

**STATE OF MISSISSIPPI
AIR POLLUTION CONTROL
PERMIT**

TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Rolls-Royce North America, Rolls-Royce Center of Excellence
John C Stennis Space Center
Stennis Space Center, Mississippi

has been granted permission to construct air emissions equipment to comply with the emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD



AUTHORIZED SIGNATURE

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: APR 25 2006

Permit No.: 1000-00050

Part I.
GENERAL CONDITIONS

1. Any activities not identified in the application are not authorized by this permit.
2. All air pollution control facilities shall be designed and constructed such as to allow proper operation and maintenance of the facilities.
3. The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters without the proper environmental permits.
4. The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed except as provided for in Regulation APC-S-1, "Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants", Section 10.
5. The construction of facilities shall be performed in such a manner as to reduce both point source and fugitive dust emissions to a minimum.
6. The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their representatives upon presentation of credentials:
 - a. To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and
 - b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emissions.
7. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to:
 - a. Violation of any terms or conditions of this permit.
 - b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts, or
 - c. A change in any condition that requires either a temporary or permanent reduction or elimination of authorized air emissions.

8. Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality Office of Pollution Control.
9. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.
10. Nothing herein contained shall be construed as releasing the permittee from any liability for damage to persons or property by reason of the installation, maintenance, or operation of the air cleaning facility, or from compliance with the applicable statutes of the State, or with local laws, regulations, or ordinances.
11. This permit may only be transferred upon approval of the Mississippi Environmental Quality Permit Board.
12. This permit is for air pollution control purposes only.
13. Approval to construct will expire should construction not begin within eighteen (18) months of the issuance of this permit, or should construction be suspended for eighteen (18) months.
14. The permittee must notify DEQ in writing when construction begins within fifteen (15) days of beginning actual construction.
15. The permittee must notify DEQ in writing when construction does not begin within eighteen (18) months of issuance or if construction is suspended for eighteen (18) months or more.
16. Prior to startup of air emissions equipment at this source, the permittee must submit certification that construction was completed in accordance with the approved plans and specifications.
17. After certification of construction by the permittee, the Permit to Construct shall be deemed to satisfy the requirement for a permit to operate until the date the application for issuance or modification of the Title V Permit or the application for issuance or modification of the State Permit to Operate, whichever is applicable, is due.
18. The application for issuance or modification of the State Permit to Operate or the application for issuance or modification of the Title V Permit, whichever is applicable, is due, twelve (12) months after beginning operation. Beginning operation will be assumed to occur upon certification of construction, unless the permittee specifies differently in writing.

Part II.
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning Upon Permit Issuance, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from Emission Point AA-001, the Gas Turbine Engine Testing Cell.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSION LIMITATIONS

See Part III, for Emission limitations

All test methods specified above shall be those versions, or their approved equivalents, which are in effect Upon Permit Issuance.

Part II.
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning Upon Permit Issuance, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from Emission Point AA-002, the 2,349 HP Diesel fuel-fired generator.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSION LIMITATIONS

See Part III, for Emission limitations

All test methods specified above shall be those versions, or their approved equivalents, which are in effect Upon Permit Issuance.

Part II.
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning Upon Permit Issuance, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from the storage tanks listed below:

Emission Point	Tank Capacity (Gallons)
AA-003	39,600 gallon Jet Fuel Above Ground Storage Tank (Ref. No. 1)
AA-004	39,600 gallon Jet Fuel Above Ground Storage Tank (Ref. No. 2)
AA-005	1,000 gallon Diesel Fuel Above Ground Storage Tank
AA-006	14,410 gallon Jet Fuel Day Tank

**Part III
Other Requirements**

1. **The maximum Opacity from any point source or emissions at any time shall not exceed 40% as determined by EPA Test Method 9, 40 CFR 60, Appendix A. (Ref.: APC-S-1, Section 3.2.)**
2. **For Emission Point AA-001, the permittee is allowed to use Jet Fuel for engine testing.**
3. **For Emission Points AA-001 and AA-002, the permittee is limited to the following emission limitations:**

Pollutant	Emission Limitation
NOx	249 tons/yr
CO	249 tons/yr
VOC	240 tons/yr

4. **For Emission Point AA-001, the permittee shall maintain a record of the following information for each engine test conducted:**
 - a. **the engine type**
 - b. **the amount of fuel used in each load of the engine test**
 - c. **the calculation of the emission rates for NOx, CO and VOC. The permittee shall use emission factors from the International Civil Aviation Organization (ICAO) emissions data bank or equivalent in order to calculate the emission rates for the engine type tested.**
5. **For Emission Point AA-002, the permittee shall maintain records of the amount of fuel used by the emission unit on a monthly basis. The permittee shall use the information along with an approved emission factor in order to calculate the emission rates for NOx, CO and VOC from the unit on a monthly basis.**
6. **The permittee shall summarized submit semi-annual reports which should contain the following information:**
 - a. **The number of tests for each engine type and the amount of fuel used for each engine type on a monthly basis and for each consecutive 12-month period**
 - b. **The amount of fuel used by the generator on a monthly basis and for each consecutive 12-month period.**

- c. **The total emission rates in tons/year for NO_x, CO and VOC from the engine test and the generator on a monthly basis and for each consecutive 12-month period.**

The report shall be submitted no later than 30 days from the semi-annual period ending June 30 and December 31.

7. **The permittee shall report any exceedances of the limitations outlined in this permit to MDEQ no later than 10 days following the end of the month in which the exceedance occurred and shall report the cause of the exceedance and the action(s) taken and/or to be taken to correct it.**
8. **The permittee shall maintain copies of all records and reports on site for at least five (5) years and shall make them available upon request by Mississippi Department of Environmental Quality (MDEQ) personnel.**