

GOVERNMENT OF THE VIRGIN ISLANDS OF THE UNITED STATES
DEPARTMENT OF PLANNING AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
AIR POLLUTION CONTROL

GENERAL APPLICATION INFORMATION

A separate application is required for each unit of basic equipment (the use of which may cause the issuance of air contaminants). Such a unit may consist of one individual item, or a group of two or more items. A separate application is also required for each air pollution control system (equipment which eliminates or reduces the emission of air contaminants).

With each application for authority to construct and permit to operate, the following data, specifications, plans and drawings must be submitted in **DUPLICATE**:

1. **EQUIPMENT LOCATION DRAWING.** The drawing or sketch submitted must be to scale (suggested scale: 1 inch = 100 feet; accuracy of measurements to the nearest 5 feet will be satisfactory) and must show at least the following:
 1. The property involved and outlines and heights of all buildings on it. Identify property lines plainly.
 - b. Location and identification of the proposed equipment on the property.
 - c. Location of the property with respect to streets and adjacent properties. Identify adjacent properties.
2. **DESCRIPTION OF EQUIPMENT.** State make, model, size, and type for either the entire unit or for its major parts.
3. **DESCRIPTION OF PROCESS.** The application must be accompanied by a written description of each process to be carried out in the equipment of the function of the equipment itself in the process. The descriptions must be complete and in detail concerning all operations. Particular attention must be given to explaining all stages in the process where the discharge of any materials might contribute in any way to air pollution. All obtained data must be supplied concerning the nature, volumes, particle sizes, weights, and concentrations of all types of air contaminants that may be discharged at each stage in the process. Similarly, control procedures must be described in sufficient detail to show the extent of control of air contaminants anticipated in the design, specifying the expected efficiency of the control devices.
4. **OPERATING SCHEDULE.** Specify the hours per day and days per week the equipment is to be operated.

5. **PROCESS WEIGHT.** Detail type and total weight of each material charged into the equipment or the process on the basis of pounds per hour or other specified unit of time.
6. **FUELS AND BURNERS USED.** Indicate for fuel gas-type and cubic feet per hour; for fuel oil-grade and gallons per hour (specify temperature to which oil is preheated); for solid fuels-type and pounds per hour; indicate for burners- make, model, size, type, number of burners, and capacity range of each burner (from minimum to maximum).
7. **DRAWINGS OF EQUIPMENT.** (See **NOTE** Below). Supply an assembly drawing, dimension and to scale, in plan, elevation and as many selections as are needed to show clearly the design and operation of the equipment and the means by which air contaminants are controlled. The following must be shown:
 2. Size and shape of the equipment. Show exterior and interior dimensions and features.
 3. Locations, sizes and shape details of all features which may affect the production, collection, conveying or control of air contaminants of any kind; location, size, and shape details concerning all materials handling equipment.
 - c. All data and calculations used in selecting or designing the equipment.
 - d. Horsepower rating of all electric motors driving the equipment.
8. **RADIOACTIVE MATERIAL.** Describe any use of processing of radioactive material.

NOTE: **Structural design calculations and details are not required. When standard commercial equipment is to be installed, the manufacturer's catalog describing the equipment may be submitted in lieu of the parts of Item 8 that it covers. All information required above that the catalog does not contain must be submitted by the applicant.**

NOTE: ADDITIONAL INFORMATION MAY BE REQUIRED.

After authority to construct or to install is granted for any equipment, deviations from the approved plans are not permissible without first securing additional approval for the changes from the Air Pollution Control Engineer.

Further information or clarification concerning permits can be obtained by writing or calling the Division of Environmental Protection office located at Cyril E. King Airport, Terminal Building, 2nd Floor, St. Thomas, V.I. 00802 (340) 774-3320.

GOVERNMENT OF THE VIRGIN ISLANDS OF THE UNITED STATES
DEPARTMENT OF PLANNING AND NATURAL RESOURCES

AIR POLLUTION CONTROL

APPLICATION FOR:
AUTHORITY TO CONSTRUCT AND PERMIT TO OPERATE

GENERAL INSTRUCTIONS

- A. This application must be filled out completely and must be filed in **DUPLICATE**.
- B. Applications are incomplete unless accompanied by **DUPLICATE** copies of all plans, specifications and drawings required. Details required for specific equipment are listed on separate forms which are available upon request.

NOTE: INCOMPLETE APPLICATIONS ARE NOT ACCEPTABLE.

Date of Application:

APPLICATION INFORMATION

- 1. Permit to be issued to: (Business License Name of Corporation, Company, Individual Owner or Governmental Agency that is to operate the Equipment):

- 2. Mailing Address:

P.O. Box City Island Zip

- 3. Address at which the equipment is to be operated:

Number Street Island Zip

Parcel Identification Number:

(May be obtained from upper right hand corner of tax bill.)

- 4. Check Type of Organization:

Corp. _____ Partnership _____
 Individual Owner _____ Governmental Agency _____

- 5. Describe General Nature of Business:

	WITH CONTROL APPARATUS	WITHOUT CONTROL APPARATUS
PARTICULATE MATTER		
CARBON MONOXIDE		
OXIDES OF NITROGEN (NO _x)		
SULFUR DIOXIDE (SO ₂)		
VOLATILE ORGANIC COMPOUNDS (VOCs)		

D.

1. DESCRIBE AIR POLLUTION CONTROL APPARATUS:

2. Efficiency of control apparatus: _____ %.
3. Height of discharge above ground: _____ ft.
4. Distance from discharge to nearest property line: _____ ft.
5. Volume of gas discharged into open air: _____ ft³/min. at stack conditions.
6. Exit linear velocity at point of discharge: _____ ft/min. at stack conditions.
7. Temperature at point of discharge: _____ °F.
8. Will emissions comply with existing local requirements? _____.
9. Initial cost of control apparatus: \$_____.
10. Estimated annual operating cost: \$_____.

This application is submitted in accordance with the provisions of the Virgin Islands Code 12, Chapter 9, Air Quality Control Regulations Section 206-20, and to the best of my knowledge and belief is true and correct.

Signature _____

Printed name _____

Mailing Address

Title

Zip Code

Telephone No.

Application for permission to construct, install or alter the equipment and/or control apparatus as set forth above is approved.

Date _____ Approved by

Permit No. _____ Supervisor

**DEPARTMENT OF PLANNING AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL PROTECTION
INTER OFFICE MEMORANDUM**

Air Pollution Control Permit Application
Attachment A

Procedures for Calculating Emission From Industrial Diesel Engine

(Revised 5/19/00)

Given

- Size of engine (cubic inch displacement per cylinder and total displacement);
- Number of cylinders;
- Type of fuel fired;
- Maximum fuel rate (gals/min, gals/hr);
- Sulfur content of fuel (% by weight)

Step 1: Determine if large bore or industrial size engine. Industrial engine cubic inch displacement is less than 560 cubic inches per cylinder or rated power is from 445 to 600 horsepower.

Step 2: Calculate maximum fuel rate.

Example: _____ (gals/hr)(X hrs/year*)
 = _____ gals/yr.

Step 4: Calculate annual emissions.

Example: Industrial diesel engine fired by diesel fuel with sulfur content of 0.5% weight.

Particulate (PM₁₀) = _____ gals/yr X 0.0000167tons/gal
 = _____ tons/yr of particulates

Sulfur Dioxide (SO₂) = _____ gals/yr X 0.000035tons/gal
 = _____ tons/yr of SO₂

Carbon Monoxide (CO) = _____ gals/yr X 0.000051tons/gal
 = _____ tons/yr of CO₂

Oxides of Nitrogen (NO_x) = _____ gals/yr X 0.0002345 tons/gal
 = _____ tons/yr of Nox

Volatile Organic Compounds (VOCs)
 = _____ gals/yr X 0.0000187 tons/gal
 = _____ tons/yr of VOCs

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11. For emergency (standby) generators, maximum annual operating hours is limited to 500 hours.
 12. Sulfur content in decimal form (i.e., 0.5% = 0.005)
 2. Density of diesel fuel