

POTENTIAL TO EMIT

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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. 40 CFR Part 70.2

Potential to emit means the maximum capacity of a source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a 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 or the effect it would have on emissions is enforceable as a practical matter. 40 CFR Part 49.152

ENFORCEABLE AS A PRACTICAL MATTER

Enforceable as a practical matter means that an emission limitation or other standard is both legally and practicably enforceable

- Legally enforceable - the reviewing authority has the right to enforce it
- Practical enforceability in a permit
 - Specific limit with emission units or activities subject to the limit
 - Time period for the limit
 - Method to determine compliance - appropriate monitoring, recordkeeping, reporting and testing.
- Practical enforceability in rules and general permits
 - Identify the types or categories of sources that are covered
 - Where coverage is optional, provide for notice to the reviewing authority of the source's election to be covered
 - Specify the enforcement consequences

DETERMINING EMISSIONS

Test data

- Onsite measurement of emissions (e.g. stack test)

Material-balance calculations

- Estimate emissions by comparing types and quantities of inputs to types and quantities of outputs

Source-specific models

- Formulas for emissions using source-specific parameters such as types and quantities of inputs, operating hours, and physical characteristics of equipment (e.g. Simulation models)

Emission factors

- Uses average pollutant emission rates (provided by EPA, other agencies, or equipment vendors), multiplied by time or frequency of operation, to obtain emissions (e.g. AP-42, manufacturers specifications)

WHY DO WE CARE?

Minor Source

- Potential to emit less than major source thresholds (true minor)
- Less monitoring and recordkeeping
- State permitting (unless Tribal) – may be “exempt” in some states
- Traditional inspect and enforcement regime

Synthetic Minor

- Potential to emit is greater than major source thresholds but federally enforceable limits below major source thresholds
- More monitoring and recordkeeping to demonstrate compliance
- State permitting (unless Tribal)
- More frequent inspections

WHY DO WE CARE?

Major Source (Title V)

- Equal to or greater than 100 tpy any criteria pollutant or 10 tpy any HAP or 25 tpy total HAPs*
- State/Federal permitting – Periodic monitoring
- Self audit enforcement regime – High priority violator

Major Source (PSD/NA NSR)

- Attainment – equal to or greater than 250 tpy any criteria pollutant
- Non-attainment – equal to or greater than 100 tpy of non-attainment pollutant or precursor, 250 tpy all other criteria pollutants *
- GHG – 100,000 tpy CO2 equivalent (only if already major for a criteria pollutant)
- State/Federal permitting – BACT/LAER - offsets
- Dispersion modeling, affects on Class I and II areas, affects on soil and vegetation
- Most scrutiny – largest facilities in the nation

*Lower levels in areas designated as serious, severe or extreme non-attainment

CONSIDERATIONS

Emergency Generators – 500 hrs/yr

Oil and Gas Operations – MACT HH, NSPS 0000/0000a

Different Limits on PTE – Pros and Cons

Inherent vs Add on Control

Facility PTE vs. Individual Equipment PTE – Point of Regulation

Pre-Construction Permitting vs. Post Construction Permitting

Different State Interpretations

