

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

**APPLICATION FOR PERMIT TO CONSTRUCT/OPERATE
A COMBUSTION TURBINE**

Note: If there will be a duct burner associated with the combustion turbine, please submit a separate “Application for Permit to Construct/Operate a Boiler or Other External Combustion Equipment (Except Combustion Turbines)” for the duct burner.

I. Facility and Applicant Information

1. _____
Full Legal Name of Applicant/Organization

2. _____
Type of Organization

3. _____
Name of Owner(s) or Principal Partner(s) of Above Organization

4. _____
Mailing Address of Applicant (No., Street, City, State, Zip)

5. _____
Street Address of Facility (if different from Mailing Address)

6. Owner/Responsible Official Name: _____

Owner/Responsible Official Title: _____

Phone No. _____ E-mail: _____

7. Contact Person: _____

Contact Person Title: _____

Phone No. _____ E-mail: _____

8. Type of Project: New Construction Renewal

Initial Permitting of Existing Source Change Owner/Transfer of Existing Permit
Note that replacement of an existing source is considered “New Construction”.

9. For renewal or transfer, provide the existing permit number and expiration date:

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10. Describe the facility at which this equipment will be located:

11. Primary industrial codes for the major activity at this location :

SIC: _____ NAICS: _____

II. General Equipment Information

1. Equipment Name/Identification: _____

2. System type:

Simple Cycle Regenerative Cycle Cogeneration Combined Cycle

3. Manufacturing Information:

_____ Turbine Order Date

_____ Turbine Manufacture Date

_____ Turbine Model Number

_____ Turbine Serial Number
(if available)

4. Primary fuel burned in this unit: *Check one:*

Natural Gas LPG Other _____

Heat input to turbine on primary fuel: _____ MMBtu/hr Basis: HHV LHV

Rated fuel consumption rate (per hour): _____ *Specify units*

Maximum quantity/year: _____ *Specify units*

Heating value of primary fuel: _____ Btu/SCF Basis: HHV LHV

Maximum fuel sulfur content _____ (%)

5. Secondary fuel burned in this unit: *Check one:*

Not Applicable Natural Gas LPG Other _____

Heat input to turbine on secondary fuel: _____ MMBtu/hr Basis: HHV LHV

Rated fuel consumption rate (per hour): _____ *Specify units*

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Maximum quantity/year: _____ *Specify units*

Heating value of secondary fuel: _____ Btu/SCF Basis: HHV LHV

Maximum fuel sulfur content _____ (%)

6. Turbine is used for: Routine operational use Emergency or back-up use only
Note: If the unit is to be used in a load response program or for peak shaving, please check "Routine operational use".

Describe the planned use of the unit:

7. Electrical output if used for power generation:

Gross electrical output: _____ kW/kWe

Note: Enter n/a if your turbine is not associated with a generator

ISO rated power output: _____ kW/kWe

8. Turbine mechanical power output: _____ kW/kWm hp

9. Describe any gas cleaning or emission control device(s) on this unit (attach specifications as appropriate):

10. Estimated efficiency of control device (if applicable): _____ % for _____ (pollutant)

11. Stack height above ground: _____ ft Inner diameter at exit: _____ ft

Exit gas volumetric rate: _____ cfm Gas temperature at exit: _____ °F

Distance of stack from nearest property boundary: _____ ft

Exit gas velocity: _____ ft/s Exit gas moisture content: _____ %

Exit gas volume through stack: _____ acfm

Describe the location of the stack outlet: _____

12. Date construction/installation of unit began or is planned to begin: _____

13. Date construction/installation of unit completed (if applicable): _____

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III. Emissions

1. Please complete the following “Potential to Emit” table (except as noted below):

Note: It is acceptable to provide calculations in an alternate format as an attachment to this application. Please ensure that any submittal provides sufficient information to allow the application reviewer to reproduce the calculations from the source material. Please also ensure that any alternative submittal provides substantially the same information requested in the following table.

If potential emissions are provided in an attachment, please check the following box:

Table: Potential to Emit¹						
Pollutant	Emission Factor²	Units of Emission Factor³	Emission Rate (lb/hr)	Maximum Uncontrolled Emissions (Ton/yr)	Emission Control Efficiency⁴ (%)	Maximum Controlled Potential Emissions (Ton/yr)⁵
NO_x						
SO_x						
VOC						
CO						
PM Total⁶						
PM10 (if necessary)⁷						

¹ “Potential to Emit” is the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design only if the limitation or the effect it would have on emissions is enforceable as a practical matter. Secondary emissions do not count in determining the potential to emit of a stationary source. [20 DCMR § 199]

² The emission factor should reflect the maximum emissions expected from the unit when operating properly.

³ Examples of commonly used units are lb/million BTU of heat input, fuel usage rate, and heat content of the fuel.

⁴ If this information is unknown, or no air pollution control equipment is installed, indicate “Not Applicable or N/A”.

⁵ See Section IV.3 of this application for additional requirements if these values exceed certain regulatory thresholds.

⁶ PM Total includes both filterable and condensable particulate matter fractions.

⁷ PM10 (filterable plus condensable) only needs to be reported on this form if PM total maximum controlled potential emissions equals or exceeds 5 tons per year.

Cite the source(s) and Basis of the emission factors and on a separate page include sample calculations:

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2. Emergency Episode Procedures: How do you intend to comply with the requirements for reduced emissions during an air pollution episode (see 20 DCMR §401)?

Alert: _____

Warning: _____

Emergency: _____

3. Are you requesting any additional special operating limitations, such as limits on your potential to emit? Yes No If so, please describe:

IV. Notes and Required Attachments

1. Please attach a printed copy of any spreadsheet of calculations used in this application. The assigned permit writer may require submittal of the electronic version of the spreadsheet to review calculations.
2. Please attach a copy of the manufacturer's specifications for the unit and any other appropriate supporting documentation, including the basis for manufacturer-specified emission factors.
3. If "Maximum Controlled Potential Emissions" in the table in Condition III.1 equals or exceeds the following thresholds (without netting), take the actions specified:

Pollutant	Threshold (tons/year)	Action
CO	100	Prepare an applicability analysis pursuant to 20 DCMR §204 and, where applicable, a plan to comply.
NO _x	25	
VOC	25	
SO ₂	40	
PM10	15	
PM2.5	10	
Any other pollutant and associated threshold specified in the definition of "significant" in 20 DCMR §299		
VOC	5	Prepare a "Minor New Source Review (NSR) Supplemental Permit Application" found at https://doee.dc.gov/publication/ch2applications
NO _x		
SO ₂		
PM10		
PM2.5		
Aggregate of HAPS listed in §112 of the Clean Air Act		

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4. AQD may require submission of additional information beyond what is requested on this form if needed to evaluate regulatory applicability. If you are aware of complex regulatory issues related to this project, AQD recommends that you proactively attach a regulatory review document to explain your understanding of the applicability of any relevant regulations. This is likely to simplify and thereby hasten review of the application.
5. Deviations from submitted plans and specifications are not permissible without securing formal approval from AQD via an application update request and re-approval, if already approved.
6. The complete application and applicable supporting documentation must be submitted to the following address:

Branch Chief, Air Quality Permitting Branch
Department of Energy and Environment
1200 First Street NE, 5th Floor
Washington DC 20002

V. Applicant Certification:

I hereby certify, under penalty of D.C. Official Code § 8-101.05e, that I am authorized to submit this application on behalf of the applicant and that the statements contained herein are true and correct to the best of my knowledge. I further certify that all attached information and previously submitted information referenced in this application remains true, correct, and current, to the best of my knowledge.

Authorized Signature:

Owner/Responsible Official Signature

Print Name and Title

Date

Mailing Address of Owner/Responsible Official if Different From I.4 above

Report Fraud, Waste, Abuse, and Mismanagement to the District of Columbia Office of the Inspector General.
Confidential Toll Free Hotline: 1-800-521-1639 or 202-724-TIPS (8477). Email: hotline.oig@dc.gov