>April 30 of the following year</td>
</tr>
<tr>
<td>Number of hours operated and amount of fuel used for each emergency generator for the calendar year</td>
<td>April 30 of the following year</td>
</tr>
<tr>
<td>Refer to Appendix B: Insignificant Activities</td>
<td>Refer to Appendix B: Insignificant Activities Table for additional recordkeeping and reporting requirements.</td>
</tr>
</tbody>
</table>
# Reporting Calendar

**Chronological Facility Reporting Calendar for Calendar Year 2015**

<table>
<thead>
<tr>
<th>Rule</th>
<th>Reporting Requirement</th>
<th>Report Due Date</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSPS Subpart Dc</td>
<td>Semiannual Compliance Report – should include fuel oil supplier certification(s) and a statement indicating that fuel oil supplier certification(s) submitted represent all of the fuel combusted during the six-month reporting period</td>
<td>January 30</td>
<td>40 CFR 60.48c</td>
</tr>
<tr>
<td>Quarterly Report</td>
<td>Maximum expected hourly and daily emission rates of acrylonitrile from ES-5 for the reporting period</td>
<td>January 30</td>
<td>S-14 in permit</td>
</tr>
<tr>
<td>GACT Subpart 7C</td>
<td>Annual compliance certification report if any deviations</td>
<td>Prepare by March 1st, (keep onsite - submit by March 15th if there is a deviation)</td>
<td>40 CFR 63.11L00</td>
</tr>
<tr>
<td>MACT/GACT Subpart 6J</td>
<td>Biennial Compliance Certification Report (showing completion of tune-up)</td>
<td></td>
<td>40 CFR 63.11225</td>
</tr>
<tr>
<td>Annual Report</td>
<td>A report of facility-wide emissions (in tons) for the previous calendar year. See last condition in your permit for specific details.</td>
<td>April 30</td>
<td>S-14 in permit</td>
</tr>
<tr>
<td>Quarterly Report</td>
<td>Maximum expected hourly and daily emission rates of acrylonitrile from ES-5 for the reporting period</td>
<td>April 30</td>
<td>S-14 in permit</td>
</tr>
<tr>
<td>NSPS Subpart Dc</td>
<td>Semiannual Compliance Report – should include fuel oil supplier certification(s) and a statement indicating that fuel oil supplier certification(s) submitted represent all of the fuel combusted during the six-month reporting period</td>
<td>July 30</td>
<td>40 CFR 60.48c</td>
</tr>
<tr>
<td>Quarterly Report</td>
<td>Maximum expected hourly and daily emission rates of acrylonitrile from ES-5 for the reporting period</td>
<td>July 30</td>
<td>S-14 in permit</td>
</tr>
<tr>
<td>Quarterly Report</td>
<td>Maximum expected hourly and daily emission rates of acrylonitrile from ES-5 for the reporting period</td>
<td>October 30</td>
<td>S-14 in permit</td>
</tr>
</tbody>
</table>

*Signifies Monthly or Quarterly Reports*
Questions?

Katie.Nordin@MeckNC.gov
980-314-3371
Air Compliance Excellence (ACE) Award Program

- Purpose is to recognize the effort that goes into managing compliance.
- Awarded to those sites with compliant inspections, no confirmed complaints, on time report and payment submittals, and no Notices of Violation.
- Consists of Cover Letter and Award to our AQ Primary Contact and Highest-Ranking Official.
- Awards issued each August for previous county fiscal year.
- We want to issue yours! Workshop has highlighted most common areas of noncompliance.
Mecklenburg County Air Quality

2021

ACE Award Program

Facility Name

Is hereby recognized by Mecklenburg County Air Quality for ongoing Air Compliance Excellence (ACE).

Leslie H. Rhodes, Director
Mecklenburg County Air Quality

Peter McGrath, Chair
Mecklenburg Air Quality Commission

On this day: August, 2021
Mecklenburg County Air Quality is a "certified local air pollution program" acting as the State throughout Mecklenburg County, including incorporated areas. Our mission is to lead and assist Mecklenburg County towards meeting and maintaining compliance with the health based National Ambient Air Quality Standards.

Address: 2145 Suttle Avenue, Charlotte, NC 28205

Not sure who to call? Start with our main number 704-336-5430

<table>
<thead>
<tr>
<th>Permitting &amp; Enforcement</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Jason Rayfield</td>
<td>AQ Program Manager</td>
<td>980-314-3380</td>
</tr>
<tr>
<td>Aaron Matiow</td>
<td>AQ Supervisor</td>
<td>980-314-3351</td>
</tr>
<tr>
<td>Chuck Greco</td>
<td>AQ Supervisor</td>
<td>980-314-3354</td>
</tr>
<tr>
<td>Andrew Deal</td>
<td>AQ Specialist</td>
<td>980-314-3352</td>
</tr>
<tr>
<td>Bryan Gabriel</td>
<td>AQ Specialist</td>
<td>980-314-3353</td>
</tr>
<tr>
<td>Cecilia Tierney</td>
<td>AQ Specialist</td>
<td>980-314-3367</td>
</tr>
<tr>
<td>Kevin Dunham</td>
<td>Sr. AQ Specialist</td>
<td>980-314-3365</td>
</tr>
<tr>
<td>Donna Cavaliere</td>
<td>Sr. AQ Specialist</td>
<td>980-314-3356</td>
</tr>
<tr>
<td>Evan Shaw</td>
<td>Sr. AQ Specialist</td>
<td>980-314-3355</td>
</tr>
<tr>
<td>Katie Nordin</td>
<td>AQ Specialist</td>
<td>980-314-3371</td>
</tr>
<tr>
<td>Sheila Murphy-Holman</td>
<td>Office Assistant</td>
<td>980-314-3370</td>
</tr>
</tbody>
</table>
Day 2 Complete

Questions?

Jason.Rayfield@MeckNC.gov
980-314-3360