

Continued on reverse side

## **OLYMPIC REGION CLEAN AIR AGENCY (ORCAA)**

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## Form 18 Internal Combustion Engines

NOC#	Date	File #

Form 18 is to be completed for all internal combustion engines except turbines. (For turbines, submit Form 17). Submit one form for each engine. If this is a new engine or a modification to an existing engine, your application must also include Form 5 and an analysis of toxic air pollutant emissions in accordance with Chapter 173-460 of the Washington Administrative Code. Completion of Form 5 requires determining daily and annual toxic air pollutant emissions based on the maximum potential to emit of the engine. Additional forms and all ORCAA regulations and rules are available on the Agency's web site. Contact ORCAA's Engineering Division at the above telephone number if you need assistance completing this form. Please include the engine manufacturer's equipment specification sheet or brochure if one is available.

	above telephone number if you cification sheet or brochure if on	, 0	his form. Please i	nclude the engine m	anufacturer's		
1. SUMMARY	☐ New Engine	☐ Engine Modification	☐ New/Addition	nal Fuel			
Company Nam	e			County No.*			
Source Descrip	tion			Source No.*			
Initial Date of C	peration	(Not required for modifical	tion of an existing pe	*(If ermitted source)	unknown leave	e blank)	
Operating Schedule Typical hrs/day Days/week Weeks/yr Maximum hrs/day					m hrs/day		
2. ENGINE INF	ORMATION	e if applying for approval of po	rtable equipment.				
	(See ORCAA I	Regulation 6.1.1 for portable e	equipment require	ments)			
Engine Type: (Check one)							
Engine Manufacturer Model Model Year							
EPA/CARB Eng	gine Family Name		Engine Serial N	lo			
Engine Displac	ement (cu in)	Maximum rated output (bhp)	Т	ypical load as % of b	hp rating		
Is this an emer	gency/standby engine?	] Yes □ No					
(Complete and	check all that apply)						
Certification:	☐ EPA Certified ☐ CARE	3 Certified					
	☐ None (If None is checked	l, please indicate below the ite	ems applicable to t	his engine.)			
	☐ Naturally aspirated	☐ Supercharged	☐ Turbocharged	☐ Inter-cooled	☐ After-c	cooled	
	☐ Timing retard ≥ 4°	Lean-burn	☐ Rich-burn				
Primary Use:	☐ Electrical generation ☐		ımp driver	☐ Fire pump driver			
	☐ Compressor driver ☐	Tub grinder driver	her:				
3. CONTROL DEVICE INFORMATION Complete this section only if the engine exhausts to an add-on control device.  Check here if the engine has more than one add-on control device and repeat this section for each. Include manufacturer's technical specification sheet or brochure for each control device.							
Control device	number #	_ (If unknown leave blank)	☐ New ☐ Exis	ting			
Device type:	☐ Diesel catalyzed particula	te filter	yst   Selective	e catalytic reduction	(SCR)		
	☐ Non-selective catalytic red	duction (NSCR or 3-way catal	yst)				
Make, Model, a	nd Rated Capacity						
	control efficiencies at typical ope		listed below. If ur	nknown leave blank)			
Control Efficiency	//Emission Factor Basis Codes: (Su	uhmit supporting documentation i	f available)	Pollutant Name	Wt % Reduction	Basis Code	
Control Efficiency/Emission Factor Basis Codes: (Submit supporting documentation if available)  (1) Source testing or other measurement by plant  (8) Guess				Particulates	rtoddollori	Couc	
(2) Source testing or measurement by ORCAA (9) EPA/CARB Certification				Organics			
	n from vendor	Nitrogen Oxides					
(4) Material bala	ance by plant using knowledge of pr	Sulfur Dioxide					
(5) Material bala	ance by ORCAA	Carbon Monoxide					
` '	separate list of pollutants. Include the b						

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## Form 18 (continued) Internal Combustion Engines

<b>4. EMISSION POINT/STACK INFORMATION</b> Check here if the engine has more than one stack or has a continuous pollutant emission monitor and repeat this section for each.									
Emission point nur	mber #	(If un	known le	eave blank	() New E	xisting			
Stack outlet height from ground level (ft)									
Diameter of stack outlet (inches) or Outlet cross-section area (square inches)									
Direction of outlet	(check one)	] Horizontal	☐ Ver	rtical	End of outlet (check	k one) 🔲 Ope	n/hinged flap	☐ Ra	ain cap
Exhaust rate at typ	oical operation (a	cfm)		Exha	ust temperature at t	ypical operation	(°F)		
5. AIR TOXIC ASS	SESSMENT INFO	ORMATION.							
Distance from eng	ine to the proper	ty line of the n	earest re	sidence (i	ft)	or (check if)	☐ Greate	er than o	ne mile
Distance from eng	ine to the proper	ty line of the ne	earest so	chool <sup>1</sup> (ft)		or (check if)	☐ Greate	er than 10	000 ft
Describe the near	est non-residentia	al, non-school	site <i>(che</i>	ck one)	☐ Industrial	Commercial	☐ Hospit	al	
				re center	☐ Other				
Distance from eng	ine to the proper	ty line of the n	earest no	on-residen	itial, non- school site	e(ft)	or Grea	ter than	one mile
1. K-12 and more t									
6. FUEL DATA Complete the table below for each fuel burned. If you are using a fuel other than those listed in the fuel table, attach a fuel analysis indicating the higher heating value, sulfur content, and nitrogen content. Please clearly indicate the measurement unit that corresponds to the information you are submitting. ☐ Check here if you are using more than two fuels, and attach a copy of this page listing the additional fuels.									
	Primary	Fuel				Secondary	Fuel		
Fuel <sup>1</sup>	Name				Fuel <sup>1</sup>	Name			
Maximum Fuel Use	Rate <sup>2</sup>		-	r SCF/hr	Maximum Fuel Use Rate <sup>2</sup> gal/hr or SCF/hr				
Annual Fuel Usage <sup>3</sup> gal/yr or therm/yr or SCF/yr			Annual Fuel Usage <sup>3</sup> gal/yr or therm/yr or SCF/yr						
Typical Heat Content <sup>4</sup> BTU/gal or BTU/SCF		Typical Heat Content <sup>4</sup> BTU/gal or BTU/SCF							
Sulfur Content <sup>4</sup> wt% liquids or ppmv gases			Sulfur Content <sup>4</sup>		wt% liquid	is or ppm	v gases		
<b>5</b>	Emission Factors (Optional)					Emission Factors (Optional)			اناما
Pollutant Name	Emission Factor	Units⁵	Basis Code <sup>6</sup>	Control Factor (√) <sup>7</sup>	Pollutant Name	Emission Factor	Units⁵	Basis Code <sup>6</sup>	Control Factor (√) <sup>7</sup>
Particulates					Particulates				
Organics					Organics				
Nitrogen Oxides					Nitrogen Oxides				
Carbon Monoxide					Carbon Monoxide				
Others – Check		•			Others – Check		separate list und	ier each fu	used.
	esel atural Gas	Bio Diesel B10 Landfill Gas	U	Bio Diesel Digester G		Sasoline iquid Petroleum Ga	ıs (LPG)		
<ul><li>3. The annual fuel liquid fuel, therm</li><li>4. If you are using</li></ul>	usage is the actual is for natural gas, a diesel, natural gas,	or projected end and SCF for othe or gasoline, you	gine fuel d r gaseous ı may skip	consumptions fuels. (the other)	seous fuels. (SCF =Si n over a rolling 12-morerm = 100,000 BTUs, i Heat content units:	nth time period. An BTU =British Therm BTU/gallon for liquid	nual usage unit nal Unit) I fuels, BTU/SC	Ü	
fuels. Sulfur content units: weight % for liquid fuels, ppmv for gaseous fuels. (ppmv = parts per million by volume)  5. Emission factors may be reported as gram/brakehp-hr, or as lb per gallon, or as lb per therm, or as lb per SCF.									
6. See the Control Efficiency/Emission Factor Basis Code table under Section 3 on page 1 of this form.									
7. Place a check in this column if the emission factor applies to emissions <u>after</u> an add-on control device.									
7. CERTIFICATION I hereby certify that all information contained herein is true and correct. (Please sign and date this form)									
Name of person certifying (print)  Title of person certifying  Signature of person certifying  Date									
Phone Number:		Em	nail:						