

Toxic Release Inventory (TRI) Reporting — Lessons Learned and Pitfalls to Avoid

Midwest Environmental Compliance Conference

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Basic TRI Reporting Requirements

▶ TRI reports required if:

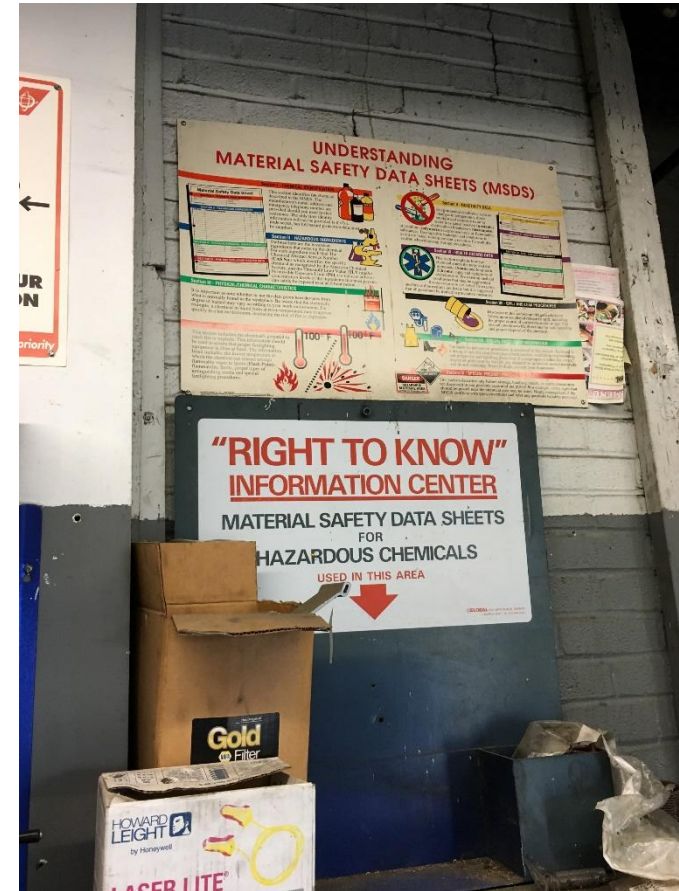
- Greater than 10 full-time employees
- Listed industry (NAICS Code)
- Manufacture, process or “otherwise used” is greater than threshold amount of a listed chemical



If the EPA Conducts a TRI Audit*

- ▶ Will ask for Safety Data Sheets (SDS) and purchasing records ahead of visit
- ▶ Conduct site visit/review operations (1 day typical)
- ▶ Stonewalling/intimidating/postponing is not a good option!

* May be for a facility that has never submitted TRI reports or for a multi-year reporting facility.



EPA Audit

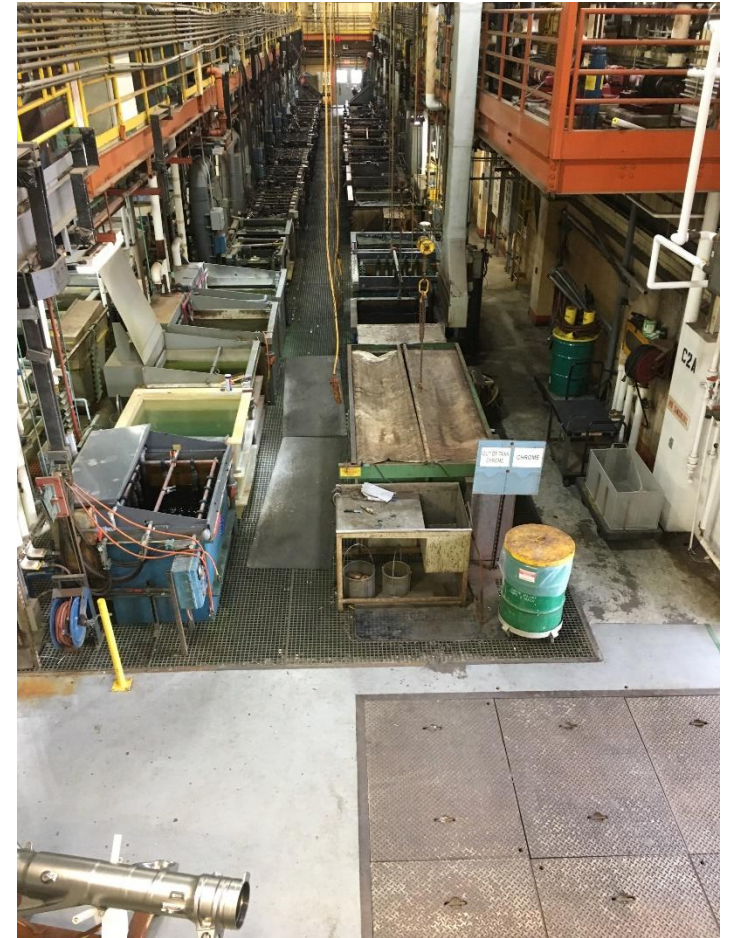
- ▶ You will be get a report card after audit
- ▶ If all reportable chemicals are reported and no gross underestimates of release quantities, **you get an A**
- ▶ If any reportable chemical missed, **you get an F**
- ▶ “Proposed fine” based on number of chemicals not reported (that should have been)

Pitfall #1: SALY (Same as Last Year)

Also known as “We always done it like that”

SALY’s issues:

- ▶ SDSs change/New suppliers
- ▶ New stormwater sampling requirements and data?
- ▶ New waste streams
- ▶ Process/equipment changes?
- ▶ TRI changes (hydrogen sulfide added about 6 years ago)
- ▶ TRI changes (lowered threshold for lead and mercury about 20 years ago)

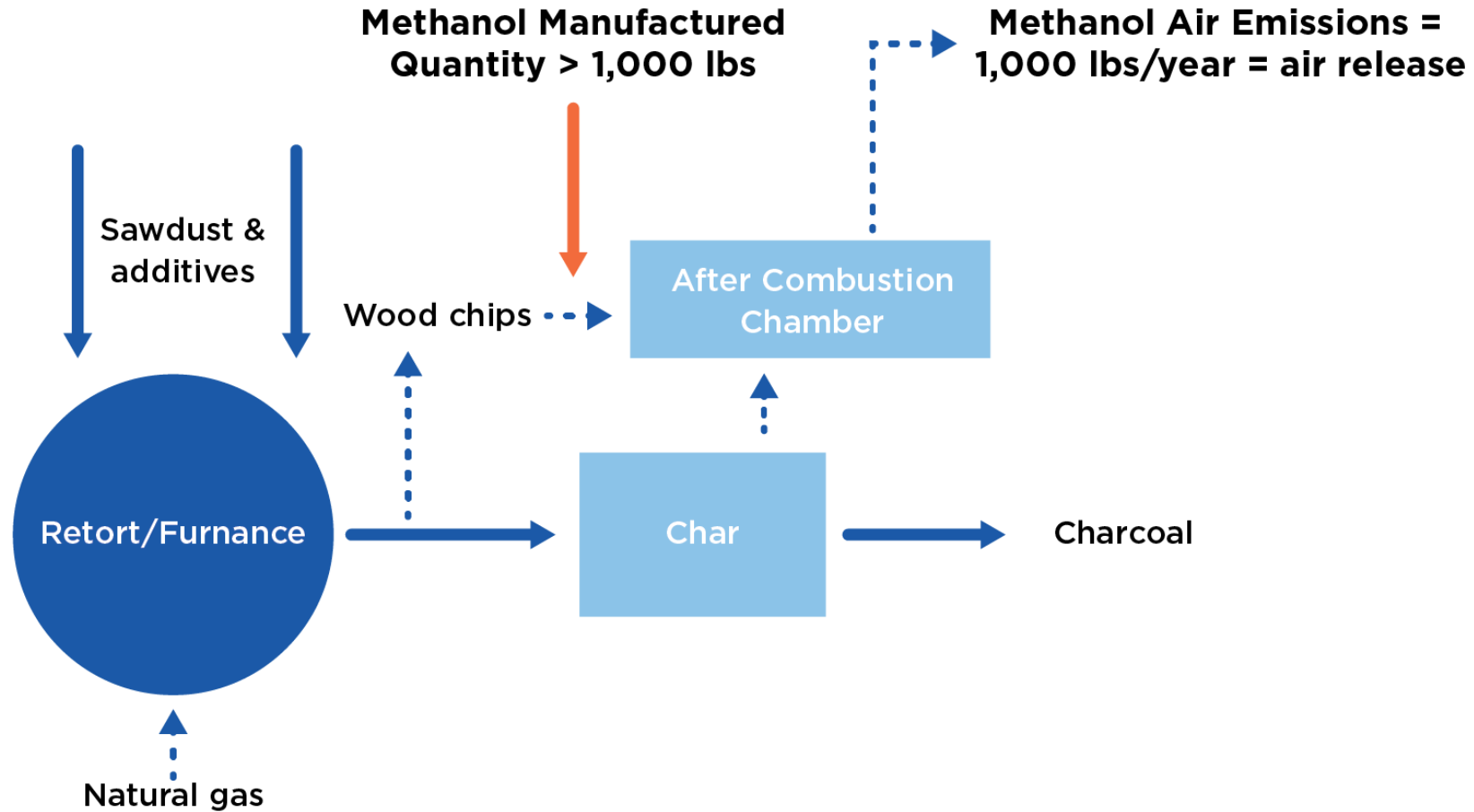


Pitfall #2: Air Emissions = Manufacture

- ▶ “Air regulations” vs. “TRI”
- ▶ “Air releases” usually means “Air emissions”



Pitfall #2: Air Emissions ≠ Manufacture



Pitfall #3A: Chemical Categories

- ▶ Nitrate Compounds*

* No CAS Number

- ▶ Byproduct of wastewater treatment system. Ammonia converted to nitrate compounds

- ▶ If wastewater treated on-site (foods, poultry, beef), need to evaluate



Pitfall #3B: Chemical Categories

- ▶ Are there any TRI chemicals present?

COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight %
Ethylene glycol monobutyl ether acetate	112-07-2	10-25
Titanium dioxide	13463-67-7	10-25
n-Butyl acetate	123-86-4	5-10
Acetone	67-64-1	5-10
Methyl n-amyl ketone	110-43-0	1-3
2,4-Pentanedione	123-54-6	1-3
Proprietary additive	Proprietary	0.3-1
Quartz	14808-60-7	0.1-0.3

Pitfall #3B: Chemical Categories

- ▶ Certain glycol ethers
- ▶ See definition (not much help)

N230 Certerin Glycol Ethers (1.0)



Where:

n = 1, 2, and 3;

R = Alkyl C7 or less; or

R = phenyl or alkyl substituted phenyl;

R' = H or alkyl C7 or less; or

OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate.

- ▶ Reference “List of Chemicals Within Glycol Ether Category (list by CAS Number)”



Pitfall #3C: Chemical Categories

- ▶ Metal compounds
- ▶ Use 10,000 lbs. of fertilizer additive in process
- ▶ SDS indicates 50% manganese (by weight) and 40% (by weight sulfate)
- ▶ How much manganese compound processed?

$$10,000 \text{ lbs.} \times (0.50+0.40) = 9,000 \text{ lbs.}$$

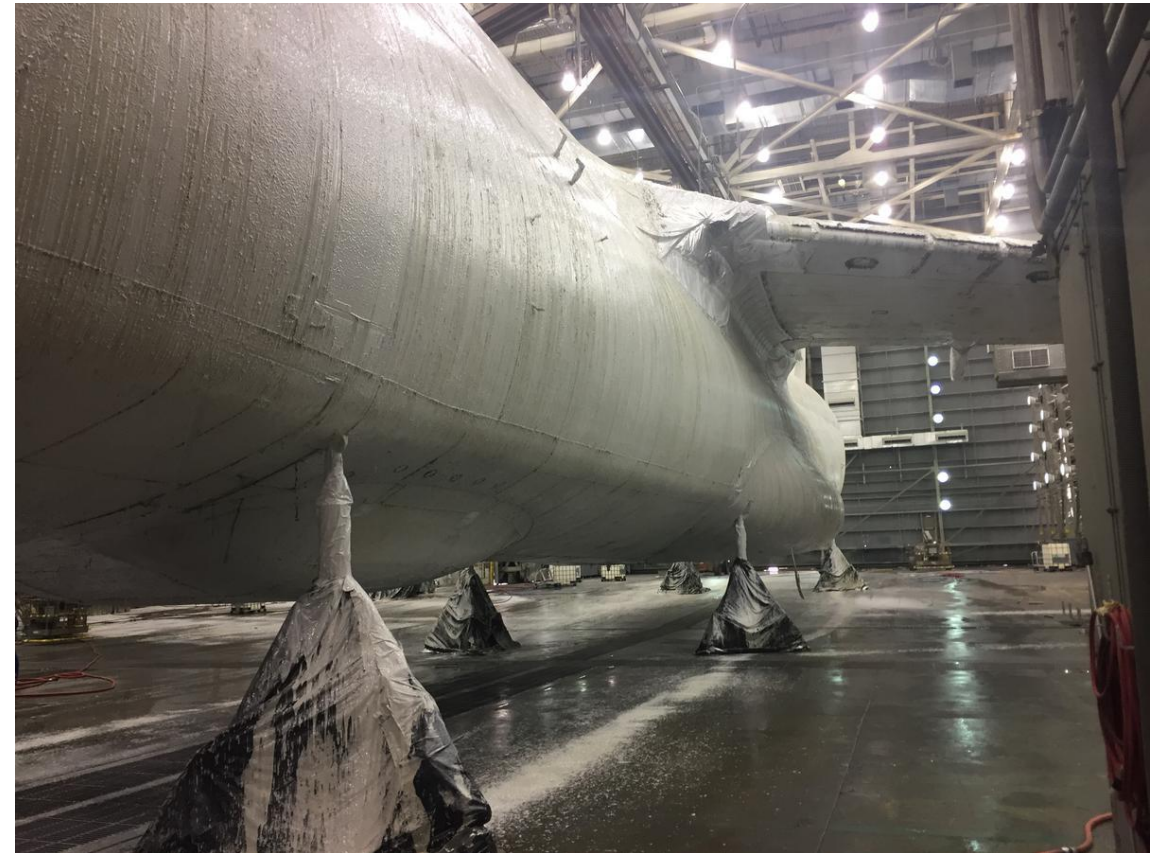
Pitfall #4: Poor SDS Data

SDS Says	Use This
5-10%	7.5%
10%	10%
Up to 10%	10%



Pitfall #5: Otherwise Use vs. Process

- ▶ Need to understand process
- ▶ Don't look for answer on SDS
- ▶ Can be gray area in some processes, such as painting
- ▶ If it evaporates (otherwise use), it reacts to form the polymer (process)
- ▶ If in doubt, assume it is **OTHERWISE USED** (lower reporting threshold)



What Would You Do?

Completing 2017 calculations and you discover Toluene should have been reported in 2013?

What would you do:

- ▶ Nothing — EPA has already compiled data
- ▶ Submit 2013 reports through TRI-ME
- ▶ Voluntarily disclose to EPA under EPA Audit Policy
- ▶ Quit job and try another field



Summary and Recommendations

Avoid TRI reporting pitfalls

- ▶ Don't listen to SALY
- ▶ Know your processes
- ▶ If in doubt, err on the side of overreporting
- ▶ If you have past reporting issues, try to address through TRI-ME

Questions?



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