Complying with Air Quality Regulations

Environmental Show of the South
May 16, 2019
Chattanooga, TN
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Air Quality Update
2019 Air Quality Permitting Workshop
May 2019
Topics Covered

• Mission Statement
• National Ambient Air Quality Standards – Where Does Tennessee Stand?
• Staff Updates
• Project Restore
• Sector-Based Permitting
• Vehicle Emissions Testing
• Questions?
The Division of Air Pollution Control’s mission is to maintain and improve air quality, to protect the health and welfare of Tennesseans through monitoring, regulatory activities and education in a manner that promotes maximum employment and economic growth.
National Ambient Air Quality Standards (NAAQS) are standards for harmful pollutants. Established by the US Environmental Protection Agency (EPA) under authority of the Clean Air Act. NAAQS apply to outdoor air throughout the country.

NAAQS Standards are designed to protect human health and public welfare. Standards exist for 6 “Criteria Pollutants:

- Ozone,
- Sulfur Dioxide
- Particulate Matter
- Nitrogen Dioxide
- Lead
- Carbon Monoxide
2015 Ozone Standard

- **Ozone** - Colorless, odorless gas that is formed in the atmosphere and causes negative health effects when present at unhealthy levels.
- Standard is based on an 8-hour average and was set in 1997 at 84 ppb, lowered to 75 ppb in 2008. October 1, 2015 – EPA lowered the standard to 70 ppb.
- **October 1, 2016** – States submitted designation recommendations based on 2013-2015 design values.
- **November 6, 2017** – EPA designated areas based on 2014-2016 design values.
- All locations in Tennessee were designated attainment.
Ozone Trends & Critical Values

*2018 data is preliminary and unofficial*
Ozone Trends & Critical Values

*2018 data is preliminary and unofficial
Ozone Trends & Critical Values

*Nashville CBSA (Hendersonville)*

*2018 data is preliminary and unofficial*
Ozone Trends & Critical Values

*2018 data is preliminary and unofficial
Ozone Trends & Critical Values

*2018 data is preliminary and unofficial*
• Fine particles of microscopic solids or liquid droplets that can get deep into the lungs and cause serious health problems.

• 2012 PM$_{2.5}$ annual NAAQs:
  • 12.0 ug/m$^3$
Fine Particulate Matter ($\text{PM}_{2.5}$)

PM2.5
(3-yr average of annual arithmetic mean)

*2018 data is preliminary and unofficial
Sulfur Dioxide – SO$_2$

- Sulfur Dioxide forms when sulfur bearing fossil fuels are combusted.
- Sulfur Dioxide reacts with water to form sulfurous and sulfuric acid. Those acids can irritate sensitive mucous membranes and airways.
- EPA established a designation schedule to implement the 2010 NAAQS of 75 ppm.
  - **Round 1** - Monitored Violations. October 2013
  - **Round 2** – Source with Emissions >21,000 TPY. July 2016
  - **Round 3** - Modeled Areas/no monitoring. December 2017
Sulfur Dioxide (SO$_2$)

Note: 2000-2015 data is industry data. 2014 & 2015 data was invalidated by EPA. 2016-2018 is official APC data beginning July 21, 2016.
Round 1 – Kingsport Area –

- Designated Nonattainment based on violating monitor 8/5/2013
- 3 km radius around Eastman Chemical
- Attainment Plan Submitted to EPA 5/12/17
- EPA Proposed approval of the Attainment Plan in the Federal Register in June 2018
Summary of Eastman Chemical Actions

- **Conversion of 5 major coal-fired boilers to natural gas**
  - 1\(^{st}\) conversion – 2014
  - 2\(^{nd}\) & 3\(^{rd}\) conversions – 2016
  - 4\(^{th}\) & 5\(^{th}\) conversions – 2018 (Final conversion completed by October 1)
  - Emissions Limits on Remaining Coal-Fired Boilers

- **Overall Reduction of Sulfur Dioxide Emissions by an estimated 66% or approximately 15,000 tons annually.**
Round 2 - TVA Gallatin Plant

- Flue Gas Desulfurization installed in all four units. Completed April, 2016.
- Designated “unclassifiable”
- Modeling with new limits completed & approved by EPA
Round 3 (modeling)

TVA Cumberland
46.5 ppb

TVA Johnsonville
48.7 ppb

TVA Allen
66.0 ppb

All three areas designated attainment on 12/21/2017
Retirements:
Quincy Styke (Deputy Director), Malcom Butler (Permitting), Eric Flowers (Permitting), Pam Stephens (Data Management-Enforcement)
Program Update- Project Restore

- Tennessee operates 23 air quality monitoring sites throughout the state with a total of 38 monitors.
- Shelters, equipment and related technology were outdated and/or in poor condition.
- 1.5 M in funding was provided by the state to restore the state’s ambient monitoring network.
- Project Scope:
  - Update aging and obsolete monitoring equipment, including phase out of filter based monitoring equipment for digital equipment for PM$_{2.5}$.
  - Restore existing sites to meet EPA siting criteria, relocate monitoring sites where site improvements cannot be made.
  - Replace 10 monitoring laboratories (shelters) to meet tighter regulatory constraints and eliminate safety concerns.
  - Move to cloud-based polling and electronic storage and maintenance of critical records through eSims accessible anywhere in the state.
Program Update- Project Restore (Before)
Program Update- Project Restore (After)
Sector-Based Permitting

It’s Here!
Program Update- Sector-Based Permitting

**Sector Assignments**

- **Composite Materials Section (Will Collins Manager)**
  - Dry Cleaners, Fiberglass Reinforced Plastic, Natural Gas Distribution, Asphalt Plants, Minerals (including quarries and concrete plants), Gasoline Dispensing Facilities, Department of Energy Facilities, Crematories

- **Surface Coating & Combustion Section (John Fuss Manager)**
  - Surface Coating, Electric Generation, Waste Incinerators, Boilers and Stationary Engines (including hospitals, schools, colleges, and universities, and military bases), Cotton Gins, Distilleries, Glass, Brick, Tile, Charcoal Production, Lead-Acid Batteries

- **Chemicals, Food,& Wood Section (Steve Simpson Manager)**
  - Chemical plants, Tires and Rubber Products (except Surface coating of Rubber Products), Commercial Ethylene Oxide Sterilizers, Mineral Wool Production, Polystyrene and Polyurethane Foam, Paint and Ink Manufacturing, Agricultural Products, Wood Products, Tobacco, Marine and Rail Transportation Facilities, Bakeries, Poultry, Feed and Grain, Bulk Petroleum Storage

- **Metal and Paper Section (Doug Wright)**
  - Pulp & Paper Mills, Printing & Coating, Primary and Secondary Metal Manufacturing, Landfills

- **Emission Inventory Staff- Chemical Plants, Electric Generation**
Program Update- Sector-Based Permitting

Transition:

- Effective January 1, 2019
- Applications for permits and modifications with 18 month deadlines or APC goal (Title V Permits, Conditional Major Permits, Title V Significant Modifications)
  - If Received Prior to 7/1/2018 – to be completed by currently assigned permit writer
  - If Received On or After 7/1/2018 – to be assigned to new section
- All other applications received prior to January 1, 2019 will be completed by currently assigned permit writer/section
- All applications received after January 1, 2019 will be assigned to appropriate new section
Program Update- Sector-Based Permitting

What changes will I see?

• Many sources will be assigned to new permit writer
  – All similar facilities will be assigned to same section
    • Maybe even same permit writer

• Similar facilities should have similar permits
  – Will take time before all existing permits renewed

• Permitting decisions will be consistent & comply with state & federal regulations that apply to applicable sector
  – Any inconsistencies in past decisions will be discussed with companies in making permit changes

• Section staff will enhance their expertise in air regulations that apply to facilities in their section
Vehicle Emissions Testing

- Tennessee’s vehicle emission program exists in the following counties: Hamilton, Sumner, Rutherford, Williamson and Wilson.
- Public Chapter 953 enacted by the 110th General Assembly and signed by Governor Haslam on May 15, 2018 seeks to eliminate the vehicle emissions program when the state receives approval to do so.
- The legislation gave Davidson County the option of continuing their program and the county has done so.
- Division is preparing a State Implementation Plan revision that shows impacts of eliminating the program.
- Program will continue until EPA approves the State Implementation revision seeking program elimination.
Questions?

Jimmy Johnston
Deputy Director
TDEC Division of Air Pollution Control
james.johnston@tn.gov
615-253-7319
Permitting Issues

Air Pollution Permitting Workshop

May 16, 2019
Permitting

- Tennessee has the authority to implement federal air quality requirements through a State Implementation Plan, or SIP.
- One of the requirements of our SIP is that the permitting authority (the State of Tennessee or an approved local program) must create and issue practicably enforceable, legally defendable permits that assist the source in complying with regulatory requirements under the Clean Air Act.
Permitting

- EPA provides oversight to the State and Local permitting programs
  - Review certain major source permit applications, draft and proposed permits
  - Provide guidance, technical assistance and/or comments to the permitting authority
Types of Permits

- Title V operating permits
- Conditional major operating permits
- True minor operating permits
- Construction permits (New Source Review)
- General Permits
- Permit-by-rule
General Permits

- APC now has the authority to issue general permits
- General permits are a single Permit issued by TDEC for a specific type of facility
- Sources submit a “notice of intent” (NOI) to receive coverage under a general permit, and the Technical Secretary issues a Notice of Coverage (NOC)
- General permits serve as both construction and operating permits for eligible sources
- Lists of facilities who have submitted NOIs for construction or modification under a general permit will be published on TDEC’s website at least monthly
- The first two general permits for perchloroethylene and petroleum solvent dry cleaners were issued in Feb. 2017
Additional Permit Streamlining

• On August 15, 2017, rule changes went into effect allowing:
  – Permits-by-Rule
    • Source-specific requirements (NSPS, NESHAP) adopted into rules
    • Sources submit a “Notice of Intent” (NOI) to TDEC to be subject to permit-by-rule
    • The Technical Secretary issues Notices of Authorization (NOA) for sources authorized to construct and/or operate under a permit-by-rule.
  – Combined Construction and Operating Permits
    • Single Application/Single Permit
  – True Minor and Conditional Major Ownership Changes through Permit Amendment (like Title V)
Additional Benefit of Permit-By-Rule

• To utilize the permit-by-rule process, the Division must adopt the applicable federal rules.
• Once a federal rule has been adopted, sources subject to the rule may qualify to be an insignificant activity or insignificant emissions unit if their uncontrolled PTE is less than 5 TPY of each criteria pollutant and less than 1,000 lbs/yr of each hazardous air pollutant. They will still be required to comply with the rule, but will not be subject to permitting.
• The Division must be given written notification of sources desiring designation as insignificant activities or insignificant emissions units.
Title V Permits

• A major stationary source of air pollution must obtain a Title V operating permit.
• For Title V, a major source of air pollution is defined as a source that emits or has the potential to emit 100 TPY of a criteria pollutant, 25 TPY or more of any combination of Hazardous Air Pollutants (HAPs), or 10 TPY of a single HAP.
• Sources with a PTE above T5 thresholds can opt out of being issued a T5 permit by accepting limitations to stay below them. TN calls these sources conditional major sources.
Title V Permits

- The purpose of Title V is to help improve a source's ability to comply with all applicable requirements by putting them in one permit.
- Title V requires that sources submit semi-annual reports to their permitting authority and annual compliance certifications to their permitting authority and EPA.
Title V Permits

- New Title V sources must file a major source operating permit application within the time frame specified in their construction permit, but no later than 360 days after startup.
- Renewal applications must be submitted within the time frame specified in their Title V permit, between six and nine months prior to expiration.
- The Division has 60 days to designate an application as complete or incomplete.
Title V Permits

• Draft Title V permits must be made available for public review for 30 days before being sent to EPA for review.
  – Current APC regulations require public notification in a newspaper prior to issuance of Title V permits and significant modifications, but the Division is initiating rulemaking to allow electronic posting of these notices instead.

• EPA has 45 days to review the proposed permit; in certain situations this review period may occur concurrently with the public review period

• Title V permits typically expire 5 years from permit issuance.
New Source Review

• New major stationary sources and major modifications to stationary sources emitting air pollution are required by the federal Clean Air Act to obtain an air pollution permit before beginning construction.

• Tennessee also has a minor New Source Review program requiring that minor sources receive a construction permit before beginning construction.
Current APC regulations require public notification in a newspaper prior to issuance of all construction permits, but the Division is initiating rulemaking to allow electronic posting of these notices instead.
Minor New Source Review

• 1200-03-09-.01(1)(1)
  Except as specifically exempted in Rule 1200-03-09-.04, no person shall begin the construction of a new air contaminant source or the modification of an air contaminant source which may result in the discharge of air contaminants without first having applied for and received from the Technical Secretary a construction permit or, if applicable, submitted a notice of intent and obtained a notice of coverage or authorization, for the construction or modification of such air contaminant source.
Major New Source Review

• Nonattainment New Source Review (NAA-NSR) permitting applies to nonattainment areas.

• Prevention of Significant Deterioration (PSD) permitting applies to attainment areas.
Major New Source Review

- **PSD applies when:**
  - The source is in an attainment area for the pollutant of concern
  - A source is one of the listed industrial categories and emits $\geq 100$ tpy of NSR regulated pollutant;
  - OR
  - For all other industrial categories, source emits $\geq 250$ tpy of NSR regulated pollutant

- **NAA-NSR applies when:**
  - The source is in a NAA
  - In general, if source emits $\geq 100$ tpy of pollutant (or designated precursors) for which area is designated non-attainment
Major New Source Review

- Sources subject to PSD must apply Best Available Control Technology (BACT) to the affected sources.

- Sources subject to NAA-NSR must apply Lowest Achievable Emission Rate (LAER) to the affected sources.
Low NO\textsubscript{x} Burner Requirements

- In April, 2005, the Technical Secretary made the determination that low NO\textsubscript{x} burner technology was both “reasonable and proper” [1200-03-07-.07(2)] and “best equipment and technology” [1200-03-06-.03(2)] for the control of NO\textsubscript{x} emissions from fuel combustion. NO\textsubscript{x} is an ozone and PM\textsubscript{2.5} precursor, and requiring this technology is one measure to ensure attainment and maintenance of the ozone and PM\textsubscript{2.5} NAAQS.
Low NO$_x$ Burner Requirements

• Case-by-case exemptions may be approved when the technology may interfere with the affected process.
A determination was made for diesel engines at asphalt plants, an industry in which it is common to move equipment from one location to another location, that equipment moving into an area that is attainment for ozone and PM$_{2.5}$ will not be required to install low-NO$_x$ burners if the equipment did not have the technology at its previous location.
Low NO\textsubscript{x} Burner Requirements – Asphalt Plants

• However, if they move the equipment from an ozone or PM\textsubscript{2.5} attainment area to an ozone or PM\textsubscript{2.5} non-attainment area, they will be required to upgrade the equipment to low-NO\textsubscript{x} burners.

• This exemption may change when new ozone or PM\textsubscript{2.5} standards are announced.
Greenhouse Gases (GHGs)

• Gases determined by EPA to be influencing climate change – not just carbon dioxide
• Carbon dioxide – CO$_2$, methane – CH$_4$, fluorinated gases & nitrous oxide N$_2$O
• Tennessee views climate change discussions as a global and national issue. Its stance on Greenhouse Gases is to comply with federal law & regulations.
• Greenhouse Gases are being inventoried under federal requirement to track trends
GHG Emissions Reporting

• October 30, 2009: Final GHG Emissions Mandatory Reporting Rule
  – Does not create an applicable requirement under TV
  – Applies to sources of GHGs equal to or greater than 25,000 metric tons of CO$_2$e
  – www.epa.gov/ghgreporting
Greenhouse Gases

• Now part of PSD and Title V rules (the Greenhouse Gas Tailoring Rule) when significance thresholds are crossed. PSD-BACT reviews focus on:
  – Energy efficiency
  – Control equipment
  – Geologic sequestration
Greenhouse Gases

• Only sources that are PSD major for another pollutant and greenhouse gases will be required to undergo PSD BACT review for GHGs.
• Only sources that are T5 major for another pollutant and GHGs are required to obtain a Title V permit. No GHG limitations will be established solely because the source is Title V major.
• The GHG tailoring rule did not establish emission limitations for GHGs; this is done through the BACT process if the source is major for PSD and through separate rulemaking by EPA.
Who Is Affected by the GHG Tailoring Rule?

- Modifications at an existing major facility with GHG increases of 75,000 tpy or more are subject to PSD permitting only if the modification is major for another pollutant also.

- New sources undergoing PSD review for another pollutant and that have the potential to emit 75,000 tpy or more of GHGs must apply BACT for GHGs.
Confidentiality

• The Tennessee Air Quality Act grants the Department the authority to issue a protection order to prevent public dissemination of any secret formula, processes, or methods used in any manufacturing operation. The composition of air contaminants shall not be considered secret unless so declared by the Division of Air Pollution Control.

• A Request for Protection Order for Confidential Information form must be completed for each submittal containing material for which confidentiality is desired.
Confidentiality

• Please note that you were provided a copy of the Confidential information request form, and it is available online at http://tn.gov/environment/topic/permit-air under Other Permit-Related Information.

State of Tennessee
Department of Environment and Conservation
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243
Electronic Document Submittal

• The Department is now accepting documents electronically, but does not recommend e-mailing confidential information.
• Send non-confidential documents to Air.Pollution.Control@tn.gov
• You can copy your permit writer, but be sure to send it to the above email so it is logged in as officially received.
• PDF signatures are acceptable, no hard copy necessary.
Information to EFOs

• Each APC Environmental Field Office also has an official email address.
  • Chattanooga: APC.ChattEFO@tn.gov
  • Columbia: APC.ColuEFO@tn.gov
  • Cookeville: APC.CookEFO@tn.gov
  • Jackson: APC.JackEFO@tn.gov
  • Johnson City: APC.JCEFO@tn.gov
  • Knoxville: APC.KnoxEFO@tn.gov
  • Nashville: APC.NashEFO@tn.gov
TDEC Dataviewers

- TDEC is rapidly moving toward a completely electronic file room.
- In APC, all incoming documents (except confidential information) are being scanned and uploaded to the APC dataviewer, SmogLog.
- In APC, the process is nearly complete. By October 1, 2018 it is expected that all documents will be available online.
- All scanned TDEC documents relating to regulated facilities can be found at http://tn.gov/environment/article/tdec-dataviewers.
- The direct link to APC’s dataviewer is http://environment-online.state.tn.us:8080/pls/enf_reports/f?p=19031:34001:0
Questions?

Lacey J. Hardin  
Environmental Consultant 4  
TN Division of Air Pollution Control  
William R. Snodgrass TN Tower  
312 Rosa L. Parks Avenue, 15th Floor  
Nashville, TN 37243  
(615) 532-0545  
Lacey.Hardin@tn.gov

http://tn.gov/environment/
The Questions to be Addressed:

Which site activities will require the prior issuance of a construction permit?

Are there activities that can proceed without first obtaining a construction permit?
Cases where the issuance of a construction permit will **not** be required for the proposed activity or change.

- Changes at Title V facilities (3 examples)
- Changes at non-Title V facilities (2 examples)

Cases where issuance of a construction permit **will** be required, prior to commencement of the proposed activity or change.

- Definition of “construction”
- Activities which do not constitute “construction”
- What if such activity commences before issuance of a construction permit?
Requirement for a Construction Permit

According to subparagraph 1200-03-09-.01(1)(a):

“...no person shall begin the construction of a new air contaminant source or the modification of an air contaminant source...without first having applied for and received...a construction permit....”
Let’s assume that a facility wishes to add a new air contaminant source or modify an existing one. One of the first questions that might be asked is:

Will a construction permit be required for the planned change(s)?
The answer may be “No”. The Tennessee Air Pollution Control Regulations make allowance for certain changes to be made without the issuance of a construction permit.

- Changes at Title V facilities (3 examples)
- Changes at non-Title V facilities (2 examples)
Changes at Title V facilities

Three examples of changes at Title V facilities which do not require a construction permit

1) Operational Flexibility or Minor Permit Modification (modified source)
2) Minor Permit Modification (new source)
3) Insignificant activities or insignificant emission units
According to part 1200-03-02-.01(1)(aa)3., a construction permit is not required if all of the following conditions are met.

- The source must currently be subject to a Title V operating permit.
- The proposed change must not meet the definition of “Title I Modification” under part 1200-03-09-.02(11)(b)28.
- The proposed change must qualify as either an operational flexibility change under part 1200-03-09-.02(11)(a)4., or as a minor permit modification under subpart 1200-03-09-.02(11)(f)5.(ii).
For example, in most cases, the addition of various saws to an existing permitted woodworking operation would qualify for operational flexibility.

Note: While a construction permit would not be required in such a case, all procedures for making changes under the “operational flexibility” or “minor permit modification” provisions must be followed.
Likewise, according to subparagraph 1200-03-02-01(1)(cc), the construction of a new source at a Title V facility may qualify as a minor permit modification under subpart 1200-03-09-.02(11)(f)5.(ii).
For example, the addition of a new surface coating operation could possibly qualify as a minor permit modification.

Note: While a construction permit would not be required in such a case, all procedures for making changes under the “minor permit modification” provisions [subpart 1200-03-09-.02(11)(f)5.(ii)] must be followed.
The construction of a new source which qualifies as an insignificant activity or an insignificant emissions unit in Rule 1200-03-09-.04 does not require a construction permit.
Two examples of changes at Non-Title V facilities which do not require a construction permit

1) Operational Flexibility
2) Exemption
According to part 1200-03-02-.01(1)(aa)4., if a facility is subject to neither the Title V regulations nor to the major New Source Review regulations, then certain changes may be made which do not require a construction permit. However, the following conditions must be met.
The source must currently be subject to a non-Title V operating permit.

The proposed change must **not** result in emissions exceeding the emissions allowable under the existing operating permit.

The proposed change must **not** result in the emission of any regulated air contaminant which was not previously emitted.
For example, in many cases, the addition of crushers, screens, and/or conveyors to an existing, permitted rock crushing operation would qualify for operational flexibility.

However, this is true only if the change does not trigger a new applicable requirement (which would require a change to the existing permit).
Just as with Title V sources, the construction of a new source which is specifically exempted in Rule 1200-03-09-.04 does not require a construction permit.

For example, the addition of a 5 MMBtu/hr natural gas-fired oven could be exempt and not require a construction permit.
Of course, the answer to our initial question may be “Yes”, meaning that a construction permit would be required. In the event that the proposed changes do require that a construction permit be obtained, then issuance of the required permit(s) must occur prior to the commencement of any related “construction” activities.

Which raises another question:
What actually constitutes “construction”?

For source changes or additions that are subject to major New Source Review (NSR) [paragraphs 1200-03-09-.01(4) and (5)], the Tennessee Air Pollution Control Regulations offer clear definitions of “construction” activities and “commence” construction. These are always binding for those types of changes or additions.
What actually constitutes “construction”? (cont’d)

However, for source changes or additions which are not subject to major New Source Review [paragraphs 1200-03-09-.01(4) and (5)], the policies of the TN Division of Air Pollution Control allow for certain activities to go forward prior to the issuance of a construction permit.
In other words, there are certain activities (of a more general nature), which the Division does not typically consider to be “construction” of the new or modified source.
For projects **not** subject to major NSR, some activities may occur prior to construction permit issuance.

**Examples of those activities:**

- General site grading at the source location

- Construction of a general slab, which does **not** include dedicated footers/foundations for specific equipment related to the air contaminant source

- Construction of a general building at the source location
For projects **not** subject to major NSR, some activities may occur prior to construction permit issuance.

*Other examples of those activities:*

- Installation of utility piping, conduit, wiring, etc., which **does not** include unique devices for specific equipment related to the project

- On-site storage of process equipment in a location **other than** where it is (eventually) to be operated
Summary for projects **not** subject to major NSR

In short, activities of a general nature, which are not directly related to the installation or modification of specific equipment related to the air contaminant source, can normally take place prior to the issuance of a construction permit.

(Again, this is true only for changes or additions that are **not** subject to major New Source Review.)
What if “construction” commences before issuance of a construction permit?

If source “construction” activities (those not specifically excluded from that definition) go forward before a valid construction permit is in place, then an enforcement action may result.
Division of Air Pollution Control

Compliance Validation Overview

Jeryl Stewart  Jeryl.Stewart@tn.gov  (615) 532-0605
Compliance Validation Program

- Collection of technical specialty areas dealing with the measurement of emission from sources
- Originated with the Division’s Source Test Team
- Here only visible emissions and source emissions testing will be addressed
Visible Emissions

- Visible emission regulations apply to virtually all air emission sources
- Division conducts training courses to train people to evaluate visible emissions
- Details of the courses can be found at: [http://www.state.tn.us/environment/article/visible-emissions-evaluation](http://www.state.tn.us/environment/article/visible-emissions-evaluation)
- Note that Tennessee is probably the only state with federally approved state visible emission evaluation methods
Opacity Matrix Decision Trees

• Title 5 requires compliance assurance for each applicable permit requirement

• Opacity matrix decision trees developed to address this requirement

• Basic concept to minimize evaluations for sources that do not have visible emissions and increase the number of evaluations for sources whose emissions approach the applicable standard

• Copies of current matrices included with course workbook
Opacity Matrix Decision Trees (2)

- USEPA had initial concerns with the concept. Division staff had to meet with USEPA Region 4 staff to obtain agreement to utilize opacity matrix decision trees in Title 5 permits.
- There have been minor revisions but the concept has been basically unchanged for almost twenty years.
- Please note that the submittal of visible emission evaluation forms is not required.
- For reporting requirements, it is sufficient to state that the readings were taken, to summarize the results obtained, and to retain the forms in your records.
Opacity Matrix Decision Trees (3)

- Question and answer document addresses issues raised at previous workshops
- Opacity Matrices unchanged since August 16, 2013
- Question and answer document updated to reflect the fact that “combustion source” refers solely to either fuel burning equipment or to process sources where the combustion gases do not come into contact with the material being processed (i.e. dried or melted)
Source Emissions Testing

- The Division of Air Pollution Control’s CVP maintains the capability to conduct source emissions testing for a variety of pollutants from stationary sources.

- While the CVP does conduct emissions testing periodically, at the present time CVP staff will most frequently observe emissions testing conducted by outside organizations.

- Note that if a permit requires that an emissions test be conducted, then the report of that testing is a part of the next required permit application.
Source Emissions Testing (2)

- The purpose of the test observations and subsequent report review is to assure that the testing is properly conducted and that the test reports are technically correct and the reported results accurately reflect the actual emissions from the source.

- The state observer is responsible for insuring the validity of the test. It is not his/her responsibility to record the necessary process and control equipment related parameters. This is the responsibility of the facility environmental representative.

- Unless the contract has special provisions the tester is only responsible for the actual test.
Source Test Protocol

• Newer federal rules require the submittal of a test plan or protocol prior to the actual test date
• Tennessee agrees with this approach and the requirement of the submittal of a test protocol is set forth in all permit conditions that require testing.
• Allows potential testing issues to be addressed prior to actual test date
• Such issues as problems with the configuration of the proposed test location, the use of a modified test or analytical method, or the testing of representative sources must be addressed prior to the actual test date
• If emissions capture is an issue, it should be addressed
Preparations for the Day of the Source Test

- The facility environmental person must take the time to prepare for the source test and coordinate activities during the test.
- The Division has always emphasized full production during testing and USEPA has recently echoed this in a policy memorandum.
- If testing is conducted at much less than full production, then retesting may be required if production exceeds test value.
- Emissions must be captured. If fugitive emissions are noted by test observer, test may not be considered acceptable.
Preparations for the Day of the Source Test (2)

- Process interruptions must be coordinated with the test team (i.e. lunch periods or production changeover times)
- Insures that appropriate control equipment parameters are recorded during the testing
- Insures that control equipment parameters obtained from the testing represent values that the source can comply with when they appear as a permit condition and are not maximum values that were only possible during test conditions
- If equipment can operate in more than operational mode, then this must be addressed as a part of the testing program
Source Test Report

• Please send report in electronic format (prefer pdf) to air.pollution.control@tn.gov [state e-mail system can handle attachment of up to 25 MB in size]. Please note on the cover email: Attention: Compliance Validation.

• Process and control equipment data must be in the report.

• The data must address the requirements of the permit and/or the underlying rule

• Do not include extraneous data that is not germane to the permit or underlying rule requirements
Most sources of volatile organic compounds utilize permanent total enclosures (PTE) to demonstrate 100% capture efficiency.

The criteria for PTE is set forth in 40 CFR 51, Appendix M, Method 204 and is generally specified in the source permit.

If the source claims PTE then the test report must contain sufficient data to show that all of the criteria for PTE are being met.

If criteria for PTE can not be met, then one of the alternate methods for determining capture efficiency must be utilized. These are set forth in 40 CFR 51, Appendix M, Methods 204A through 204E.
American Conference of Government Industrial Hygienists (ACGIH)

- Certain newer federal regulations require conformance with the ACGIH “Industrial Ventilation: A Manual of Recommended Practice” to assure capture of emissions from process equipment.
- This manual contains specific calculations for minimum airflow for various source configurations.
- If the source claims conformance with this guidance, the test report must contain sufficient data to show that all of the criteria for conformance with ACGIH are being met.
- If there is a potential issue, notify the CVP prior to the test date so that it can be addressed prior to the test date.
Source Emissions Testing Extensions

• Generally testing is required within 180 days of source startup

• Need to read underlying regulation very carefully as some require different timelines (e.g. NESHAPS under 40 CFR 61 requires testing within 90 days of startup)

• For an existing source the testing date may be triggered by a federal rule applicability date or by the issuance date of a permit from the Division

• What happens if the source encounters problems that prevent testing within the required timeframe?
The source can request an extension of the testing period. The mechanics of handling such a request depends on whether the source is only subject to state rules or if the source is subject to a federal rule (NSPS, MACT, etc.).

- If the source is subject to only state rules an extension can be granted if there is sufficient justification.
- Simply waiting until the last minute and asking for an extension is not sufficient justification.
- If the source is subject to a federal rule (NSPS, MACT, etc.) the granting of a test extension must be in conformance with the *force majeure* provisions set forth in the Code of Federal Regulations at either 40 CFR 60.8 or 40 CFR 63.7.
Specifically *force majeure* is defined as an event beyond the control of the facility that prevents the completion of the testing within the required time frame despite the best efforts of the facility to complete the testing.

The bottom line is that if a problem occurs a *prompt* extension request needs to be made. The request should describe the *force majeure* issue, state what steps have or are going to be taken to minimize the delay, and list a proposed test date.
Applicability Determination Index

- [http://cfpub.epa.gov/adi/](http://cfpub.epa.gov/adi/)
- This website is maintained by the USEPA and contains guidance from the USEPA concerning issues relating to federal rules (NSPS, NESHAPS, MACT mainly)
- This is a good resource when issues come up concerning interpretations of federal rules, applicability of federal rules, alternate compliance or test methods.
- Easy way to use is to let the website search everything applicable to a particular rule.
Clarifications for the Opacity Matrix Decision Trees Made as a Result of Issues Raised During Various Title V Workshops

Question: Each opacity matrix states that the initial visible emission evaluation is due with the first annual compliance certification. What about a permit renewal where the company receives the new permit just a few days prior to the next annual compliance certification coming due?

Answer: When a permit renewal is issued less than sixty (60) days prior to an annual compliance certification being due, then the initial visible emission evaluations are due with the next annual compliance certification.

Note – This issue has been resolved by the August 16, 2013 amendment to each of the Opacity Matrix Decision Trees, which restores the time frames for the conducting of visible emission evaluations as they were in the original, June 18, 1996, documents. The reason for this is the fact that the Division recognized that tying the time frame for conducting the evaluations to the Title V permit dates made the most sense.

Additionally, this amendment removes the requirements to submit the visible emission evaluations. In retrospect the Division recognized that the submittal of the actual evaluation forms was not necessary. The submittal of a summary, such as done with parametric monitoring values, would be adequate for most compliance purposes.

Question: Are the opacity matrix decision trees applicable on a per stack basis?

Answer: No, they are applicable on a process emission source basis regardless of how many stacks the process emission source has. Similarly it would apply per fuel burning installation regardless of how may individual boiler stacks the installation has.

Question: Do the actual opacity evaluation forms have to be submitted?

Answer: No, only a report of the evaluations needs to be submitted and not the actual evaluations forms. However, the actual evaluation forms must be retained consistent with other Title V records.
Question: How does a company address the fact the while the opacity matrix may only require that two visible emission evaluation be conducted during the five year term of a Title V permit while five annual compliance certifications may have to be submitted?

Answer: Simply state that an evaluation was conducted as per the opacity matrix, give specifics, and state that another evaluation will be conducted and submitted with the permit renewal application. Example language is as follows: Opacity was determined by a certified evaluator on (date) for 30 minutes, and the (state opacity level determined and cite appropriate opacity matrix). Another evaluation will be conducted prior to permit expiration and will be submitted with the permit renewal application according to opacity matrix guidelines.

Question. How would the opacity matrix address No. 1 fuel oil?

Answer: No. 1 fuel oil has cleaner burning characteristics than No. 2 fuel oil. Therefore, the words No. 1 fuel oil may be substituted wherever the words No. 2 fuel oil appears on an opacity matrix. A source owner or operator with a source burning No. 1 fuel oil should request that the Division add clarifying language to the appropriate compliance determination condition to insure that there is no confusion as to the applicability of the opacity matrix with respect to No. 1 fuel oil.

Question: How would the opacity matrix address liquid fuels other than fuel oils?

Answer: The Division considers that the opacity matrix block addressing No. 2 fuel oil would be applicable to any liquid fuel with combustion characteristics equal to or better than No. 2 fuel oil. Therefore, the name of the liquid fuel may be substituted wherever the words No. 2 fuel oil appears on an opacity matrix. A source owner or operator with a source burning such a liquid fuel should request that the Division add clarifying language to the appropriate compliance determination condition to insure that there is no confusion as to the applicability of the opacity matrix with respect to the liquid fuel.

Question: How would the opacity matrix address gaseous fuels other than natural gas?

Answer: The Division considers that the opacity matrix block addressing natural gas would be applicable to any other gaseous fuels such as LP gas.

Question: Is a source with allowable particulate emissions greater than ten tons per year, but with multiple emission points required to conduct visible emissions readings by the opacity matrix?

Answer: Generally yes. The opacity matrix is based on emissions per process emission source, not per stack. However, there are situations where a number of very small similar process emission sources are permitted as a single permit unit for convenience. An example would be a number of independent spray booths permitted as a single source. For these situations the source owner or operator should request that the Division add clarifying language to the appropriate compliance determination condition to insure that there is no confusion as to the applicability of the opacity matrix. Be advised that this is not applicable to situations where a number of independent processes are permitted as a single process emission source because of common emissions control equipment.
Question: If a single process emission source has multiple stacks and visible problems necessitating more frequent evaluations be conducted are recorded from only a single stack, is it necessary that all the stacks of the process emission source be read more frequently?

Answer: Generally only the stack exhibiting the higher opacity levels would have to read more frequently. However, if such a situation does occur, it should be brought to the Division’s attention so that a specific determination can be made.

Question: Are the opacity matrix decision trees applicable to insignificant sources?

Answer: No, the opacity matrix decision trees were never intended to be applicable to insignificant sources? However, since opacity regulations are universally applicable, any opacity evaluation demonstrating noncompliance would be reportable as a deviation.

Question: Are the opacity matrix decision trees applicable to sources exhausting inside a building?

Answer: No, the opacity matrix decision trees were never intended to be applicable to sources exhausting inside buildings and no evaluations are required for such situations. The Division considers that exhausting into a building to be an adequate assurance of opacity compliance.

Question: Is there such a thing as a visible emission excursion?

Answer: No, visible emissions are evaluated in terms of opacity. An excursion is defined as a departure from an indicator range. An exceedance means a condition that is detected by monitoring that provides data in terms of an emission limitation or standard. Since visible emissions are evaluated in terms of percent opacity and visible emission standards are written in terms of percent opacity, all reported opacity deviations would be exceedances and not excursions.

Question: If a company is forced into conducting semi-annual or more frequent visible emission evaluations and the company has resolved the visible emission issue that resulted in the requirement to conduct the more frequent readings, how can the company obtain relief from the requirement to conduct the more frequent evaluations?

Answer: The issuance of a Title V permit renewal will initialize all applicable opacity matrix decision trees and allow a company currently required to conduct semi-annual or more frequent visible emission evaluations the opportunity to reduce visible emission evaluation frequency.

Question: Does the Division consider nitrogen oxides to be a “colorless gas” When applying the opacity matrix decision tree to determine whether or not visible emissions evaluations are required for a given source?

Answer: The term “nitrogen oxides” the generic term for a group of highly reactive gases, all of which contain nitrogen and oxygen in varying amounts. One of these gases is nitrogen dioxide, which has a red to brown color. Therefore, the Division does not consider nitrogen oxides to be a colorless gas and will require visible emission evaluations to be conducted if allowable emissions of nitrogen oxides are greater than ten tons per year for any emission source. Note, if the source is fuel burning equipment combusting either natural gas or No. 2 fuel oil, no readings would be required.
Question: Why is the following language contained in visible emission compliance methods?

PLEASE NOTE: If the magnitude and frequency of excursions reported by the permittee in the periodic monitoring for emissions is unsatisfactory to the Technical Secretary, this permit may be reopened to impose additional opacity monitoring requirements.

Answer: The inclusion of the above language was a condition for USEPA Region 4 allowing the use of the opacity matrix decision trees in Title V permits. To date there have been no issues raised because of this language.

Question: Why is there no opacity matrix for fugitive dust emissions (Tennessee Visible Emission Evaluation Method 4)? Also, how is compliance with fugitive emissions addressed on Title V permits?

Answer: Fugitive dust compliance has almost universal applicability and is applicable to situations where a permit from this Division is not required. However, due to such things as extensive paving and the enclosing of material handling equipment and storage piles, many facilities have a negligible potential for fugitive dust emissions. For this reason there is no opacity matrix for fugitive dust emissions that mandates periodic readings. Rather the Division has elected to only require that readings be taken if there is a potential for excessive fugitive emissions. A typical permit condition follows:

**Compliance Method:** Reasonable measures shall be taken to prevent or mitigate fugitive dust. Compliance with this emission limitation shall be certified through utilization of the Tennessee Visible Emission Evaluation Method 4 as adopted by the Tennessee Air Pollution Control Board on April 16, 1986. Readings shall be taken if valid complaints occur to assess or to verify compliance, if needed, for individual emission sources of concern.

Note that many facilities with extensive internal unpaved road and parking areas have special road and parking area standards incorporated as a permit condition. For such a situation Tennessee Visible Emission Evaluation Method 1 is the specified reading method there is a corresponding opacity matrix.

Question: If a Title V source is shutdown but retains its permit and a new company buys the facility and asks that the Title V permit be transferred into the name of the new company, does this require that the initial opacity readings conducted pursuant to the appropriate opacity matrix be repeated.

Answer: No. If a new company obtains a change of ownership or operational control of a source having a Title V permit through an administrative permit amendment, then the opacity matrix timelines previously established would remain unchanged.
Question: In the original opacity matrices (June 18, 1996) it is stated that for sources required to have visible emission evaluations conducted upon them that the initial visible emission evaluation is to be conducted within one year of the issuance of the source’s Title V permit and that if no other provisions of the matrix are triggered a second evaluation is to be conducted prior to the permit expiration. The issue in question is whether a visible emission evaluation conducted prior to permit expiration date also serve as the initial evaluation for Title V permit reissuance if the evaluation were conducted within one year prior to the permit reissuance date?

Answer: The intent of the matrices was for sources required to conduct visible emission evaluations and not triggering other provisions of the matrices to require that there be two distinct visible emission evaluations to be conducted during the term of each Title V permit. The current language in the matrices (August 16, 2013 revision) states that the initial evaluation is to be conducted within one year following the issuance of the Title V permit and the second evaluation is to be conducted within one year prior to the permit expiration. Here it is clear that two distinct evaluations are required.

However, the original, June 18, 1996, matrices use the language, “within one year of major source operating permit issuance” and do not specify that the evaluations must be following the permit issuance. A company having one of the original matrices in its Title V permit could claim that the visible emission evaluation conducted “prior to permit expiration” could also serve as the visible emission evaluation conducted “within one year of major source operating permit issuance” for the renewal permit. For Title V permits containing the original opacity matrices the Division will agree that visible emission evaluations conducted “prior to permit expiration” can serve as the initial visible emission evaluation for the renewed permit provided the new permit contains original matrices and the visible emission evaluation is conducted “within one year of major source operating permit issuance”.

It should be noted that this situation would only occur for sources having very low levels of visible emissions. If a source conducting semi-annual or more frequent visible emission evaluations under its existing Title V permit were to utilize this procedure after the issuance of a renewal Title V permit, it would lose the ability to initialize the opacity matrices afforded by permit renewal and would be forced to conduct the more frequent visible emission evaluations throughout the term of the renewed permit.

Question: If an affected source has multiple exhaust points that are located in such close proximity that they can not be read separately, can they be read as a single source? The emission points in question are a quartette of cyclones mounted together and used to transfer wood waste to a silo.

Answer: Yes. Where the exhaust points are mounted so close together that reading an individual emission point is not possible, it is acceptable to read the combined emission stream. The basis for agreeing to this procedure is the fact that the combined emissions will have a greater cross sectional area than any individual emission and this will cause a high bias to any readings taken.
Question: If the equipment exhausting into an emission point can be operated in several different operational modes, do readings have to be conducted for each operational mode of the equipment?

Answer: No. Readings for a single emission point need only be conducted when the process equipment is operating in the mode expected to produce the highest visible emission (i.e. having the highest material throughput or processing the material that will generate the finest particles). Records should be kept documenting how this determination was made.

Question: If a source has a particulate fee allowable set under Chapter 26, is this value good for use in addressing the requirements of the matrix?

Answer: Yes. The matrix simply uses the word allowable in setting forth a limit below which visible emission evaluations are not required and a fee allowable would be an allowable emission rate.

Question: The opacity matrices state that the initial visible emission evaluation for a source should be conducted before the due date of the first annual compliance certification. The question is must the visible emission evaluation be conducted within the timeframe addressed by that annual compliance certification or may it be conducted after the timeframe of that annual compliance certification, but before the due date of the annual compliance certification report?

Answer: The visible emission evaluation may be conducted after the timeframe of the annual compliance certification, but before the due date of the annual compliance certification report. Visible emission evaluations conducted as per the opacity matrices are not tied to the annual certification process. If visible emissions were either zero or very low levels, then the evaluations would only have to be conducted twice during the five-year term of the permit. Thus, the conducting of the evaluations is not tied to a single reporting time period and should not be limited to the time period covered by the annual compliance certification.

Note – The above question has been rendered moot by the August 16, 2013 amendment to the opacity matrices. However, the answer remains valid and has been retained.
Notes:
The use of Tennessee Visible Emission Evaluation (TVEE) Method 1 is only applicable where the use of the method is specified as a permit condition.

PM = Periodic Monitoring required by 1200-03-09-.02(11)(c)(1)(iii).

This Decision Tree outlines the criteria by which major sources can meet the PM requirements of Title V for demonstrating compliance with the visible emissions standard for nontraditional sources (roads and parking areas). It is not intended to determine compliance requirements for EPA’s Compliance Assurance Monitoring (CAM) Rule (formerly referred to as Enhanced Monitoring – Proposed 40 CFR 64).

Visible Emissions Evaluations (VEEs) are to be conducted utilizing TVEE Method 1. The observer must be properly certified according to criteria specified in TVEE Method 1 to conduct Method 1 evaluations.

Initial observations are to be repeated within 90 days of startup of a modified source if a new construction permit is issued for modification of the source.

A VEE conducted by TDAPC personnel after the Title V permit is issued will also constitute an initial reading.

Reader Error
For TVEE Method 1, the TDAPC declares non-compliance when the highest two-minute average exceeds the standard plus 10% opacity for sources having this standard applied prior to August 24, 1984 or 8.8% for sources having this standard applied on or after August 24, 1984.

Dated June 18, 1996
Amended September 11, 2013
Notes:

PM = Periodic Monitoring required by 1200-03-09-.02(11)(e)(iii).

This Decision Tree outlines the criteria by which major sources can meet the periodic monitoring and testing requirements of Title V for demonstrating compliance with the visible emission standard in Rule 1200-03-05-.01. It is not intended to determine compliance requirements for EPA’s Compliance Assurance Monitoring (CAM) Rule (formerly referred to as Enhanced Monitoring – Proposed 40 CFR 64).

Examine each emission unit using this Decision Tree to determine the PMT required.

Use of continuous emission monitoring systems eliminates the need to do any additional periodic monitoring.

Visible Emission Evaluations (VEEs) are to be conducted utilizing Tennessee Visible Emission Evaluation Method 2. The observer must be properly certified according to the criteria specified in EPA Method 9 to conduct TVEE Method 2 evaluations.

Typical Pollutants
Particulates, VOC, CO, SO2, NOx, HCl, HF, HBr, Ammonia, and Methane.

Initial observations are to be repeated within 90 days of startup of a modified source, if a new construction permit is issued for modification of the source.

A VEE conducted by TAPCD personnel after the Title V permit is issued will also constitute an initial reading.

Reader Error
TVEE Method 2: The TAPCD declares non-compliance when 21 observations are read at the standard plus 15% opacity (e.g. 35% for a 20% standard).

*The rationale for this is the fact that Rule 1200-03-05-.01 allows for an exemption of 5 minutes (20 readings) per hour and up to 20 minutes (80 readings) per day. With 4 or more excessive individual readings per hour the possibility of a daily exceedance exists.

Note: A company could mutually agree to have all of its sources regulated by EPA Method 9. Caution: Agreement to use Method 9 could potentially place some sources in non-compliance with visible emission standards. Please be sure before you agree.

Dated June 18, 1996
Amended September 11, 2013
Notes:

The use of Tennessee Visible Emission Evaluation (TVEE) Method 3 is only applicable where the use of the method is specified as a permit condition.

PM = Periodic Monitoring required by 1200-03-09-.02(11)(e)(1)(iii).

This Decision Tree outlines the criteria by which major sources can meet the PM requirements of Title V for demonstrating compliance with the visible emissions standards of zero percent opacity where the use of TVEE Method 3 is specified as a permit condition. It is not intended to determine compliance requirements for EPA’s Compliance Assurance Monitoring (CAM) Rule (formerly referred to as Enhanced Monitoring – Proposed 40 CFR 64).

Examine each emission source using this Decision Tree to determine PM required.

Use of continuous emission monitoring systems eliminates the need to do any additional periodic monitoring.

Visible Emissions Evaluations (VEEs) are to be conducted utilizing TVEE Method 3. The observer must be properly certified according to criteria specified in TVEE Method 3 to conduct Method 3 evaluations.

Initial observations are to be repeated within 90 days of startup of a modified source if a new construction permit is issued for modification of the source.

A VEE conducted by TDAPC personnel after the Title V permit is issued will also constitute an initial reading.

Reader Error
For TVEE Method 3, the TDAPC declares non-compliance when during any set of 24 observations any combination of readings exceed 10% opacity (e.g. one reading of 10% opacity or two readings of 5% opacity).

Dated June 18, 1996
Amended September 11, 2013
This Decision Tree outlines the criteria by which major sources can meet the periodic monitoring and testing requirements of Title V for demonstrating compliance with the visible emission standards set forth in the permit. It is not intended to determine compliance requirements for EPA’s Compliance Assurance Monitoring (CAM) Rule (formerly referred to as Enhanced Monitoring – Proposed 40 CFR 64).

Examine each emission unit using this Decision Tree to determine the PM required. Use of continuous emission monitoring systems eliminates the need to do any additional periodic monitoring.

Visible Emission Evaluations (VEEs) are to be conducted utilizing EPA Method 9. The observer must be properly certified to conduct valid evaluations.

Typical Pollutants
Particulates, VOC, CO, SO₂, NOₓ, HCl, HF, HBr, Ammonia, and Methane.

Initial observations are to be repeated within 90 days of startup of a modified source, if a new construction permit is issued for modification of the source.

A VEE conducted by TAPCD personnel after the Title V permit is issued will also constitute an initial reading.

Reader Error
EPA Method 9, Non-NSPS or NESHAPS stipulated opacity standards: The TAPCD guidance is to declare non-compliance when the highest six-minute average** exceeds the standard plus 6.8% opacity (e.g. 26.8% for a 20% standard).

EPA Method 9, NSPS or NESHAPS stipulate opacity standards: EPA guidance is to allow only engineering round. No allowance for reader error is given.

*Not applicable to Asbestos manufacturing subject to 40 CFR 61.142

**Or second highest six-minute average, if the source has an exemption period stipulated in either the regulations or in the permit.

Dated June 18, 1996
Amended September 11, 2013
Definitions

- **NESHAP** = National Emission Standards for Hazardous Air Pollutants
  - Found in 40 CFR, Part 61 and Part 63
- **MACT** = Maximum Achievable Control Technology
- **GACT** = Generally Available Control Technology
- **Area Sources** = Facilities or installations that have the potential to emit less than 10 tons per year of any single hazardous air pollutant (HAP) or 25 tons per year of a combination of all HAP.
Area Source NESHAPs

- Possibility for unpermitted sources to become subject to permitting for the first time
- Check the list of source categories scheduled for promulgation at area sources
- Entire list of area source categories and rules can be found here: http://www.epa.gov/ttn/atw/area/arearules.html
Today’s Topics

• NESHAP Updates

• n-Propyl Bromide

• Risk and Technology Reviews

• CEDRI Overview

• Boiler MACT
Part 63 (MACT) Rule Updates

• Mercury and Air Toxics Standard (MATS)
  – Promulgated on Feb. 16, 2012 – Compliance date April 16, 2015
  – Technical corrections amendment published on April 6, 2016
  – Rule amendment published on April 6, 2017
    • Allows electronic reporting in PDF format

• Ferroalloys Production
  – Promulgated on May 20, 1999 – RTR on June 30, 2015
  – Published amendments on January 18, 2017
    • Addresses reconsideration issues from July 12, 2016

• Publicly Owned Treatment Works
  – Promulgated on Oct. 26, 1999 - RTR proposed on Dec. 8, 2016
  – Extended comment period for proposed RTR until 3/29/17
    • Published on February 22, 2017
Part 63 (MACT) Rule Updates

- **Brick and Clay MACT – Promulgated October 26, 2015**
  - Litigation followed promulgation
  - House Bills introduced to delay implementation until after legal action completed
  - D.C. Circuit Issues Brick and Clay MACT Rule Decision (July 6, 2018)
  - EPA
    1. Failed to correctly analyze the health risks associated with acid gas pollutants.
    2. Did not properly explain the calculations behind five of the rule’s MACT floors.
    3. Impermissibly set alternative MACT floors for brick tunnel kilns.

  Rule was remanded back to EPA for further consideration on these 3 issues.

- **Once-In-Always-In**

- **Military MACT**

- **Rules with Electronic Data Reporting Requirements**
  - Part 63: 39  Part 60: 14

- **Questions on MACT Rules**
  - Start with your Permitting Authority
  - Regional EPA contact
  - No longer a HQ contact list on EPA website
    - Go to relevant standard in website and Submit under “Contact Us’
n-Propyl Bromide (nPB)

EPA received petition to add nPB to CAA HAP list

- Section 112(b)(3) of the CAA provides authority to add or delete HAPs

- What is nPB?
  - Brominated organic liquid
  - Used as intermediate chemical in mfg of pharmaceuticals and agricultural products
  - Reasonably anticipated to cause cancer in humans

- January 9, 2017: EPA publishes draft notice for granting petition
  - Comments due by March 10
  - EPA extended comment period until June 8, 2017

- Final notice expected sometime next year

- What happens If granted?
  - Identification of major and area source categories
  - Regulations pursuant to Section 112 (d) of the CAA
Risk and Technology Reviews (RTRs)

Statutory Requirements

Risk: Section 112(f) of the CAA

- Review remaining risk 8 years after MACT is applied
- Major source categories only
- Revise rule as necessary

Technology: Section 112(d) of the CAA

- Review technology used for MACT every 8 years
- Revise rule as necessary
RTR Litigation

- Case 16-cv-01074; filed June 8, 2016 – 9 source categories
  - Primary Copper Smelting; Subpart QQQ (2002)
  - Generic MACT – Carbon Black Production; Subpart YY (2002)
  - Generic MACT – Cyanide Chemicals Manufacturing; Subpart YY (2002)
  - Generic MACT – Spandex Production; Subpart YY (2002)
  - Flexible Polyurethane Foam Fabrication; Subpart MMMMM (2003)
  - Refractory Products Manufacturing; Subpart SSSSS (2003)
  - Semiconductor Manufacturing; Subpart BBBBBB (2003)
  - Primary Magnesium Refining; Subpart TTTTTT (2003)
  - Mercury Cell Chlor-Alkali Plants; Subpart IIIII (2003)

- EPA to propose rulemaking schedule in early June
- Ongoing source identification for each category
RTR Litigation (cont.)

Case 15-cv-512 (TSC); March 13, 2017 – 20 source categories

- Solvent Extraction
- Boat Manufacturing
- Surface Coating of Metal Coil
- Cellulose Products Manufacturing
- Ethylene Production
- Paper and Other Web Coating
- Municipal Solid Waste Landfills
- Hydrochloric Acid Production
- Reinforced Plastic Composites
- Asphalt Processing & Roofing Materials
- Integrated Iron & Steel
- Engine Test Cells
- Site Remediation
- Misc. Organic Chemicals
- Coating of Metal Cans
- Coating of Misc. Metal parts
- Organic Liquids Distribution
- Stationary Combustion Turbines
- Coating of Plastic Parts
- Coating of Autos and Trucks

EPA ordered to complete rulemaking within 3 years
No order of rulemaking stipulated
RTR Litigation (Cont.)

Case 16-cv-00364 (CRC); March 22, 2017 - 13 Source Categories

- Leather Finishing
- Wet Formed Fiberglass Matt
- Rubber Tire Mfg.
- Coating of large Appliances
- Friction Materials Mfg.
- Coating of Metal Furniture
- Coating of Wood Building Products

* Printing, Coating, Dying of Fabrics
* Taconite Iron Ore Processing
* Miscellaneous Coatings
* Lime Manufacturing
* Iron and Steel Foundries
* Plywood and Composite Wood Prod.

7 categories must be completed by December 31, 2018
6 categories must be completed by June 20, 2020
EPA will determine which standards to address first
The proposed rule for **Surface Coating of Wood Building Products** was published in the Federal Register on May 16, 2018.

The proposed rule for **Friction Materials Manufacturing** was published in the Federal Register on May 3, 2018.

The proposed rule for **Wet-Formed Fiberglass Mat Production** was published in the Federal Register on April 6, 2018.

The proposed rule for **Leather Finishing** was published in the Federal Register on March 14, 2018.

The final rule for **Nutritional Yeast Manufacturing** was published in the Federal Register on October 16, 2017.

The final rule for **Publicly-Owned Treatment Works** was signed on October 16, 2017.

The final rule for **Pulp and Paper Combustion Sources** was published in the Federal Register on October 11, 2017.
RTR Current Schedules

- The EPA is under a consent decree to complete RTRs for one source category and a court-order to complete RTRs for 33 source categories. The schedules for these categories are shown in a table at the following link:
  - https://www3.epa.gov/airtoxics/rrisk/rtrpg.html

- Categories due this year:
  - Portland Cement 7/15/2018
  - Leather Finishing Operations 12/31/2018
  - Wet Formed Fiberglass Mat Production 12/31/2018
  - Wood Building Products 12/31/2018
  - Friction Materials Manufacturing 12/31/2018
RTR Current Schedules Cont.

- Fabric Printing 12/31/2018
- Large Appliances 12/31/2018
- Metal Furniture 12/31/2018
CEDRI – an overview

- Compliance and Emission Data Reporting Interface
  - Performance Test Reports
  - Notification of Compliance Status (NOCS)
  - Air Emissions Reports

- Electronic Reporting Tool (ERT) for performance test reports
  - MS Access based

- Central Data Exchange (CDX)
  - Create account: username and password
  - Data submissions: https://cdx.epa.gov/

For more info on CEDRI:
Industrial, Commercial, and Institutional Boilers and Process Heaters (major source)

- 40 CFR, Part 63, Subpart DDDDD (5D)
- Applicable to all fuel types
- Requirements vary based on boiler size and fuel type
- Target HAPs are Mercury (Hg), Non-Mercury Metals, and Organics
Exclusions

- Electric generating units (EGUs) covered by UUUUU
- Research and development
- Temporary boilers
- Any boiler or process heater that is subject to another part of 40 CFR 63 (i.e., group I aluminum melting furnace)
- Hot water heaters, as defined in the rule
Compliance Dates

- Existing sources comply on or before January 31, 2016
- New sources comply upon startup
- If your existing area source becomes a major source, comply within 3 years of becoming a major source
Based on US Sugar petition, DC Court vacates portion of rule - July 29, 2016
- Court did not specify which subcategories to vacate
- EPA petitioned for re-hearing - remand without vacature
- Court grants EPA’s petition in December 2016
- Rule remains in effect

Industry recently asks Supreme Court to take up EPA malfunction limits
- Court ruling in 2008 concluded that CAA requires continuous emission standards

D.C. Circuit Rejects Rehearing Request for Boiler Air Toxics Standards (July 3, 2018)
- The U.S. Court of Appeals for the District of Columbia Circuit rejected a request from environmental groups to review EPA’s work practice requirements for industrial boiler air toxics emissions during startups and shutdowns.
- The order rejecting the rehearing request and upholding the work practice requirements was issued without an explanation and on behalf of the entire court.
Work practice standards

- Existing facilities will be required to conduct a one-time energy assessment.
- New and existing natural gas and refinery gas-fired units will be required to perform a tune-up for each unit.
- New and existing boilers and process heaters < 10 MMBtu/hr, and “limited use” boilers will be required to perform a tune-up for each unit biennially.
Emission limits

- Depending on fuel type, emission limits for:
  - mercury
  - dioxin
  - particulate matter (PM)
  - hydrogen chloride
  - carbon monoxide
- All units will be required to monitor oxygen as a measure of good combustion.
- Units $> 250$ MMBtu will be required to have continuous emission monitors (CEMs) for PM emissions.
- 40 CFR, Part 63, Subpart JJJJJJJ (6J)
- Requirements vary based on boiler size and fuel type
- Target HAPs are Mercury (Hg), Non-Mercury Metals, and Organics
Exclusions

- Gas only fired units
- Research and development
- Temporary boilers
- Any boiler that is subject to another part of 40 CFR 63
- Hot water heaters, as defined in the rule
- An electric utility steam generating unit (EGU) covered by Subpart UUUUU
<table>
<thead>
<tr>
<th>Boiler Size and Construction Date</th>
<th>Fuel type</th>
<th>Summary of Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas-fired boilers</td>
<td>Gas (all types)</td>
<td>• None (not covered by the rule)</td>
</tr>
<tr>
<td>Other New and Existing Small boilers (&lt;10 MMBtu/hr)</td>
<td>Oil, Biomass and Coal</td>
<td>• Tune-up every other year or every 5 years</td>
</tr>
<tr>
<td>Existing boilers: Commenced construction or reconstruction of the boiler on or before June 4, 2010</td>
<td></td>
<td>Note: An existing dual-fuel fired boiler that fuel switches from gaseous fuel to solid fossil fuel, biomass, or liquid fuel after June 4, 2010 is considered to be an existing source as long as the boiler was designed to accommodate the alternate fuel</td>
</tr>
<tr>
<td>Existing Large boilers (&gt;10 MMBtu/hr)</td>
<td>Biomass and Oil</td>
<td>• Tune-up every other year</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• One-time energy assessment</td>
</tr>
<tr>
<td></td>
<td>Coal (excluding limited-use boilers)</td>
<td>• Emission limits for Hg and CO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• One-time energy assessment</td>
</tr>
<tr>
<td></td>
<td>Limited-use Coal</td>
<td>• Tune-up every 5 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• No emission limits or energy assessment</td>
</tr>
<tr>
<td>New boilers: Commenced construction/reconstruction after June 4, 2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New large boilers (&gt;10 MMBtu/hr)</td>
<td>Biomass and Oil (excluding limited-use, seasonal, and new oil-fired boilers bolded below)</td>
<td>• Emission limit for PM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Tune-up every other year</td>
</tr>
<tr>
<td></td>
<td>Coal (excluding limited-use boilers)</td>
<td>• Emission limits for Hg, CO, and PM</td>
</tr>
<tr>
<td></td>
<td>Limited-use Coal, Biomass, and Oil and Seasonal Biomass and Oil</td>
<td>• Tune-up every 5 years</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• No emission limits</td>
</tr>
</tbody>
</table>
Implementation materials

Go to:
http://www.epa.gov/ttn/atw/boiler/boilerpg.html

• Text of the regulation and amendments
• Sample notification
• Compliance requirement summary
• Guidance on tune-up and energy assessment
EPA Region IV Contact

- Jason Dressler
- Phone: 404-562-9208
- Email: dressler.jason@epa.gov
- [www.epa.gov/ttn/atw](http://www.epa.gov/ttn/atw)

- click on “Rules and Implementation”
- click on “National Emission Standards for Hazardous Air Pollutants”
- Will be redirected to a new site
- Scroll down table of rules
Examples of good and poor records for TM and CM sources and comments by EFO staff
**Annual Certification of Compliance**

**Emission Source Reference Number:** [REDACTED] CONDITIONAL MAJOR SOURCE  
**Current Operating Permit (Conditional Major) Number:** [REDACTED]  
**Date Issued:** August 2013; **Date Expires:** August 2023

**January 01, 2016 to December 31, 2016**

**Compliance Statement**

<table>
<thead>
<tr>
<th>Condition for Permit</th>
<th>Method(s)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 - The maximum emission rate from the entire facility for any single hazardous air pollutant (HAP), listed pursuant to Section 112(b) of the Federal Act, shall be less than 9.9 tons during any period of twelve (12) consecutive months. Total emissions of all HAPs from this facility shall be less than 24.6 tons per during any period of twelve (12) consecutive months. This limitation is established pursuant to Rule 1200-03-9-.02(11)(a) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated February 5, 1996 from the permittee.</td>
<td>Method specified in permit (condition 8 - The permittee shall calculate the actual quantities of VOCs and HAPs emitted from this facility during each calendar month and maintain records of these emissions in a form that readily shows compliance with Conditions 4 and 7 of this permit. (See example below). This log must be maintained at the source location and kept available for inspection by the Technical Secretary or his representative. This log must be retained for a period of not less than five (5) years. Record keeping for Volatile Organic Compounds and Hazardous Air Pollutants shall include a log of the following information: (i) Emissions in tons of each Hazardous Air Pollutant, (ii) Emissions in tons of all Hazardous Air Pollutants and (iii) Emissions in tons of VOCs excluding water and/or exempt compounds for all input materials used during all intervals of 12 consecutive months.. Records shall also be retained to verify the HAP content of each material. This may include MSDS, Formulation dates, or other documentation to establish the HAP content. These logs and records must be retained for a period of not less than five years.)</td>
<td>In compliance</td>
</tr>
<tr>
<td>7 - Emissions of VOCs shall not exceed 99.0 tons during any period of twelve (12) consecutive months. This limitation is established pursuant to Rule 1200-03-9-.02(11)(a) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated February 5, 1996 from the permittee.</td>
<td>Method specified in permit (condition 8 - The permittee shall calculate the actual quantities of VOCs and HAPs emitted from this facility during each calendar month and maintain records of these emissions in a form that readily shows compliance with Conditions 4 and 7 of this permit. (See example below). This log must be maintained at the source location and kept available for inspection by the Technical Secretary or his representative. This log must be retained for a period of not less than five (5) years. Record keeping for Volatile Organic Compounds and Hazardous Air Pollutants shall include a log of the following information: (i) Emissions in tons of each Hazardous Air Pollutant, (ii) Emissions in tons of all Hazardous Air Pollutants and (iii) Emissions in tons of VOCs excluding water and/or exempt compounds for all input materials used during all intervals of 12 consecutive months.. Records shall also be retained to verify the HAP content of each material. This may include MSDS, Formulation dates, or other documentation to establish the HAP content. These logs and records must be retained for a period of not less than five years.)</td>
<td>In compliance</td>
</tr>
</tbody>
</table>

Note: as required by condition 6, all records as required by condition 8 are attached.

**Deviations, Exceedances, and Excursions**

Note.

**Certification Statement**

I, the undersigned, am the responsible official of the conditional major source for which this document is being submitted. I hereby certify, with the possible exception of those permit terms and conditions identified above (referring to a list of deviations, exceedances and excursions), that the emission units described in permit [REDACTED] were in compliance with all permit terms and conditions over the previous year as determined by all required testing and monitoring in the permit and other material information.

[Signature]

Date: [REDACTED]
## Yearly Log

<table>
<thead>
<tr>
<th>Year/Month</th>
<th>VOC emissions</th>
<th>Acetaldehyde (75-07-0) emissions</th>
<th>Ethyl Benzene (100-41-4) emissions</th>
<th>Ethylene Glycol (107-21-1) emissions</th>
<th>Formaldehyde (50-00-0) emissions</th>
<th>Glycol Ethers (0-23-0) emissions</th>
<th>Hexane (110-54-3) emissions</th>
<th>MDI released (101-68-8) emissions</th>
<th>Methanol (67-56-1) emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ton/mo</td>
<td>ton/12mo</td>
<td>ton/mo</td>
<td>ton/12mo</td>
<td>ton/mo</td>
<td>ton/12mo</td>
<td>ton/mo</td>
<td>ton/12mo</td>
<td>ton/mo</td>
</tr>
<tr>
<td>2016-January</td>
<td>0.81</td>
<td>9.04</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.01</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>2016-February</td>
<td>0.66</td>
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<td>0.00</td>
<td>0.01</td>
<td>0.00</td>
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<tr>
<td>2016-March</td>
<td>0.96</td>
<td>8.99</td>
<td>0.01</td>
<td>0.01</td>
<td>0.00</td>
<td>0.01</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>2016-April</td>
<td>0.72</td>
<td>8.71</td>
<td>0.01</td>
<td>0.02</td>
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<tr>
<td>2016-May</td>
<td>0.69</td>
<td>8.10</td>
<td>0.01</td>
<td>0.02</td>
<td>0.00</td>
<td>0.01</td>
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<tr>
<td>2016-June</td>
<td>0.84</td>
<td>8.18</td>
<td>0.00</td>
<td>0.02</td>
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<td>0.00</td>
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<tr>
<td>2016-August</td>
<td>0.53</td>
<td>7.74</td>
<td>0.00</td>
<td>0.03</td>
<td>0.00</td>
<td>0.01</td>
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<td>0.00</td>
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<tr>
<td>2016-September</td>
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<td>8.06</td>
<td>0.00</td>
<td>0.04</td>
<td>0.00</td>
<td>0.01</td>
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<td>0.00</td>
</tr>
<tr>
<td>2016-October</td>
<td>0.68</td>
<td>8.25</td>
<td>0.00</td>
<td>0.04</td>
<td>0.00</td>
<td>0.01</td>
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<td>0.00</td>
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<tr>
<td>2016-November</td>
<td>0.66</td>
<td>8.42</td>
<td>0.00</td>
<td>0.04</td>
<td>0.00</td>
<td>0.01</td>
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</tr>
<tr>
<td>2016-December</td>
<td>0.59</td>
<td>8.48</td>
<td>0.00</td>
<td>0.04</td>
<td>0.00</td>
<td>0.01</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Year/Month</td>
<td>Toluene (108-88-3) emissions</td>
<td>Vinyl Chloride (75-01-4) emissions</td>
<td>Xylene (1330-20-7) emissions</td>
<td>Total HAPs emissions</td>
<td>Operating Hours</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------</td>
<td>------------------------------------</td>
<td>-----------------------------</td>
<td>----------------------</td>
<td>-----------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ton/mo</td>
<td>ton/12mo</td>
<td>ton/mo</td>
<td>ton/12mo</td>
<td>ton/mo</td>
<td>ton/12mo</td>
<td>ton/mo</td>
<td>ton/12mo</td>
<td>hr/mo</td>
</tr>
<tr>
<td>2016-January</td>
<td>0.04</td>
<td>0.12</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<td>0.13</td>
<td>0.01</td>
<td>0.01</td>
<td>0.00</td>
<td>0.02</td>
<td>0.08</td>
<td>0.76</td>
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<td>2016-March</td>
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<td>0.18</td>
<td>0.01</td>
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<td>0.02</td>
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<td>2016-April</td>
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<td>0.21</td>
<td>0.01</td>
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<td>0.00</td>
<td>0.03</td>
<td>0.12</td>
<td>0.83</td>
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</tr>
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<td>2016-May</td>
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<td>0.25</td>
<td>0.01</td>
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<td>0.03</td>
<td>0.12</td>
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<td>2016-June</td>
<td>0.05</td>
<td>0.29</td>
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<td>0.00</td>
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<td>0.03</td>
<td>0.07</td>
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<td>2016-September</td>
<td>0.02</td>
<td>0.35</td>
<td>0.00</td>
<td>0.04</td>
<td>0.00</td>
<td>0.03</td>
<td>0.08</td>
<td>1.08</td>
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<tr>
<td>2016-October</td>
<td>0.02</td>
<td>0.36</td>
<td>0.00</td>
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<td>0.00</td>
<td>0.03</td>
<td>0.07</td>
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<td>168</td>
</tr>
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<td>2016-November</td>
<td>0.02</td>
<td>0.36</td>
<td>0.00</td>
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<td>0.03</td>
<td>0.07</td>
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<td>168</td>
</tr>
<tr>
<td>2016-December</td>
<td>0.03</td>
<td>0.36</td>
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<td>0.00</td>
<td>0.03</td>
<td>0.08</td>
<td>1.15</td>
<td>136</td>
</tr>
<tr>
<td>Common Name</td>
<td>Technical Name</td>
<td>Manufacturer</td>
<td>SG</td>
<td>Density (lb/gal)</td>
<td>Unit Size</td>
<td>Usage (gal/mo)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>---------------------------------</td>
<td>---------------------------------------------------</td>
<td>--------</td>
<td>-----------------</td>
<td>-----------</td>
<td>----------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adhesive Remover</td>
<td>NorthStar ACR Citrus Adhesive Remover</td>
<td>NorthStar Chemicals, Inc.</td>
<td>0.74</td>
<td>6.17</td>
<td>0 cans</td>
<td>14 oz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bond and Seal</td>
<td>Congoleum - Bond &amp; Seal Vinyl Film</td>
<td>Congoleum Corporation</td>
<td>1.07</td>
<td>8.92</td>
<td>8 ounces</td>
<td>1 oz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duct Mastic (rubber)</td>
<td>Force FlowLaSalle 181</td>
<td>LaSalle Air Systems</td>
<td>1.4</td>
<td>11.68</td>
<td>98 tubes</td>
<td>10.5 oz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duct Mastic (rubber)</td>
<td>Force FlowLaSalle 181</td>
<td>LaSalle Air Systems</td>
<td>1.4</td>
<td>11.68</td>
<td>8 gallons</td>
<td>2 gal</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Kwik Seal - Almond</td>
<td>Kwik Seal Tub &amp; Tile Adhesive Caulk</td>
<td>Dip, Inc.</td>
<td>1.57</td>
<td>13.09</td>
<td>98 tubes</td>
<td>5.5 fl oz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kwik Seal - White</td>
<td>Kwik Seal Tub &amp; Tile Adhesive Caulk</td>
<td>Dip, Inc.</td>
<td>1.57</td>
<td>13.09</td>
<td>132 tubes</td>
<td>5.5 fl oz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White Wood Glue</td>
<td>PR WG 300 H/V/G17 H/V/GP17 H/V</td>
<td>Progressive Adhesives, Inc.</td>
<td>1.128</td>
<td>9.41</td>
<td>52 gallons</td>
<td>1 gal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sealant</td>
<td>Geocel 8100 GP Moisture Cure Silicone</td>
<td>Geocel Corporation</td>
<td>1.01</td>
<td>8.42</td>
<td>45 tubes</td>
<td>10.1 fl oz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panel Hold</td>
<td>Touch 'n Seal Panel Bond Polyurethane</td>
<td>Convenience Products</td>
<td>1.65</td>
<td>8.76</td>
<td>56 cans</td>
<td>24 oz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foamsent Part B</td>
<td>Alphason 5200B</td>
<td>Alpha Systems</td>
<td>1.234</td>
<td>10.29</td>
<td>2.0 totes</td>
<td>323 fl oz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foamsent Part A</td>
<td>Alphason 5200A</td>
<td>Alpha Systems</td>
<td>1.234</td>
<td>10.29</td>
<td>2.0 totes</td>
<td>323 fl oz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furniture Polish</td>
<td>Citro Shield Furniture Polish (Aerosol)</td>
<td>Spartan Chemical Company.</td>
<td>0.96</td>
<td>8.01</td>
<td>20 oz</td>
<td>0.00</td>
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<td>Shine-Up</td>
<td>SHINE-UP Lemon Furniture Polish</td>
<td>Sealed Air</td>
<td>0.78</td>
<td>6.51</td>
<td>21 tubes</td>
<td>16 oz</td>
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<tr>
<td>Get Gloss</td>
<td>Get Gloss GG-1</td>
<td>T.R. Industries</td>
<td>1.015</td>
<td>8.47</td>
<td>8 tubes</td>
<td>16 oz</td>
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<tr>
<td>Leak Detection Compound</td>
<td>Gasola Leak-Tech</td>
<td>Federal Process Corporation</td>
<td>1.015</td>
<td>8.47</td>
<td>8 tubes</td>
<td>16 oz</td>
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<tr>
<td>Mop and Glo</td>
<td>Mop &amp; Glo Multi Floor Surface Cleaner</td>
<td>Rockett Beckner</td>
<td>1.01</td>
<td>8.42</td>
<td>0 fl.oz</td>
<td>0 fl.oz</td>
<td></td>
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<tr>
<td>Orange Peel</td>
<td>Orange Peel</td>
<td>SpecChem</td>
<td>0.85</td>
<td>7.09</td>
<td>23 bottles</td>
<td>1 qt</td>
<td></td>
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<td></td>
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<tr>
<td>Panel Hold Cleaner</td>
<td>Boring Smith Panel Hold Cleaner</td>
<td>Convenience Products</td>
<td>0.752</td>
<td>6.27</td>
<td>41 cans</td>
<td>32 oz</td>
<td></td>
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<tr>
<td>Shingle Underlayment</td>
<td>CASA 3600-PT</td>
<td>CASA Adhesive, Inc.</td>
<td>1.127</td>
<td>9.40</td>
<td>2 totes</td>
<td>330 gal</td>
<td></td>
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</tr>
<tr>
<td>Pemco Floor Adhesive (gal)</td>
<td>Pemco 5100</td>
<td>Alpha Systems</td>
<td>1.127</td>
<td>9.40</td>
<td>573 tubes</td>
<td>49.24</td>
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</tr>
<tr>
<td>Marriage Line Adhesive</td>
<td>5100, 5101 Polyurethane Adhesive</td>
<td>Alpha Systems</td>
<td>1.127</td>
<td>9.40</td>
<td>573 tubes</td>
<td>49.24</td>
<td></td>
<td></td>
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<tr>
<td>Contact Cement (Aerosol)</td>
<td>Boring Smith BS 4H Canister</td>
<td>Boring Smith</td>
<td>0.88</td>
<td>7.34</td>
<td>113 cans</td>
<td>15 oz</td>
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<tr>
<td>PVC Cement</td>
<td>Oatey PVC Heavy Duty Clear or Gray</td>
<td>Oatey Co.</td>
<td>0.9</td>
<td>7.51</td>
<td>78 cans</td>
<td>4 fl oz</td>
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<tr>
<td>PVC Cement</td>
<td>Oatey PVC Heavy Duty Clear or Gray</td>
<td>Oatey Co.</td>
<td>0.9</td>
<td>7.51</td>
<td>6 cans</td>
<td>32 fl oz</td>
<td></td>
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<tr>
<td>PVC Primer</td>
<td>Oatey Purple Primer - NSF Listed for Oatey Co.</td>
<td>Oatey Co.</td>
<td>1.36</td>
<td>11.56</td>
<td>8 buckets</td>
<td>5 gal</td>
<td></td>
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<tr>
<td>PVC Primer</td>
<td>Oatey Purple Primer - NSF Listed for Oatey Co.</td>
<td>Oatey Co.</td>
<td>1.36</td>
<td>11.56</td>
<td>8 buckets</td>
<td>5 gal</td>
<td></td>
<td></td>
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<tr>
<td>Exterior Facia Paint</td>
<td>A-100 Exterior Flat LuteX Paint</td>
<td>White Sherwin Williams</td>
<td>1.25</td>
<td>10.43</td>
<td>6.0 buckets</td>
<td>5 gal</td>
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<tr>
<td>Franklin Floor Adhesive</td>
<td>AHB Multi-Purpose Floor Covering</td>
<td>Franklin Construction</td>
<td>1.056</td>
<td>8.81</td>
<td>8 totes</td>
<td>2150 lb</td>
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<td>Frame Paint</td>
<td>Reynolds 5437 WP Coating</td>
<td>The Reynolds Company</td>
<td>1.035</td>
<td>8.63</td>
<td>44 gallons</td>
<td>1 gal</td>
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<tr>
<td>Anti-freeze</td>
<td>Ice Guard 90</td>
<td>CFB, Inc.</td>
<td>1.035</td>
<td>8.63</td>
<td>44 gallons</td>
<td>1 gal</td>
<td></td>
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<td></td>
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<tr>
<td>Partition &amp; Interior Adhesive</td>
<td>Pemco 3100</td>
<td>Alpha Systems</td>
<td>1.035</td>
<td>8.63</td>
<td>44 gallons</td>
<td>1 gal</td>
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<tr>
<td>Formica Glue</td>
<td>StarSilk HT Canister</td>
<td>NorthStar Chemicals, Inc.</td>
<td>0.72</td>
<td>6.00</td>
<td>0 pounds</td>
<td>1 lb</td>
<td></td>
<td></td>
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<tr>
<td>Formica Glue</td>
<td>EverStrong ES25 Contact Adhesive</td>
<td>Newstar Adhesives, Inc.</td>
<td>0.74</td>
<td>6.17</td>
<td>2 cylinders</td>
<td>140 lb</td>
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<tr>
<td>Vapor Barrier</td>
<td>7702 - Vapor Barrier</td>
<td>Specialty Adhesives</td>
<td>1.09</td>
<td>9.09</td>
<td>2 totes</td>
<td>275 gal</td>
<td></td>
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<tr>
<td>Spray Paint - All Colors</td>
<td>Touch 'n Tone Aerosol Topcoats - All</td>
<td>Rust-oleum Corporation</td>
<td>0.733</td>
<td>6.11</td>
<td>57 cans</td>
<td>10 oz</td>
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<tr>
<td>Tam-Seal Roof Seantant</td>
<td>TAM-SEAL Roof Patch Cartridge</td>
<td>TAMKO Building Products, Inc.</td>
<td>1.15</td>
<td>9.30</td>
<td>504 tubes</td>
<td>10.5 fl oz</td>
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<tr>
<td>Titebond</td>
<td>Titebond Original Wood Glue</td>
<td>Franklin International</td>
<td>1.1</td>
<td>9.17</td>
<td>2 gallons</td>
<td>1 gal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gun Cleaner (glue)</td>
<td>Pemco 5983</td>
<td>Alpha Systems</td>
<td>0.976</td>
<td>8.14</td>
<td>3 gallons</td>
<td>5 gal</td>
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<tr>
<td>Superior High Shine</td>
<td>Superior High Shine Stainless Steel</td>
<td>Spartan Chemical Company,</td>
<td>0.75</td>
<td>6.26</td>
<td>0 cans</td>
<td>15 oz</td>
<td></td>
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<tr>
<td>Tub Surround Adhesive</td>
<td>Max Bond (TA189)</td>
<td>Specially Construction Brands</td>
<td>1.15</td>
<td>9.59</td>
<td>26 tubes</td>
<td>29 fl oz</td>
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<tr>
<td>Cutting Texture</td>
<td>Manufactured Housing Ready-Spray</td>
<td>Hamilton Drywall Products, Inc.</td>
<td>1.6</td>
<td>13.24</td>
<td>12 totes</td>
<td>275 gal</td>
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<tr>
<td>Wallboard Putty</td>
<td>Color Rite Sealant and Adhesive Cast Color Rite</td>
<td>Franklin</td>
<td>1.08</td>
<td>9.01</td>
<td>6 tubes</td>
<td>6.5 fl oz</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Winflex</td>
<td>Winflex Original Glass Cleaner</td>
<td>S.C. Johnson &amp; Son, Inc.</td>
<td>0.997</td>
<td>8.31</td>
<td>15 oz</td>
<td>0.00</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Winflex</td>
<td>Winflex Powdered Glass Cleaner (RT)</td>
<td>Johnson-Diversey, Inc.</td>
<td>0.997</td>
<td>8.31</td>
<td>32 fl oz</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winflex</td>
<td>Clean on the Go Biorenewables Glast</td>
<td>Spartan Chemical Company.</td>
<td>1.01</td>
<td>8.42</td>
<td>3 jugs</td>
<td>67.63 fl oz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Xcelente</td>
<td>Xcelente</td>
<td>Spartan Chemical Company</td>
<td>0.998</td>
<td>8.32</td>
<td>8 jugs</td>
<td>67.63 fl oz</td>
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</table>
### Monthly Emissions Log

#### December 2016

<table>
<thead>
<tr>
<th>Material Name</th>
<th>Usage (gal/mo.)</th>
<th>Density (lb/gal)</th>
<th>Volume (gallons)</th>
<th>VOC (lb/gal)</th>
<th>VOC Emissions (ton/mo)</th>
<th>Ethyl Hexene (100-41-4)</th>
<th>Ethylene Glycol (107-21-1)</th>
<th>Glycol Ethers (103-23-0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhesive Remover</td>
<td>0.00</td>
<td>6.17</td>
<td>0.00</td>
<td>100%</td>
<td>0.17</td>
<td>0.00</td>
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<tr>
<td>Bond and Seal</td>
<td>0.06</td>
<td>8.92</td>
<td>0.57</td>
<td>2.66%</td>
<td>0.08</td>
<td>0.01</td>
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<tr>
<td>Duct Mastic (tubes)</td>
<td>5.51</td>
<td>11.68</td>
<td>5.43</td>
<td>2.1%</td>
<td>0.25</td>
<td>0.00</td>
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</tr>
<tr>
<td>Duct Mastic (buckets)</td>
<td>16.00</td>
<td>11.68</td>
<td>16.00</td>
<td>2.1%</td>
<td>0.25</td>
<td>0.00</td>
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<tr>
<td>Kick Seal - Almond</td>
<td>4.21</td>
<td>13.09</td>
<td>5.46</td>
<td>1.4%</td>
<td>0.18</td>
<td>0.00</td>
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<tr>
<td>Kick Seal - White</td>
<td>5.67</td>
<td>13.09</td>
<td>5.67</td>
<td>1.4%</td>
<td>0.18</td>
<td>0.00</td>
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<tr>
<td>White Wood Glue</td>
<td>52.00</td>
<td>9.41</td>
<td>476</td>
<td>0.5%</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>Sealant</td>
<td>3.55</td>
<td>8.42</td>
<td>2.95</td>
<td>2.87%</td>
<td>0.24</td>
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<tr>
<td>Panel Hold</td>
<td>9.59</td>
<td>8.76</td>
<td>83.9</td>
<td>14.77%</td>
<td>1.29</td>
<td>0.01</td>
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<tr>
<td>Foam Seal Part B</td>
<td>659.95</td>
<td>8.11</td>
<td>5399</td>
<td>1.69%</td>
<td>0.13</td>
<td>0.04</td>
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<td>Foam Seal Part A</td>
<td>657.24</td>
<td>10.29</td>
<td>6572</td>
<td>0.6%</td>
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<td>0.00</td>
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<tr>
<td>Furniture Polish</td>
<td>0.00</td>
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<td>0.00</td>
<td>5.4%</td>
<td>0.46</td>
<td>0.00</td>
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<tr>
<td>Shine-Up</td>
<td>0.00</td>
<td>8.26</td>
<td>0.00</td>
<td>1.1%</td>
<td>0.09</td>
<td>0.00</td>
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<td>Gel Gloss</td>
<td>3.23</td>
<td>6.51</td>
<td>21.2</td>
<td>50%</td>
<td>3.25</td>
<td>0.01</td>
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<td>Leak Detection Compound</td>
<td>0.95</td>
<td>4.74</td>
<td>4.59</td>
<td>46.5%</td>
<td>3.89</td>
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<tr>
<td>Mop and Glys</td>
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<td>0.00</td>
<td>0%</td>
<td>0.00</td>
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<tr>
<td>Orange Peel</td>
<td>5.75</td>
<td>7.09</td>
<td>40.7</td>
<td>80.0%</td>
<td>5.67</td>
<td>0.02</td>
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<td>Panel Hold Cleaner</td>
<td>13.07</td>
<td>6.27</td>
<td>81.7</td>
<td>15%</td>
<td>0.94</td>
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<td>Shinglet Underlayment</td>
<td>11.89</td>
<td>10.01</td>
<td>118.9</td>
<td>0.7%</td>
<td>0.00</td>
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<tr>
<td>Perma Floor Adhesive (gpf)</td>
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<td>9.40</td>
<td>624</td>
<td>0.6%</td>
<td>0.00</td>
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<td>Marine Line Adhesive</td>
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<td>465</td>
<td>0.6%</td>
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<tr>
<td>Contact Cement (Aerosol)</td>
<td>14.45</td>
<td>7.34</td>
<td>105</td>
<td>80%</td>
<td>5.87</td>
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<td>PVC Cement</td>
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<td>18.2</td>
<td>53.4%</td>
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<td>7.51</td>
<td>11.3</td>
<td>53.4%</td>
<td>4.01</td>
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<td>PVC Primer</td>
<td>1.13</td>
<td>7.00</td>
<td>7.9</td>
<td>60.199%</td>
<td>4.21</td>
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<tr>
<td>PVC Primer</td>
<td>1.13</td>
<td>7.00</td>
<td>7.9</td>
<td>60.199%</td>
<td>4.21</td>
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<td>Exterior Facia Paint</td>
<td>40.00</td>
<td>11.99</td>
<td>479.9</td>
<td>1.03%</td>
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<td>Franklin Floor Adhesive</td>
<td>30.00</td>
<td>10.43</td>
<td>304</td>
<td>5.76%</td>
<td>0.00</td>
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<td>Frame Paint</td>
<td>1952.98</td>
<td>8.81</td>
<td>17234</td>
<td>0.9%</td>
<td>0.00</td>
<td>0.03</td>
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<td>Anitstreak</td>
<td>44.00</td>
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<td>384</td>
<td>30%</td>
<td>2.59</td>
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<tr>
<td>Partion &amp; Interior Adhesive</td>
<td>435.00</td>
<td>9.20</td>
<td>4053</td>
<td>0.8%</td>
<td>0.00</td>
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<tr>
<td>Permacel Glue</td>
<td>0.00</td>
<td>6.00</td>
<td>0.00</td>
<td>63%</td>
<td>3.78</td>
<td>0.00</td>
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<tr>
<td>Permacel Glue</td>
<td>45.37</td>
<td>6.17</td>
<td>279</td>
<td>55%</td>
<td>3.39</td>
<td>0.08</td>
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<tr>
<td>Viper Barrier</td>
<td>550.00</td>
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<td>550</td>
<td>0.1%</td>
<td>0.01</td>
<td>0.00</td>
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<td>Spray Paint - All Colors</td>
<td>5.33</td>
<td>6.17</td>
<td>32.8</td>
<td>65%</td>
<td>3.97</td>
<td>0.01</td>
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<td>Tann-Seal Roof Sealant</td>
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<td>382</td>
<td>26.94%</td>
<td>2.50</td>
<td>0.00</td>
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<tr>
<td>Titebond</td>
<td>2.00</td>
<td>9.17</td>
<td>18.4</td>
<td>97%</td>
<td>0.09</td>
<td>0.00</td>
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<tr>
<td>Gun Cleaner (gase)</td>
<td>15.00</td>
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<td>121.5</td>
<td>100.9%</td>
<td>8.14</td>
<td>0.06</td>
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<td>Superior High Shine</td>
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**Operating Hours (Total):** 136
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<th>Operating hours</th>
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Fuel: Natural Gas
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<th>MONTHLY AVER. (ton/hour)</th>
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2016  BAGHOUSE MAINTENANCE

January 6th, 2016 = Started Replacing Bags
February 11th, 2016 = Finished Replacing Bags and New Seals on Top Lids
April 19th, 2016 = Repaired lock rings on top of 20 Bags
April 29th, 2016 = Checked Bags  OK
Sept. 23rd, 2016 = Checked Bags, Seals, and Augers  OK
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<th>Date</th>
<th>Hours of operation</th>
<th>Asphalt production (tons)</th>
<th>Daily average production rate (tons/hr)</th>
<th>Sulfur Dioxide lbs/hr</th>
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Natural Gas used this month

Avg.  
Avg.
Hopefully from the copied tables on the following pages it can be seen that they expanded the monthly table. While not in the example table, the facility includes the type of fuel oil as well as the usage. They also include the limits that they are required to meet in the tables.

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Recycle Feeder Hours of Operation: 0.00
RAP Used, (Tons): 0.00
#2 Fuel Oil Used for the Month (gallons): 0.0
#4 Fuel Oil, Used for the Month (gallons): 0.00
Hours of Operation: 0.0
Asphalt Production (Tons): 0.00
Permit requires (no example tables provided in permit):

26. VOC emitted from this source shall not exceed a maximum of 9.97 tons during all intervals of 12 consecutive months. This condition is established pursuant to Rule 1200-03-09-.02(11)(a) of the Tennessee Air Pollution Control Regulations, and the information contained in the agreement letter dated August 28, 2012, by the permittee. Compliance with this limitation shall be assured by calculating the amount of VOC emitted on a monthly basis using the emission factor of 3.3 pounds of VOC emitted per ton of ethanol/methanol reclaimed/produced along with the amount of ethanol/methanol reclaimed/produced.

The permittee shall maintain records that readily show compliance with this VOC emission limitation.

27. HAP emitted from this source shall not exceed a maximum of 4.5 tons for a single HAP during all intervals of 12 consecutive months. This condition is established pursuant to Rule 1200-03-09-.02(11)(a) of the Tennessee Air Pollution Control Regulations, and the information contained in the agreement letter dated August 28, 2012, by the permittee. Compliance with this limitation shall be assured by calculating the amount of HAP emitted on a monthly basis using the emission factor of 3.3 pounds of HAP emitted per ton of methanol reclaimed/produced along with the amount of methanol reclaimed/produced.

The permittee shall maintain records that readily show compliance with this HAP emission limitation.

First attempt from the facility: (no explanation of headings, etc.)

---

**VOC Compliance Log**

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<th>Transfer Record Num</th>
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**Totals:** 54468 108369 0 54468

- Tons of Ethanol: 179.7444
- Tons of VOC Em: 0.296578

---
The condition requires the facility to calculate the amount of VOC emitted on a monthly basis using a EF in the condition, as w produced monthly. The same is required for the HAP, HAP emissions and material produced monthly. Below is the reformatted is properly labeled and compliance readily shown.

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<th>Month</th>
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<th>Tons of Methanol Produced</th>
<th>VOC Emissions from Production [Tons/Month]</th>
<th>HAP-Methanol Emissions from Production [Tons/Month]</th>
<th>VOC Emissions from Production (Tons/12-Consecutive Months)</th>
<th>Facility-wide VOC Emissions (Tons/12-Consecutive Months)</th>
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Specific Gravity of Ethanol= 6.6
Specific Gravity of Methanol= 6.6
I have seen this record at an asphalt plant before. The production in tons is not included.
This record is from a Pet/Animal Incinerator. It is not readily apparent as to what the lbs/hr rate is.

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Breakout Sessions
Title V
Objectives:

- General Overview of Field Services
  - Who are we and what do we do?
  - Where are we located?
- The Inspection and Report Review Process
  - How does it work?
  - Helpful Hints for Compliance
- Air Quality Complaints
  - Types of complaints and the investigation process
- Updates
  - What’s new?
- Questions/Comments
Who is Field Services and what do we do?

- Field Services personnel are TDEC’s boots on the ground carrying out its mission to enhance the quality of life for the citizens of Tennessee while promoting responsible stewardship of our natural environment.

- Air Pollution Control Field Services personnel have many tasks. The three largest are:
  - Compliance Inspections
    - Title V (TV)
    - Conditional Major (CM)
    - True Minor (TM)
  - Air Quality Complaint Investigations
    - Open burning, stack opacity, fugitive dust, odor....
  - Ambient Air Monitoring
    - Ozone
    - Sulfur Dioxide
    - Lead
    - PM 2.5
Managers are primarily responsible for ensuring that each office’s workload is completed both in a timely manner and in accordance with standard operating procedures.
Inspections
Inspections are conducted to ensure that the facilities are following the conditions of their air quality permit(s).

The Division has 559 permitted facilities across the state that receive annual inspections.
- 218 Title V
- 341 Conditional Major

Additionally, the Division has thousands of permitted true minor facilities that are inspected as time allows.
A little about our inspectors...

- APC inspectors undergo extensive safety and technical training before serving as a lead inspector
  - 40 Hour OSHA HAZWOPER
    - Annual 8 Hour Refreshers
  - Visible Emissions Evaluation Training (aka Smoke School)
    - Initial certification + re-certifications every six months
  - Air Pollution Training Institute Courses
    - Multiple initial + continuing education
  - On the Job Training (OJT)
Inspectors are issued basic PPE required to make entry at various types of industrial facilities.

- Hardhats
- Hearing Protection
- Eye Protection
- Steel Toe Boots
- Hi-Vis Vests
- Identification
The Inspection Process: Planning and Preparation

- Managers divide the Title V and CM facilities amongst the inspectors.
- Inspectors spend a considerable amount of time preparing for the site visit:
  - Gather all permits effective during the inspection period
  - Review file for compliance issues, modifications, new sources, etc.
  - Prepare a pre-inspection report/checklist to be used as a guide on-site
While inspections may be either announced or unannounced, facilities may notice that site visits often follow the receipt of reports.

- Saves time for both parties
  - Semiannual and conditional major reports contain much of the information needed for the inspection report.
  - Logs that have been fully reviewed prior to the site visit may be spot checked while on-site
Inspectors are often asked what they will need to see.

- The answer is simple: Read your permit!

The facility’s permit(s) is the basis for the inspection.

- Inspectors go through the permits on a condition by condition basis and will need to see that all of the required documentation is kept complete and up to date and that all reporting deadlines have been met.

- The inspection will go more smoothly if both parties are familiar with the permit requirements.
The Inspection Process: Site Visit

- Inspectors will hold an opening meeting first.
  - Credentials and contact information will be provided and the purpose of the visit explained.
  - The inspection time frame will be discussed:
    - Previous inspection < 24 months ago
      - Inspection period is from date of last inspection forward
    - Previous inspection > 24 months ago or an existing facility’s first inspection
      - Inspection period is the previous 24 months
    - New facilities with permits issued < 24 months prior
      - Inspection period is from date of permit issuance forward
  - Ask about the facility’s PPE requirements and other safety precautions to be taken during the walkthrough
  - Confidential Business Information (CBI)
    - The inspector will ask about CBI to ensure it is not included in inspection reports.
The Inspection Process: On-site Records Review

- The inspector will need to see the required documentation for the inspection period. While each permit differs, required documentation may include:
  - Production logs
  - Emission logs
  - Safety data sheets and/or vendor formulation VOC/HAP content data
  - Maintenance logs
  - Hours of operation logs
  - Pressure drop logs
  - Temperature logs

- Inspectors may check calculations for accuracy

*Electronic records are acceptable provided they are easily accessible to the inspector.*
The Inspection Process: The Walk-Through

- Inspectors will need to see facility’s operation from start to finish.
  - Inspectors will make a note of which sources are operating and will need to see each emission point to check for opacity.
    - A visible emission evaluation (VEE) may be performed if opacity is observed.
  - Inspectors will verify that control devices are operating.
  - If the permit contains parametric monitoring limits (temperature, pressure drop, pH, flow, etc), the inspector will take readings.
  - If the permit has specific work practice standards, the inspector will verify they are being followed. (i.e. No open VOC containers)
  - The inspector will verify that there aren’t any additional sources that need further evaluation.
The Inspection Process: The Closure Meeting

- After the walk-through, the inspector will hold a closure meeting before departing.
  - Questions, comments, concerns
  - Additional information
The Inspection Process: The Write-up

- The inspector will return to the office and compile all the data collected during the inspection.
- Inspectors make a compliance determination:
  - In Compliance: No violations were found during the entire inspection time period.
  - Out of Compliance: There were compliance issues during the inspection period and a Notice of Violation (NOV) was issued or will be issued in the near future.
- The finished report is reviewed by the manager and uploaded to the database. The report will be available through the data viewers after final approval by the Deputy Director of Field Services.
Field Services conducted 1,187 compliance inspections from October 1, 2017 to September 30, 2018.

Approximately 9% of inspections found the facility to be out of compliance.

- The resulting 105 NOVs addressed one or following common compliance issues:
  - Record keeping violations
  - Late reports
  - Exceedances of permit limits
  - Late notifications
  - Failure to conduct VEEs
Conditional Major reports are due March 31 of every year.
Title V Semi-Annual Reports and Annual Compliance Certifications are due 60 days after the end of the reporting period.

**HINT:** Submit your reports early.

Inspectors are given 20 days from receipt to review reports
- Early submittals increase the chance that your report will be reviewed prior to the deadline.
  - Deficiencies such as missing logs, incorrect formatting, improperly worded compliance statements, and many others can be fixed without compliance issues if a corrected report is submitted by the deadline.
Common Problems: Reports in General

- No signature or date
- Wrong permit numbers
- Not addressing all permits effective during the reporting period
- No logs or inadequate summaries
- Formatting issues
  - i.e. calendar year totals vs 12 consecutive month totals
- Incorrect Calculations
Common Problems: Title V Reports

- Problems with ACC reports:
  - Not including all required sections of the permit (A, B, D, E) or lumping conditions together (A1 – A12, etc.)
  - Failing to reference new or modified conditions (e.g. E4-3(MM1))
  - Reporting compliance status as continuous when there were deviations

- Problems with SAR reports:
  - Failing to report on all of the required conditions
  - Failing to include required logs or an adequate summary
  - Failing to identify deviations
Common Problems: Conditional Major Reports

- Improperly worded compliance statements and/or lack of records

**For Example:**
Condition 5 of Facility XYZ’s permit #123 states:

“A written report stating the compliance status of this facility with Condition 8 shall be submitted by March 31 of every year. The reports shall cover the preceding calendar year and shall contain the records required by Condition 12.”

Facility XYZ submits a report including the records required by Condition 12 and a cover letter that says:

“In accordance with Condition 5 of permit #123, please find enclosed the records required by Condition 12 for the calendar year 2018.”

Adequate?? ......

Common Problems: Conditional Major Reports
Continued

No, because condition 5 says...

“A written report stating the **compliance status** of this facility with **Condition 8** shall be submitted by March 31 of every year...”

- An adequate compliance statement will read something like this:

  “Facility XYZ is submitting this annual compliance report in accordance with **Condition 5 of Permit #123**. Facility XYZ certifies that it operated **in compliance with Condition 8** during the calendar year 2018. The **records** required by **Condition 12** are included with this submittal.”
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Complaints

- The Division occasionally receives complaints on facilities
  - i.e., Stack Opacity, Fugitive Dust, Odors
- A site visit is usually required.
  - Explain the complaint
  - Ask about recent events that may have caused the complaint
  - Review required records
    - maintenance logs, production logs, emissions logs.....
  - Conduct an inspection if one has not already been conducted
- Investigation results are available through the data viewers.
Many of the air quality complaints we investigate do not concern industrial facilities.

- Open Burning
- Fugitive Dust
- Odors

Other Complaints
Complaints: No Jurisdiction

Mold/Indoor Air

Chem-trails

Balloon Releases

Fireworks

Warning Noise
Effective July 2, 2018, AWS was offered to all Field Services staff as a voluntary program.

- 88% of Field Services staff are currently participating.
  - AWS staff are equipped with mobile technology which allows them to work from pre-approved alternative locations (home) most days of the week.

AWS benefits experienced by Field Services include:

- Increased productivity and flexibility
- Recruitment and retention of top talent
- Better customer service for citizens
Thank You!

Martie L. Carpenter  
Deputy Director of Field Office Operations  
TDEC Division of Air Pollution Control  
Martie.Carpenter@tn.gov  
865.594-5566
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Background – How Do We Review Reports?

**T. C. A. 68-201-106 (I):** “In exercising powers to prevent, abate and control air pollution, the board or department shall give due consideration to all pertinent facts including...”

1. Injury to, or interference with, health, welfare and property;
2. Social and economic value of the air contaminant source;
3. Suitability or unsuitability of the source to the area in which it is located...
4. Technical practicability and economic reasonableness of reducing emissions;
5. Economic benefit gained by noncompliance; and
6. Amount or degree of effort put forth to attain compliance.

A reviewer's consideration of “all pertinent facts” and the six factors is based on:

- Law (T. C. A. 68-201)
- Tennessee Air Pollution Control Regulations
- Permit conditions
- TDEC/APC policies and guidance
- The reasoned and articulated judgment of the reviewer
SAR and ACC Requirements

• What is the semiannual report (SAR)?
  • Summary of monitoring and recordkeeping
  • Public document for review
  • Identifies all deviations

• What is the annual compliance certification (ACC)?
  • Summary report of compliance status (continuous or intermittent)
  • Public document for review
  • Compliance status of conditions not included in SAR
  • Identifies all deviations
  • EPA review
Responsible Official Certification

• For Title V sources, “Responsible Official” is defined in the regulations (see handout). The Title V regulations allow for more than one Responsible Official. The person that certifies SARs and ACCs does not have to be the person listed in the permit, provided that both persons meet the definition.

• **TAPCR 1200-03-09-.02(11)(d)4:** Any application form, report, or compliance certification submitted pursuant to the requirements of paragraph 1200-03-09-.02(11) shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under paragraph 1200-03-09-.02(11) shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

• The Responsible Official needs to have basic understanding of the permit and needs to be able to explain the review process.

• The handout includes a simple example of a reasonable inquiry process. If you need to address specific facts/situations at your facility, consider seeking advice from a professional.
Deviations, Excursions, and Exceedances

- **Deviation**: any failure to meet the requirements of a permit condition.

- **Excursion**: a departure from an indicator range established for monitoring, consistent with a specified averaging period.

- **Exceedance**: a condition detected by monitoring that indicates emissions (or opacity) greater than the applicable emission limit (or less than the applicable standard in the case of a percent reduction requirement) consistent with a specified averaging period.
Operation of each air contaminant source shall be in accordance with the provisions and stipulations set forth in the operating permit, all provisions of these regulations, and all provisions of the Tennessee Air Quality Act. However, some excursions, as defined under part 1200-03-09-.02(11)(b)31., or as defined in the operating permit, which occur during periodic monitoring for compliance assurance at an air contaminant source subject to paragraph 1200-03-09-.02(11), may be excused by the Technical Secretary, and this authority is not extended to excursions that demonstrate noncompliance with an applicable emission limitation.
Let’s Do an Example…

Manufacturing Process

Raw material feed

Fugitive emissions

Wet Scrubber

Vent A

Finished product
VOC Emission Limit

E3-1. VOC emissions from Vent A shall not exceed 8.5 pounds per hour on a daily average basis.

**Compliance Method:** The permittee shall maintain a minimum water flow rate of 4.0 gallons per minute (24-hour block average) through the Vent A scrubber, and the scrubber flow rate shall be continuously monitored and recorded.

24-hour block averages shall be calculated from midnight of each day to midnight of the following day and shall consist of all valid one-hour averages recorded during the period. One-hour averages shall be calculated from four or more equally spaced data averages over each one-hour period. Valid averages must include at least 75% percent of the measured values within the averaging period.
Deviation, Excursion, or Exceedance (I)

1. Four missing/invalid hours of data on 3/25/2019. Daily average flow rate was 4.5 gallons/minute.

2. Invalid 24-hour averages on April 1, 2, and 3, 2019. The source operated for 130 days during the reporting period.

3. Daily average scrubber flow rate was 1.1 gpm on May 1, 2019. How many values must be reported in the SAR?

4. Stack test indicates 12 lb/hr VOC (24-hour average). Is this required by the permit condition?
## Deviation, Excursion, or Exceedance (II)

<table>
<thead>
<tr>
<th>Description</th>
<th>Deviation?</th>
<th>Excursion or Exceedance?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four missing/invalid hours of data on 3/25/2019. Daily average scrubber flow rate was 4.5 gallons/minute.</td>
<td>No –the daily average is valid.</td>
<td>No</td>
</tr>
<tr>
<td>Invalid 24-hour averages on April 1, 2, and 3, 2019. The source operated for 130 days during the reporting period.</td>
<td>Depends on how the permit is written. In this case, the 95% data availability was met. <strong>Even if this is not a deviation, facilities must report sufficient information for the reviewer to evaluate compliance.</strong></td>
<td>No</td>
</tr>
</tbody>
</table>
## Deviation, Excursion, or Exceedance (III)

<table>
<thead>
<tr>
<th>Description</th>
<th>Deviation?</th>
<th>Excursion or Exceedance?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily average scrubber flow rate was 1.1 gpm on May 1, 2019.</td>
<td>Yes. <strong>Report all deviations plus the lowest complaint flow rate.</strong></td>
<td>Yes</td>
</tr>
<tr>
<td>Stack test indicates 12 lb/hr VOC (24-hour average).</td>
<td>Yes. <strong>This is not specified by the permit but must be reported in the SAR.</strong></td>
<td>Yes</td>
</tr>
</tbody>
</table>
Equipment Leaks

E3-3. Fugitive VOC emissions from equipment leaks shall not exceed 9.9 tons per year.

**Compliance Method:** A leak inspection of all equipment in VOC service (contains or contacts a process fluid that is at least 10% VOC by weight) shall be performed once per calendar quarter, and leaks shall be repaired within 10 days of discovery.

**Questions:**
1. Is this an emission limit?
2. What must be reported in the SAR?
3. If there are four leaks during the reporting period, how many deviations do we report? **Hint – this is a trick question.**
## Example SAR Format

<table>
<thead>
<tr>
<th>Permit Condition</th>
<th>Monitoring/Recordkeeping Requirement</th>
<th>Summary of Monitoring and Recordkeeping</th>
</tr>
</thead>
<tbody>
<tr>
<td>E3-1</td>
<td>Comply with VOC emission limit by maintaining a <strong>minimum</strong> scrubber flow rate (24-hour block average) of 4.0 gallons per minute.</td>
<td>The <strong>minimum</strong> 24-hour block average scrubber flow rates recorded during the reporting period were: 3.0 gallons per minute on 1/22/2019. 3.7 gallons per minute on 2/14/2019. 3.9 gallons per minute on 2/15/2019. 4.5 gallons per minute on 1/1/2019.</td>
</tr>
<tr>
<td>E3-3</td>
<td>A leak inspection of all equipment in VOC service (contains or contacts a process fluid that is at least 10% VOC by weight) shall be performed once per calendar quarter.</td>
<td>A Quarterly leak inspection of all applicable components was performed on <strong>January 15, 2019</strong>. Number of leaks: <strong>None</strong>. A Quarterly leak inspection of all applicable components was performed on <strong>April 7, 2019</strong>. Number of leaks: <strong>One leak was found and repaired within 10 days</strong>.</td>
</tr>
</tbody>
</table>
Summary Report – Exceptions

• Semiannual reporting requirements typically include this kind of language: “A summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.”

• The example that in the preceding slides is presumptively acceptable – a facility that submits this type of report is in compliance. If the permit requires a facility to report specific information (e.g., operational availability data), that data must be included in the report.

• Does this mean that the reviewer can’t require a facility to submit more information? No.

• In general, a facility can be required to submit more detailed information (for current or future reports) based on the reasoned, articulated judgment of the reviewer. Here are a couple of examples:
  - Production – we can require full records to check VOC/HAP calculations
  - Baghouse pressure drops – the log sheets may be 1 page/month
  - Etc. This is not an exhaustive list.

• A facility cannot be cited for submitting the only summary report. However, they can be cited for failing to submit additional requested information. It is up to the reviewer to explain why the summary report was not sufficient.
## Reporting Deviations (I)

<table>
<thead>
<tr>
<th>Date(s)</th>
<th>January 1-2, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description of Deviation</strong></td>
<td>Low water flow to scrubber – 24-hour average flow rates were 3.7 gpm on 1/1/19 and 3.9 gpm on 1/2/19</td>
</tr>
<tr>
<td><strong>Duration</strong></td>
<td>48 hours</td>
</tr>
<tr>
<td><strong>Explanation or probable cause</strong></td>
<td>Blockage in water feed line</td>
</tr>
<tr>
<td><strong>Corrective action or preventive measure</strong></td>
<td>Maintenance personnel shut down the process for cleaning, revised operating procedures for increased inspection and routine maintenance.</td>
</tr>
</tbody>
</table>
Reporting Deviations (II)

- You can report multiple deviations together if they occur on consecutive days and have the same root cause.

- If a problem cannot be fixed immediately, document and report any reasonable measures taken to reduce emissions.

- Enforcement action is less likely to occur (or may be mitigated) if you demonstrate a good-faith effort to address deviations or to prevent their reoccurrence.

- If you have a CAM plan, any excursions under CAM must be reported as deviations.

- Excused excursions (allowed by some NSPS or MACT rules) must be reported as deviations.

- **If you are issued a Notice of Violation during your first SAR period, then you must note this in your ACC.**
### Reporting Deviations (III)

**Is this deviation report acceptable?**

<table>
<thead>
<tr>
<th>Date(s)</th>
<th>June 19, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of Deviation</td>
<td>Low water flow to scrubber (3.7 gpm)</td>
</tr>
<tr>
<td>Duration</td>
<td>24 hours</td>
</tr>
<tr>
<td>Explanation or probable cause</td>
<td>Maintenance personnel inspected the process and could not determine the cause of the deviation.</td>
</tr>
<tr>
<td>Corrective action or preventive measure</td>
<td>Maintenance personnel shut down the process for cleaning, revised operating procedures for increased inspection and routine maintenance.</td>
</tr>
</tbody>
</table>
## Reporting Deviations (IV)

### Is this deviation report acceptable?

<table>
<thead>
<tr>
<th>Date(s)</th>
<th>June 19-30, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description of Deviation</strong></td>
<td>Low water flow to scrubber: 3.7 gpm on June 19; 3.5 gpm each day on June 20-22; 3.3 gpm each day on June 23-27, 3.1 gpm each day on June 28-30.</td>
</tr>
<tr>
<td><strong>Duration</strong></td>
<td>264 hours</td>
</tr>
<tr>
<td><strong>Explanation or probable cause</strong></td>
<td>Blockage in water feed line</td>
</tr>
<tr>
<td><strong>Corrective action or preventive measure</strong></td>
<td>Maintenance personnel shut down the process for cleaning, revised operating procedures for increased inspection and routine maintenance.</td>
</tr>
</tbody>
</table>
# ACC Example Format

<table>
<thead>
<tr>
<th>Condition</th>
<th>Requirement</th>
<th>Method or Means to Determine Compliance</th>
<th>Compliance Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>E3-1</td>
<td>VOC emission limit for Vent A</td>
<td>Parametric monitoring – scrubber flow</td>
<td>Intermittent. See attached table for a list of deviations.**</td>
</tr>
<tr>
<td>E3-2</td>
<td>Maximum production rate</td>
<td>Parametric monitoring – production rate</td>
<td>Continuous</td>
</tr>
<tr>
<td>E3-3</td>
<td>VOC emissions from equipment leaks</td>
<td>Work practice – quarterly leak inspection</td>
<td>Continuous</td>
</tr>
</tbody>
</table>

**The table of deviations would be the same table shown for the SAR

The requirement to certify continuous/intermittent data has been removed from our rules. Facilities must continue to comply with the requirement until it is removed from their permits.
## Addressing Modifications in the ACC

<table>
<thead>
<tr>
<th>Condition</th>
<th>Requirement</th>
<th>Method or Means to Determine Compliance</th>
<th>Compliance Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>E3-1 (effective 1/1/2018 – 5/31/2018)</td>
<td>VOC emission limit for Vent A</td>
<td>Parametric monitoring – scrubber flow</td>
<td>Continuous</td>
</tr>
<tr>
<td>E3-1 MM1 (effective 6/1/2018 – 12/31/18)</td>
<td>VOC emission limit for Vent A</td>
<td>Parametric monitoring – scrubber flow</td>
<td>Intermittent. See attached table for a list of deviations.**</td>
</tr>
</tbody>
</table>

**The table of deviations would be the same table shown for the SAR**

- The effective date of minor modifications is based on the submittal date of the application. For other permits, the effective date is the permit issue date.

- Permit conditions should not be renumbered during the permit term. Deleted conditions in permit mods should be marked as “reserved.”

- If permit conditions have been renumbered, submit duplicate ACCs (similar to having a renewal during the permit term).
Handout - Compliance Certification & Reporting

Title V Sources are required to submit at least two different types of reports: the Title V Semiannual Report (SAR) and the Title V Annual Compliance Certification (ACC). Other reports (e.g., MACT reports, Acid Rain Program monitoring, etc.) are not covered here.

Semiannual Report

The semiannual report is submitted every six months on a schedule established by the Title V permit. This report provides records and data for the permitting authority to review, including: (1) a summary of all monitoring and recordkeeping required by the Title V permit; and (2) a report of all potential deviations that occurred during the reporting period.

The semiannual report is a public document. The public doesn't have access to your on-site records, but the reports that you submit are subject to public disclosure, and an interested person can review the reports to see the data that you submit and the compliance issues (if there are any) at your facility. If you are concerned about submitting confidential information with the semiannual report, you can request protection for some types of information (call TDEC-APC for further discussion if necessary).

Every semiannual report includes the following basic elements:

- Company name, address, co. # and permit #
- Reporting period
- Due date
- Summary of monitoring & recordkeeping for all conditions listed in Condition E2-1(a) of the permit
- Identification of all deviations
  - Description of deviation
  - Duration
  - Explanation or probable cause
  - Corrective action or preventative measure
- Visible emissions evaluation (if required) for all conditions listed in Condition E2-1(c) of the permit
- Certification Statement (truth, accuracy, & completeness)
- Responsible Official Signature

Condition E2 (or E2-1) of your permit will state that you are required to submit “any monitoring and recordkeeping required by Conditions ______” of your permit. Your permit may also state that a summary of this data is acceptable if the summary includes enough information to allow us to evaluate compliance.

**Example of summary:** You measure pressure drop across a baghouse, and the limit in your permit is 6 inches of water for any daily measurement. The highest pressure drop that you measured during the reporting period was 5 inches of water, and there were no excursions or missed days. A
summary report could be the highest measured value (5 inches of water) and the date on which the measurement occurred. However, if you have multiple deviations or missing data, you must report all of the deviations – not just the highest value.

You have to report all permit deviations (this includes all permit requirements – not just the conditions for which monitoring is required). A deviation is any failure to comply with a permit term or condition. Reporting of deviations should include the information listed on the slide: what happened, when and for how long, why the deviation occurred, and how the deviation was corrected. Deviations include excursions (departure from an indicator range) and exceedances (violations of an emission limit or surrogate).

Note on summary reports – the reviewer can require you to submit additional information (beyond what is shown here) if, in the reasoned judgment of the reviewer, the information is necessary to determine the compliance status of the facility.

Submittal of VEEs

If your permit requires visible emissions evaluations (VEEs) using the opacity matrix (typically found in Attachment 1 of the permit), you have to submit the VEEs when they are due. VEEs are typically not required with every SAR – if a VEE is not due, please indicate this on the semiannual report.

Certification Statement

The certification statement makes one person responsible for the contents of permit applications, reports, and compliance certifications. The Title V certification statement is a legally binding statement, like swearing an oath in court. The certification requirement is established by the Clean Air Act, and the specific language comes from EPA’s Title V regulations (§70.5(d)), which states:

“Any application form, report, or compliance certification submitted pursuant to these regulations shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this part shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.”

This language is also required by Tennessee’s Title V regulations, and we don’t allow the use of alternate language. The certification statement requires reasonable inquiry. This statement means that the responsible official has taken steps to verify the information submitted with the report. “Reasonable inquiry” can be hard to define – the Responsible Official would not necessarily be required to verify the individual data points submitted with a report – but the process that you use needs to be defensible if it is ever questioned.
A Simple Example of Reasonable Inquiry

**Requirement:** Collect baghouse pressure drop readings once per shift, and take corrective action for any readings that are out of range.

- **Plant operator** – take pressure drop readings, notify maintenance personnel if readings are out of range. Fill out log sheet of readings.
- **Maintenance personnel** – fix problems with baghouse and document actions.
- **Production supervisor** – assure that log sheets are filled out and maintenance problems are reported.
- **Maintenance supervisor** – assure that maintenance is completed and documented.
- **Engineer** – compiles and reviews records, documents that corrective actions were completed, makes recommendations for process improvements, and compiles all records for SAR.
- **Responsible Official** meets with engineer prior to submittal to assure the adequacy of the process.

- **Maintain documentation of the entire process.**
- **All staff need to be able to explain their specific responsibilities.**
- **Engineers and supervisors assure that operators are properly trained.**
The following is a suggested format from TDEC APC. You are not required to use this format, but it will be made available to anyone upon request.

**SEMIANNUAL REPORT CERTIFICATION**

Facility Owner/Company Name: _____________________________________________
Facility Address: _______________________________________________________
Emission Source Reference Number: _______________________________________

<table>
<thead>
<tr>
<th>Title V Permit Number</th>
<th>Reporting Period</th>
<th>Report Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This report is required pursuant to TAPCR 1200-03-09-.02(11)(e)1.(iii).

**RESPONSIBLE OFFICIAL CERTIFICATION**

I, the undersigned, am the responsible official as defined in TAPCR 1200-03-09-.02 (11)(b)21 of the Title V source for which this document is being submitted. This document consists of ________ pages and they are numbered from page ____ to _____. I hereby certify, based on the information and belief formed after reasonable inquiry that the statements made and data contained in this document are true, accurate, and complete.

Signature: ______________________________________________________________
Name: ________________________________________________________________
Title: _________________________________________________________________
Date: __________________________________________________________________

“Responsible Official” is defined in Tennessee Air Pollution Control Regulations (TAPCR) 1200-03-09-.02(11)(b)21 as one of the following:

- For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

  - The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars); or

  - The delegation of authority to such representative is approved in advance by the Technical Secretary;
• For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

• For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA).

• The rule includes additional provisions for Acid Rain Program facilities, but those requirements are not listed here.

**Annual Compliance Certification**

The annual compliance certification is submitted every year on the schedule established by the Title V permit, and it covers a twelve-month period. The ACC is submitted for many of the same reasons as the SAR – reporting of compliance status and public review. However, there are two important differences – the **annual compliance certification is submitted to U. S. EPA for review, and the annual compliance certification includes all permit conditions**.

On a day-to-day basis, the Title V regulations are implemented by State permitting programs – EPA (usually) does not write permits or review semiannual reports, and EPA inspections are typically less frequent than State inspections. However, since EPA oversees the State programs, the Title V program requires you to submit the ACC to EPA. The ACC gives EPA a summary of your compliance status for the previous 12 months, but it doesn't include the level of detail that you include with your semiannual report.

In addition, you submit the ACC certify whether you were in compliance with all of your permit conditions during the reporting period. This is the other reason for submitting an ACC – you are certifying to Tennessee and to EPA that you complied with all of your permit conditions, regardless of whether reporting was required or not.

You do not submit records with the ACC – you certify that you kept the records and submitted your reports as required by the Title V permit.

Finally, the Title V permit requires ACCs to include “Such other facts as the Technical Secretary may require to determine the compliance status of the source.” If there is other information that we need to determine your compliance status (i.e., anything not covered by other SAR/ACC requirements) you need to submit it with the ACC.

You must include the following information in your annual compliance certification:

1. Company name, address, company number (xx-xxxx), and permit number.

2. Reporting period
3. Identify the term or condition (i.e., list the condition number). Each condition in Sections A, B, D, and E must be listed separately.

4. Identify the methods that you use to assure compliance with the permit condition.

5. State whether the compliance status is based on continuous or intermittent data.

6. Certify the compliance status of each condition as “continuous” or “intermittent.”

7. Identify all deviations
   - Description of deviation
   - Duration
   - Explanation or probable cause
   - Corrective action or preventative measure

8. “Such other facts as the Technical Secretary may require to determine the compliance status of the source.”

9. Certification Statement (truth, accuracy, & completeness)

10. Responsible Official Signature

Continuous compliance means that you were in compliance during the ACC term, with no deviations, and no other information that indicates deviations. Any other form of compliance would be intermittent compliance. Intermittent compliance would not include periods for which compliance is not required (e.g., some rules do not require compliance during SSM events). If your permit includes a data availability requirement (e.g., 95% per quarter for CEMS), missing data would not be intermittent compliance as long as you didn't exceed the data availability requirement.

Deviations: You must identify any deviations that occurred. The information that you must report for deviations in the ACC is the same information that you were required to report in the SAR. Keep in mind that the ACC must include deviations that occurred for both semiannual reporting periods.

Such other facts as the Technical Secretary may require: This may include the following:

- If you conducted a stack test that was not required by your permit, you would need to include the test results as part of the ACC (this is especially true if the stack test shows a violation).

- Accidental releases that are not reportable under another permit condition.

- If you are issued a Notice of Violation during the first SAR period, then you must note this in your ACC.
• If you are operating under a compliance plan.

Certifying Multiple Permits in the ACC: If a Title V renewal is issued during the reporting period, the permittee must certify the compliance status of both permits in the ACC.

   **Example:** Two permits are effective during a reporting period of January 1 – December of each calendar year:

   - Title V permit 56xxxx is applicable from January 1 – August 31
   - Title V permit 57yyyy is applicable from September 1 – December 31

The easiest way to certify the compliance status of both permits is to submit two copies of the ACC: One version covering permit 56xxxx from January 1 – August 31, and the second covering permit 57yyyy from September 1 – December 31.

**RESPONSIBLE OFFICIAL CERTIFICATION FOR ACC**

I, the undersigned, am the responsible official as defined in TAPCR 1200-03-09-.02 (11)(b)21 of the Title V source for which this document is being submitted. With the possible exception of those permit terms and conditions identified above (referring to a list of deviations, exceedances and excursions), the emission sources described in permit #___________ were in compliance with all permit terms and conditions over the previous year as determined by all required testing and monitoring in the permit and other material information.

I hereby certify, based on the information and belief formed after reasonable inquiry, that the statements made and data contained in this document are true, accurate, and complete.

   **Signature:**

   **Name:**

   **Title:**

   **Date:**

**Common Problems with SARs and ACCs**

1. Late submittals.
2. Improper certification – RO certification is omitted or improperly worded.
3. Missing data or failure to submit VEEs.
4. Failing to identify all deviations. CAA §113(c)(2) prohibits knowingly making a false certification or omitting material information.

5. Including unnecessary information (including all records instead of a summary, including records that are not required to show compliance).

6. For the ACC, excluding one or more sections of the permit (typically, A, B, or D). Failure to separately list each condition in Sections A, B, D, and E.

7. Combining the SAR and ACC into a single document.

Other Comments on ACCs:

1. The most important things to do in the ACC are to address all permit conditions and to correctly state the compliance status for all conditions and for the entire ACC period (both SARs).

2. Use of abbreviations is acceptable, provided that the abbreviations are understandable (e. g., “VOC”). Uncommon abbreviations should be defined in the ACC.

3. “Continuous compliance” vs. “not applicable.” “Not applicable” should be used only for instructional conditions like A1, A3, A5, etc.

4. “Continuous compliance” vs. “in compliance – no deviations.” 40 CFR 70.6(c)(5)(iii)(C) explicitly requires the ACC to state “continuous” or “intermittent” compliance.

5. If intermittent compliance occurs in overlapping conditions (e. g., ACC due dates in B5 and E2-1(b)), then both conditions should be listed as “intermittent compliance.”

6. Method(s) or other means: in general, you are only required to include the minimum information (methods and means required by the permit). However, if the methods and means required by the permit show continuous compliance, but other information (i. e., not required by the permit) shows intermittent compliance, you must identify “any other material information” to correctly certify the compliance status.
# Annual Compliance Certification Example

<table>
<thead>
<tr>
<th>Facility Owner</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Name</td>
<td></td>
</tr>
<tr>
<td>Site Address</td>
<td></td>
</tr>
<tr>
<td>Emission Source Reference Number</td>
<td></td>
</tr>
<tr>
<td>Title V Permit Number</td>
<td></td>
</tr>
<tr>
<td>Effective Date of Title V Permit</td>
<td></td>
</tr>
<tr>
<td>Reporting Period for Annual Certification</td>
<td></td>
</tr>
<tr>
<td>Annual Certification Submittal Due Date</td>
<td></td>
</tr>
</tbody>
</table>

## General Permit Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Summary of Condition</th>
<th>Method or Other Means To Determine Compliance</th>
<th>Compliance Status (Continuous or Intermittent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>General permit conditions related to Definitions.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td>General permit conditions related to Compliance Requirement.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>A3</td>
<td>General permit conditions related to Need to Halt or Reduce Activity.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>A4</td>
<td>General permit conditions related to The Permit.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>A5</td>
<td>General permit conditions related to Property Rights.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>A6</td>
<td>General permit conditions related to Submittal of Requested Information.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>A7</td>
<td>General permit conditions related to</td>
<td>Method Not Specified in Title V Permit</td>
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</tr>
<tr>
<td>Condition</td>
<td>Summary of Condition</td>
<td>Method or Other Means To Determine Compliance</td>
<td>Compliance Status (Continuous or Intermittent)</td>
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<tr>
<td>A8</td>
<td>General permit conditions related to Fee Payment.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>A9</td>
<td>General permit conditions related to Permit Revision Not Required.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>A10</td>
<td>General permit conditions related to Inspection and Entry.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
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<tr>
<td>A11</td>
<td>General permit conditions related to Permit Shield.</td>
<td>Method Not Specified in Title V Permit</td>
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<tr>
<td>A12</td>
<td>General permit conditions related to Permit Renewal and Expiration.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
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<tr>
<td>A13</td>
<td>General permit conditions related to Reopening for Cause.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
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<tr>
<td>A14</td>
<td>General permit conditions related to Permit Transference.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
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<tr>
<td>A15</td>
<td>General permit conditions related to Air Pollution Alert.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>A16</td>
<td>General permit conditions related to Construction Permit Required.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>A17</td>
<td>General permit conditions related to Notification of Changes.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>A18</td>
<td>General permit conditions related to Schedule of Compliance.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>A19</td>
<td>General permit conditions related to Acid Rain Program.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>A20</td>
<td>General permit conditions related to</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>Condition</td>
<td>Summary of Condition</td>
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</tr>
<tr>
<td>A21</td>
<td>General permit conditions related to 112(r).</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>B1</td>
<td>General permit conditions related to Recordkeeping.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>B2</td>
<td>General permit conditions related to Retention of Monitoring Data.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>B3</td>
<td>General permit conditions related to Reporting.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>B4</td>
<td>General permit conditions related to Certification.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>B5</td>
<td>General permit conditions related to Annual Compliance Certification.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>B6</td>
<td>General permit conditions related to Submission of Compliance Certification.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>B7</td>
<td>General permit conditions related to Emergency Provisions.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>B8</td>
<td>General permit conditions related to Excess Emissions Reporting.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>B9</td>
<td>General permit conditions related to Malfunctions, Startups, and Shutdowns - Reasonable Measures Required.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>B10</td>
<td>General permit conditions related to Sources Located in Non-attainment Areas or Having Significant Impact on Air Quality in a Non-attainment Area.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>Condition</td>
<td>Summary of Condition</td>
<td>Method or Other Means To Determine Compliance</td>
<td>Compliance Status (Continuous or Intermittent)</td>
</tr>
<tr>
<td>-----------</td>
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<td>-----------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>B11</td>
<td>General permit conditions related to Report Required Upon the Issuance of a Notice of Violation for Excess Emissions.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>D1</td>
<td>General applicable requirements related to Visible Emissions.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>D2</td>
<td>General applicable requirements related to General Provisions and Applicability for Non-process Gaseous Emissions.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>D3</td>
<td>General applicable requirements related to Non-process Emission Standards.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>D4</td>
<td>General applicable requirements related to General Provisions and Applicability for Process gaseous emissions.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>D5</td>
<td>General applicable requirements related to Particulate emissions for process emission sources.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>D6</td>
<td>General applicable requirements related to Sulfur Dioxide Emission Standards.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>D7</td>
<td>General applicable requirements related to Fugitive Dust.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>D8</td>
<td>General applicable requirements related to Open Burning.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>D9</td>
<td>General applicable requirements related to Ambient Air Quality Standards.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
</tbody>
</table>
### General Permit Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Summary of Condition</th>
<th>Method or Other Means To Determine Compliance</th>
<th>Compliance Status (Continuous or Intermittent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D10</td>
<td>General applicable requirements related to Asbestos.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>E1</td>
<td>Fee payment: mixed emissions basis.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
</tbody>
</table>
| E2-1      | Reporting requirements                                                               | (a) Quarterly Reports  
(b) Semiannual Reports  
(c) Annual compliance certification                                                                            |                                                 |
| E2-2      | Recordkeeping: Data Entry Requirements                                                | Method Not Specified in Title V Permit                                                                         |                                                 |
| E2-3      | Averaging Time Requirements                                                           | Method Not Specified in Title V Permit                                                                         |                                                 |
| E2-4      | Visible Emissions evaluation: General Requirements                                    | Method Not Specified in Title V Permit                                                                         |                                                 |

### Source Description: Coal-Fired Boilers (Emission unit nos. xx-xxxx-xx through xx-xxxx-xx)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Summary of Condition</th>
<th>Method or Other Means To Determine Compliance</th>
<th>Compliance Status (Continuous or Intermittent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E3-1</td>
<td>Description of Source and allowable fuels.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>E3-2</td>
<td>The amount of on/off spec oil and nonhazardous solvent burned shall not exceed 100,000 gallons per year.</td>
<td>Method Specified in Title V Permit - Maintain daily records</td>
<td></td>
</tr>
<tr>
<td>E3-3</td>
<td>Test burns of alternate fuels can be conducted for up to 30 days provided that notification is made to TEDC 30 prior to testing.</td>
<td>Method Not Specified in Title V permit</td>
<td></td>
</tr>
</tbody>
</table>
### Source Description: Coal-Fired Boilers (Emission unit nos. xx-xxxx-xx through xx-xxxx-xx)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Summary of Condition</th>
<th>Method or Other Means To Determine Compliance</th>
<th>Compliance Status (Continuous or Intermittent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E3-4</td>
<td>Particulate emission limit shall not exceed 0.109 lb/MMBtu.</td>
<td>Method Specified in Title V - Permit - testing and reporting and COMS as specified in the CAM plan.</td>
<td></td>
</tr>
<tr>
<td>E3-5</td>
<td>SO₂ emissions shall not exceed 4.0 lb/MMBtu for a 24-hour period midnight to midnight; de minimis criteria of one 24-hour exceedance per year</td>
<td>Method Specified in Title V Permit - monitoring</td>
<td></td>
</tr>
<tr>
<td>E3-6</td>
<td>Operational Availability Condition for the Sulfur Dioxide Monitoring System</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>E3-7</td>
<td>Quality Assurance condition for the SO₂ CEMS.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>E3-8</td>
<td>Visible emissions shall not exceed 20% opacity except for 1-six minute average per hour of not more than 40 percent.</td>
<td>Method Specified in Title V Permit - Method 9 VEE performed biannually, unless stated exceptions are met.</td>
<td></td>
</tr>
<tr>
<td>E3-9</td>
<td>Allowance for excess visible emissions due to routine start-up and shut-down conditions.</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>E3-10</td>
<td>Operational Availability Condition for the Opacity Monitoring System</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>E3-11</td>
<td>Quality Assurance Condition for the Opacity Monitoring System</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>E3-12</td>
<td>Data Averaging for SO₂</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
<tr>
<td>E3-13</td>
<td>Excess Emissions: Quarterly Reports for SO₂ and Opacity</td>
<td>Method Not Specified in Title V Permit</td>
<td></td>
</tr>
</tbody>
</table>
Deviations: Identify all deviations that occurred during the annual compliance certification period, including: description of deviation, duration, explanation or probable cause, and corrective actions or preventative measures taken.

Additional Information: Provide (if applicable) any other facts that the Technical Secretary may require to determine the compliance status of the source

RESPONSIBLE OFFICIAL CERTIFICATION

I, the undersigned, am a responsible official, as defined in TAPCR 1200-03-09-.02 (11) (b) 21, for the Title V source in relation to which this document is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements and information in this document are true, accurate and complete. I further certify, based on information and belief formed after reasonable inquiry, that the emissions sources identified in Permit No. ________ were in compliance with all terms and conditions for the applicable reporting period, with the possible exception of those permit terms and conditions identified above, as determined by all required testing and monitoring in the permit and other material information as set forth above.

(Signature) (Date)

(Name) (Title)
Today’s Discussion

- Sources requiring an air permit
- Definitions
- Insignificant Activities and Insignificant Emissions Units
- Exceptions
- What to do once you make a determination
- Questions?
Sources Requiring an Air Permit

1200-03-09-.01(1)(a) states:

Except as specifically exempted in Rule 1200-03-09-.04, no person shall begin the construction of a new air contaminant source or the modification of an air contaminant source which may result in the discharge of air contaminants without first having applied for and received from the Technical Secretary a construction permit or, if applicable, submitted a notice of intent and obtained a notice of coverage or authorization, for the construction or modification of such air contaminant source.
What sources cannot be insignificant?

The permit exemptions in 1200-03-09-.04 do not apply to:

• Sources subject to Chapter 1200-03-11 (Hazardous Air Contaminants)
• Sources subject to Chapter 1200-03-18 (Volatile Organic Compounds)
• Sources subject to Chapter 1200-03-19 (Emission Standards and Monitoring Requirements for Additional Control Areas)
• Sources subject to Chapter 1200-03-22 (Lead Emission Standards)
• Sources subject to Chapter 1200-03-27 (Nitrogen Oxides)
• Sources subject to Chapter 1200-03-31-.05(2) (Case By Case Determinations of Hazardous Air Pollutant Control Requirements)
Applicable Requirements

- Notwithstanding any other provisions of paragraph (11) of Rule 1200-03-09-.02, no emissions unit or activity subject to a federally enforceable applicable requirement not included in this Division 1200-03 or Division 0400-30 (other than generally applicable requirements of the state implementation plan) shall qualify as an insignificant emissions unit or activity. [1200-03-09-.04(5)(c)]

- The permit application shall list and the permit shall contain all generally applicable requirements that apply to insignificant emission units or activities at the major source. For compliance purposes, the Technical Secretary may require monitoring, recordkeeping, and reporting for insignificant emission units or activities. [1200-03-09-.04(5)(c)]
Definitions

Insignificant activity or insignificant emissions unit means any activity or emissions unit which qualifies as insignificant based on any one of the following:

- Any air emissions from an air emissions unit or activity at a stationary source for which the emissions unit or activity has a potential to emit less than 5 tons per year of each regulated air pollutant that is not a hazardous air pollutant, and less than 1,000 pounds per year of each hazardous air pollutant. Such emission units and activities or types of emission units and activities must be listed in the permit application.
• The emission unit or activity, with the exception of parts 19. and 84., is listed in subparagraph (5)(f) as not having to be included in a Title V application. For an activity listed in subparagraph (5)(f), with the exception of parts 1., 2., 19., and 84., the emissions unit or activity must have a potential to emit less than 5 tons per year of each regulated air pollutant that is not a hazardous air pollutant, and less than 1,000 pounds per year of each hazardous air pollutant.

• The emission unit or activity is listed in subparagraph (5)(g) as not having to be included in a Title V application.

• Any emission unit with the potential to emit radionuclides which will result in a dose to the most exposed member of the public of less than 0.1 millirem per year. Such emission unit must be listed in the permit application.
• Any emission units or activities considered by the Division to be insignificant and approved by EPA. The Division shall maintain a list of emission units or activities which are considered to be insignificant by the Division and EPA. Such emission units or activities must be listed in the permit application. [1200-03-09-.04(5)(a)4.]
Definitions

**Potential to emit** means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is enforceable by the Administrator. [1200-03-09-.04(5)(a)5.]

- Inherent limitations
- Federally-enforceable limitations
Insignificant Activities and Emission Units

Any insignificant activity or insignificant emissions unit.

- Meets the criteria specified in 1200-03-09-.04(5)(a)4.
  - Potential to emit less than 5 tons per year of each air contaminant and each regulated air pollutant that is not a hazardous air pollutant
  - Potential to emit less than 1,000 pounds per year of each hazardous air pollutant
- Such emissions units and activities or types of emission units and activities must be listed in the permit application.
The “(f)” List

The categorical emission units listed in 1200-03-09-.04(5)(f), excluding items 19 and 84.

- Also known as the “(f)” list
- List of 93 types of process units or activities (excluding items 19 and 84).
- These emission units or activities, with the exception of items 19 and 84, are not required to be listed in the construction or operating permit applications for the facility.
- With the exception of items 1, 2, 19, and 84, the emissions unit or activity must have a potential to emit less than 5 tons per year of each air contaminant and each regulated air pollutant that is not a hazardous air pollutant, and less than 1,000 pounds per year of each hazardous air pollutant.
The “(g)” List

The emission units or activities listed in 1200-03-09-.04(5)(g).

- Also known as the “(g)” list
- List of 53 types of process units or activities
- These emission units or activities are not required to be listed in the construction or operating permit applications for the facility.
Sources of Radionuclides

Any emission unit with the potential to emit radionuclides which will result in a dose to the most exposed member of the public of less than 0.1 millirem per year.

- These emission units or activities must be listed in the construction or operating permit applications for the facility.
Designated Units or Activities

Any emission units or activities considered by the Division to be insignificant and approved by EPA.

- The Division shall maintain a list of emission units or activities which are considered to be insignificant and approved by EPA.
- These emission units or activities must be listed in the construction or operating permit applications for the facility.
- Currently, the Division does not have a list of emission units or activities that meet this criteria.
Exceptions to the Exclusions from Insignificance

“No emission unit or activity subject to a federally enforceable applicable requirement not included in 1200-03 or 0400-30”

On April 8, 2018, each of the three federal engine rules (60 Subparts IIII and JJJJ and 63 Subpart ZZZZ) were adopted into the state’s regulations under Tenn. Comp. R. & Regs. 0400-30, Chapters 38 and 39. Due to the combined change in language at 1200-03-09-.04(2)(c) and the adoption of 0400-30-38 and 0400-30-39, emergency engines that meet the potential to emit criteria can be designated as insignificant activities or emission units.
My Emission Unit is Insignificant - Now What?

• Prepare documentation to support your determination
  – Brief description of emission unit or activity
  – Copies of vendor information, such as specification sheets, brochures, or stack test data
  – Emission calculations
  – Identification of the specific rule citation that applies

• Submit updated APC 2 form
  – For new sources, at least 30 days prior to beginning construction
  – For existing sources, at any time
Documentation

Upon request from the Technical Secretary the applicant must provide sufficient documentation to enable the Technical Secretary to determine that the emission unit or activity has been appropriately listed on the permit application as insignificant. [1200-03-09-.04(5)(e)(1)]

• Brief description of emission unit or activity
• Copies of vendor information, such as specification sheets, brochures, or stack test data
• Emission calculations
• Identification of the specific rule citation that applies

Retain copies of the documentation onsite and make them available for inspection, if requested

Update your list of insignificant emission units
Upon request from the Technical Secretary, at any time during the term of the permit, an applicant who lists an activity or emissions unit as insignificant under subpart 1200-03-09-.04(5)(a)4.(i) of this paragraph shall demonstrate to the Technical Secretary that the actual emissions of the unit or activity are below the emission thresholds listed in that subpart. [1200-03-09-.04(5)(e)(2)]
My Emission Unit Needs a Permit - Now What?

- Prepare permit modification package, including:
  - Necessary application forms
  - Process flow diagram
  - Emission calculations
  - Vendor information, if needed
- Submit signed application package electronically to Air.Pollution.Control@tn.gov
Questions?
Is my emission unit insignificant?

Yes → Is the potential to emit radionuclides less than 0.1 millirem per year?

No → Does your unit emit radionuclides?

Yes → Review the "(g)" list at 1200-03-09-04(5)(g).

No → A permit is required for your emission unit. Complete and submit the required construction or modification forms.

Does your unit meet the qualifications of one of the 53 types of process units or activities listed?

Yes → Review the "(f)" list at 1200-03-09-04(5)(f).

No → Does your unit meet the qualifications of one of the 95 types of process units or activities listed?

Yes → Is your unit or activity one of the types listed in parts 1., 2., 19., or 84.?

No → Is the potential to emit for your emission unit less than 5 tons per year for each regulated air pollutant, or less than 1,000 pounds per year for each hazardous air pollutant?

Yes → The emission unit or activity is insignificant. It must be included in the permit application (Form APC 2).

No → A permit is required for your emission unit. Complete and submit the required construction or modification forms.

Yes → The emission unit or activity is insignificant. It is not required to be included in the permit application.

No → Does your unit emit radionuclides?

Yes → Review the "(g)" list at 1200-03-09-04(5)(g).

No → A permit is required for your emission unit. Complete and submit the required construction or modification forms.
Overview

• Terms
  ▫ Applicable requirement
  ▫ Title I modification
  ▫ Permit shield

• Permit modifications
  ▫ Significant modification
  ▫ Minor modification
  ▫ Administrative amendment
  ▫ 502(b)(10) change
  ▫ Operational flexibility change
Applicable Requirements

Includes the following:

- SIP requirements
- PSD or nonattainment NSR permit conditions
- NSPS
- NESHAP/MACT standards
- Acid Rain Program requirements
- Title V monitoring requirements (CAA §§504(b) or 114(a)(3))
- Solid waste combustion requirements, (CAA §129)
- Federal ozone measures (CAA §183(e))

Permit changes cannot violate applicable requirements.

Note: the above list is not exhaustive.
Title I Modification

- “Modification” as defined under NSPS, NESHAP
- “Modification” as defined under PSD/nonattainment NSR
- Contemporaneous net-outs are “modifications” at existing major PSD source
Title I Modification – NSPS Applicability

• Modification or reconstruction of an existing non-NSPS emissions unit would be a Title I modification. §60.14 defines a “modification” as a physical or operational change that:
  ▫ Increases the hourly emission rate of an NSPS pollutant;
  ▫ Is associated with a capital expenditure; and
  ▫ Is not otherwise exempted.

• Modification or reconstruction of an existing NSPS emissions unit would not be a Title I modification unless the modification/reconstruction triggers a different NSPS requirement (e.g., modification of an NSPS VV unit so that it becomes subject to NSPS VVa).

• Construction of a new NSPS emissions unit would not be a Title I modification.
Title I Modification – MACT Applicability

- CAA §112(a)(5) defines "modification" as any physical or operational change at a major source which increases the actual emissions of any hazardous air pollutant (or results in the emission of a hazardous air pollutant not previously emitted) by more than a de minimis amount.

- Construction or reconstruction of a major source (e.g., construction of a process or production unit, which in and of itself is a major source, at an existing facility) would be a Title I modification.

- Construction, modification, or reconstruction of a process or production unit, which in and of itself is not a major source, would not be a Title I modification.
Permit Shield

- **If requested by the applicant**, the Title V permit shall include a provision stating that compliance with the permit conditions shall be deemed compliance with any applicable requirements, provided that:
  - The applicable requirements are included in the permit; or
  - The Technical Secretary, determines in writing that other requirements specifically identified are not applicable to the source.
## Significant Modification

<table>
<thead>
<tr>
<th>Can be used for:</th>
<th>Any change to permit. Most commonly used for Title I modifications; significant changes to monitoring, recordkeeping &amp; reporting; PSD avoidance.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cannot be used for:</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Information required:</strong></td>
<td>Same as a regular Title V application, except that you only need to submit forms for sources that are being changed.</td>
</tr>
<tr>
<td><strong>The source can make the requested change:</strong></td>
<td>Upon issuance of the permit modification</td>
</tr>
<tr>
<td><strong>Public comment:</strong></td>
<td>30 days. Only the portion of the permit affected by the significant modification is open to comment.</td>
</tr>
<tr>
<td><strong>EPA review:</strong></td>
<td>45 days</td>
</tr>
<tr>
<td><strong>Permit shield?</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Time to issue:</strong></td>
<td>TDEC must act within 9-18 months</td>
</tr>
<tr>
<td><strong>Other comments:</strong></td>
<td>Procedures for issuance are the same as for a Title V permit.</td>
</tr>
</tbody>
</table>
# Minor Modification (I)

<table>
<thead>
<tr>
<th>Can be used for:</th>
<th>Allowable emission increases that do not trigger PSD, MACT, etc., updates to operating parameter ranges (non-significant changes to monitoring, recordkeeping, &amp; reporting), etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannot be used for:</td>
<td>Title I modifications; significant changes to monitoring, recordkeeping &amp; reporting; PSD/MACT avoidance (case-by-case emission limits).</td>
</tr>
<tr>
<td>Information required:</td>
<td>1. Description of the change, emissions resulting from the change, any new applicable requirements, completed application forms (APC INDEX, APC 1, and any additional forms that would change as a result of the modification).</td>
</tr>
<tr>
<td></td>
<td>2. Certification by a responsible official that the proposed change meets the criteria for use of minor modification procedures and a request that such procedures be used.</td>
</tr>
<tr>
<td></td>
<td>3. Source’s suggested draft permit</td>
</tr>
</tbody>
</table>
The source can make the requested change: Upon submittal of the application.

Public comment: None. TDEC must notify EPA and affected States within 5 working days of receipt of a complete application.

EPA review: 45 days

Permit shield? No

Time to issue: TDEC must issue or deny within 90 days of receipt or 15 days after the end of EPA’s 45-day review period, whichever is later. The applicant can make the requested change prior to issuance of the permit.
### Administrative Amendment

**Can be used for:**

1. Minor changes/corrections (typographical errors, change in name, address, or ownership), require more frequent monitoring.

2. Can use to establish an initial parametric value through testing/monitoring if the current permit has undergone public participation and the specific type of monitoring is established in the permit.

**Cannot be used for:**

- Title I modifications, changes to established monitored parameters, changes to applicable requirements.

**Information required:**

- A statement regarding the nature of the request; applicable Title V Permit Application forms; and any supporting documentation.

**The source can make the requested change:**

- Upon submittal of the request.

**Public comment:**

- None.

**EPA review:**

- None. TDEC submits the amended permit to EPA after issuance.

**Permit shield?**

- No

**Time to issue:**

- 60 days
## 502(b)(10) Changes

<table>
<thead>
<tr>
<th>Can be used for:</th>
<th>On-site relocation of an existing source, change in reagent brand.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cannot</strong> be used for:</td>
<td>Title I modifications; changes to applicable requirements, federally-enforceable conditions, or allowable emissions.</td>
</tr>
<tr>
<td>Information required:</td>
<td>Brief description of change; date on which change will occur; any change in actual emissions; any permit term no longer applicable; responsible official certification.</td>
</tr>
<tr>
<td>The source can make the requested change:</td>
<td>7 days after notification to TDEC and EPA.</td>
</tr>
<tr>
<td>Public Comment:</td>
<td>None.</td>
</tr>
<tr>
<td>EPA review:</td>
<td>None. TDEC submits to EPA after issuance.</td>
</tr>
<tr>
<td>Permit shield?</td>
<td>No</td>
</tr>
<tr>
<td>Time to issue:</td>
<td>No time limit.</td>
</tr>
<tr>
<td>Other comments:</td>
<td>502(b)(10) changes are relatively uncommon, because most modifications do not qualify as 502(b)(10) changes.</td>
</tr>
</tbody>
</table>
### Operational Flexibility Changes

<table>
<thead>
<tr>
<th>Can be used for:</th>
<th>Changes that are not addressed or prohibited by the permit. Example: a paper mill submitted an operational flexibility notification to add hydrogen peroxide to lime mud precoat filters. This change was not addressed by the permit, and there was no change in emissions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannot be used for:</td>
<td>Title IV (Acid Rain) changes, Title I modifications, changes to any existing permit condition.</td>
</tr>
<tr>
<td>Information required:</td>
<td>Date, change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change.</td>
</tr>
<tr>
<td>The source can make the requested change:</td>
<td>Upon notification to TDEC and EPA. Not required for insignificant activities.</td>
</tr>
<tr>
<td>Public comment:</td>
<td>None.</td>
</tr>
<tr>
<td>EPA review:</td>
<td>None. TDEC submits the amended permit to EPA after issuance.</td>
</tr>
<tr>
<td>Permit shield?</td>
<td>No</td>
</tr>
<tr>
<td>Time to issue:</td>
<td>No time limit.</td>
</tr>
<tr>
<td>Other comments:</td>
<td>The permittee must keep a record of operational flexibility changes until the changes are incorporated into subsequent permits.</td>
</tr>
</tbody>
</table>
THANK YOU
Summary of Title V Modifications

There are five types of Title V permit modifications: 502(b)(10) changes; operational flexibility changes; administrative amendments, minor modifications, and significant modifications.

Definitions

**Applicable requirement:** applicable requirements include PSD permit conditions, NSPS and MACT requirements, and monitoring requirements established pursuant to Clean Air Act §504(b) (procedures and methods established by rule for determining compliance under the Title V program).

**Title I modification:** a Title I modification is any change that would meet the definition of “modification” under NSPS, MACT, or major New Source Review. This includes netting, where emission reductions are used to avoid PSD by offsetting emission increases.

**Permit shield:** The purpose of a permit shield is to protect the facility from liability for violations if the permit does not accurately reflect an applicable federal requirement (i.e., compliance with the permit conditions is deemed to be compliance with any applicable requirements).

**502(b)(10) Changes**

502(b)(10) changes are fairly uncommon. These changes are defined in the Federal Title V regulations (40 CFR 70) and the State regulations. 502(b)(10) changes can be used to make changes that would contravene an existing permit condition, except for the following:

- The change cannot violate an “applicable requirement”
- The change cannot modify existing federally enforceable monitoring, recordkeeping, or reporting
- The change cannot be used for a Title I modification, and
- It cannot be used to change an emissions limit.

**Example:** Many facilities have particulate emission limits that are based on process weight rate, and the emissions limit can be significantly higher than the actual emission rate. 502(b)(10) changes can be used to add equipment and increase actual emission rates, provided that the allowable emission rate does not change.

502(b)(10) require a letter to the Division of Air Pollution Control (TDEC-APC) at least 7 days in advance of the change (changes must also be submitted to EPA). The letter must include: a brief description of the change, the date on which the change will occur, any change in actual emissions, any permit term that is no longer applicable as a result of the change, and responsible official certification¹. The change can be made after the 7-day advance notice period.

¹ The certification statement is the truth, accuracy, and completeness statement that must be submitted with permit applications, reports, and
has ended, without waiting for a response from TDEC-APC.

**Operational Flexibility Changes (Off-Permit Changes)**

The source may make changes that are not addressed or prohibited by the permit without a permit revision subject to the following requirements:

- Cannot be subject to Title IV (Acid Rain).
- Cannot be a Title I modification.
- Cannot violate any existing permit term or condition.

The facility must provide contemporaneous written notice to TDEC-APC and EPA, except for insignificant activities (TAPCR 1200-03-09-.04). The notice shall include the date, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change. Operational flexibility changes do not qualify for a permit shield.

The permittee must keep a record describing the changes, and the emissions resulting from those changes, until the changes are incorporated into subsequently issued permits.

**Significant Modifications**

Significant modifications are used for changes that are not allowed in the other categories. A significant modification is subject to the same requirements as the first issuance of a Title V permit. The modification is subject to affected State notification, EPA review, a 30-day public comment period.

**Administrative Amendments**

The administrative amendment is typically used to make minor changes that are not subject to Title V procedural requirements (public comment, EPA and affected State review). This document is guidance only; administrative amendment regulations are found at TAPCR 1200-03-09-.02(11)(f).4

2 These guidelines do not address administrative permit amendments for the acid rain portion of the permit. See regulations promulgated under Title IV of the federal Act and corresponding regulations in chapter 1200-03-30.
An administrative amendment is a permit revision that:

- Corrects typographical errors;
- Identifies changes in name, address, responsible official, etc.;
- Incorporates other minor administrative changes at the source;
- Allows for change of ownership or operational control\(^3\);
- Requires more frequent monitoring, recordkeeping, reporting;

\(^3\) Provided that a transfer of ownership permit application is filed consistent with TAPCR 1200-03-09-.03(6) and a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Technical Secretary.

- Example 1: Increasing the frequency of established periodic monitoring (since the requirement is more strict, public notice/comment is not required).
- Example 2: Establishing an initial parametric value through stack testing or monitoring. This can only be done when the current permit (Title V or significant modification) has undergone the full Title V public participation process, and when the specific type of monitoring (i.e. pressure drop, temperature, etc.) is established in the permit.

**Note:** Changing an established parametric value following stack testing, monitoring, or visible emissions study or changing to a different monitored parameter cannot be done with an administrative amendment. Minor permit modifications and significant permit modifications are addressed in TAPCR 1200-03-09-.02(11)(f)5(ii) and (iv), respectively, and in Section C of all Title V Operating Permits.

- Incorporates the requirements of a construction permit provided that the construction permit was issued in accordance with TAPCR 1200-03-09-.02(11)(f) for public comment, EPA review, and affected State notification.

**Administrative amendment requests should include:**

- A statement regarding the nature of the request;
- Applicable Title V Permit Application forms; and
- Any supporting documentation necessary to justify the request.

**Application Fee:** None.

**Approval timeline:** Facilities can make the requested change immediately upon submittal of the request. TDEC-APC has 60 days to take action on the request.

**EPA/Public Involvement:** Public notice, EPA review, and affected State reviews are not required. A copy of the amendment is submitted to EPA by TDEC-APC.
How to Submit: Administrative amendments can be submitted electronically via e-mail to Air.Pollution.Control@tn.gov (preferred) or by mail to:

Tennessee Department of Environment and Conservation
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Minor Modifications

Minor permit modifications are the most commonly used type of modification. Common uses for minor permit modifications include: increases to allowable emissions on a permit that do not trigger PSD, MACT, etc.; changes to monitoring that are not “significant”; addition of NSPS emission units; or changes to allowable SIP limits (i.e., SO₂ emission limits determined by rule). This document is guidance only; minor permit modification regulations are found at TAPCR 1200-03-09-.02(11)(f)(ii).

Minor permit modifications can be used to make changes that:
- Do not violate applicable requirements;
- Do not involve significant changes to existing monitoring, reporting, recordkeeping (change in monitored parameter as opposed to parametric range);
- Do not require case-by-case emission limit (RACT, BACT, MACT);
- Do not seek to establish or change permit conditions “for which there is no underlying applicable requirement” (e.g., PSD, MACT avoidance);
- Are not Title I modifications. Title I modification is any change that would meet the definition of “modification” under NSPS, MACT, or major New Source Review. This includes netting, where emission reductions are used to avoid PSD by offsetting emission increases.

[TPCPR 1200-03-09-.02(11)(f)(ii)(I)]

Common uses for minor permit modifications include:
- Increases to allowable emissions on a permit that do not trigger PSD, MACT, etc.;
- Changes to monitoring that are not “significant” (e.g., updates to operating parameter ranges);
- Addition of NSPS emission units; or
- Changes to allowable SIP Limits (i.e., SO₂ emission limits determined by rule).
Example:
- Title V sources typically monitor control device operating parameters such as baghouse pressure drop or scrubber flow rate. Minor permit modifications can be used to change the value or range of the monitored parameter (for example, a baghouse can use a minor modification to change the minimum pressure drop).
- In general, a change to a completely different monitored parameter would be “significant” and could not be accomplished using a minor permit modification. If an applicant submits a minor permit modification that involves changes to monitoring, the applicant needs to be careful not to make any changes that could be considered “significant” prior to issuance of the modification. If an applicant has questions about whether a change is “significant”, please call TDEC APC for guidance. If necessary, TDEC APC will contact EPA for an applicability determination.

Minor permit modification requests should include:
- A description of the change, including the emissions resulting from the change and any new applicable requirements that will apply if the change occurs
- The source's suggested draft permit conditions
- A certification by a responsible official that the proposed modification meets the criteria for use of the minor modification procedures, and a request that such procedures be used. Applicants should note that this requirement is in addition to the truth, accuracy, and completeness certification of TAPCR 1200-03-09-02(11)(d)4.
- Completed application forms, including:
  APC INDEX
  APC 1 (Facility Identification Form)
  Any additional forms that would change as a result of the modification or any new forms that result from the modification
  [TAPCR 1200-03-09-.02(11)(f)(i)(II)]

Application fee: None.

Approval timeline:
- Facilities can make the requested change immediately upon submittal of the request.
- However, since the Title V permit shield does not apply, the facility is proceeding at its own risk. If it is determined that the change cannot be approved as a minor permit modification (i.e., if the change requires a significant modification), then the applicant could be subject to enforcement action.
- TDEC APC must issue or deny the request within 90 days of receipt or 15 days after the end of EPA's 45-day review period, whichever is later.
  [TAPCR 1200-03-09-.02(11)(f)(i)(IV) and (V)]

EPA/Public involvement:
- TDEC APC must notify EPA within 5 working days of receipt of a complete application.
- A proposed permit must be sent to EPA for 45-day review. TDEC APC may issue after 45 days or upon receipt of comment/no comment from EPA.
No public notification required.
[TAPCR 1200-03-09-.02(11)(f)(5)(ii)(III) and (IV)]

How to submit: Minor permit modifications can be submitted electronically via e-mail to Air.Pollution.Control@tn.gov (preferred) or by mail to:

Tennessee Department of Environment and Conservation
Division of Air Pollution Control
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 15th Floor
Nashville, TN 37243

Minor Permit Modification Checklist

To be a Minor Permit Modification the change must meet all of the following criteria:
- Does not avoid applicable requirements (MACT, PSD avoidance limit)
- Not a Title 1 Modification
- Does not require case-by-case emission limit (RACT, BACT, MACT)
- Does not violate applicable requirements
- Does not significantly change existing monitoring, reporting, or record keeping

The submittal of a Minor Permit Modification application must contain the following:
- A description of the change
- Any emissions resulting from the change
- Any new applicable requirements
- Suggested Draft Permit language
- APC Index Form
- APC I Form
- Any APC forms that would change due to the Modification
- Any new APC forms required due to the Modification

Example Certification Statement for Minor Modification (to be included with application)

This proposed modification meets the criteria for minor permit modifications found in Tennessee Air pollution Control Regulations 1200-03-09-.02(11)(f)(5)(ii). I request that the minor permit modification procedures be used to modify Title V Operating Permit 5xxxxx, as shown in the attached suggested draft permit. I have reviewed the information contained in this application and certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate and complete. (Add Responsible Official name, signature, and date)
Permit Modification Examples

Example #1: A facility is required by the Title V permit to monitor the pressure drop across a baghouse to control particulate emissions. The source is not subject to any MACT or NSPS requirements. The facility wants to increase the minimum pressure drop stated in the permit for compliance assurance with the source's emissions limit.

1. Can the pressure drop requirement be changed using a minor modification?
2. After submitting the application, how long does the facility need to wait before making the change?
3. Does EPA review the draft permit?
4. Does a permit shield apply?

1. Yes – this is a change in the parameter value, but not a significant monitoring change.
2. The facility can make the change immediately.
3. Yes – EPA reviews the draft permit.
4. No – a permit shield does not apply (because the change was not subject to public comments)

Example #2: An existing facility includes an emission source subject to a MACT rule. The facility wants to add a new emission source subject to the same MACT. There are no PSD or nonattainment NSR issues are involved in this case.

1. What kind of modification is this?
2. What kind of modification is this if the existing permit does not include the MACT rule?

You can make this change with a minor modification – with one caveat. This is a new source at an existing facility – the MACT requirements can be added with a minor modification provided that some existing portion of the facility is already subject to the MACT. If the facility was not previously subject to the MACT, then this is a significant modification (because the addition of the new unit would be a Title I modification).

Example #3: A facility desires to modify a permitted emission source. To avoid PSD requirements, the facility accepts a limit that restricts the source's potential to emit. What kind of modification is required?

A significant modification is required because the facility seeks to establish a limit “for which there is no underlying applicable requirement” (e.g., PSD, MACT avoidance).

Example #4: A facility has an existing PSD avoidance limit of 200 tons/year VOC for the entire facility. The facility wants to increase the limit to 225 tons/year VOC. What kind of modification is required?

Tennessee’s position is that a significant modification is required to change an existing PSD avoidance limit. Because the original PSD avoidance is still valid, other states might allow this change through a minor modification. For changes to PSD avoidance limits, use of a significant modification is strongly recommended, so that the facility can have the permit shield for these requirements.
Title V Fees

The Basics
Title V Fees – Administrative Fee Schedule

- TDAPC Rule 1200-03-26
- See the Rule on the Secretary of State website
- Title V Fees are addressed in Paragraph (9)
Title V Fees – Administrative Fee Schedule

- **Title V Fee Selection Form** (Sample of the form is a separate file from this presentation)
  - Allows Choice of the Annual Accounting Period (AAP)
    - Calendar Year (CY)
    - Fiscal Year (FY)
  - Allows Choice of Fee Payment Basis
    - Allowable Emissions
    - Actual Emissions
    - Mixed Emissions (A Combination of Actual & Allowable Emissions)
- Changing Fee Selection for the Next AAP
  - Form Required to be submitted on or before December 31st
Title V Fees – Administrative Fee Schedule

- Fees based on Allowable Emissions
  - APC calculates the fees and an invoice is mailed
  - The Annual Accounting Period makes no difference here

- Fees based on Actual or Mixed Emissions
  - The Annual Accounting Period has schedule differences here
    - Due Dates for Calendar Year and Fiscal Year are different

- Fee Notification Letters are mailed to all Facilities
  - Letters are also available on the TDEC Data Viewer
What is an AEAR?

- Reference Permit condition E1 for information
- Required when fees are based on Actual or Mixed Emissions
- Documentation showing calculations of Actual Emissions
- The AEAR is to be signed by the Responsible Official
- Submit it in electronic form to APC.Inventory@tn.gov
- Permit Writer evaluates the AEAR for adequacy of reporting

A Title V Fee Summary Form is required with the AEAR

- More details on the last slide of this presentation
When making ACH payments do the following

Ensure proper crediting of your payment by including

ACH Reference Information entered to read as follows

**Title V Fees for Reference Number**

- It is your Facility ID having the format of ##-#####
- It is found on the first page of your permit

For Fees based on Allowable Emissions include the invoice # too

Also Email the same information with your ACH payment information to TDEC Fiscal Services at TDEC.fees@tn.gov
Title V Fees – Mailing Payments of Fees

➤ When mailing in the fee payment be sure to
  ➤ Write your Reference Number on the check
    ➤ It is your Facility ID having the format of ##-####
    ➤ It is found on the first page of your permit
  ➤ If Paying Fees on Allowable Emissions be sure to also
    ➤ Include the invoice with your mailed payment
Title V Fees – Schedule for fee payment

- Allowable Emissions Based Fee Assessment
  - TDEC mails an Invoice with a Cover Letter
  - 100% of fee due on or before April 1st each year
  - Annual Accounting Period impact on due date
    - None – All fees due by April 1st
Title V Fees – Schedule for fee payment

- Calendar Year – Actual or Mixed Emissions Fee Choice
  - TDEC Mails a Notification Letter
  - 100% of fee due on or before April 1st each year
  - AEAR due on or before April 1st each year
  - Title V Fee Summary Form is to accompany the AEAR submission
  - Extension requests due on or before April 1st
    - A Reason and Explanation for the request are required
    - Must be signed by the Responsible Official
    - Allows for up to 90 days extension until June 30th
    - Requires estimated 65% of the total annual Title V fee paid April 1st
    - Remainder of the fee and the AEAR are due when the extension ends
Title V Fees – Schedule for fee payment

- Fiscal Year – Actual or Mixed Emissions Fee Choice
  - TDEC Mails a Notification Letter
  - 65% estimate of total fee due on or before April 1st each year
  - Remainder of the fee due on or before July 1st each year
  - AEAR due on or before July 1st each year
  - Title V Fee Summary Form is to accompany the AEAR submission
  - Extension requests due on or before April 1st
    - A Reason and Explanation for the request are required
    - Must be signed by the Responsible Official
    - Allows for up to 90 days extension until September 28th
    - Remainder of the fee and the AEAR are due when the extension ends
Title V Fees – APC web page

- [link](https://www.tn.gov/environment/program-areas/apc-air-pollution-control-home/apc/permits-air/permit-fees/title-v-permit-fees.html)
- Title V Fee Selection Form – link will be available for download
- Fee Calculation explanation is given
- Title V Fee Summary Form - link provided for download
  - Required when fees are paid on Actual or Mixed Emissions
  - Two versions – one for EGU and one for Non-EGU
  - Enter facility total annual emissions in tons
  - Calculates the total annual Title V Fee based on tons entered
  - Print the form & submit electronic copies with the AEAR
For More Information

- Contact the APC Emission Inventory Program at APC.Inventory@tn.gov
- Manager is Olga Jacobsen
- EI Staff who work with fees are Randy Powers and James Smith
March 7, 2013

Re: Tax ID Number, DUNS Number, ACH Account Information, and Wire Account Information

Tax ID Number: 626001445
DUNS Number: 87-835-5437

ACH Information:
ABA Routing Number: 064107091
Account Number: 81834302
Account Name: Environment / Conservation Grants
Account Type: Checking
Financial Institution: First Tennessee Bank
511 Union St.
Nashville, TN 37219

Wire Information:
ABA Routing Number: 084000026
Account Number: 184503761
Account Name: State of Tennessee Treasury
Financial Institution: First Tennessee Bank
511 Union St.
Nashville, TN 37219

Comments: Please include State Agency and Program that is due the funds along with invoice number or Other identifying information. Contact is Rebecca Wallace at 615-532-0296 or email TDEC.fees@tn.gov
## Summary of Facility-Wide Emissions for the Annual Accounting Period Fees Due April 1, 2019

For Calendar Year 2018 & Fiscal Year 2018-2019

<table>
<thead>
<tr>
<th>Pollutant Name</th>
<th>Actual Tons (Facility-Wide)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>0</td>
</tr>
<tr>
<td>SO2</td>
<td>0</td>
</tr>
<tr>
<td>NOx</td>
<td>0</td>
</tr>
<tr>
<td>HAPs w/o Std</td>
<td>0</td>
</tr>
<tr>
<td>NSPS pollutants not listed above</td>
<td>0</td>
</tr>
</tbody>
</table>

| Total Tons | 0 |
| Calculated Actual Fee | 0 x $33.50 = 0 |
| Title V Base Fee | $4,000.00 |
| Title V Minimum Fee | $7,500.00 |
| Title V Annual Fee Due | 0 |

### Title V Fee Calculator

#### Title V Fee paid on Actual Emissions

Enter Facility Name: [Field]

Enter Facility ID / Emission Source Reference Number: [Field]

- Title V fee paid on Allocated Allowable and Actual Emissions
- Title V fee paid on Actual Emissions

### Facility Wide Emissions measured in Tons

<table>
<thead>
<tr>
<th>Pollutant Name</th>
<th>Actual Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>0</td>
</tr>
<tr>
<td>SO2</td>
<td>0</td>
</tr>
<tr>
<td>NOx</td>
<td>0</td>
</tr>
<tr>
<td>HAPs w/o Std</td>
<td>0</td>
</tr>
<tr>
<td>NSPS pollutants not listed above</td>
<td>0</td>
</tr>
</tbody>
</table>

| Total Tons | 0 |
| Calculated Actual Fee | 0 |
| Title V Base Fee | $4,000.00 |
| Title V Minimum Fee | $7,500.00 |
| Title V Annual Fee Due | 0 |

### Calculate Fees

Title V Fee Structure Explanation
Breakout Sessions
Non Title-V
Small Business Environmental Assistance Program

Offering free, confidential environmental assistance for small businesses in Tennessee
Who are you?

Assistance Requests by Category (Top 20)
Who are you?

• **A Small Business...**
  
  – Has 100 or fewer employees.
  
  – Is not a major source of emissions.
    
    • *< 10 tons* per year of any single **Hazardous Air Pollutant** (HAP)
    
    • *< 25 tons* per year of total HAPs
    
    • *< 75 tons* per year of any combination of criteria pollutants: Volatile Organic Compounds (**VOC**), Carbon Monoxide (**CO**), Particulates (**PM**), Sulfur Dioxide (**SO2**), and Nitrous Oxides (**NOx**)
  
  – Is not a large quantity generator of hazardous waste.
  
  – Does not have a full time employee dedicated to environmental issues.
Who are you?

97.15% of businesses in Nashville have fewer than 100 employees
More than 26,000 of them have only 1-9 employees
*(Nashville Business Journal)*
Who are we?

- **Donovan Grimwood**
  - Small Business Environmental Ombudsman
  - Technical assistance

- **Daniel Chuquín**
  - Outreach and education
  - Technical assistance

- **Ronne Adkins**
  - Environmental Director (Memphis Field Office)
Who are we?

• **Clean Air Act of 1990**
  – Mandates the establishment of a program to **assist** small businesses with understanding and complying with regulations.

• **Assistance**
  – SBEAP consultants provide **technical assistance** on any environmental question a small business may have.

• **Assistance is FREE**
  – There is no charge for asking for help.

• **Assistance is CONFIDENTIAL**
  – No information is shared with regulatory agencies, unless the client gives SBEAP permission.
What do we help with?

POLLUTION REGULATIONS!
What do we help with?

The Tennessee Department of Environment and Conservation (TDEC) regulates pollution according to the following **four divisions**: 

- Air
- Land (Solid or Hazardous Waste and Remediation)
- Water
- Underground Storage Tanks
What do we help with?

Assistance Requests by Program Area (since 2013)

- Air: 800
- SBEAP: 100
- Other: 100
- Solid Waste: 50
- Water: 25
- Policy and Sustainable Practices: 20
- UST: 15
- Energy: 10
What do we help with?

• Federal **EPA** Rules

• **State of TN** Rules
  – Example:
    • Air Pollution Control (APC)
      – Covers 91 of the counties in TN directly
      – Has oversight of the Local Air Programs, but Local program is primary
        contact in that area.
      – Davidson, Hamilton, Knox, and Shelby Counties
    • Solid Waste Management, Water Resources, Remediation, Underground Storage Tanks

• **Local** Ordinances
Why help small businesses?

More than one regulation within each regulatory division as well as more than one regulatory division can affect your business / facility.

It is the responsibility of the facility to know the Rules.

– It is the responsibility of the SBEAP to assist Small Businesses with understanding the regulations that affect them and to inform them of rule changes.
What else does SBEAP do?

• In 2018, SBEAP assisted
  – 201 companies or individuals
  – 69 different categories of businesses
  – 214 assistance requests

• Involvement
  – Air Pollution Control (APC) **fee change** process
  – **General Permit** application development
  – **Permit-by-Rule** development
  – Collaboration with other **TDEC divisions**
  – Collaboration and **outreach** benefiting small businesses

• SBEAP collaboration goal
  – Work closely with APC to develop permitting methods that will be easier, quicker, and less expensive for small businesses
Sample Assistance – Auto Body Shops

- Potentially applicable rules
  - **6H** (Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources)
  - **HAP limitations** (Hazardous Air Pollutants)
  - **VOC limitations** (Volatile Organic Compounds)

- Required forms
  - Form **APC 202** Permit-by-Rule
  - Form **APC 100** (Facility Identification/General Permit)
  - Form **APC 107** (Surface Coating Description).

- Assistance provided
  - Entering **general information**
  - **Calculating** paint/product use and regulated content by reviewing MSDS (Material Safety Data Sheet) information
  - Serve as **liaison** between APC and client
# Sample Calculations for HAPs

<table>
<thead>
<tr>
<th>Specific HAP emissions</th>
<th>HAP Avg. Emissions (Lbs./day)</th>
<th>HAP Avg. Emissions (lbs./hr.)</th>
<th>HAP Avg. TPY</th>
<th>HAP Max emissions (Lbs./day)</th>
<th>HAP Max emissions (lbs./hr.)</th>
<th>HAP Max Emissions TPY</th>
<th>HAP PTE TPY</th>
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<tbody>
<tr>
<td>Xylene</td>
<td>0.7787</td>
<td>0.0779</td>
<td>0.0973</td>
<td>1.3627</td>
<td>0.1363</td>
<td>0.1703</td>
<td>0.5969</td>
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<tr>
<td>Ethylbenzene</td>
<td>0.2152</td>
<td>0.0215</td>
<td>0.0269</td>
<td>0.3767</td>
<td>0.0377</td>
<td>0.0471</td>
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<tr>
<td>Methyl methacrylate</td>
<td>0.1178</td>
<td>0.0118</td>
<td>0.0147</td>
<td>0.2062</td>
<td>0.0206</td>
<td>0.0258</td>
<td>0.0903</td>
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<tr>
<td>Toluene</td>
<td>0.9055</td>
<td>0.0905</td>
<td>0.1132</td>
<td>1.5846</td>
<td>0.1585</td>
<td>0.1981</td>
<td>0.6941</td>
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<tr>
<td>Cumene</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>Methyl methacrylate</td>
<td>0.0258</td>
<td>0.0026</td>
<td>0.0032</td>
<td>0.0452</td>
<td>0.0045</td>
<td>0.0057</td>
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<td>Methanol</td>
<td>0.6470</td>
<td>0.0647</td>
<td>0.0809</td>
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<td>0.1132</td>
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<td>Hexane</td>
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<td>0.0000</td>
<td>0.0001</td>
<td>0.0000</td>
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<td>0.0000</td>
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<tr>
<td>Naphthalene</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>Benzene</td>
<td>0.0007</td>
<td>0.0001</td>
<td>0.0001</td>
<td>0.0013</td>
<td>0.0001</td>
<td>0.0002</td>
<td>0.0006</td>
</tr>
<tr>
<td>Coating</td>
<td>Average daily usage (Gal/day)</td>
<td>Max Daily usage (Gals./Day)</td>
<td>% by Weight Volatile</td>
<td>Regulatory VOC Content</td>
<td>% by Weight VOC</td>
<td>Density (Lbs./Gal.)</td>
<td>VOC Avg. Emissions (Lbs./day)</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------------------</td>
<td>----------------------------</td>
<td>----------------------</td>
<td>------------------------</td>
<td>----------------------</td>
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<tr>
<td>Totals</td>
<td>0.5760</td>
<td>1.0080</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.1674</td>
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<tr>
<td>Reducer - Mid-Temp (Med)</td>
<td>0.0480</td>
<td>0.0840</td>
<td>100.00%</td>
<td>6.70</td>
<td>100.00%</td>
<td>6.70</td>
<td>0.3216</td>
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<tr>
<td>Bascoate Balancer, 150K-SDS-EN</td>
<td>0.0006</td>
<td>0.0011</td>
<td>90.33%</td>
<td>6.60</td>
<td>90.53%</td>
<td>7.29</td>
<td>0.0041</td>
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<tr>
<td>Bascoate Binder, 175K-SDS-EN.p</td>
<td>0.0006</td>
<td>0.0011</td>
<td>68.75%</td>
<td>5.00</td>
<td>65.10%</td>
<td>7.68</td>
<td>0.0031</td>
</tr>
<tr>
<td>Paint - White H/S, 801J-SDS-EN.p</td>
<td>0.0006</td>
<td>0.0011</td>
<td>26.49%</td>
<td>3.60</td>
<td>26.57%</td>
<td>13.55</td>
<td>0.0022</td>
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<tr>
<td>Paint - White L/S, 802J-SDS-EN.p</td>
<td>0.0006</td>
<td>0.0011</td>
<td>45.61%</td>
<td>3.90</td>
<td>46.10%</td>
<td>8.46</td>
<td>0.0024</td>
</tr>
<tr>
<td>Paint - Reducer - Mid-Temp (Med)</td>
<td>0.0480</td>
<td>0.0840</td>
<td>100.00%</td>
<td>6.70</td>
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<td>8.46</td>
<td>0.0024</td>
</tr>
</tbody>
</table>
Contact Information

Tennessee Small Business Environmental Assistance Program

800-734-3616 or BGSBEAP@tn.gov
Facebook at: TN Small Biz Buzz
Twitter at @TNSmallBizBuzz
Non-Title V Application Process
Non-Title V Application Process

• This presentation follows an application from start to finish, starting with construction permits and ending with operating permits. What follows is an example of an application process, typical procedure, and time frame.
Acronyms

- TDEC—Tennessee Department of Environment and Conservation
- TDEC-APC—Tennessee Department of Environment and Conservation, Air Pollution Control Division
- APC—Air Pollution Control
- NO\textsubscript{x}—Nitrogen oxides
- SO\textsubscript{2}—Sulfur dioxide
October 1, 2018

- Company initiates a program to install a new production line or install/modify an existing process which will need an air permit

- As environmental coordinator, you meet with your plant manager or person in charge

- You are in charge of obtaining air permits

- Boiler and Spray booth

- Projected start of construction is February 1, 2019
October 11, 2018

- You call TDEC-APC and talk to one of the following:
  - Steven Simpson, Permit Section Manager
  - John Fuss, Permit Section Manager
  - Will Collins, Permit Section Manager
  - Doug Wright, Permit Section Manager
  - Assigned Permit Writer

- Steven.R.Simpson@tn.gov, 615-532-0530
- John.Fuss@tn.gov, 615-532-0535
- Will.Collins@tn.gov, 615-532-9198
- Doug.S.Wright@tn.gov, 615-532-0583
Submit the following:

- APC 100
- APC 101 & 102 for Boiler
- APC 107 for Spray Booth
- Construction permit application fee

You are advised to take an agreement letter for sulfur dioxide (SO$_2$) for the boiler due to high allowable emissions.

Low nitrogen oxides (NO$_x$) technology for boiler
You talk to your manager about the boiler
- Your manager has never heard of Low nitrogen oxides (NO$_x$)
- You & your manager call the boiler manufacturer
- Boiler manufacturer does have Low nitrogen oxides (NO$_x$) boilers
- You find out the specifications of the boiler
October 13, 2018

• You contact the engineering consulting firm that is designing and building the new facility

• You obtain needed information on Spray Booth such as cfm, hooding, exhaust stack dimensions such as stack diameter, stack height, and type of control such as filter pads, water wash etc.
October 14, 2018

- You download the APC forms from the TDEC website.

  - www.tn.gov/environment

  - www.tn.gov/environment/program-areas/apc-air-pollution-control-home/apc/permits-air/air-quality-operating-permit0/permit-air-air-quality-state-operating-permit.html
• You or a consultant fill out the application forms and call Permit Writer if assistance is needed

• You prepare an agreement letter for sulfur dioxide (SO$_2$)

• Check for permit application fee based on fee schedule

• You email (or mail) the entire package to TDEC-APC including fee
October 21, 2018

- Construction permit application is received by TDEC-APC and is logged into database.

- Application has been or will be assigned to a Permit Writer.

- TDEC-APC has 30 days to determine completeness of application.

- A completeness determination is made and a letter is mailed to company saying the application is complete or incomplete and listing the reasons for incompleteness, can be due to insufficient fee, no fee, more info needed.
October 26, 2018

- Permit Writer prepares a public notice
- Publication date will be November 4, 2018
November 4, 2018

- Public notice is published in the local newspaper

- Start of the 30 day public comment period with only written comments accepted

- Public notice appears on TDEC website
November 8, 2018

- Permit Writer reviews application

- Emissions are calculated using EPA’s AP-42

- Facility is designated as true minor source
November 12, 2018

• You receive the letter from TDEC-APC

• You call the Permit Writer to check status of the application

• Permit Writer says that it is in the 30 day public comment period and tells you the status of the application.
December 4, 2018

- 30 day public comment period ends

- If no comments were received, Permit Writer proceeds with draft construction permit

- If comments are received, Permit Writer determines if they have technical merit and keeps comments in mind in draft permit; revises draft permit if appropriate
December 7, 2018

- Permit Writer drafts construction permit(s), which are reviewed by Permit Writer’s reviewer
December 14, 2018

• Permit Writer emails draft construction permit(s) with a reasonable response turnaround time of seven days to:
  – Your company
  – Environmental Field Office (EFO)
    • Nashville, Jackson, Columbia, Johnson City, Knoxville, Cookeville, and Chattanooga
December 21, 2018

• Your company and the Environmental Field Office (EFO) do not have any suggestions/corrections/comments on the draft permit

• If there are comments with merit, Permit Writer will revise permits as needed

• Permits are forwarded to Permit Writer’s reviewer for final review
• Construction Permits are issued by TDEC-APC and emailed (or mailed) to your company

• If county is one on Public Registry, Permit Writer must notify (email) those on Registry 15 days in advance of intent to issue or deny permit in accordance with TN Governmental Entity Review Law Section Tennessee Code Annotated (TCA) 4-29-120 signed into law on June 5, 2007.
• Construction begins on new facility
May 1, 2019

- Construction and installation of operations/equipment/processes are complete and ready for operation

- Boiler and Spray Booth are operating based on temporary operation allowed under conditions specified in construction permit(s).
• You send to TDEC-APC:
  – Start-up certifications for Boiler and Spray Booth (if required by permit)
  – APC 100 for operating permit for Boiler & Spray Booth
May 6, 2019

- Operating permit application is logged into database
- Assigned Permit Writer handles issuance of operating permit(s)
- If county is one on Public Registry, Permit Writer emails those on registry 15 days in advance of “intent to issue permit(s)”
July 1, 2019

- Operating Permits are issued by TDEC-APC and emailed (or mailed) to your company
Application Form Revisions

- Forms were revised in 2017
- Organization’s legal name and Secretary of State (SOS) control number (web link on instructions)
- Unique Source ID (like Boiler #1, Paint Line #1)
- Unique Emission Point ID (like Stack #1)
Application Form Revisions

• APC 100 & Signature
  – One APC 100 can be submitted for multiple sources
  – If multiple forms submitted with an APC 100, then only have to sign APC 100
  – If individual forms submitted without APC 100, then those forms must be signed
  – All forms must be dated
Application Form Revisions

- Is source subject to NSPS and/or NESHAP?
  - New Source Performance Standard (NSPS)
  - National Emission Standard for Hazardous Air Pollutants (NESHAP)

- Is facility in a nonattainment area?
  - More stringent rules apply in nonattainment areas
  - Currently only one small nonattainment area for sulfur dioxide (SO$_2$) near Kingsport
Application Form Revisions

- Potential Emissions

- Control Device--Proposed monitoring, recordkeeping, reporting to assure compliance with emission limits

- Control device parameters (like pressure drop, thermal oxidizer temperature, water flow rate)
Electronic Submittals

- TDEC-APC prefers that applications be submitted via email to: air.pollution.control@tn.gov unless the application contains confidential information.

- Combine entire application into one pdf document.

- Sign application before scanning/combining.
Fillable PDF Forms

- PDF – Portable Document Format
- “Fillable” means you can type directly on forms (editable)

Software programs:
  - Adobe Acrobat Reader (free)
  - Adobe Acrobat Pro (costs $$)
  - Other programs able to read and/or edit PDF’s
Fillable PDF Forms

- **Warning**: When combining multiple forms into one document using Adobe Acrobat Pro, form fields that have the same name in the merged document are merged into one field.

- Before combining multiple forms into one document, editable forms must be converted to non-editable forms.

- Converting to non-editable form using Adobe Acrobat Pro:
  - Tools\Print Production\Preflight\PDF Fixups\Flatten annotations and form fields
TDEC Dataviewers

- Dataviewers pull information from the same consolidated databases TDEC staff use to keep track of environmental regulatory activities, rosters and status.

- View permits, inspection reports, complaints, applications, letters, stack tests, Notice of Violation, etc.

- Available for Air, Water, and Solid Waste Divisions

Overview of Permitting for Non-Title V Facilities
Why does the State of Tennessee regulate Air Pollution?
It is the intent and purpose of this (law) to maintain purity of the air resources of the state consistent with the protection of normal health, general welfare and physical property of the people, maximum employment and the full industrial development of the state.

The board and department shall seek the accomplishment of these objectives through the prevention, abatement and control of air pollution by all practical and economically feasible methods.
How does the State of Tennessee “maintain purity of the air resources”? via laws, regulations & permits.
Who Needs a Construction Permit?

- Any person wishing to construct an air contaminant source or to modify an existing air contaminant source, is required to obtain a construction permit from the Division

- Exemptions

- Insignificant Activities/Emission Units
Regulated Air Pollutants

- Particulate Matter (PM)
- Volatile Organic Compounds (VOC)
- Nitrogen Oxides (NO\(_X\))
- Carbon Monoxide (CO)
- Sulfur Dioxide (SO\(_2\))
- Hazardous Air Pollutants (HAPs)
- Other Air Pollutants
Hazardous Air Pollutants (HAPs)

Approx. 187 Compounds

Examples:

- VOC HAPs: Toluene, Xylene, MIBK, Benzene
- Non-VOC HAPs: HCl, HF
- Particle HAP: Lead & Chromium Compounds
Operating Permit – Facility Classifications

- **Title V**
  - 100 ton/yr of any air pollutant
  - 10 ton/yr of a single HAP
  - 25 ton/yr of any combination of HAPs

- **Non-Title V**
  - Conditional Major & True Minor
Facility Classifications (cont.)

- Conditional Major
  - PTE greater than Title V thresholds
  - Permit Limits below Title V thresholds
- True Minor
  - PTE less than Title V thresholds
Internet Resources

- Regulations & Forms online
  https://www.tn.gov/environment/programs-areas/apc-air-pollution-control-home/apc/permit-air-home.html
Permit Programs & Field Offices:

- Four Permit Programs
  - Most Permit Writers in Nashville Central Office

- Environmental Field Offices-7 Locations
  - Facility Inspections
  - Report review
  - Complaint Investigations
Permit Programs

- The Division is currently re-structuring the permit programs into sector-based categories rather than geographical categories.
Local Programs

- Four Counties: Knox, Hamilton, Shelby, Davidson
Note: For the Division of Air Pollution Control, the Jackson Field Office covers Jackson & Memphis Field Office counties.
Construction Permits - Overview

- Application Forms & Fee
- Application Process
- Public Notice
- Permit Content
## Construction Permits - Application Forms

<table>
<thead>
<tr>
<th>Previous Form Title</th>
<th>ID</th>
<th>Form Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permit Application Form</td>
<td>APC 100</td>
<td>Facility Identification</td>
</tr>
<tr>
<td>Emission Point Description Form</td>
<td>APC 101</td>
<td>Emission Point Description</td>
</tr>
<tr>
<td>Process Or Fuel Burning Source Description Form</td>
<td>APC 102</td>
<td>Process Or Fuel Burning Source Description</td>
</tr>
<tr>
<td>Incinerator Source Description Form</td>
<td>APC 103</td>
<td>Incinerator Source Description</td>
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<tr>
<td>Storage Tank Description Form</td>
<td>APC 104</td>
<td>Storage Tank Description</td>
</tr>
<tr>
<td>Degreaser Description Form</td>
<td>APC 105</td>
<td>Degreaser Description</td>
</tr>
<tr>
<td>Oven Source Description Form</td>
<td>APC 106</td>
<td>Oven Source Description</td>
</tr>
<tr>
<td>Surface Coating Description Form</td>
<td>APC 107</td>
<td>Surface Coating Description</td>
</tr>
<tr>
<td>Asphalt Plant Source Description Form</td>
<td>APC 108</td>
<td>Asphalt Plant Source Description</td>
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<tr>
<td>Previous Form Title</td>
<td>ID</td>
<td>Form Title</td>
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<tr>
<td>---------------------------------------------</td>
<td>-------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>Rock Crushing Source Description Form</td>
<td>APC 109</td>
<td>Rock Crushing Source Description</td>
</tr>
<tr>
<td>Dry Cleaner Source Description Form</td>
<td>APC 110</td>
<td>Dry Cleaner Source Description</td>
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<tr>
<td>Concrete Batch Plant Source Description Form</td>
<td>APC 111</td>
<td>Concrete Batch Plant Source Description</td>
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<tr>
<td>Coal Preparation Source Description Form</td>
<td>APC 112</td>
<td>Coal Preparation Source Description</td>
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<tr>
<td>Cyclone Description Form</td>
<td>APC 113</td>
<td>Cyclone Description</td>
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<tr>
<td>Stage I and Stage II Vapor Recovery</td>
<td>APC 114</td>
<td>Gasoline Dispensing Facility Description</td>
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<tr>
<td>Proposed Schedule of Corrective Action</td>
<td>APC 115</td>
<td>Proposed Schedule of Corrective Action</td>
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<tr>
<td>N/A</td>
<td>APC 116</td>
<td>Cotton Gin Description</td>
</tr>
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</table>
Construction Permits - Application Forms (cont.)

- Miscellaneous Process Emission Sources, and Fuel Burning Sources - APC 100, 101, & 102
- Incinerators - APC 100 & 103
- Surface Coating Operations - APC 100 & 107
- Asphalt Plants - APC 100 & 108
- Rock Crushing Operations - APC 100 & 109
- Concrete Batch Plants - APC 100 & 111
## Construction Permits - Application Fee

<table>
<thead>
<tr>
<th>Anticipated Maximum Emission Rate (ton/yr)</th>
<th>Permit Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 10</td>
<td>$100</td>
</tr>
<tr>
<td>10 to less than 100</td>
<td>$500</td>
</tr>
<tr>
<td>100 to less than 250</td>
<td>$1,000</td>
</tr>
<tr>
<td>250 to less than 500</td>
<td>$2,000</td>
</tr>
<tr>
<td>500 to less than 1,000</td>
<td>$3,000</td>
</tr>
<tr>
<td>1,000 to less than 5,000</td>
<td>$4,000</td>
</tr>
<tr>
<td>5,000 or greater</td>
<td>$5,000</td>
</tr>
</tbody>
</table>
Construction Permits - Application Process

- Apply 90 to 120 days prior to construction
- 30 day TDAPC review period
- Applicant notified in writing of application deficiencies
- Application deemed complete
Construction Permits - Application Process (cont.)

- Public Notice-30 day comment period
- Town Meeting (possible)
- Draft Permit
- Permit Issued or Denied
- Permit conditions may be appealed
Construction Permits - Content

- New template for construction permits
- Limits on pollutants:
  - PM, VOC, NO\textsubscript{x}, CO, SO\textsubscript{2}, HAPs, etc.
- Opacity limits
- Recordkeeping to show compliance
Construction Permits - Content

- NSPS-New Source Performance Standards
- NESHAP-National Emission Standard for Hazardous Air Pollutants
Operating Permits - Overview

- Application Forms & Annual Emissions Fee
- Application Process
- Public Notice
- Permit Content
Submit APC-100 Form

--and--

Other Forms as Requested
Operating Permits - Fees

- No application fee
- Annual emission fee
  - Currently $18.75 per ton of air pollutant
  - Based on Allowable Emissions
  - No annual emission fee for CO
- Conditional major permit review fee
Example (tpy - tons per year):

- 40 tpy VOC, 10 tpy PM, 15 tpy CO

Billable tonnage = 40 + 10 = 50

Fee = (50 tpy) \times ($18.75/ton)

= $937.50
### Conditional Major Permit Review Fee

- In addition to annual emission fee
- Includes CO emissions

<table>
<thead>
<tr>
<th>Allowable Tons Per Year</th>
<th>Review Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 50 ton/yr</td>
<td>$250</td>
</tr>
<tr>
<td>50.1 - 100 ton/yr</td>
<td>$500</td>
</tr>
<tr>
<td>100.1 - 250 ton/yr</td>
<td>$1,000</td>
</tr>
<tr>
<td>250.1 ton/yr and up</td>
<td>$2,000</td>
</tr>
</tbody>
</table>
Do you want to save your company money?
Upon mutual agreement of the company and the Division, a more restrictive regulatory requirement may be established to minimize the allowable emissions and thus the annual emission fee.

TAPCR 1200-03-26-.02(6)(b)
 Conditional Major Permit - combines all sources

- Limits entire facility below Title V thresholds
  - 100 ton/yr for criteria pollutants
  - 10 ton/yr for a single HAP
  - 25 ton/yr for combination of HAPs
Operating Permits - Conditional Major

- Public Notice (only for initial conditional major permit, not renewal) & Draft Permit
  - 30-day Comment Period
  - EPA & Affected States review
  - Public review
Operating Permits - Conditional Major

- Annual Report
  - Submit to Field Office
  - Due March 31
  - Compliance Statement
  - Submit Records
Operating Permits - Timeline

- Operating permit renewal
  - Apply at least 60 days prior to permit expiration
- Permits usually expire in ten years
Operating Permits - Content

- Same as Construction permit
- Limits on pollutants: PM, VOC, NOx, CO, SO$_2$, HAPs, etc.
- Recordkeeping to show compliance
Objectives:

- General Overview of Field Services
  - Who are we and what do we do?
  - Where are we located?
- The Inspection and Report Review Process
  - How does it work?
  - Helpful Hints for Compliance
- Air Quality Complaints
  - Types of complaints and the investigation process
- Updates
  - What’s new?
- Questions/Comments
Who is Field Services and what do we do?

- Field Services personnel are TDEC’s boots on the ground carrying out its mission to enhance the quality of life for the citizens of Tennessee while promoting responsible stewardship of our natural environment.

- Air Pollution Control Field Services personnel have many tasks. The three largest are:
  - Compliance Inspections
    - Title V (TV)
    - Conditional Major (CM)
    - True Minor (TM)
  - Air Quality Complaint Investigations
    - Open burning, stack opacity, fugitive dust, odor....
  - Ambient Air Monitoring
    - Ozone
    - Sulfur Dioxide
    - Lead
    - PM 2.5
Managers are primarily responsible for ensuring that each office’s workload is completed both in a timely manner and in accordance with standard operating procedures.
Inspections
Inspections are conducted to ensure that the facilities are following the conditions of their air quality permit(s).

The Division has 559 permitted facilities across the state that receive annual inspections.

- 218 Title V
- 341 Conditional Major

Additionally, the Division has thousands of permitted true minor facilities that are inspected as time allows.
A little about our inspectors...

- APC inspectors undergo extensive safety and technical training before serving as a lead inspector
  - 40 Hour OSHA HAZWOPER
    - Annual 8 Hour Refreshers
  - Visible Emissions Evaluation Training (aka Smoke School)
    - Initial certification + re-certifications every six months
  - Air Pollution Training Institute Courses
    - Multiple initial + continuing education
  - On the Job Training (OJT)
Inspectors are issued basic PPE required to make entry at various types of industrial facilities.

- Hardhats
- Hearing Protection
- Eye Protection
- Steel Toe Boots
- Hi-Vis Vests
- Identification
The Inspection Process: Planning and Preparation

- Managers divide the Title V and CM facilities amongst the inspectors.
- Inspectors spend a considerable amount of time preparing for the site visit:
  - Gather all permits effective during the inspection period
  - Review file for compliance issues, modifications, new sources, etc.
  - Prepare a pre-inspection report/checklist to be used as a guide on-site
While inspections may be either announced or unannounced, facilities may notice that site visits often follow the receipt of reports.

- Saves time for both parties
  - Semiannual and conditional major reports contain much of the information needed for the inspection report.
    - Logs that have been fully reviewed prior to the site visit may be spot checked while on-site
The Inspection Process: Facility Preparation

- Inspectors are often asked what they will need to see.
  - The answer is simple: Read your permit!

- The facility’s permit(s) is the basis for the inspection.
  - Inspectors go through the permits on a condition by condition basis and will need to see that all of the required documentation is kept complete and up to date and that all reporting deadlines have been met.
  - The inspection will go more smoothly if both parties are familiar with the permit requirements.
Inspectors will hold an opening meeting first.
- Credentials and contact information will be provided and the purpose of the visit explained.
- The inspection time frame will be discussed:
  - Previous inspection < 24 months ago
    - Inspection period is from date of last inspection forward
  - Previous inspection > 24 months ago or an existing facility's first inspection
    - Inspection period is the previous 24 months
  - New facilities with permits issued < 24 months prior
    - Inspection period is from date of permit issuance forward
- Ask about the facility’s PPE requirements and other safety precautions to be taken during the walkthrough
- Confidential Business Information (CBI)
  - The inspector will ask about CBI to ensure it is not included in inspection reports.
The Inspection Process: On-site Records Review

- The inspector will need to see the required documentation for the inspection period. While each permit differs, required documentation may include:
  - Production logs
  - Emission logs
  - Safety data sheets and/or vendor formulation VOC/HAP content data
  - Maintenance logs
  - Hours of operation logs
  - Pressure drop logs
  - Temperature logs

- Inspectors may check calculations for accuracy

*Electronic records are acceptable provided they are easily accessible to the inspector.*
The Inspection Process: The Walk-Through

- Inspectors will need to see facility’s operation from start to finish.
  - Inspectors will make a note of which sources are operating and will need to see each emission point to check for opacity.
    - A visible emission evaluation (VEE) may be performed if opacity is observed.
  - Inspectors will verify that control devices are operating.
  - If the permit contains parametric monitoring limits (temperature, pressure drop, pH, flow, etc), the inspector will take readings.
  - If the permit has specific work practice standards, the inspector will verify they are being followed. (i.e. No open VOC containers)
  - The inspector will verify that there aren’t any additional sources that need further evaluation.
The Inspection Process: The Closure Meeting

After the walk-through, the inspector will hold a closure meeting before departing.

- Questions, comments, concerns
- Additional information
The Inspection Process: The Write-up

- The inspector will return to the office and compile all the data collected during the inspection.
- Inspectors make a compliance determination:
  - In Compliance: No violations were found during the entire inspection time period.
  - Out of Compliance: There were compliance issues during the inspection period and a Notice of Violation (NOV) was issued or will be issued in the near future.
- The finished report is reviewed by the manager and uploaded to the database. The report will be available through the data viewers after final approval by the Deputy Director of Field Services.
Field Services conducted 1,187 compliance inspections from October 1, 2017 to September 30, 2018.

Approximately 9% of inspections found the facility to be out of compliance.

- The resulting 105 NOVs addressed one or following common compliance issues:
  - Record keeping violations
  - Late reports
  - Exceedances of permit limits
  - Late notifications
  - Failure to conduct VEEs
Conditional Major reports are due March 31 of every year.

Title V Semi-Annual Reports and Annual Compliance Certifications are due 60 days after the end of the reporting period.

**HINT**: Submit your reports early.

Inspectors are given 20 days from receipt to review reports

- Early submittals increase the chance that your report will be reviewed prior to the deadline.
  - Deficiencies such as missing logs, incorrect formatting, improperly worded compliance statements, and many others can be fixed without compliance issues if a corrected report is submitted by the deadline.
Common Problems: Reports in General

- No signature or date
- Wrong permit numbers
- Not addressing all permits effective during the reporting period
- No logs or inadequate summaries
- Formatting issues
  - i.e. calendar year totals vs 12 consecutive month totals
- Incorrect Calculations
Common Problems: Title V Reports

- Problems with ACC reports:
  - Not including all required sections of the permit (A, B, D, E) or lumping conditions together (A1 – A12, etc.)
  - Failing to reference new or modified conditions (e.g. E4-3(MM1))
  - Reporting compliance status as continuous when there were deviations

- Problems with SAR reports:
  - Failing to report on all of the required conditions
  - Failing to include required logs or an adequate summary
  - Failing to identify deviations
Common Problems: Conditional Major Reports

- Improperly worded compliance statements and/or lack of records

**For Example:**
Condition 5 of Facility XYZ’s permit #123 states:

“A written report stating the compliance status of this facility with Condition 8 shall be submitted by March 31 of every year. The reports shall cover the preceding calendar year and shall contain the records required by Condition 12.”

Facility XYZ submits a report including the records required by Condition 12 and a cover letter that says:

“In accordance with Condition 5 of permit #123, please find enclosed the records required by Condition 12 for the calendar year 2018.”

Adequate?? ......
No, because condition 5 says...

“A written report stating the compliance status of this facility with Condition 8 shall be submitted by March 31 of every year...”

- An adequate compliance statement will read something like this:

“Facility XYZ is submitting this annual compliance report in accordance with Condition 5 of Permit #123. Facility XYZ certifies that it operated in compliance with Condition 8 during the calendar year 2018. The records required by Condition 12 are included with this submittal.”
### Data Viewer

#### Tennessee Division of Air Pollution Control (DAPC)

- **Permits**
- **Complaints**
- **Inspections**
- **eDocuments**

#### Search Guidance

- Example search for Inspections in Hamilton county.

#### Inspections Conducted by APC

<table>
<thead>
<tr>
<th>ID</th>
<th>Inspector</th>
<th>Facility Id</th>
<th>Site_ID</th>
<th>Site Name</th>
<th>County</th>
<th>City</th>
<th>EFO Name</th>
<th>Insp Date</th>
<th>Inspection Type</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>11201</td>
<td>RTH</td>
<td>-</td>
<td>89330</td>
<td>Pullman Center</td>
<td>Wilson</td>
<td>Lebanon</td>
<td>Nashville</td>
<td>AUG-08-2014</td>
<td>Asbestos compliance inspection</td>
<td>In Compliance</td>
</tr>
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<td>9898</td>
<td>RTH</td>
<td>-</td>
<td>87245</td>
<td>Former Patterson Hardware</td>
<td>Bedford</td>
<td>Shelbyville</td>
<td>Columbia</td>
<td>JAN-14-2014</td>
<td>Asbestos compliance inspection</td>
<td>In Compliance</td>
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<tr>
<td>11508</td>
<td>RTH</td>
<td>-</td>
<td>100440</td>
<td>20th Ave &amp; Clarksville Pike Apts (Ice River Village Apts)</td>
<td>Davidson</td>
<td>Nashville</td>
<td>Local Air Program</td>
<td>SEP-22-2014</td>
<td>Asbestos compliance inspection</td>
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</tr>
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<td>RTH</td>
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<td>100546</td>
<td>20th Ave &amp; Clarksville Pike Apts (Ice River Village Apts)</td>
<td>Davidson</td>
<td>Nashville</td>
<td>Local Air Program</td>
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<td>RTH</td>
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<td>97510</td>
<td>Rutherford County Agricultural Building</td>
<td>Rutherford</td>
<td>Murfreesboro</td>
<td>Nashville</td>
<td>FEB-06-2014</td>
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<td>07520</td>
<td>JGA</td>
<td>Campbell</td>
<td>Jellico</td>
<td>Knoxville</td>
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<td>In Compliance</td>
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<tr>
<td>10330</td>
<td>JLH</td>
<td>92-0155</td>
<td>87725</td>
<td>Casey's General Store 3341</td>
<td>Weakley</td>
<td>Martin</td>
<td>Jackson</td>
<td>FEB-13-2014</td>
<td>Compliance Inspection Annual TM</td>
<td>Out of Compliance</td>
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<td>11099</td>
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<td>100531</td>
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<td>Roane</td>
<td>Harriman</td>
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<td>Roane</td>
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<td>100544</td>
<td>Upland Retirement Village</td>
<td>White</td>
<td>Pleasant Hill</td>
<td>Cookeville</td>
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<td>Cookeville</td>
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<td>Saviar</td>
<td>Gatlinburg</td>
<td>Knoxville</td>
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<td>11351</td>
<td>JCH</td>
<td>93-0320</td>
<td>60559</td>
<td>Hankook Tire Manufacturing Tennessee LP</td>
<td>Montgomery</td>
<td>Clarksville</td>
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<td>69205</td>
<td>First Presbyterian Church</td>
<td>Weakley</td>
<td>Greenfield</td>
<td>Jackson</td>
<td>SEP-17-2013</td>
<td>Asbestos compliance inspection</td>
<td>In Compliance</td>
</tr>
</tbody>
</table>
Complaints

- The Division occasionally receives complaints on facilities
  - i.e., Stack Opacity, Fugitive Dust, Odors
- A site visit is usually required.
  - Explain the complaint
  - Ask about recent events that may have caused the complaint
  - Review required records
    - maintenance logs, production logs, emissions logs.....
  - Conduct an inspection if one has not already been conducted
- Investigation results are available through the data viewers.
Many of the air quality complaints we investigate do not concern industrial facilities.
Complaints: No Jurisdiction

Mold/Indoor Air

Chem-trails

Balloon Releases

Fireworks

Warning Noise
Updates: Alternative Workplace Solutions (AWS)

- Effective July 2, 2018, AWS was offered to all Field Services staff as a voluntary program.
  - 88% of Field Services staff are currently participating.
    - AWS staff are equipped with mobile technology which allows them to work from pre-approved alternative locations (home) most days of the week.

- AWS benefits experienced by Field Services include:
  - Increased productivity and flexibility
  - Recruitment and retention of top talent
  - Better customer service for citizens
Thank You!

Martie L. Carpenter
Deputy Director of Field Office Operations
TDEC Division of Air Pollution Control
Martie.Carpenter@tn.gov
865.594-5566
References:

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Monitoring, Recordkeeping, and Reporting for Non-Title V Facilities

Tawanna Reid Environmental Consultant
Types of Non-Title V Sources

By definition, each non-Title V facility falls into one of two general categories:

“True Minor” (TM) facility (emissions are below major source thresholds based on design capacity or Federally enforceable limits)

“Conditional Major” (CM) facility (agrees to limit emissions, and/or throughput, or take other limits to avoid Title V status), also referred to by EPA as federally enforceable state operating permit (FESOP) or as a synthetic minor by some agencies
Why Keep Records?

Recordkeeping requirements, if any, are intended to demonstrate that the source is meeting all emission and/or production limits for that source. Some incidental records may apply such as MACT, GACT, other permit records depending on nature of source which may not be associated with Title V thresholds or deal with pollutants of concern.
True minor sources:

Recordkeeping is minimal or may not exist since allowable limits are typically below the Title V thresholds due to low emitting sources or operations with a small capacity. Some incidental records may apply depending on nature of source.

Conditional major sources:

Recordkeeping requirements are needed for “pollutants of concern” to abide by an emission limit, production limits, control device monitoring/maintenance records or other related records used to avoid Title V emission thresholds for one or more pollutants and/or HAPs or assure compliance. Other records may apply.
“Opting Out” of a Title V permit
TAPCR 1200-03-09-.02(11)(a)

“... sources that are subject to this paragraph 1200-03-09-.02(11) may opt out of being subject to the provisions of paragraph 1200-03-09-.02(11) by limiting their potential to emit such that they are below the applicability threshold. In order to exercise this option, the source must agree to be bound by a permit which specifies the more restrictive limit, and to be subject to detailed monitoring, reporting and recordkeeping requirements that prove the source is abiding by its more restrictive emission and/or production limits.”

These are for “pollutants of concern” which would otherwise cause the facility to become Title V.
What Kind of Records?

In general, recordkeeping may include:

- Calculation of emissions
- Measurement of a surrogate limit
- Parametric monitoring
- Supporting documentation
- Inspection and maintenance of control equipment
- Other records such as NESHAPS such as GACT or miscellaneous records not necessarily for the purpose of limiting emissions below Title V threshold values

Permits require records to be retained at a CM site for 5 years and 2 years for TM. In some cases, records may be retained at an offsite location.
Permits for VOC/HAP emission sources (e.g., surface coating operations) commonly require calculations of emissions.

VOC/HAP emissions are calculated based on a measured quantity (typically solvent and coating usage and the associated VOC or HAP material content).

Records must include:
- Measured values
- Emission calculations
- Supporting documentation such as Safety Data Sheets (SDS) or formulation data sheets
1. Volatile organic compounds (VOC) emitted from this facility shall not exceed 97 tons during all periods of twelve (12) consecutive months.

**Compliance Method:** The permittee shall calculate the actual quantities of VOC emitted from the coating operation during each calendar month. The permittee shall maintain records of these emissions in a form that readily shows compliance with **Condition 1** of this permit. These records must be maintained at the source location and kept available for inspection by the Technical Secretary or a Division representative. These records must be retained for a period of not less than five (5) years.
2. The as-supplied VOC content of all VOC-containing materials to be used by this source shall be determined from the current Safety Data Sheets (SDS) or from previous Material Safety Data Sheets (MSDS) or manufacturer or vendor formulation data which explicitly list the VOC content by weight. The results of these determinations shall be compiled in the following tabular format.

3. This table, along with SDS, MSDS or other supporting documentation for each material used, shall be maintained at the source location.

<table>
<thead>
<tr>
<th>Material Description</th>
<th>Material Density (lb/gal)</th>
<th>VOC Content (lb/gal)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Summary for records of VOC/HAP sources

1. Compile monthly usage of coatings and solvents (gallons or pounds)

2. Retain records of SDS or MSDS or formulation data for VOC and HAP emitting material as supporting documents

3. Calculate monthly emissions for VOC and/or HAPs

4. Prepare on-going calculations on spreadsheets for all periods of twelve (12) consecutive months

5. Retain TM records for 2 years & CM for 5 years
All Periods of 12 Consecutive Months...

- For each month, you have to do two calculations:
  - VOC emissions for the current month, and
  - Total VOC emissions for the current month, plus the eleven preceding months (or rolling 12 month emissions).

- For July 2018, your 12-month total emissions would be the sum of all VOC emissions from August 2017 through July 2018.

- For August 2018, your 12-month total emissions would be the sum of all VOC emissions from September 2017 through August 2018.
Your Records Might Look Like This

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>VOC Emissions (tons/month)</th>
<th>VOC Emissions (tons / 12 months*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January, Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>February, Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>etc.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Recordkeeping for Surrogate Limits

- Typically used when the permit contains:
  - An emission limit, and
  - Another limit that is directly related to the emission limit.

- Rock crushing operations and asphalt plants typically use surrogate limits for recordkeeping.

- A facility such as a clay plant with established emission factors per ton of material processed, e.g. pounds of PM per ton of clay processed \( \times \) tons processed for that month.
1. Particulate matter emitted from this source shall not exceed 48.9 pounds per hour.

2. The annual production of crushed stone shall not exceed 1,500,000 tons in any calendar year.

**Compliance Method:** A record of the daily production of the Primary Crusher in a form that readily shows compliance with **Condition 2** shall be maintained at the source location and kept available for inspection by the Technical Secretary or a Division representative. This record must be retained for a period of not less than two (2) years.
Surrogate Limit Example (II)

This is where production is measured.
“Twelve Consecutive Months” vs. “Calendar Year”

• VOC example (all periods of twelve consecutive months) – you have to show compliance with the annual limit during each month.

• Rock crushing example (calendar year) – you start at zero production on January 1 of each year. You measure the total production from January 1 through December 31.
Parametric Monitoring

- Records are kept to demonstrate proper operation of a control device.

- Common examples include:
  - Daily Baghouse pressure drop
  - Daily Scrubber water flow rate and/or pH of scrubber liquid
  - Hourly Thermal oxidizer temperature
  - Cyclone inspection each week or month
Baghouse Pressure Drop

1. Particulate matter emitted from this source shall not exceed 11.1 pounds per hour.

**Compliance method:** The permittee shall maintain an approved minimum pressure drop of 1.2 inches of water across the baghouse. The permittee shall record a minimum of one pressure drop reading per day in a log. The log shall include the time of the reading, the value read, the name of the plant operator recording the value, and any relevant comments as needed. The permittee shall note all days when the source is not operating. This log shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five (5) years.

2. If the pressure drop reading falls below the minimum value, the permittee shall inspect the baghouse and initiate corrective actions to bring the pressure drop to above the minimum value. The permittee shall note all inspection findings and corrective actions in the log.

*(Note comments by the operator are very important in denoting what has occurred and may result in a consideration for a legitimate excusal based on the circumstances.)*
Questions

• What is being recorded?

• How often?

• What happens if there is an excursion (reading below minimum value)?
## Example Log Sheet for Baghouse Pressure Drop

<table>
<thead>
<tr>
<th>Date &amp; Time</th>
<th>Operator Initials</th>
<th>Pressure Drop (inches H₂O)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---
The thermal oxidizer shall operate with a minimum temperature of 1,500°F based on three-hour block average periods during production. Compliance with this condition shall be assured as specified below:

(a) The permittee shall install, calibrate, operate, and maintain continuous monitoring equipment to monitor the combustion chamber temperature. The continuous temperature monitoring equipment must be equipped with a continuous recorder and have an accuracy within 25°F. Sensors shall be installed, maintained, and operated such that the flames from the burners do not impinge upon the sensors.

(b) Using data obtained from the continuous recorder or digital temperature readout, the permittee shall record the hourly average combustion chamber temperature and use the hourly temperatures to calculate the three-hour block average temperature.
(c) All three-hour block periods of operation during which the average combustion temperature is more than 50°F below the minimum operating temperature shall be reported to the Division as specified in Condition _____. Excursions below the minimum operating temperature shall not be considered violations of this condition unless the three-hour block average temperature is more than 50°F below the minimum operating temperature of 1,500°F. Three-hour block periods shall start at midnight unless designated otherwise. Production or operation shall not begin until the set point temperature of 1,500°F is attained. Excursions below the minimum operating temperature resulting from startups, shutdowns, or malfunctions shall not be considered violations of this condition.

(d) Records of the combustion chamber temperature monitoring shall be documented in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five (5) years. Records of temperature excursions must be retained at the facility for a period of not less than five (5) years.
### Temperature Log

Date: __________

<table>
<thead>
<tr>
<th>Block (24-hr time)</th>
<th>Hourly Avg. Temp. (°F)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>0:00 - 1:00</td>
<td>850</td>
<td>Start-up at midnight</td>
</tr>
<tr>
<td>1:00 - 2:00</td>
<td>1,200</td>
<td>Allowance given for startup</td>
</tr>
<tr>
<td>2:00 - 3:00</td>
<td>1,500</td>
<td>Allowance given for startup</td>
</tr>
<tr>
<td>3:00 - 4:00</td>
<td>1,500</td>
<td>Start production 3:00 AM, Part of 1st 3 hour block</td>
</tr>
<tr>
<td>4:00 - 5:00</td>
<td>1,375</td>
<td>Part of 1st 3 hour block</td>
</tr>
<tr>
<td>5:00 - 6:00</td>
<td>1,375</td>
<td>Part of 1st 3 hour block</td>
</tr>
<tr>
<td>6:00 - 7:00</td>
<td>1,375</td>
<td>2nd 3 hour block begins</td>
</tr>
<tr>
<td>7:00 - 8:00</td>
<td>1,400</td>
<td>Part of 2nd 3 hour block</td>
</tr>
<tr>
<td>8:00 - 9:00</td>
<td>1,450</td>
<td>Part of 2nd 3 hour block</td>
</tr>
</tbody>
</table>
“Routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control device(s). Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than two (2) years.”
Data Entry Requirements

For monthly logs:
All data, including all required calculations, must be entered in the log no later than 30 days from the end of the month for which the data is required.

For weekly logs:
All data, including all required calculations, must be entered in the log no later than 7 days from the end of the week for which the data is required.

For daily logs:
All data, including all required calculations, must be entered in the log no later than 7 days from the end of the day for which the data is required.
Reporting Requirements

• Typically not required for True Minor sources, unless required by an area source NESHAP (e.g., chromium electroplating) or for special purposes such as a complaint.

• An annual compliance report is required for all Conditional Major Facilities.

“A report stating the compliance status of this facility with Conditions 5, 6, and 7 shall be submitted by March 31 of every year. This report shall cover the preceding calendar year and shall include the records required by Conditions 8, 9, and 10. The first report shall cover the calendar year 2018 and will be due March 31, 2019. These reports shall be submitted to the ______ Environmental Field Office at the following address...”
Example Conditional Major Report

**Conditional Major Report for ___________**  
Permit Number: ___________  
Report Period: January 1 – December 1, 2018  
Due Date: March 31, 2019

<table>
<thead>
<tr>
<th>Condition</th>
<th>Requirement</th>
<th>Compliance Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>VOC emission limit of 90 tons per 12 consecutive months</td>
<td>In compliance for the entire year. Max. value was 65.9 tons for 12 consecutive months</td>
</tr>
<tr>
<td>6</td>
<td>Coating usage limit of 8,000 gallons per 12 consecutive months</td>
<td>In compliance for the entire year. Max. value was 7132 gals for 12 consecutive months</td>
</tr>
<tr>
<td>7</td>
<td>Thermal oxidizer minimum temperature</td>
<td>Out of compliance for two 3-hour periods on June 30, 2018, and August 1, 2018. In compliance for the remainder of the year.</td>
</tr>
</tbody>
</table>

Copies of all records required by Conditions 8, 9, and 10 of permit number ___________ are included in the attachments to this report.
Annual reporting of VOC and NO$_x$ emissions is required for facilities that:

- Are located in Anderson, Blount, Davidson, Knox, Rutherford, Shelby, Sumner, Williamson or Wilson county, and
- Have actual emissions of VOC and/or NO$_x$ of 25 tons or more during a calendar year.

The report must:

- Be submitted before March 31 of each year
- Cover the preceding calendar year,
- Be signed by responsible official, and
- Include a truth and accuracy statement.
For your consideration

1. Don’t forget to keep records and/or log days when a process/operation did not operate marking such days as NIO (not in operation). No entry indicates that data or logging was overlooked for the day.

2. APC sets a reporting format for the proposed permit. You, your consultant, or representative may propose similar or alternate permit conditions or data tables amenable to your facility for APC to consider as long as it contains the same essential and relevant information and data. Comment on this during the permit draft or request it later as a permit amendment. Be sure and check with your permit writer.

3. Always make relevant comments/justification/explanation on log entries when denoting a control equipment or operating parameter excursion. APC will review such excursions and if properly documented and explained, it may result in an excusal.
4. Audit or spot check your spreadsheets to see if entry values are correct, there is no missing information, formulas and equations are transposed correctly, and the table results represent what the permit conditions require. Do an independent calculation to see if you arrive at the same values.

5. If plant emission studies exist for your industry, present them to APC as a suggested emission factor. If the study has technical merit and appropriate documentation, these may be more representative of your facility. Also, if your plant has established an effective control technique(s) or work practice(s), submit this to APC for consideration.

6. Remember, all that matters is what your permit requires. Make sure the records that are required of you are representative of your operation.

7. Maintain backup records by scanning handwritten logs or entering them in computer storage. Lost records have resulted in NOVs.
Questions?
Today’s Discussion

- Definitions
- Sources requiring an air permit
- What sources cannot be exempt?
- Exempt air contaminant sources
- Exceptions to the exclusions from exemption
- What to do once you make a determination
- Things to remember
- Questions?
Definitions

**Insignificant activity or insignificant emissions unit** means any activity or emissions unit at a stationary source for which the emissions unit or activity has the potential to emit less than 5 tons per year of each air contaminant and each regulated air pollutant that is not a hazardous air pollutant, and less than 1,000 pounds per year of each hazardous air pollutant unless specifically excluded from designation as an insignificant activity or insignificant emissions unit elsewhere in 1200-03 or 0400-30. [1200-03-09-.04(2)(a)3.]
**Potential to emit** means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation is federally enforceable. [1200-03-09-.04(2)(a)4.]

- Inherent limitations
- Federally-enforceable limitations
Sources Requiring an Air Permit

1200-03-09-.01(1)(a) states:

Except as specifically exempted in Rule 1200-03-09-.04, no person shall begin the construction of a new air contaminant source or the modification of an air contaminant source which may result in the discharge of air contaminants without first having applied for and received from the Technical Secretary a construction permit or, if applicable, submitted a notice of intent and obtained a notice of coverage or authorization, for the construction or modification of such air contaminant source.
What sources cannot be exempt?

The permit exemptions in 1200-03-09-.04 do not apply to:

• Sources subject to Chapter 1200-03-11 (Hazardous Air Contaminants)
• Sources subject to Chapter 1200-03-18 (Volatile Organic Compounds)
• Sources subject to Chapter 1200-03-19 (Emission Standards and Monitoring Requirements for Additional Control Areas)
• Sources subject to Chapter 1200-03-22 (Lead Emission Standards)
• Sources subject to Chapter 1200-03-27 (Nitrogen Oxides)
• Sources subject to Chapter 1200-03-31-.05(2) (Case By Case Determinations of Hazardous Air Pollutant Control Requirements)
No emission unit or activity subject to a federally enforceable applicable requirement not included in 1200-03 or 0400-30 (other than generally applicable requirements of the state implementation plan) shall qualify as an insignificant emission unit or activity. [1200-03-09-.04(2)(c)]
Exempt Air Contaminant Sources

No person shall be required to obtain or file a request for a permit due to ownership, operation, construction, or modification of the following types of air contaminant sources:

- Any insignificant activity or insignificant emissions unit.
- The categorical emission units listed in 1200-03-09-.04(5)(f), excluding items 1 and 2.
- The emission units or activities listed in 1200-03-09-.04(5)(g).
- Any of the emission units or activities listed in 1200-03-09-.04(4)(d).
Any of the emission units or activities listed in 1200-03-09-04(4)(d).

- Also known as the “(d)” list
- These emission units or activities are not required to be listed in the construction or operating permit applications for the facility.
- List of 25 types of process units or activities, most have qualifiers
  - Maximum emission rates in pounds per hour or tons per year
  - Maximum capacities
The “(f)” List

The categorical emission units listed in 1200-03-09-.04(5)(f), excluding items 1 and 2.

• Also known as the “(f)” list
• These emission units or activities, with the exception of items 19 and 84, are not required to be listed in the construction or operating permit applications for the facility.
• List of 93 types of process units or activities (excluding items 1 and 2).
• With the exception of items 19 and 84, the emissions unit or activity must have a potential to emit less than 5 tons per year of each air contaminant and each regulated air pollutant that is not a hazardous air pollutant, and less than 1,000 pounds per year of each hazardous air pollutant.
The “(g)” List

The emission units or activities listed in 1200-03-09-.04(5)(g).

• Also known as the “(g)” list
• These emission units or activities are not required to be listed in the construction or operating permit applications for the facility.
• List of 53 types of process units or activities
Insignificant Activities and Emission Units

Any insignificant activity or insignificant emissions unit.

• Meets the criteria specified in 1200-03-09-.04(2)(a)3.
  – Potential to emit less than 5 tons per year of each air contaminant and each regulated air pollutant that is not a hazardous air pollutant
  – Potential to emit less than 1,000 pounds per year of each hazardous air pollutant

• In order to receive designation as an insignificant activity or insignificant emission unit, a written notification must be submitted to the Technical Secretary.
  – For new sources, the request must be made at least 30 days prior to the estimated starting date of construction.
  – For existing sources, the request can be made at any time.
Exceptions to the Exclusions from Exemption

“No emission unit or activity subject to a federally enforceable applicable requirement not included in 1200-03 or 0400-30”

On April 8, 2018, each of the three federal engine rules (60 Subparts IIII and JJJJ and 63 Subpart ZZZZ) were adopted into the state’s regulations under Tenn. Comp. R. & Regs. 0400-30, Chapters 38 and 39. Due to the combined change in language at 1200-03-09-.04(2)(c) and the adoption of 0400-30-38 and 0400-30-39, emergency engines that meet the potential to emit criteria can be designated as insignificant activities or emission units. They are also eligible for Permit by Rule.
Is My Emission Unit Exempt?

- [Insert Flow Chart]
My Emission Unit is Exempt - Now What?

• Prepare documentation to support your determination
  – Copies of vendor information, such as specification sheets, brochures, or stack test data
  – Brief description of emission unit or activity
  – Emission calculations
  – Identification of the specific rule citation that applies
• Retain copies of the documentation onsite and make them available for inspection, if requested
• Update your list of exempt or insignificant emission units
My Emission Unit is Insignificant - Now What?

• Prepare documentation to support your determination
  – Copies of vendor information, such as specification sheets, brochures, or stack test data
  – Brief description of emission unit or activity
  – Emission calculations
  – Identification of the specific rule citation that applies

• Submit a designation request to the Division
  – For new sources, at least 30 days prior to beginning construction
  – For existing sources, at any time

• Update your list of exempt or insignificant emission units
My Emission Unit Needs a Permit - Now What?

• Prepare construction permit application package, including:
  – Necessary application forms
  – Process flow diagram
  – Emission calculations
  – Vendor information, if needed
  – Permit application fee

• Submit signed application package electronically to Air.Pollution.Control@tn.gov

• Submit construction permit fee to: Division of Air Pollution Control, William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 15th Floor, Nashville, Tennessee 37243
The exemption provided for the air contaminant sources in 1200-03-09-.04 does not exempt the sources from inclusion in determining if a major stationary source or major modification construction permit is required under paragraphs (4) and (5) of Rule 1200-03-09-.01. [1200-03-09-.04(1)]

- Exempt and insignificant emission units or activities must be included in your facility-wide emission summary when you are making a determination of your source status.
- Exempt and insignificant emission units or activities must be included in your compliance determination if you are a conditional major source.
- Exempt and insignificant emission units or activities must comply with all applicable rules and regulations.
Is my emission unit exempt from permitting?

Review the “(d)” list at 1200-03-09-.04(4)(d).

Does your unit meet the qualifications of one of the 25 types of process units or activities listed?

Yes

A permit application is not required for this emission unit. It’s exempt from permitting.

No

Review the “(f)” list at 1200-03-09-.04(5)(f).

Does your unit meet the qualifications of one of the 93 types of process units or activities listed?

Yes

Is your unit one of the types listed in parts 19. or 84.?

Yes

The emission unit is categorically insignificant, however, it must be listed in any construction or operating permits for the facility.

No

Is the potential to emit for your emission unit less than 5 tons per year for each regulated air pollutant, or less than 1,000 pounds per year for each hazardous air pollutant?

Yes

A permit application is not required for this emission unit. It’s exempt from permitting.

No

Review the “(g)” list at 1200-03-09-.04(5)(g).

Does your unit meet the qualifications of one of the 53 types of process units or activities listed?

Yes

Yes

The emission unit is categorically insignificant, however, it must be listed in any construction or operating permits for the facility.

No

Is the potential to emit for your emission unit less than 5 tons per year for each regulated air pollutant, or less than 1,000 pounds per year for each hazardous air pollutant?

Yes

A permit application is not required for this emission unit. It’s exempt from permitting.

No

A permit application is required for your emission unit. Complete and submit the required forms and application fee.

Your emission unit qualifies for designation as an insignificant activity or insignificant emission unit. For new sources, a request for designation must be submitted to the Technical Secretary at least 30 days prior to the estimated starting date of construction. The request must include calculations and sufficient information to demonstrate insignificance.

For existing sources, the request for designation can be made at any time. The request must include calculations and sufficient information to demonstrate insignificance.

1 Paved and unpaved roads and parking areas are not generally considered for non-Title V sources, except for compliance with Tenn. Comp. R. & Regs. 1200-03-08 – Fugitive Dust.
Supplemental Information
AA  Atomic absorption
acfm  Actual cubic feet per minute
ACT  Alternative Control Techniques
ANSI  American National Standards Institute
AP-42  U.S. EPA's "Compilation of Air Pollutant Emission Factors"
AQI  Air Quality Index
ASIP  Association for Southeastern Integrated Planning
ASME  American Society of Mechanical Engineers
ASTM  American Society for Testing and Materials
AWMA  Air and Waste Management Association

B
BACT  Best Available Control Technology
BART  Best Available Retrofit Technology
Btu  British thermal unit

C
CAA  Clean Air Act
CAAA  Clean Air Act Amendments
CAAAC  Clean Air Act Advisory Committee
CAIR  Clean Air Interstate Rule
CAM  Compliance Assurance Monitoring
CAMR  Clean Air Mercury Rule (vacated)
CAMD  Clean Air Markets Division
CARB  California Air Resources Board
CEM  Continuous emission monitor
CEMS  Continuous emission monitoring system
CENRAP  Central States Regional Air Partnership
CENSARA  Central States Air Resource Agencies
CERCLA  Comprehensive Environmental Response, Compensation & Liability Act
CFC  Chlorofluorohydrocarbon
CFR  Code of Federal Regulations
CHIEF  Clearinghouse for Inventories and Emission Factors
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CKD</td>
<td>Cement kiln dust</td>
</tr>
<tr>
<td>CM</td>
<td>Conditional Major</td>
</tr>
<tr>
<td>CMS</td>
<td>Continuous monitoring system</td>
</tr>
<tr>
<td>CNG</td>
<td>Compressed natural gas</td>
</tr>
<tr>
<td>CO</td>
<td>Carbon monoxide</td>
</tr>
<tr>
<td>CO2</td>
<td>Carbon dioxide</td>
</tr>
<tr>
<td>CO2e</td>
<td>Carbon dioxide equivalent emissions</td>
</tr>
<tr>
<td>COM</td>
<td>Continuous opacity monitor</td>
</tr>
<tr>
<td>COMS</td>
<td>Continuous opacity monitoring system</td>
</tr>
<tr>
<td>CPMS</td>
<td>Continuous parameter monitoring system</td>
</tr>
<tr>
<td>CSAPR</td>
<td>Cross State Air Pollution Rule</td>
</tr>
<tr>
<td>CTG</td>
<td>Control Techniques Guideline</td>
</tr>
<tr>
<td>CVAAS</td>
<td>Cold vapor atomic absorption spectroscopy</td>
</tr>
<tr>
<td>DGM</td>
<td>Dry Gas Meter</td>
</tr>
<tr>
<td>DOE</td>
<td>U.S. Department of Energy</td>
</tr>
<tr>
<td>ECD</td>
<td>Electron capture detector</td>
</tr>
<tr>
<td>ECOS</td>
<td>Environmental Council of the States</td>
</tr>
<tr>
<td>EGR</td>
<td>Exhaust gas recirculation</td>
</tr>
<tr>
<td>EI</td>
<td>Emission Inventory</td>
</tr>
<tr>
<td>EIS</td>
<td>Environmental Impact Statement</td>
</tr>
<tr>
<td>ELCD</td>
<td>Electroconductivity detector</td>
</tr>
<tr>
<td>EMS</td>
<td>Environmental Management System</td>
</tr>
<tr>
<td>EPA</td>
<td>U.S. Environmental Protection Agency</td>
</tr>
<tr>
<td>ESP</td>
<td>Electrostatic precipitator</td>
</tr>
<tr>
<td>FESOP</td>
<td>Federally Enforceable State Operating Permit</td>
</tr>
<tr>
<td>FGD</td>
<td>Flue gas desulfurization</td>
</tr>
<tr>
<td>FID</td>
<td>Flame ionization detector</td>
</tr>
<tr>
<td>FIP</td>
<td>Federal Implementation Plan</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>FLM</td>
<td>Federal Land Manager</td>
</tr>
<tr>
<td>FPD</td>
<td>Flame photometric detector</td>
</tr>
<tr>
<td>FR</td>
<td><strong>Federal Register</strong></td>
</tr>
<tr>
<td>G</td>
<td><strong>Generally Available Control Technology</strong></td>
</tr>
<tr>
<td>GACT</td>
<td>Generally Available Control Technology</td>
</tr>
<tr>
<td>GC</td>
<td>Gas chromatography</td>
</tr>
<tr>
<td>GC/MS</td>
<td>Gas chromatography/mass spectrometry</td>
</tr>
<tr>
<td>GFAA</td>
<td>Graphite furnace atomic absorption</td>
</tr>
<tr>
<td>GHG</td>
<td>Greenhouse gas</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographic information system</td>
</tr>
<tr>
<td>GWP</td>
<td>Global Warming Potential</td>
</tr>
<tr>
<td>H</td>
<td><strong>Hazardous air pollutant</strong></td>
</tr>
<tr>
<td>HAP</td>
<td>Hazardous air pollutant</td>
</tr>
<tr>
<td>HBCA</td>
<td>Health Based Compliance Alternative (MACT-related)</td>
</tr>
<tr>
<td>HC</td>
<td>Hydrocarbon</td>
</tr>
<tr>
<td>HHV</td>
<td>Higher Heating Value</td>
</tr>
<tr>
<td>HQ</td>
<td>Hazard quotient</td>
</tr>
<tr>
<td>HON</td>
<td>Hazardous Organic NESHAP</td>
</tr>
<tr>
<td>I</td>
<td>Inspection and maintenance</td>
</tr>
<tr>
<td>I/M</td>
<td>Inspection and maintenance</td>
</tr>
<tr>
<td>IAQ</td>
<td>Indoor air quality</td>
</tr>
<tr>
<td>IGCC</td>
<td>Integrated gasification combined cycle</td>
</tr>
<tr>
<td>IR</td>
<td>Infrared radiation</td>
</tr>
<tr>
<td>IRM</td>
<td>Instrumental reference method</td>
</tr>
<tr>
<td>ISO</td>
<td><strong>International Organization for Standardization</strong></td>
</tr>
<tr>
<td>L</td>
<td><strong>Lowest Achievable Emission Rate</strong></td>
</tr>
<tr>
<td>LAER</td>
<td>Lowest Achievable Emission Rate</td>
</tr>
<tr>
<td>LEV</td>
<td>Low emission vehicle</td>
</tr>
<tr>
<td>LCGCC</td>
<td>Legislative Commission on Global Climate Change</td>
</tr>
<tr>
<td>LHV</td>
<td>Lower Heating Value</td>
</tr>
</tbody>
</table>
LME  Low mass emissions
LNG  Liquefied natural gas
LPG  Liquefied petroleum gas

M

MACT  Maximum Achievable Control Technology
MANE-VU  Mid-Atlantic / Northeast Visibility Union
MARAMA  Mid-Atlantic Regional Air Management Association
MIDWEST RPO  Midwest Regional Planning Organization
MOA  Memorandum of Agreement
MOU  Memorandum of Understanding
MON  Miscellaneous Organic NESHAP
MSA  Metropolitan Statistical Area
MSDS  Material Safety Data Sheet
MSW  Municipal solid waste

N

NA  Non-attainment
NA-NSR  Non-attainment New Source Review
NAAQS  National Ambient Air Quality Standards
NACAA  National Association of Clean Air Agencies
NAICS  North American Industry Classification System
NDIR  Nondispersive infrared spectroscopy
NEI  National Emissions Inventory
NESCAUM  Northeast States for Coordinated Air Use Management
NESHAP  National Emissions Standards for Hazardous Air Pollutants
NIST  National Institute of Standards and Technology
NO  Nitric oxide
NO2  Nitrogen dioxide
NOx  Nitrogen oxides
NPDES  National Pollutant Discharge Elimination System
NPS  National Park Service
NSPS  New Source Performance Standards
NSR  New Source Review
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>O₃</td>
<td>Ozone</td>
</tr>
<tr>
<td>OAQPS</td>
<td>Office of Air Quality Planning and Standards (EPA)</td>
</tr>
<tr>
<td>OAR</td>
<td>Office of Air and Radiation (EPA)</td>
</tr>
<tr>
<td>OBD</td>
<td>Onboard diagnostics</td>
</tr>
<tr>
<td>OEM</td>
<td>Original equipment manufacturer</td>
</tr>
<tr>
<td>OGC</td>
<td>Office of General Counsel</td>
</tr>
<tr>
<td>OMB</td>
<td>Office of Management and Budget</td>
</tr>
<tr>
<td>ORD</td>
<td>Office of Research and Development (EPA)</td>
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<tr>
<td>OSHA</td>
<td>U.S. Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>OTAG</td>
<td>Ozone Transport Assessment Group</td>
</tr>
<tr>
<td>OTR</td>
<td>Ozone Transport Region</td>
</tr>
<tr>
<td>P2</td>
<td>Pollution prevention</td>
</tr>
<tr>
<td>Pb</td>
<td>Lead</td>
</tr>
<tr>
<td>PBR</td>
<td>Permit-by-Rule</td>
</tr>
<tr>
<td>PM</td>
<td>Particulate matter</td>
</tr>
<tr>
<td>PM10</td>
<td>Particulate matter with diameter of 10 microns or less</td>
</tr>
<tr>
<td>PM2.5</td>
<td>Particulate matter with diameter of 2.5 microns or less</td>
</tr>
<tr>
<td>POM</td>
<td>Polycyclic organic matter</td>
</tr>
<tr>
<td>POTW</td>
<td>Publicly owned treatment works</td>
</tr>
<tr>
<td>ppb</td>
<td>Parts per billion</td>
</tr>
<tr>
<td>ppm</td>
<td>Parts per million</td>
</tr>
<tr>
<td>PS</td>
<td>Performance Specification</td>
</tr>
<tr>
<td>PSD</td>
<td>Prevention of Significant Deterioration</td>
</tr>
<tr>
<td>PTE</td>
<td>Potential to Emit</td>
</tr>
<tr>
<td>QA</td>
<td>Quality assurance</td>
</tr>
<tr>
<td>QC</td>
<td>Quality control</td>
</tr>
<tr>
<td>QIP</td>
<td>Quality Improvement Plan</td>
</tr>
<tr>
<td>RACT</td>
<td>Reasonably Available Control Technology</td>
</tr>
</tbody>
</table>
RATA  Relative accuracy test audit
RBLC  RACT/BACT/LAER Clearinghouse
RCRA  Resource Conservation and Recovery Act
RFG  Reformulated gasoline
RFP  Reasonable further progress
RICE  Reciprocating Internal Combustion Engine
ROG  Reactive organic gas
RPO  Regional Planning Organization
RVP  Reid vapor pressure

S

SAE  Society of Automotive Engineers
scfm  Standard cubic feet per minute
SCR  Selective catalytic reduction
SIC  Standard Industrial Classification
SIP  State Implementation Plan (link to Tennessee’s SIP)
SNCR  Selective noncatalytic reduction
SO2  Sulfur dioxide
SOP  Standard operating procedure
SOP  Service of process
SOx  Sulfur oxides

T

T5 or TV  Title V
TAC  Toxic air contaminant
TCC&I  Tennessee Chamber of Commerce and Industry
TCR  The Climate Registry
TIP  Tribal Implementation Plan
tpd  Tons per day
tpy  Tons per year
TRI  Toxic Release Inventory
TSDF  Treatment, storage, and disposal facility
TSP  Total suspended particulate matter
TTN or TAPR  Technology Transfer Network now Technical Air Pollution Resources

U
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>URP</td>
<td>Uniform Rate of Progress (regional haze)</td>
</tr>
<tr>
<td>UST</td>
<td>Underground storage tank</td>
</tr>
<tr>
<td>UV</td>
<td>Ultraviolet radiation</td>
</tr>
<tr>
<td>UV-DOAS</td>
<td>Ultraviolet dual optical absorption spectrometry</td>
</tr>
<tr>
<td>VIEWS</td>
<td>Visibility Information Exchange Web System</td>
</tr>
<tr>
<td>VISTAS</td>
<td>Visibility Improvement State &amp; Tribal Association of the Southeast</td>
</tr>
<tr>
<td>VMT</td>
<td>Vehicle miles traveled</td>
</tr>
<tr>
<td>VOC</td>
<td>Volatile organic compound</td>
</tr>
<tr>
<td>VOST</td>
<td>Volatile organic sampling train</td>
</tr>
<tr>
<td>WESTAR</td>
<td>Western States Air Resources Council</td>
</tr>
<tr>
<td>WRAP</td>
<td>Western Regional Air Partnership</td>
</tr>
<tr>
<td>ZEV</td>
<td>Zero emission vehicle</td>
</tr>
</tbody>
</table>
Travis Blake (Central Office, 15th floor)
Environmental Consultant
Air Pollution Control Division
Emission Inventory and Special Projects Program
(615) 532-0617 Travis.Blake@tn.gov

Travis Blake obtained his BS in chemistry from East Tennessee State University in 1992, and he graduated from Tennessee Tech in 1999 with a degree in chemical engineering. Travis has worked for the Division since 2002, and he works in the Emission Inventory and Fees section and with the permit program and regulatory development groups (permitting for chemical manufacturing and electric utilities and various SIP issues).

Martie L. Carpenter (Knoxville EFO)
Deputy Director for Field Services
Air Pollution Control Division
(865) 594-5566 Martie.Carpenter@tn.gov

Martie is the Deputy Director for Field Services for the division. In this role, Martie is responsible for thirty-two staff members in seven environmental field offices across the State. Staff members in these offices are primarily responsible for conducting compliance inspections on regulated facilities, operating and maintaining the state’s ambient air monitoring network and investigating air-related complaints.

Martie started her career in 1992 with the Division as an inspector in the Knoxville field office, conducting source inspections, operating and maintaining the ozone monitors in the KFO region, and investigating complaints. Martie is a 1992 graduate of East Tennessee State University, and has a Bachelor of Science degree in Environmental Health.

Daniel Chuquin (Central Office, 2nd Floor)
Environmental Consultant, Outreach Specialist
Tennessee Office of External Affairs, Small Business Environmental Assistance Program
(615) 532-8006 Daniel.Chuquin@tn.gov

Daniel Chuquin has a multidisciplinary education in fields including ecology, conservation biology, urban planning, and water resources engineering. He holds a B.S. in Environmental Studies from Randolph-Macon College (2004), a Graduate
Certification in Geographic Information Systems from Virginia Commonwealth University (2009), and completed select undergraduate & graduate courses at Virginia Polytechnic Institute and State University while working for the Department of Biological Systems Engineering (2009-2012). Daniel joined the Small Business Environmental Assistance Program in the spring of 2018 and has been working closely with Donovan Grimwood to improve the outreach element of the program. Daniel previously worked as a natural resources consultant in the Commonwealth of Virginia.

**Lacey J. Hardin** (Central Office, 15th floor)
Environmental Consultant
Air Pollution Control Division
Permitting and Regulatory Development Programs
(615) 532-0545 Lacey.Hardin@tn.gov

Lacey Hardin is a graduate of Tennessee Technological University with a degree in chemical engineering, and she received the Engineer-in-Training Certification in 1987. She began working for the Division of Air Pollution Control in the Air Resources Program in 1988, working with infectious waste incinerators. In 1992 she moved to the Operating Permits Program and assisted with development of the Title V Program. In 2004 she assumed the position of Environmental Protection Specialist VII. With the advent of the dual career track (technical vs. managerial) at TDEC, Lacey elected to concentrate her time on the technical side and is now a TDEC Environmental Consultant 4. She is the lead technical adviser for members of the permitting and regulatory development programs. Lacey is a national member of the Air and Waste Management Association. She and her husband have two married daughters and one granddaughter.

**James P. Johnston, P.E.** (Central Office, 15th floor)
Air Pollution Control Division
Deputy Director for Permitting and Regulatory Development
(615) 253-7319 James.Johnston@tn.gov

Jimmy Johnston is a Deputy Director with the Tennessee Division of Air Pollution Control. The Tennessee Division of Air Pollution Control’s mission is to maintain and improve air quality to protect the health and welfare of Tennesseans through monitoring, regulatory activities, and education in a manner that promotes maximum employment and economic growth. Jimmy’s particular role is to ensure that correct, clear, and enforceable air quality permits are issued within regulatory time frames and to develop air quality plans and regulations that meet air quality standards with minimal impact on the regulated community. Jimmy is currently leading efforts to improve efficiency and consistency within the permitting and regulatory programs that will benefit both TDEC and its customers. Jimmy joined the TDEC after a 31 year career with the Georgia Environmental Protection Division where, among other things, he managed the agency’s permitting, regulatory development, financial management, and air toxics programs. He
has a degree in Chemical Engineering from Georgia tech and is a registered PE in the states of Georgia and Tennessee.

**Tawanna Reid** (Knoxville EFO)
Environmental Consultant
Air Pollution Control Division
Permitting Program: Chemicals, Food, and Wood Products Section
(865) 594-5459 Tawanna.Reid@tn.gov

Tawanna is a graduate of Clemson University with a degree in Industrial Engineering. She currently works in the Knoxville Field Office as an Environmental Consultant. Tawanna has eleven years of multi-state air permitting experience with Tennessee and South Carolina. She enjoys visiting sites; learning the various operations, as well as working alongside facilities to meet their needs. Prior to air permitting, Tawanna worked in the private sector for seven (7) years in food manufacturing. Outside of work, she enjoys exercising, exploring attractions in East Tennessee, and spending time with family and friends.

**Jeryl W. Stewart** (Central Office, 15th floor)
Environmental Consultant
Air Pollution Control Division
Compliance Validation Program
(615) 532-0605 Jeryl.Stewart@tn.gov

A native of Middle Tennessee, Jeryl Stewart has a B.S. in Chemistry from Middle Tennessee State University. He has been with the Air Pollution Control Division since 1972, and has always worked with stack testing and compliance issues. He is currently an Environmental Consultant with the Compliance Validation Program.

**Jerry T. Swinea** (Central Office, 15th floor)
Environmental Protection Specialist
Air Pollution Control Division
Permitting Program, Metal and Paper Section
(615) 532-0639 Jerry.Swinea@tn.gov

Jerry Swinea has been employed with the Tennessee Department of Environment and Conservation since 1993, from 1993 until June 1999 with Water Pollution Control. He has been with the Division of Air Pollution Control June 1999. He received a B. S. degree in Civil Engineering from Tennessee Tech, and is currently a permit writer in the West Tennessee Permit Program. He has worked in air permitting since joining APC. He has prepared PSD, Title V and Conditional Major permits for various sources, and is a Southern Section member of the Air and Waste Management. Jerry and his wife Amy reside in Nashville, Tennessee and have two children.
Julie Verissimo (Central Office, 15th floor)
Environmental Consultant
Air Pollution Control Division
Permitting Program, Surface Coating and Combustion Section
(615) 532-0582 Julie.Verissimo@tn.gov

Julie Verissimo has over 22 years of environmental permitting and consulting experience in both the public and private sector. After receiving her B.S. degree in chemical engineering from Tennessee Technological University in 1996, she worked as the Pretreatment Coordinator for the City of Randleman, North Carolina. She moved back to Tennessee in 1999 and began working for the Division of Air Pollution Control, where she was a permit writer for more than 8 years. She left the Division in 2007 to work as an environmental consultant. After more than eleven years as a consultant, working primarily on air permitting and compliance issues for facilities in more than 25 states and multiple local program areas, Julie returned to the Division and now serves as environmental consultant and permit reviewer for the Surface Coating and Combustion Permitting Section.