



NATIONAL ENVIRONMENT & PLANNING AGENCY

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THE NATURAL RESOURCES CONSERVATION AUTHORITY ACT THE NATURAL RESOURCES CONSERVATION AUTHORITY (AIR QUALITY) REGULATIONS, 2006

Licence No. 2009-14017-AQ00004

The Natural Resources Conservation Authority in accordance with NATURAL RESOURCES CONSERVATION AUTHORITY (AIR QUALITY) REGULATIONS, pursuant to an application completed on the Twenty Second day of APRIL 2009.

HEREBY GRANTS a licence to: **Jamaica Broilers Group Limited**

Address: **McCook's Pen, St. Catherine C.S.O.**

Phone: (876) 943-4376

Fax No: (876) 942-4322

With facilities located at: Port Esquivel, St. Catherine

Facility Name: **Jamaica Broilers Ethanol Dehydration Facility**
Address: Port Esquivel, St. Catherine

TYPE OF BUSINESS

The Facility conducts: **ETHANOL DEHYDRATION**

EMISSION DISCHARGE LIMITS

This licence is granted for the discharge of the following pollutants with anticipated annual discharge rates and up to the maximum amounts shown.

SUMMARY OF MAXIMUM ANNUAL EMISSIONS

FOR THE LICENCE PERIOD December 1, 2009 to November 30, 2014

Pollutant	Maximum Hourly rate (kg/h)	Maximum Annual rate (tonnes per year)
SO _x	73.03	552.6
NO _x	23.44	101.20
CO	3.98	9.6
VOC	0.597	2.365
CO ₂		41,814
TSP	2.67	18.10

Received Jan 20 2010
Linda Allison

Any reply or subsequent reference to this communication should be addressed to the Chief Executive Officer, to the attention of the officer dealing with the matter, and the reference quoted where applicable.

S C H E D U L E

The Natural Resources Conservation Authority (hereinafter referred to as the Authority) under its mandate to ensure the proper management, conservation and protection of the natural resources of Jamaica has, pursuant to the Natural Resources Conservation Authority Act and the Natural Resources Conservation Authority (Air Quality) Regulations 2006 established a system of licences to discharge of air pollutants. This licence is granted based on information provided in the licence application form, and where applicable any Environmental Impact Assessment or any adjustments made thereto or any other information submitted in support of the said application. Where new regulations are made or existing regulations are amended by the Minister under the Natural Resources Conservation Authority Act or any other statute, this licence shall be deemed upon promulgation of any such regulations to be automatically amended to conform to such regulations.

LICENCE CONDITIONS:

This licence is issued under the following conditions:

GENERAL CONDITIONS

A. Annual Reporting of Emissions

1. The Licensee shall submit an annual air emission summary report in the format stated in the 8th Schedule of the regulations in respect of each calendar year on or before June 30 in each year.
2. The Licensee shall ensure that the results of emissions monitoring including sampling and analysis are expressed in metric units consistent with the emission targets and JAAQS
3. The Licensee shall, if requested by the Authority submit a report on the ambient air quality or stack emission measurements relating to the facility, in such form and within such time as may be specified by the Authority.

B. Payment of Discharge Fees

4. The Licensee is required to pay to the Authority air emission discharge fees in accordance with the following rates:

Air Pollution Discharge Fees, Ninth Schedule Natural Resources Conservation Authority (Air Quality) Regulations 2006

Column 1	Column 2
Pollutant	Fee per tonne or portion of a tonne
Sulphur oxides (SO ₂ + SO ₃)	\$100 per tonne
Particulate matter	\$100 per tonne
Nitrogen oxides measured as NO ₂	\$100 per tonne
Lead	\$200 per tonne
Sulphuric acid mist	\$200 per tonne
Each priority air pollutant (other than greenhouse gases)	\$200 per tonne

by basis on the recorded emissions discharged during the previous calendar year.

5. The Licensee shall pay on or before June 30 of each year to the Authority emissions for the previous calendar, estimated in the manner set out in regulation 11, the fees set out in column two of the ninth schedule in relation to the pollutants listed in column one of that schedule.

C. Reporting of Excess Emissions

6. The Licensee shall report within 24hours to EHU, JBI and NEPA any situation or environmental incident which may result in an exceedance of the ambient air quality standards. The report submitted shall contain such information as is sufficient to enable the EHU, JBI and NEPA to determine whether the excess emission or measurement was caused by the failure of any dust control process.

D. Notice of Maintenance activities that could result in excess emissions

7. The Licensee shall notify the Authority in writing at least 2 weeks prior to any scheduled maintenance activities which may result in excess emissions.
8. The Authority may, if it sees fit, give to the public, or any person or class of persons likely to be affected, notice of :

- Any planned shut down or maintenance of ambient air quality monitoring equipment; and
- The possible effects of the shut down on the environment or public health.

9. The Licensee is liable for the clean up and remediation that may arise after a pollution incident

E. Notice for compliance monitoring

10. Where emissions from any source or activity at the facility exceed any applicable emission or target, a compliance plan must be submitted to the Manager, Enforcement Branch. This Compliance Plan shall include but not be limited to the following:
- A description of the current compliance status of the facility with respect to all sources, as well as the locations at which ambient air quality standard are exceeded.
 - A statement of the methods used to determine the facility's compliance status
 - Details on how the facility will achieve compliance including a proposed compliance schedule setting forth the remedial measures to be taken, including a sequence of actions with milestones leading to compliance;
 - A schedule for submission of progress reports to the Authority at least once in every six months.
11. The Licensee shall notify the Authority in writing of any proposed change in:
- The operator of the licenced facility and of the name and address of the new operator at least 90 days prior to any such change.
12. The Licensee shall notify the Authority in writing of any proposed change in the operations of the facility that may result in changes in the pollutants discharged at least 90 days prior to any such change.
13. In the case of a change as specified in General Condition #10, the proposed new operator shall apply for a transfer of the licence and shall pay the appropriate fee set out in Regulation 9 in respect of the transfer.
14. The failure of the Authority to enforce at any time or for any period any one or more of the terms and conditions of this licence shall not be a waiver of them, or the right at any time subsequently to enforce all the terms and conditions of this licence.
15. A licence shall not be transferable from one facility to another.
16. This licence is granted subject to any existing legal rights of third parties.
17. The Licensee shall maintain and keep in good repair all equipment used in carrying out the process and operations with respect to this licence. Maintenance shall be carried out in accordance with the manufacturer's recommendations, or in such better manner or at such greater frequency as operational experience may show to be appropriate.
18. All sampling and monitoring equipment required to comply with the terms and conditions of this licence, shall be inspected and calibrated in accordance with the manufacturer's recommendations, or in such better manner or at such greater frequency as operational experience may show to be appropriate.
19. There shall be safe and adequate access to all sampling and monitoring points.
20. Any amendment to the records shall be made in such a way as to leave the original result legible. Only authorized persons may make amendments to records and every such amendment shall bear the signature of the said authorized person.
21. The Licensee shall supply on demand and without charge any or all of the information contained in such records as the authorized officer may require.
22. Any member of the Authority or any person duly authorized by the Authority, may during the continuance of this licence, and at any reasonable time (except in the case of emergencies, in which case the authorized officer shall be allowed to carry out the following duties at any time):
- inspect and investigate the operation, including conditions relating to the nature and composition of any discharge;
 - install, maintain or read equipment or apparatus for the recording of the release of substances into the environment;

- examine records which are required to be kept under any term or condition subject to which this licence is granted;
 - and the Licencee shall allow any such Authorized person to carry out such inspections.
23. This licence or a copy thereof shall be kept at a prominent place at the facility and shall be in such characters and in such position as to be conveniently read by persons having functions and duties to perform with respect to this licence.
 24. The Authority may, as it thinks appropriate revoke or suspend this licence if it is satisfied that a breach of any term or condition, implied or express, subject to which this licence has been granted has been committed.
 25. This licence does not dispense with the Licencee's obligations under any other law nor does it authorize a contravention of any statute, the common law or breach of any agreement.
 26. The Authority reserves the right to during the term of this licence to amend, vary or modify any of the terms or conditions set forth herein.
 27. The Licencee hereby undertakes to comply with all of the following terms, conditions, requirements, limitations and restrictions.
 28. The Authority reserves the right to review this licence periodically and may initiate administrative or judicial action or both for any violation of any of the terms and conditions set forth herein by the licensee, its agents, employees, servants, contractors or assignees.

Specific Conditions

F. Specific monitoring and reporting conditions

1. The Licensee shall comply with all representation made in the Air Pollutant Discharge Licence Application Form received and date stamped by the Natural Resources Conservation Authority 22 April 2009, and any accompanying addenda.
2. The Licensee shall ensure that all correspondence, notifications, plans, reports or any other documents being submitted to the Agency pursuant to any General and/or Specific Condition of the Licence are addressed to "Manager, Pollution Management and Assessment Branch, National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5" with copies to the Director, Environmental Health Environmental Health Unit, Ministry of Health
3. The Licensee shall apply for and obtain a permit for the modification, demolition, increase or removal of any stack at the facility

G. Ambient parameters to be monitored and frequency

4. The Licensee shall conduct ambient monitoring at the locations agreed on by the Licensee, the National Environment and Planning Agency and The Environmental Health Unit for the following parameters which have exceeded 75% of the ambient standard as determined by the air dispersion modelling within three (3) months from the date of the Licence.
5. The Licensee shall conduct ambient monitoring in accordance with the guidelines as stipulated below.

Pollutant	Averaging time	Standard (maximum concentration in ug/m ³)	Frequency
Nitrogen oxides	1h	400	Continuous
	Annual	100	
Sulphur Dioxide	Annual	80 Primary; 60 Secondary (c)	Continuous
	24h	365 Primary; 280 Secondary	
	1h	700	

6. The Licensee shall ensure that opacity measurements do not exceed the emission target of 20% and up to 40% for six (6) consecutive minutes in any hour or 6 hours in ten (10) days for each stack except during soot-blowing, plant start-up or plant shut-down
7. The Licensee shall submit an air quality monitoring plan and shall provide documentation and reporting in accordance with the monitoring programme set out in the ambient air quality guideline document

H. Stack Emission Monitoring

8. The Licensee shall conduct stack emission monitoring and measurement as specified in the 10th and 11th Schedule of the Regulations.
9. Licensee shall not exceed the stack emission targets as specified in the 10th & 11th Schedule of the Regulations.
10. The Licensee shall pursuant to Specific Condition # 7, monitor in accordance with the guidelines stipulated in the 12th Schedule of the Regulations.
11. The licensee of (all major sources) shall conduct stack tests at least once every five years, between 6 and 12 months prior to the licences being renewed or at any other time required by the Authority.
12. The Licensee shall submit to the Authority a pre test sampling protocol plan in accordance with 12th Schedule of the Regulations for approval to the Manager, Enforcement Branch, the National Environment and Planning Agency and the EHU prior to any stack emissions testing exercise.
13. The Licensee shall notify the Manager, Enforcement Branch, the National Environment and Planning Agency and the EHU at least two weeks prior to the date of the stack testing to allow for the Agency to witness the test
14. Measurements of emissions into the atmosphere from stacks, vents or other air pollutant sources, shall be reported to the Authority in the form of a test report that includes the following information:
 - (a) The testing methods and results, certified as being true, accurate, and in compliance with these Regulations by the person responsible for conducting the emissions test;
 - (b) The name and location of the facility, the name and location of the source tested, the purpose of the tests, the test participants and their titles, and the date of the performance test;
 - (c) A summary of the results, setting out emission rates for each pollutant and a comparison with applicable emission standards or targets and with any emission limits in the licence;
 - (d) A description of the facility and sources tested and the type of process and control equipment utilised;
 - (e) A description of the process sampled and associated emission control devices referenced to process ID, and locations at which sampling took place consistent with information provided in the relevant licence application or licence, as the case may be;
 - (f) A schematic of each location sampled including duct diameter, direction of flow, dimensions to nearest upstream and downstream disturbances (including the number of duct diameters), location and configuration of the sampling ports, nipple length and port diameters.
15. The Licensee shall submit an emissions report in respect of each calendar year to the Authority and the EHU within six months after the end of that calendar year, unless otherwise directed by the Authority. An emissions report shall be in the form set out in the 8th Schedule and shall contain:
 - (i) An estimate of the emissions for the relevant calendar year; and
 - (ii) All the data applicable to the emissions sources, in respect of the licenced facility;
16. Estimates of annual emissions shall be made based on the following methods, in order of preference:
 - (a) Continuous emission monitoring;
 - (b) Calculation of SO₂ emissions based on fuel use and sulphur content data (combustion processes in which exhaust gases do not come in contact with products);
 - (c) Most recent and representative stack monitoring measurements conducted in the previous five years and activity data for the year for which emissions are estimated;
 - (d) AP42 emission factor or equivalent methods and activity data for the year;
 - (e) AP42 emission factor or equivalent methods and plant capacity data;
 - (f) Mass balance (including fuel use data) based on the two previous years or the most recent representative year;
 - (g) Other approved methods supported by calculation and documentation, and the procedures set out in the guideline document.
17. Where the Authority requires stack emission tests to be performed under these Regulations, the operator of the facility shall provide the following:
 - (a) Sampling ports adequate for test methods applicable to the facility;
 - (b) Safe sampling platforms or other suitable and safe structures or equipment, permanent or temporary, mobile or stationary;
 - (c) Safe access to sampling platforms;
 - (d) Testing equipment and utilities for sampling;
 - (e) A description of the process sampled and associated.

I. Specific Emission Identifiers

18. The Licensee shall make available a map to be on site showing emission point sources.

J. Compliance Requirements

19. The Licensee shall not, in relation to new sources at a major or significant facility, burn, or permit to be burned, residual oil fuel (No. 5 or 6) containing over 2.83 percent sulphur by weight as fired.
20. The Licensee shall not, in relation to existing sources burn, or permit to be burned, residual oil fuel (No. 5 or 6) containing over 3 percent sulphur by weight as fired: Provided that there are existing facilities with permit conditions that require fuel with specified sulphur content lower than three percent shall be required to continue to satisfy those conditions.

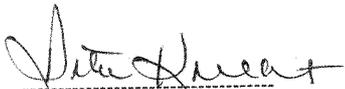
M. Record Keeping Requirements

21. The results of all monitoring activities shall be recorded and compiled in a manner that reflects the true value of the monitoring exercise and shall be submitted in the form of reports to the NEPA with copies to and the Environmental Health Unit (EHU). Reports shall be submitted monthly
22. The Licensee must maintain a log of all written complaints and verbal complaints received that specifically refer to air pollution concerns associated to the permitted facility. The log must include a record of the Licensee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.
23. Unless otherwise specified, all records must be maintained on site for a period of not less than seven (7) years from the date the record was made and made available to the Authority and EHU upon request.

N. Notes

24. The Licensee shall be required to conduct a Health Impact Assessment where the Agency and the EHU determine that the health and wellbeing of the public within the zone of influence of the air pollutant discharged from the facility may be compromised.
25. The Licensee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.

Dated this 18th day of January 2010



PETER KNIGHT J.P.
FOR NATURAL RESOURCES CONSERVATION AUTHORITY



GILROY ENGLISH
SECRETARY
NATURAL RESOURCES CONSERVATION AUTHORITY