

smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

1.1.4 Non-Applicability of Regulations of Concern

- a. The affected engine testing units are not subject to the control requirements of 35 IAC 218, Subpart TT: Other Emission Units because the control requirements in 35 IAC 218 Subpart TT shall not apply to fuel combustion units [35 IAC 218.980(f)].
- b. The affected engine testing units are not subject to 35 IAC 212.321 or 212.322 because these sections do not contain enforceable emission limits for fuel combustion units.
- c. The affected engine testing units are not subject to 35 IAC 218.301: Use of Organic Material, because this regulation is not applicable to the burning of gasoline in an internal combustion engine at this source.

1.1.5 Operational and Production Limits and Work Practices

Gasoline, kerosene, aviation fuel and/or similar types of fuel shall be the only fuel used in engine testing units.

1.1.6 Emission Limitations

The affected engine testing units shall not exceed the following limits:

- a. Emissions from the Emissions Certification Testing (Unit 24) and Engineering Development Testing (Unit 22) shall not exceed the following limits:

<u>VOM Emissions</u>		<u>CO Emissions</u>	
<u>(Lb/Mo)</u>	<u>(Ton/Yr)</u>	<u>(Lb/Mo)</u>	<u>(Ton/Yr)</u>
4,625	24.45	19,300	115.8

These limits are based on the fuel usage and emission factors for each engine type in accordance with the compliance procedures in condition 1.1.12. The CO limit represents an increase of 59.35 tons per year of CO, which is less than the significant net emissions increase.

The VOM limit represents an increase of 3.15 tons per year of VOM (see the netting table, Attachment 1 for further details).

- b. Compliance with annual limits shall be determined from a running total of 12 months of data.

- c. The source has addressed the applicability and compliance of 35 IAC Part 203, Major Stationary Sources Construction and Modification and 40 CFR 52.21, Prevention of Significant Deterioration (PSD) (See Attachment 1). These limits continue to ensure that the construction and/or modification addressed in this construction permit does not constitute a new major source or major modification pursuant to these rules.

1.1.7 Testing Requirements

Upon request from the Illinois EPA, the Permittee shall conduct emission test within 30 days of the request to verify the emission factor used in 1.1.12 for the determination of emissions from engine testing units.

1.1.8 Monitoring Requirements

None

1.1.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the affected engine testing units to demonstrate compliance with Condition 1.1.6:

- a. The Permittee shall maintain the following records:
 - i. Fuel usage and fuel type for each engine family tested (gallons/month and gallons/year).
 - ii. VOM and CO emissions (pounds/month and ton/year).
- b. The Permittee shall maintain a list of VOM emission factors (lb VOM per 1,000 gallons of fuel consumed) by each specific engine model or by engine family, as determined by the results of tests conducted in accordance with the procedures specified in USEPA emission standards applicable to marine or non-road engines.

1.1.10 Reporting Requirements

If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The

report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

1.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

1.1.12 Compliance Procedures

- a. To determine compliance with Condition 1.1.6, emissions from the affected engine testing units shall be based on the emission factors listed below:

<u>Pollutant</u>	<u>Emission Factor for Existing* Technology Engines (lb/1,000 gal of Gasoline or Fuel)</u>
VOM	2,157
CO	5,734
NO _x	131
SO ₂	6.4
PM	15.5
PM ₁₀	8.4

<u>Pollutant</u>	<u>Emission Factor for New** Technology Engines (lb/1,000 gal of Gasoline or Fuel)</u>
VOM	606
CO	3,679
NO _x	91
SO ₂	6.4
PM	20.1
PM ₁₀	10.8

Engine Testing Unit Emissions (lb) = (Gasoline or Fuel Usage in 1,000 Gallons) x (The Appropriate Emission Factor)

* Existing refers to a definition found in 40 CFR 91.3, which states existing technology OB/PWC means an outboard engine or a personal watercraft engine which was in production for the 1997 or any previous model years and that did not utilize newer technologies such as four-stroke technology, direct-injection two-stroke technology, catalyst technology, or other technology used to comply with emission standards which the Administrator determines is a new type of OB/PWC technology.

For OMC, this is generally speaking,
carbureted two-stroke technology without a
catalyst.

** New refers to engines other than existing engines.

- b. As an alternative to the above emission factors for VOM, CO, and NO_x, the Permittee may use emission factors determined from tests conducted in accordance with the procedures specified in 40 CFR 91, Subpart D and E. These emission factors shall be based on the results of tests conducted in accordance with the procedures specified in USEPA emission standards applicable to marine or non-road engines. If an emission factor has not been established for a specific model or for the engine family to which the specific model belongs, then VOM emissions shall be determined based on the default emission factor listed above.
- c. In case of any aborted emissions certification test or instance where the engine being tested has failed the test, emissions shall be determined based on fuel usage and emissions factors listed above.

2.0 Prior to installation of the four new dynamometers, the existing test cells B2, B4, F2 and F3 shall be removed.

It should be noted that this permit has been reissued. Pursuant to Standard Condition 1, this permit will expire one year from the date of issuance, unless a continuous program of construction or development on this project has started by such time.

If you have any questions on this, please call Jason Schnepf at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

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cc: Region 1

Attachment 1

NSR Applicability

Contemporaneous Time Period of December 1995 Through December 1999

Table I **B** Emissions Increases Associated With The Proposed Modification

<u>Item of Equipment</u>	<u>Installation Date</u>	Potential VOM Emissions (Tons/Year)	Permit Number
Emission Unit 22	New	3.15	99100052

Table II **B** Source-Wide Creditable Contemporaneous Emission Decreases

<u>Item of Equipment</u>	<u>Removal Date</u>	VOM* Emissions (Tons/Year)	Permit Number
Engineering Development Testing	Prior to installation of the four new dynamometers	3.15	99100052

Table III **B** Source-Wide Creditable Contemporaneous Emission Increases

<u>Item of Equipment</u>	<u>Operational Date</u>	Permitted VOM Emissions (Tons/Year)	Permit Number
Test Tank Development	April 1996	0.27	96040067
Emissions Certification Testing	June 1996	21.30	95120309
Certification Storage Tank	June 1996	0.25	95120309
Training Center Engine Testing	June 1996	0.82	95120309
Gasoline Storage Tank 1.26	October 1997	<u>0.44</u>	97100008
		23.08	

Table IV **B** Net Emissions Change

	VOM (Tons/Year)
Increases Associated With The Proposed Modification	3.15
Creditable Contemporaneous Emission Decreases	- 3.15
Creditable Contemporaneous Emission Increases	<u>23.08</u>
	23.08

* Past actual emissions are based on an average of the actual emissions from the calendar years 1997-1998.

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