Internal Combustion Engine Calculations Template

- 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 $\geq$ 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): http://www.tceq.texas.gov/airquality/point-source-ei/psei.html

Internal Combustion Engine Data

Company Name:		Site Name:		RN:	
FIN:		EPN:		CIN:	
Internal Combustion Engine Data		**Value**		**Units**	
Engine Type[1]:				n/a	
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 Horse Power:				Brake horse power (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 (%):		Nitrogen Oxides (NO_x):	Carbon Monoxide (CO):		VOC:

Emissions Factors

Pollutant	Factor	Units	Method/Reference[2]
NO_x			
CO			
VOC			
Formaldehyde			
Sulfur Dioxide (SO_2)			
Particulate matter greater than or equal to 2.5 microns[3] ($PM_{2.5}$)			

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

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

[3]For natural gas combustion, $PM=PM_{10}=PM_{2.5}$