

(Regulations
5 and 7)

**The Natural Resources Conservation
Authority (Air Quality) Regulations**

Air Pollutant Discharge Licence Application

To be completed as follows:

1. Applications for a licence to discharge air pollutants (licence) must be submitted by owners or operators of existing major and significant facilities as specified in the Regulations.
2. Applications for licence renewals must be submitted not later than six months prior to the expiration date.
3. Owners or operators of proposed major or significant facilities or who propose to make major modifications to existing facilities must submit an application for a licence no later than six months prior to commencement of operation.

The completed licence application form must be submitted to:

National Environment and Planning Agency
 Re: Air Pollutant Discharge Licence Application
 10 Caledonia Avenue,
 Kingston 10.

1. APPLICATION FOR:	YES	NO	DATE OF RECEIPT:	____/____/____
INITIAL LICENCE	?	?		(yyyy/mm/dd)
MODIFICATION OF EXISTING LICENCE	?	?		
CHANGE OF OPERATOR	?	?	COMPLETION DATE	____/____/____
RENEWAL OF LICENCE	?	?		____/____/____ (yyyy/mm/dd)
APPLICATION FEE ENCLOSED	?		APPLICATION FEE ENCLOSED	

(Shaded areas above to be completed by NEPA staff)

GENERAL OPERATOR AND PLANT INFORMATION

2. Company's legal name and address	
Company name:	
Company mailing address line 1:	
Company mailing address line 2:	

Company mailing address line 3:	
Company Phone No.:	()
Company Fax No.:	()
Company email address:	

3. Operator's name and address	
Operator's name:	
Operator's mailing address Line1:	
Operator's mailing address Line2:	
Operator's mailing address Line3:	
Operator's Phone no.:	()
Operator's Fax no.:	()
Operator's email address:	

4. Plant name and address	
Plant name:	
Plant mailing address Line 1:	
Plant mailing address Line 2:	
Plant mailing address Line 3:	
Plant Phone no.:	()
Plant FAX no.:	()
Electronic mail address:	
5. Company contact for environmental issues:	
Contact name:	

Title:	
Phone no.:	()
FAX no.:	()
Electronic mail address:	

6. Plant History	
Began operating on (mm/yyyy)	(Use yyyy/mm/dd format)
Previous plant name 1: _____	Date of name change 1: _____
Previous plant name 2: _____	Date of name change 2: _____
Previous plant name 3: _____	Date of name change 3: _____
Previous plant name 4: _____	Date of name change 4: _____
Previous plant name 5: _____	Date of name change 5: _____

7. Current permits issued by the Authority	
Identify all required Permits to Operate for this and any other plants operated.	
Use yyyy/mm/dd format for dates	
# _____	Date ____/____/____

8. Current air pollutant discharge licence(s)
Identify all current required Air Pollutant Discharge Licences for this and any other plants operated.

yyyy/mm/dd	dd/mm/yyyy
#_____ DATE GRANTED: _____/____/____	
EXPIRY DATE: _____/____/____	
#_____ DATE GRANTED: _____/____/____	
EXPIRY DATE: _____/____/____	
#_____ DATE GRANTED: _____/____/____	
EXPIRY DATE: _____/____/____	
#_____ DATE GRANTED: _____/____/____	
EXPIRY DATE: _____/____/____	
#_____ DATE GRANTED: _____/____/____	
EXPIRY DATE: _____/____/____	
#_____ DATE GRANTED: _____/____/____	
EXPIRY DATE: _____/____/____	
#_____ DATE GRANTED: _____/____/____	
EXPIRY DATE: _____/____/____	
Category of air pollutant source for this facility (Mark with X):	
Electricity generation_____	
Mineral Industries_____	
Petroleum Refineries_____	
Municipal incinerators_____	
Biomedical incinerators_____	
Hazardous waste incinerators_____	
Chemical Processing_____	
Inorganic Chemicals Manufacturing_____	
Organic Chemicals Manufacturing_____	
Liquids Distribution - Petroleum Products_____	
Non-Ferrous Metals Processing_____	
Ferrous Metals Processing_____	
Polymers And Resins Production_____	
Food And Agricultural Processes_____	
Agricultural Chemicals Production_____	
Surface Coating Processes_____	
Waste Management_____	
Fuel Combustion in any of the above categories including Stationary Fuel Combustion Sources_____	

<p>Other industry categories as may from time to time be prescribed by the Authority</p>												
<p>9. General and non-confidential description of plant activities:</p>												
<p>10. International System for Industrial Classification (ISIC) Codes (Four digit code(s)) (See Instructions):</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">ISIC1</td> <td style="width: 10%;">_____</td> <td style="width: 10%;">Description</td> </tr> <tr> <td>ISIC2</td> <td>_____</td> <td>Description</td> </tr> <tr> <td>ISIC3</td> <td>_____</td> <td>Description</td> </tr> <tr> <td>ISIC4</td> <td>_____</td> <td>Description</td> </tr> </table>	ISIC1	_____	Description	ISIC2	_____	Description	ISIC3	_____	Description	ISIC4	_____	Description
ISIC1	_____	Description										
ISIC2	_____	Description										
ISIC3	_____	Description										
ISIC4	_____	Description										
<p>11. Plant Boundaries</p> <p>Attach scale map showing plant boundaries, one reference point and the orientation of this point to one prominent feature within the plant property. (Attach as Appendix A to this licence application).</p>												
<p>PROCESS INFORMATION</p>												
<p>12. Confidential information content.</p> <p>Does this section of the application require confidential information to be provided? ? Yes ? No</p> <p>If yes, mark those processes (item 13) claimed confidential and submit diagrams and descriptions required in items 13 and/or 14 under separate cover.</p>												
<p>13. List of processes at the plant. (List all processes and their corresponding Source Classification Code. Indicate whether or not any confidential process information will be included. For any process claimed to contain confidential information, provide</p>												

justification for the claim. Provide any confidential information under separate cover as Appendix B, Item 13).

14. Process flow diagrams. Provide diagrams of each process or air emission unit at the plant to include air flow rates and other applicable information. Provide a description of the process and a companion flow diagram for each process. Identify points by number, where raw materials are introduced, where air contaminants may be discharged, the general operation of the process, and pollution control equipment used to eliminate or reduce emissions of air contaminants. (Attach as Appendix C):

<p>Detailed process/equipment description (Process description and process and pollution control equipment information). (Attach as Appendix D)</p> <p>Each process description must include:</p> <ul style="list-style-type: none"> ? Process/Equipment-specific form(s) if applicable as identified in the instructions ? Process Source Classification Code (SCC) description ? Process ID# (same as on diagram in 14) and SCC code ? Fuels and their use ? Equipment used in process ? Description of product(s) including all that can be used to estimates emissions ? Raw materials used including all that can be used to estimates emissions ? Operating schedules ? Description of changes to process (if applicable) ? Pollution control equipment ? Nominal (rated) and actual (if available) control efficiency of pollution control equipment ? Pollutants emitted ? Method used for calculation of emission rate 	<ul style="list-style-type: none"> ? All calculations, including conversion factors as appropriate, to support the emissions data above ? Description of any operational constraints or work practices imposed that limit the amount of regulated or Priority Air Pollutants. ? List and describe any fugitive and smaller sources. (Attach as Appendix E)
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ENERGY, FUELS USE AND PRODUCTION INFORMATION							
15. Fuel information*		Use metric units only (litres, cubic metres, kg, etc.)					
Fuel Type	Associated SCC	Maximum hourly use	Annual use	Heat content	% Sulphur	% Ash	Density
Heavy fuel oil (No. 5 or 6)							
Heavy fuel oil (No. 5 or 6) (Low Vanadium)							
Coal							
LPG							
Kerosene							
Marine Diesel							
Auto-diesel**							
Gasoline (un-leaded)**							
Gasoline (leaded)**							
Bagasse							
Fuel wood							
Charcoal							
Other (specify)							
Other (specify)							
Other (specify)							

Electrical Energy Use, Energy From Renewable Sources and Energy Conservation, Pollution Prevention and Community Activities

Energy from non-fuel sources	
Electrical energy use (MWh)	
Total electrical energy purchased	
Total electrical energy sold	
Energy from renewable sources (MWh)	

* Electrical energy use, energy from renewable sources and energy conservation, pollution prevention and community activities.

** Shall not include fuels used for on-road (public road) transportation, but shall include fuels used for off road (e.g., agricultural, mining use).

Wind	
Solar	
Other (specify for each type)	
Other	
Other	
Provide a description of energy conservation activities (see air quality guideline document):	
Provide a description of pollution prevention activities (see air quality guideline document):	
Provide a description of community activities relevant to pollution prevention, energy conservation or emissions reduction:	

16. Raw Materials (use metric units only)				
Raw Material	Maximum hourly use	Annual average use	How stored	How moved
17. Products				
Product	Maximum hourly production	Average annual production	How stored	How shipped

SUMMARY OF SOURCE AND MAXIMUM PLANT CAPACITY EMISSION INFORMATION

18. Regulated Air Pollutant Sources (Add similar pages as need for additional sources)

	Source name & ID#		
Associated process ID(s)			
Type of source (point, area)			
Location JIGN or JMGN or UTMN (specify which)*			
Location JIGE or JMGE or UTME (specify which)*			
Stack height from ground (m)			
Stack height above building (m)			
Stack elevation at base of stack (above sea level) (m)			
Number of flues			
Internal flue diameter (m)			
Exit velocity (m/s)			
Exit temperature (°C)			
Exit flow rate m ³ /s			
Exit percent moisture(%)			
Area source length (m)			
Area source width (m)			
Area source direction the long axis is offset from north-south			

Pollutant -TSP or PM ₁₀	PM	PM	PM	PM	PM	PM
Emission rate - maximum hourly (g/s)						
Emission rate - average hourly (g/s)						
Emission rate - maximum annual (tonne/y)						
Pollutant	SO _x					
Emission rate -- maximum hourly (g/s)						
Emission rate - average hourly (g/s)						
Emission rate -- maximum annual (tonnes per year)						
Pollutant (NO _x as NO ₂)	NO _x					
Emission rate -- maximum hourly						

(g/s)						
Emission rate - average hourly (g/s)						
Emission rate -- maximum annual (tonnes per year)						
Pollutant	CO	CO	CO	CO	CO	CO
Emission rate - maximum hourly (g/s)						
Emission rate - average hourly (g/s)						
Emission rate - maximum annual (tonnes per year)						
Pollutant	VOC	VOC	VOC	VOC	VOC	VOC
Emission rate - maximum hourly (g/s)						
Emission rate - average hourly (g/s)						
Emission rate - maximum annual (tonnes per year)						
Pollutant	Pb	Pb	Pb	Pb	Pb	Pb
Emission rate - maximum hourly (g/s)						
Emission rate - average hourly (g/s)						
Emission rate - maximum annual (tonnes per year)						

19. Summary of Greenhouse Gas Emissions

	Greenhouse gases					
Annual Emissions from Renewable fuels						
Annual Emissions from non-renewable fuels						
Annual Emissions from other processes (tonnes per year)						
Pollutant						
Annual Emissions from Renewable fuels						
Annual Emissions from non-renewable fuels						
Annual Emissions from other processes (tonnes per year)						

**20. Summary of Regulated Air Pollutant Emission Information
During Maximum Capacity Operation**

	SO _x	PM	PM ₁₀	NO _x as NO ₂	CO	VOC	Pb
Maximum hourly emission rates for each pollutant (based on plant operating capacity) (kg/h)							
Maximum annual emission rates for each pollutant (based on plant operating capacity) (tonnes per year)							
Anticipated average daily emissions for each pollutant (tonnes per day)							
Anticipated annual emissions for each pollutant (tonnes per year)							

SUMMARY OF SOURCE AND MAXIMUM PLANT CAPACITY EMISSION INFORMATION

21. Priority Air Pollutant Sources (Complete for all new sources or modification to existing sources or if required by a licence condition or control order in the case of existing sources)

Source name						
Source ID#						
Associated process ID(s)						
Type of source (point, area)						
Location JIGN/JMGN/UTMN (specify which)*						
Location JIGE/JMGE/UTME (specify which)*						
Stack height from ground (m)						
Stack height above building (m)						
Stack elevation at base of stack (above sea level) (m)						
Number of flues						
Internal flue diameter (m)						
Exit velocity (m/s)						
Exit temperature (°C)						
Exit flow rate m ³ /s						
Exit percent moisture						
Area source length (m)						

Area source width (m)						
Area source direction the long axis is offset from north-south						
Pollutant CAS _____						
Emission rate - maximum hourly (g/s)						
Emission rate - Average hourly (g/s)						
Emission rate - maximum annual (tonne/y)						
Pollutant CAS _____						
Emission rate - maximum hourly (g/s)						
Emission rate - average hourly (g/s)						
Emission rate - maximum annual (tonne/y)						
Pollutant CAS _____						
Emission rate - maximum hourly (g/s)						
Emission rate - average hourly (g/s)						
Emission rate - maximum annual (tonne/y)						
Pollutant CAS _____						
Emission rate - maximum hourly (g/s)						
Emission rate - average hourly (g/s)						
Emission rate - maximum annual (tonne/y)						
Pollutant CAS _____						
Emission rate - maximum hourly (g/s)						
Emission rate - average hourly (g/s)						
Emission rate - maximum annual (tonne/y)						
Pollutant CAS _____						
Emission rate - maximum hourly (g/s)						
Emission rate - average hourly (g/s)						

Emission rate - maximum annual (tonne/y)						
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Emission rate - maximum hourly (g/s)						
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Emission rate - maximum annual (tonne/y)						
Pollutant CAS _____						
Emission rate - maximum hourly (g/s)						
Emission rate - average hourly (g/s)						
Emission rate - maximum annual (tonne/y)						
Pollutant CAS _____						
Emission rate - maximum hourly (g/s)						
Emission rate - average hourly (g/s)						
Emission rate - maximum annual (tonnes per year)						

22. Summary of Priority Air Pollutant Emissions during Maximum Capacity Operation

(Indicate pollutants using CAS number as column headings for columns 2, 3 and 4 and name in each row with pollutant in column 1. Add similar pages to this one as may be needed for additional pollutants)

	CAS #	CAS #	CAS #
Pollutant			
Maximum hourly emission rates for each pollutant (based on plant operating capacity) (kg/h)			
Maximum annual emission rates for each pollutant (based on plant operating capacity) (tonnes per year)			
Anticipated average daily emissions for each pollutant (tonnes per day)			
Anticipated annual emissions for each pollutant (tonnes per year)			
Pollutant			

Maximum hourly emission rates for each pollutant (based on plant operating capacity) (kg/h)			
Maximum annual emission rates for each pollutant (based on plant operating capacity) (tonnes per year)			
Anticipated average daily emissions for each pollutant (tonnes per day)			
Anticipated annual emissions for each pollutant (tonnes per year)			
Pollutant			
Maximum hourly emission rates for each pollutant (based on plant operating capacity) (kg/h)			
Maximum annual emission rates for each pollutant (based on plant operating capacity) (tonnes per year)			
Anticipated average daily emissions for each pollutant (tonnes per day)			
Anticipated annual emissions for each pollutant (tonnes per year)			
Pollutant			
Maximum hourly emission rates for each pollutant (based on plant operating capacity) (kg/h)			
Maximum annual emission rates for each pollutant (based on plant operating capacity) (tonnes per year)			
Anticipated average daily emissions for each pollutant (tonnes per day)			
Anticipated annual emissions for each pollutant (tonnes per year)			

<p>Locations of all point and area sources of air pollutants Site plan of plant drawn to scale to include locations of all point source emission units. Indicate ID# for each source. (Attach as Appendix F):</p>
<p>23. Plan diagrams for buildings. Provide diagrams showing plan (overhead) view of buildings containing stacks and structures within 5 times the building height or five times the maximum building width (which ever is less) of each point source (stack).</p>
<p>24. Elevation diagrams. Provide diagrams showing elevation</p>

(side) view of buildings containing and structures within 5 times the building height or five times the maximum building width (which ever is less) of each point source (stack).
25. In the case of a major facilities only: Describe air pollutant emissions during maintenance, start-up and shutdown operations.
Source name
Source ID#
Associated process ID(s)
Description of maintenance activity/operation
Typical schedule for maintenance (number per year)
Typical duration of each maintenance event (hours)
Total number of maintenance hours/year
Maximum hourly emission rates for each pollutant
Annual emissions during maintenance for each pollutant
Typical schedule for start-up/shut-down (number per year)
Typical duration of each start-up/shut-down event (hours)
Total number of start-up/shut-down hours/year
Maximum hourly emission rates for each pollutant during start-up/shut-down
Annual emissions during start-up/shut-down for each pollutant

26. Summary of dispersion calculations and/or air quality assessments (Provide Air quality assessment report under separate cover.)
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MONITORING INFORMATION
27. Compliance emission monitoring devices. List all compliance emission monitoring devices and activities and the associated title test methods. (Attach as Appendix G)
28. Compliance ambient monitoring. List all compliance ambient monitoring activities and the associated monitoring methods. (Include with Appendix G)
APPLICABLE MONITORING AND REPORTING REQUIREMENTS
29. Stack testing data Provide description of stack sampling facilities List for each stack, the stack ID, pollutant measured, measured emission rate, AP42 emission factor, emission target or emission standard, whether or not stack is in compliance

<p>with standard or target</p> <p>Attach stack sampling reports</p>
<p>30. Ambient monitoring</p> <p>List for each ambient monitoring station, the pollutant(s) monitored, monitoring method(s), frequency of monitoring, number of exceedances of ambient air quality standards during the ambient air quality assessment period (new plants or first licence application for existing plants) plants or since the licence was granted (renewals)</p> <p>Attach air quality assessment report or summary of monitoring report for the first 4 years of the current licence period</p>
<p>31. Summary of areas not in compliance with stack emission standards or targets or with ambient air quality standards</p> <p>List the sources/processes not in compliance with emission targets or standards or ambient monitors at which any ambient standard has been exceeded in the previous 5 years.</p>
<p>32. Compliance Plan (Attach as Appendix H)</p> <p>Complete this only if any areas were indicated as not in compliance in item 30 or if a control order has been issued by the Authority or if a compliance plan has been required as a condition of a licence. As indicated in the regulations, the compliance plan must include the following:</p> <ul style="list-style-type: none"> ? Description of compliance status with respect to all applicable requirements. ? A statement that source will continue to comply with all requirements with which the source is in compliance. ? A statement that source will comply with any requirement that becomes effective during term of licence. ? For requirements not being complied with, a detailed narrative description of how you will achieve compliance.
<p>33. Compliance Schedule (Include with compliance plan, Appendix H)</p> <p>Schedule must include the following statements:</p> <ul style="list-style-type: none"> ? A schedule of remedial measures that will bring into compliance with any requirement not being met. ? A schedule for submission of certified progress reports at least every 6 months for sources out of compliance.
<p>34. Include a certification of compliance with all applicable requirements as outlined in the Compliance Plan (Appendix H) and attach this certification at the end of Appendix H.</p> <ul style="list-style-type: none"> ? Include a statement of the methods used for determining compliance, to include a description of:

- ? Monitoring
- ? Record keeping
- ? Reporting requirements
- ? Test methods
- ? Include a schedule for submission of compliance certifications during the permit term to be submitted annually or as specified by the applicable requirement.
- ? Include a statement indicating the compliance status with any applicable enhanced monitoring and compliance certification requirements of the act.

CERTIFICATION

35. Certification

I hereby certify that to the best of my knowledge, the information and data submitted in and with this application are true, accurate and complete.

Operator's Signature: _____

Title: _____

Operator's Name (Typed or printed)

Date: _____

* "JIG" means Jamaica Imperial Grid

"JMG" means Jamaica Metric Grid