

Internal Combustion Engine Calculations Template (2 pages)

- For stack test or vendor factors, include the stack test summary or the vendor data page in supporting documentation.
- Do not use "permit" as a factor's reference.
- Include volatile organic compounds (VOC) speciation (with hazardous air pollutants (HAPs) or toxics ≥ 0.1 tpy, such as formaldehyde).
- For further guidance on internal combustion engine emissions, refer to the current year Emissions Inventory (EI) Guidelines (Appendix A, Technical Supplement 1, Selected Combustion Sources): www.tceq.texas.gov/airquality/point-source-ei/psei.html.

Internal Combustion Engine Data

Table 1-Engine Data

Company Name:	Site Name:	RN:
FIN:	EPN:	CIN:
Internal Combustion Engine Data	Value	Units
Engine Type ¹ :		Not applicable
Annual Operating Hours:		
Ozone Season Operating Hours:		
Annual Heat Input:		Million British thermal units per year (MMBtu/yr)
Ozone Season (May 1 –September 30) Heat Input:		MMBtu
Braking Horsepower:		Brake horsepower (bhp)
Heat value:		British thermal units per standard cubic feet (Btu/scf)
Brake Specific Fuel Consumption:		British thermal units per horse-power hour (Btu/hp-hr)
Number of Stacks:		Not applicable
Controls (e.g. catalytic converter, catalytic oxidizer)		
Control Device (if applicable):		
Control Device Efficiency VOC (%):	Control Device Efficiency NOx (%):	Control Device Efficiency CO (%):

Table 2-Emission Factors

Pollutant	Factor	Units	Method/Reference ²
NOx			
CO			
VOC			
Formaldehyde			
Sulfur Dioxide (SO ₂)			

Pollutant	Factor	Units	Method/Reference ²
Particulate matter less than or equal to 2.5 microns ³ (PM _{2.5})			

¹Engine Type: 2 or 4 stroke and rich or lean burn; turbine

²Method/Reference: AP-42 Section 3.2; Stack Test w/ date; Vendor data; portable analyzer, etc.

³Factor should be the sum of condensable and filterable particulate. For liquid and gaseous combustion, PM=PM₁₀=PM_{2.5}