

SLEIS Data Validation & Quality Control (QC)

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SLEIS Data Validation

Data Validation Within SLEIS

- SLEIS has some data validation built into the application
 - This takes place on individual pages as you save & during a final validation before submitting
- There should be fewer validation issues with 2020 reports than 2019 reports
 - If you didn't report in 2019 (ie. PBRs) there will be more validation issues

Release Points

Release Point Stack Diameter, Flow Rate and/or Velocity are Invalid

- SLEIS validates the calculation for flow rate or velocity; based on entered information
- SLEIS will auto-calculate as you fill in the information; you can overwrite these but they must pass validation
- Exit Gas Velocity = flowrate (acfm) / (pi x (diameter/2)**2 x 60)
- Make sure to choose the correct units!!

Release Point Exit Gas Flow Rate or Exit Gas Velocity is Required

- One or both of these must be reported; can not be 0
 - If you only report one, SLEIS will auto-fill the other
 - Additionally, you can type both in

Stack Height:	8.0	FEET
Stack Shape:	<input checked="" type="radio"/> Circular <input type="radio"/> Rectangular	
Stack Diameter:	0.30	FEET
Exit Gas Temp:	930	°F
Exit Gas Flow Rate:	534	ACFM - ACTUAL CUBIC FEET PER MINU ▼
Exit Gas Velocity:	125.9	FPS - FEET PER SECOND ▼

Control Devices

Control Device Pollutant Reduction Efficiency Must Be $\geq 5\%$ and $\leq 99.99\%$

- Control devices were often reported incorrectly in the past with incorrect/missing efficiencies
- These must be reported within the 5%-99.99% range
 - The pollutants can be removed from the control device or moved to another control device if they shouldn't be associated with that device

Control Device Pollutant Reduction Efficiency is Required

- It was acceptable in the previous reporting system that if the factor included the control efficiency, then no efficiency needed to be reported.
 - That is *not* the case with SLEIS, an efficiency must *always* be reported
- SLEIS will not save the page without an efficiency reported

Control Measure:		
203 - Catalytic Converter		
Controlled Pollutants:		
NOX	80.00 %	Nitrogen Oxides (NOx) expressed as NO2

Unit Processes

Unit Process Control Device Efficiency Must Not Exceed 100% Within a Given Sequence

- This issue deals with control devices but is found on the unit process page
- Control devices can now be set in sequence
 - This issue occurs when control devices in the same sequence & their efficiencies add to >100%
 - If this were the case there would be no emissions; totally controlled

Unit Process Control Device Efficiency Must Not Exceed 100% Within a Given Sequence (cont.)

Control Devices

Control Device:	Sequence:	Capture (%)	Uptime (%)
151435 - Low Excess Air Firing Pr	1	100.0	100.0
151436 - Dry Limestone Injection	2	100.0	100.0
151440 - Fabric Filter / Baghouse	3	100.0	100.0
151441 - Fabric Filter / Baghouse	4	100.0	100.0

Cancel Save

Control Devices

Control Device:	Sequence:	Capture (%)	Uptime (%)
151435 - Low Excess Air Firing Primary 1C	1	100.0	100.0
151436 - Dry Limestone Injection Primary	1	100.0	100.0
151440 - Fabric Filter / Baghouse Primary	2	100.0	100.0
151441 - Fabric Filter / Baghouse Seconda	3	100.0	100.0

Unit Process Control Device efficiency must not exceed 100% within a given sequence.

Unit Process Control Device efficiency must not exceed 100% within a given sequence.

Cancel Save

Process Emissions

Process Emission Operations Actual Hours Must Be Within 90%-110% of Calculated Total

- SLEIS validates that average days/week, Hours/day, & weeks/year calculate to match reported actual hours/year
- SLEIS will auto-fill the actual hours/year based on inputs
 - You can overwrite this but it must still pass validation

Process Emission Operations Actual Hours Must Be Within 90%-110% of Calculated Total (*cont.*)

- You will not be able to save the process emissions information until the validation is satisfied
- If the process had no hours (did not operate at all), uncheck the “Process Is Reported?” box on the “Process” tab

Process Emissions

Process

Operations

Emissions

Process Identifier:

310580 - Natural Gas - General

Emission Unit Identifier:

184727 - CO2 Plant EUG-3

SCC:

39000699

Industrial Processes-In-process Fuel Use-Natural Gas-General

? Process is Reported?:

Uncheck this box if there are no reportable emissions for the reporting year

Quality Control (QC) by DEQ Emissions Inventory Section

Control Devices

- Many controls were cleaned up in the 2019 reports but many still need to be addressed
- Pay extra attention to how control devices & calculations interact
 - We saw many instances where a pollutant was reported with a “No Control” calculation method but was tagged as controlled at the control device
 - If pollutant is controlled, use pre- or post- control EF
 - If not controlled, remove pollutant from control device

Significant Change in Emissions From Previous Reporting Year

- Often, we see emissions at an emission unit increase or decrease significantly without any significant changes in throughput or operating time
 - If you have excess emissions, the report them in your emissions inventory
- We email companies to verify that the emissions are accurate and if so to explain the change in emissions
 - Typos are often encountered in this check
- Providing a detailed note helps us validate these situations!

“DEQ Approved Method”

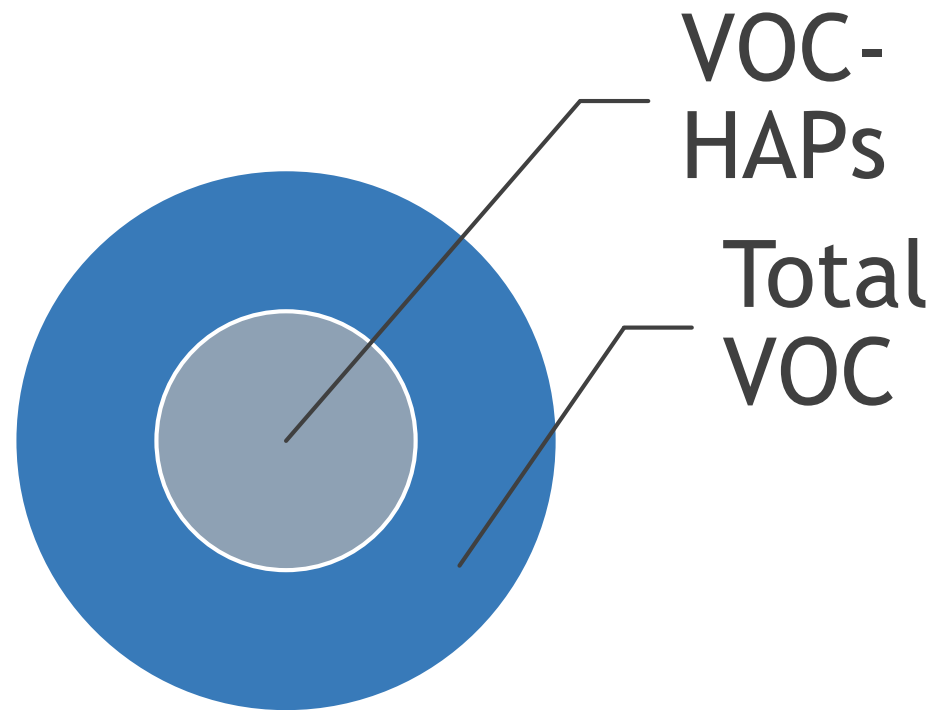
- “DEQ Approved Method” should only be selected if no other calculation method is available
- A comment should be added to instances where “DEQ Approved Method” is chosen
- Remember, you have to get DEQ approval before selecting this method!

HAPs & Total VOC

- Volatile Organic Compounds (VOCs) are organic compounds that contain carbon and react in the presence of sunlight with NO_x to form ozone
- Hazardous Air Pollutants (HAPs) are compounds that have been included on EPA's list of 187 pollutants that can have a detrimental effect on humans and the environment
 - Many HAPs are also VOCs
 - Both HAPs & Total VOC must be reported
 - You will not be double billed!

HAPs & Total VOC (*cont.*)

- Total VOC amount should be greater than or equal to the total of the individual HAPs



Inconsistent Statuses

- If an emission unit is Operating...
 - Annual process rate & annual operating hours cannot be 0; required if reporting emissions
 - If emission unit is operating but emissions are below the reporting threshold, use the “Process is Reported?” box discussed earlier

Inconsistent Statuses (*cont.*)

- If the equipment ran more than 0 hours at any point in the year status must be Operating!!
- SLEIS does not validate inconsistent statuses across pages, the user must pay attention to these!
 - Example: if you change a release point to TS, you must also go set any emission units, control devices, & processes as well

Status Dates

- Status Date
 - *“When the emission unit/release point/control device status was last set. The status date is not a required field when the status is operating. If the emission unit operated at all during the current calendar year then the emission unit needs to be reported, and the status date for the temporarily or permanently shutdown designation will be January 1st of the next calendar year. For example an emission unit that stops operating in June of 2018 will report a status date of January 1, 2019 in the 2019 emission inventory.”*
- Last/Final Emissions Year
 - *at all during the current calendar year then the process needs to be reported, and the last inventory year will be the next calendar year. For example a process that stops operating in June of 2018 will have a 2019 last inventory year.”*

Status Dates (*cont.*)

- Status Date
 - Found on release points, control devices, & emission units
 - Required if changing status to TS or PS, not needed for Operating
 - TS/PS can only be used if equipment was shutdown the entire year
 - Example: emission unit shutdown September 18, 2020.
 - Report Operating for 2020
 - Report PS with a status date of 1/1/2021 for 2021
 - No partial year emissions!!!

Status Dates (*cont.*)

- Last/Final Emissions Year
 - Found on Process page
 - Should only be used when the process will never be reported again
 - Example: emission unit shutdown September 18, 2020
 - Last/Final Emissions Year would be 2020

Reporting Same Throughput, Annual Hours, & Emissions as the Previous Year

- For most emission units the throughput, annual hours, & emissions should vary from year to year
 - Emissions may often be similar but likely are not exactly the same
 - Some emission units like emergency engines that are tested on a regular schedule may have the same values

Produced Water Tank Emissions

- Permits may not reference produced water tanks
- If VOC emissions are greater than 0.1 tons, the produced water emissions must be reported
- To calculate produced water emissions:
 - The volume of produced water can be entered into the DEQ Storage Tank Emissions Calculation Tool as if it were condensate/crude oil
 - 1% of the resultant value can be utilized as the produced water emissions

New/Existing Equipment

- Your inventory should be an accurate reflection of the equipment at your facility
- Be sure to add new equipment when appropriate
 - New equipment should be created from scratch
 - Do not convert an existing emission unit to a new piece of equipment; equipment is tracked historically

Amendments

How Do I Amend My Inventory?


- Amendments are now done in SLEIS
 - Can be requested at anytime during the year
- SLEIS role still apply
 - Must be Editor or Submitter to request amendment
 - Must be Submitter to submit
- DEQ staff can now initiate amendments for critical issues.

How Do I Amend My Inventory? (cont.)


- On each report year page, click the “Request Amendment” button on the right
- Please include reason for amendment, if you are adding previously unreported equipment and/or if the amendment request stems from an enforcement case/inspector
 - Equipment should have the same unique identifier in each year; DEQ staff will have to correct this
- If granted, you will receive an email & can then make any need changes and resubmit the report

How Do I Amend My Inventory? (cont.)


2018 Emissions Report

Submitted 


Facility Inventory




Facility




Release Points



Control Devices




Emission Units




Unit Processes

Emissions



Process Emissions



Report Attachments

[Download Template](#)

More Actions

[Print Report](#)

TEST - OK DEQ AQ COMPANY - A

Company Identifier:
3327

Mailing Address:
PO BOX 1677
OKLAHOMA CITY, OK, 73101-1677
US

Phone: (405) 702-4208
Fax:

Your roles at this company are:
Administrator, Editor, Submitter

TEST - GENERIC MANUFACTURING

Facility Identifier:
20957

Location Address:
6801 S SUNNYLANE RD
OKLAHOMA CITY, OK 73135

Your roles at this facility are:
Editor

Submission Status

This emissions report has not been submitted.

[Request Amendment](#)

Full Emissions Report

Emissions Inventory Report (unredacted) - HTML | PDF

Summary Reports

Total Emissions by Facility - CSV

Your Inventory is Important!!

- Missing/incorrect release point data leads to errors in geographical location of emissions & impacts photochemical modeling & health risk assessments
- Missing/incorrect hours & seasonal percentages lead to errors in temporal distribution of emissions
- Errors in SCCs & SICs impact control strategy development & attainment plans
- Missing/incorrect control equipment data impacts rule development
- Good data leads to effective air quality regulation!

Contact Us

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- (405) 702-4100