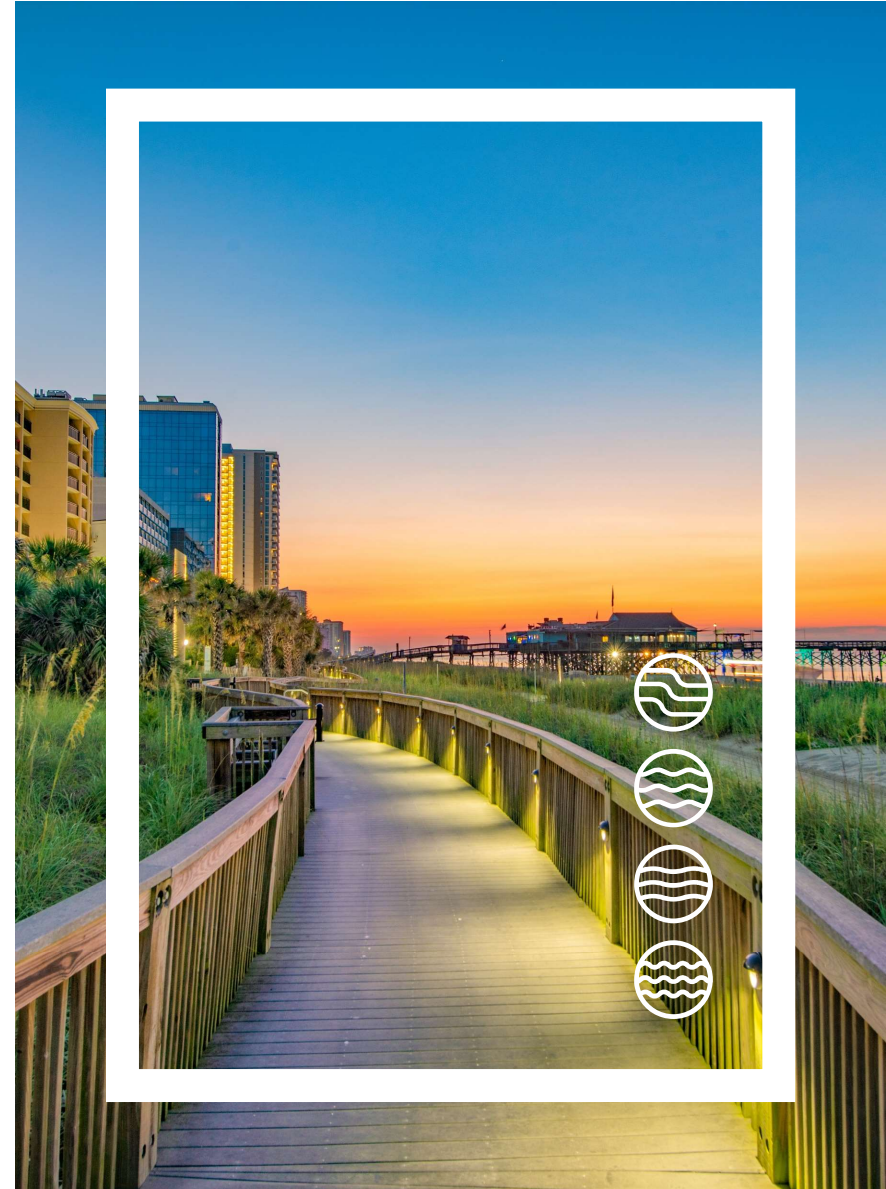




SC DEPARTMENT *of*
**ENVIRONMENTAL
SERVICES**

Emissions Inventory Webinar

2024 Inventory and SLEIS Refresher
February 13, 2025





Agenda

- Welcome
 - What's New/Updates
 - Inventory Reporting Requirements
 - Inventory & SLEIS
 - Wrap up
-

Welcome

Webinar

- 'Meeting'-style format – more interactive
- Very low delay
- Recording should be accessible by attendees up to 120 days after webinar (please allow several minutes after webinar ends for Teams to process video file)
- Use the Chat, QA feed, or send questions to: ei_submittals@des.sc.gov
- Materials (powerpoint) will be posted to EI webpage (<https://des.sc.gov/programs/bureau-air-quality/emissions-inventory>)

Welcome - continued

Scope of webinar

- Overview/what's new for 2024 inventories and SLEIS
- Use SLEIS training videos for “how-to” lessons on navigating SLEIS screens (<https://www.youtube.com/playlist?list=PLqGWmyz3QMps1NO4OioA9-X6QXJVGluR4> OR go to www.youtube.com/scdhec and look for SLEIS in SCDHEC's playlists)
 - Even though SCDHEC has split into SC Dept of Public Health and SC Dept of Env Services, the historical youtube channel remains as “SCDHEC”

What's New/Updates

- ePermitting – SLEIS integration – on hold
- Inventory Due notice on dashboard in ePermitting
- We also sent notification emails manually – coming to the end of manual notifications
- We will make the scheduled submission for you in ePermitting after you electronically sign/submit in SLEIS and we determine submittal completeness
 - Please do not make a submission in ePermitting for your Emisions Inventory! We will do it for you!

What's New/Updates - continued

- Process for updating Facility EI/billing contacts
 - Facilities maintain their own contact info in ePermitting
- New SLEIS version 3.2.5 – most changes are in the background

What's New/Updates - continued

- Issued Title V invoices in late January (22nd)
- TV bills in ePermitting – dashboard and e-perm auto notification emails
- No hardcopy mail
- Can pay online in ePermitting or des.sc.gov
- Can also mail paper check
- Sending TV invoices in January allows for billing to be based on latest reviewed inventory
 - Billable emissions are provided when our review of your inventory is completed

Inventory Reporting Requirements

- Title V Facilities submit their Emissions Inventories on a schedule based on the POTENTIAL amounts of pollutants emitted
- Potential emissions listed in Statement of Basis for your TV permit and unincorporated construction permits
- Inv Type A Sources – submit every year:
 - SO_x, NO_x, CO ≥ 2500 tons/yr,
 - VOC, PM₁₀, PM_{2.5}, NH₃ ≥ 250 ton/yr
- All other Title V Sources – submit every 3 years (2014 data, 2017 data , 2020 data, 2023 data, etc.)

How do I get started?

- Must have Authorized Users in ePermitting for your Air Facility
 - We pulled list of ePermitting Authorized Users on 1-6-2025
 - We manually create users in SLEIS and attach them to their applicable facilities (i.e., not automatic flow from ePermitting)
 - You will need to let us know (ei_submittals@des.sc.gov) if you have added anyone since 1-6-2025 that also need SLEIS access
 - We will add them to SLEIS once they have accepted invitation in ePermitting
- All 2024 inventory stubs have been created – you can start now!

Getting Started – don't forget

- Notes, Notes, Notes!
 - Make note of non-standard decisions
 - When you accounted for an emission elsewhere
 - Something temporarily didn't operate, etc.
- Helps us understand what you did
- Use Comments sections in SLEIS – multiple locations/opportunities
- Anything helps – bullet lists, etc., doesn't have to be complicated
- Notes are in addition to Supporting Documentation
 - Source/Stack Test and other manual calcs – don't forget documentation/example/supporting calcs!

Getting Started – don't forget

- SLEIS tables: Factor Table, SCC listing
 - Have been refreshed for 2024 data year
 - Combined 'Reference Tables' workbook – combines SCCs, factor table, and a few code-lookup tables into one excel workbook
 - Download from SLEIS homepage
- Confidential – two copies of supplemental info: public & conf
 - Confidential flag only exists on Process Emissions level
 - Setting confidential flag to 'yes' prevents the emission factor and throughput from being made public
- Contact us if you have questions

Inventory

- Get your permits - active operating and any construction permits not incorporated in TV which operated during reporting year (2024)
- SLEIS reports
- Any reports and/or supplemental sheets from last inventory review (i.e., 2023, etc.)
 - Contact you inventory reviewer if you need help with any of these.

Facility General

- Updates are currently not allowed on SLEIS Facility General screen
- Facility contact information is updated by you in ePermitting
- We cannot update SLEIS while you are working on inventory
- Let us know of any changes and we will update after submission during our review of your inventory and provide a 'final' report for your review

Inventory – what to report?

- All permitted Emission Units
- All associated processes
- All regulated pollutants
- All Insignificant Activities (at least once)

Inventory – what to report? - HAPs/TAPs

Report if you emit any of these HAPs at any level (HAPs of Primary Concern):

- <https://des.sc.gov/sites/des/files/docs/Environment/docs/HAPs%20of%20Primary%20Concern.pdf>

All other HAPs and TAPs should be reported if the facility wide total of that HAP or TAP exceeds 200 lbs

- <https://www.epa.gov/haps/initial-list-hazardous-air-pollutants-modifications>
- <https://des.sc.gov/permits-regulations/laws-regulations-regulatory-updates/regulations-table>

All HAPs/TAPs are reported at the Process Emissions Level – no facility-level reporting available

Inventory – what to report? - HAPs/TAPs

Toxic Release Inventory:

- Check your amounts reported to TRI vs EI
- TRI should be close/equal to EI where practical
- We realize that there are some de minimis reporting levels for TRI
- EPA asks us for explanation when TRI is significantly different from EI !!

Emission Units

- Reported in terms of your current permit
- Be sure to review EU Type code in SLEIS – change/update accordingly
- Operating Status/Status Date – be careful if EU shutdown in EI year or prior

Fuel Burning

- Remember to enter fuel amounts in appropriate throughput units, i.e. kgal, mmcf, tons, mmbtu
- Throughput units are driven by SCC and are found in the emission factor table!
- Factors in SLEIS are dependent on SCC units – important!
- Multiple factors – specific to boiler type, burner type, etc. – Multiple factors are in SLEIS – use factor spreadsheet as guide

Evaporative Loss

- Painting, coating, cleaning operations, etc.
- Calculate emissions using the material balance method
- Spreadsheets, supporting docs – attach in SLEIS
- HAP/TAPs...
- Make sure your TRI emissions are in sync with your Emission Inventory emissions!!!

Storage Tanks

When is detailed storage tank information needed?

- Tank's capacity is greater than 38.7 cubic meters (10,000 gallons), or
- Stores a hazardous air pollutant, or
- Emits one or more HAPs

Detailed storage tank information is **not** needed for:

- Pressurized storage tanks containing fluids such as liquid petroleum gas (LPG), liquid natural gas (LNG), natural gas, or inert gases

Storage Tanks

Tank emissions can be estimated using EPA program TANKS 5.1

- Based on the emission estimation procedures from Chapter 7 of EPA's AP-42
- <https://www.epa.gov/air-emissions-factors-and-quantification/emissions-estimation-tools>
- If you wish to use other tank estimation software methods, please ensure calcs are based on AP-42 Chapter 7 algorithms
- Can do manual calcs with AP-42 Chapter 7 algorithms if desired

Other Source Types

Landfill calculations:

- Use LandGEM model and formulas in AP-42 Chapter 2.4

Wastewater Calculations

- Use Water9 model

For software tools, see: <https://www.epa.gov/air-emissions-factors-and-quantification/emissions-estimation-tools>

Insignificant Activities

- Traditionally were listed on your Title V Permit
- Newer permits do not list Insignificant Activities but contain requirement for you to maintain an IA list onsite and make it available upon Department request.
- You must submit that list with your supporting docs! (can be attached electronically in SLEIS – preferred)

Insignificant Activities - continued

- Emissions from all Insignificant Activities must be reported at least once
 - If all not previously reported, need to report missing IAs in this Inventory
 - Ask us if you are unsure
 - Make notes! It helps both of us in future inventory reviews
- You may update IA process rates and/ or emissions if you desire

Calculations

- Rule effectiveness/control device downtime – take into account when control equipment did not operate as designed – contact EI staff if you have questions
- Emission estimates are required for all regulated air pollutants, including but not limited to: criteria, 112R, HAP, and TAP pollutants
- Include any regulated pollutants in your calculations that have been missed in past inventories

Calculations - continued

The order of preferred methods from BEST to LEAST desirable are:

- Material balance calculations (method code 3)
- Continuous Emissions Monitor (CEM) data (method code 1)
- Bureau approved and reviewed source test emission factors (method codes 4, 10 (MATS))
- AP-42, FIRE, or RICE Emission factors (method codes 8_0, 9, 29)
- In-house source test (method code 2)
- Other (method codes 12, 32)

Method Code 10 - MATS

Applicable if you have a factor derived from a Bureau-approved MATS (Mercury and Air Toxics Standard) source test

- Mainly applicable to EGUs
- You will need to enter the pollutant emission factors in SLEIS
- Preferably, throughput units and factor units must match
- If they don't, use EF Unit code "Other - Non Standard Units", enter the factor AND your manually calc'd emissions tonnage
- Use Comment field to give actual factor units and test date

Stationary RICE – factors and emissions

Optional procedure to estimate emissions from Stationary Reciprocating Internal Combustion Engines

- Choose factors from AP-42 or 40 CFR 60/63
- Spreadsheet Tool developed to help pick pollutants/factors
- Companion document to explain intricacies
- See the following for tool and details: <https://des.sc.gov/programs/bureau-air-quality/air-quality-compliance-monitoring/emissions-estimating-tools>

Stationary RICE – factors and emissions

If you use the 40 CFR 60 factors you must:

- Enter the pollutant/factor(s) in SLEIS manually (Process Emissions)
- Include HAP compliment
- Use Method Code 8_0
- Enter throughput with same units as factor(s) (i.e., lb/MMBTU or lb/HP-hr)
- All pollutants/factors for the process must use the same throughput units, i.e. lb/MMBTU or lb/HP-hr – no mixed units within polls/factors per process

Method Code 4 – Source Test

- Emissions were calc'd based on the results of a Bureau-reviewed source test. Source test emission factors from a source test should be based on emission-per-throughput rate units where possible (i.e. lb/ton, lb/million BTU, etc.) and not a lb/hr factor
 - PM-FIL vs. PM-CON vs. PM-TOT
- Use factor result from most recent source test for entire calendar year
 - Simplified approach vs. previous inventory years
 - Can still average if desired; explain in Supplemental Documentation
- Calculations must be supplied, and the date of the source test(s) being used must be indicated
 - Also, its good to use comments sections in Process Emissions and Process Emissions-pollutant
- Spreadsheets, word files, etc. ok – attach in SLEIS

Common issues and tips

Common slip-ups to watch out for:

- Re-check your throughput values especially for fuels
 - Decimal place errors cause big swings in emissions; MCF vs MMCF
- If process has PM-fil, it must also have at least PM10-fil as well; if possible, PM2.5-fil also
 - PM2.5-fil should not be > PM10-fil, and PM10-fil should not be > PM-fil
 - Conversely if a process has PM10-fil/PM2.5-fil it must also have PM-fil/PM10-fil
- Total metals in process should be < total PM-fil in process

Common issues and tips

- VOC total per process must be equal or greater than sum of all VOC compounds in process
 - Same rule for facility-wide VOCs
- If Insignificant Activity has no regulated pollutants (i.e., water tank, etc.) please let us know so we won't continue to ask about it
- Do "sanity check" on overall emissions to uncover obvious data entry errors
 - Please explain any valid large swings vs. previous inventories
 - Use the new compare reports
- Please explain/comment processes that are temporarily shutdown vs. permanently shutdown

More thoughts...

- Emission units, release points, controls, etc. on your current permit that are not listed in SLEIS must be added to the SLEIS database
 - Contact your individual emissions inventory reviewer if you have questions
- Ammonia, condensable organics, and organic and elemental carbon are precursors to PM 2.5
 - Report any Ammonia, PM 2.5, or its precursors
- If H₂S, DMS, DMDS, or methyl mercaptan reported, should also be summed and entered as TRS for tracking purposes. (only applies to pulp-and-paper facilities. TRS is a pulp-and-paper pollutant only)
- DMS, DMDS, and methyl mercaptan should also be included in total VOC since they are VOCs

Wrap Up – don't forget

A complete submittal:

- Supporting Documentation/calcs – attach in SLEIS - preferred
- List of Insignificant Activities – attach in SLEIS - preferred
- Electronic Signature/Submission completed in SLEIS
- The Supp Docs and Insig Acts list should be attached in SLEIS *BEFORE* electronic signature

Inventory submittal is not considered complete and on-time unless all items have been received by us (or postmarked) by due date: March 31, 2025.

Resources

- EIIP Documents, AP-42 and other EPA estimating tools may be accessed at:
 - <http://www.epa.gov/chief>
- BAQ-EI webpage:
 - <https://des.sc.gov/programs/bureau-air-quality/emissions-inventory>
- SLEIS Homepage:
 - <https://sleisprod.dhec.sc.gov>
- SLEIS Training Videos:
 - <https://www.youtube.com/playlist?list=PLqGWmyz3QMps1NO4OioA9-X6QXJVGlUR4>
- NIST Chemistry Web Book
 - <http://webbook.nist.gov/chemistry>
- EPA's Substance Registry System
 - <http://www.epa.gov/srs>

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