Application for Approval of Recovery of Costs of 1% Sulphur Fuel through the Rate Stabilization Plan

Pre-filed Testimony

Newfoundland & Labrador Hydro

May 4, 2006

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Frank Ricketts, Manager of Environmental Services

Witness Profile

Mr. Ricketts graduated from Memorial University in 1976 and from York University in 1985 and holds degrees in Bachelor of Science and Masters in Environmental Studies. Mr. Ricketts' employment commenced in 1987 as a Senior Ecologist. He was appointed Manager of Environmental Services in 1995.

This is Mr. Ricketts' first occasion to testify before this Board.

The following is pre-filed testimony of Mr. Frank Ricketts, Manager of Environmental Services for Newfoundland and Labrador Hydro which testimony will be adopted by Mr. Ricketts at the hearing:

As Manager of Environmental Services, I am a member of a team of Hydro employees that is responsible for ensuring that, so far as is reasonably possible, Hydro is compliant with the applicable environmental legislation and regulation. A challenging part of this role relates to the emission of pollutants, particularly sulphur dioxide, from the HTGS. My involvement in this process goes back many years but this issue has become more challenging in recent years due more stringent requirements of the provincial regulator.

Hydro is required to keep its emissions of sulphur dioxide below certain levels set out in the *Air Pollution Control Regulations, 2004*. The Province's Department of Environment and Conservation has prescribed methods described in Guidance Document – Pollution Prevention Division – 009.2 *Determination of Compliance with the Ambient Air Quality Standards* to determine whether Hydro complies with these regulations. The method prescribed for those airsheds that include major industrial operations, such as the Holyrood Thermal Generating Station, is the application of computer modeling to determine the ambient air quality resulting from emissions as measured through stack emission sampling.

In February of this year, Hydro was issued a Certificate of Approval pursuant to the Environmental Protection Act. The Certificate of Approval requires Hydro to operate the HTGS in compliance with ambient air quality standards set out in the *Air Pollution Control Regulations, 2004.* Further, the Certificate of Approval sets out the bases and procedures to be used to determine whether or not the HTGS emissions are compliant.

Through the application of the procedures prescribed, the Department of Environment and Conservation has determined that Hydro's sulphur dioxide emissions result in ambient air quality that does not comply with the regulatory standard. Hydro is therefore required to take action to reduce these emission levels.

There is essentially a one-to-one relationship between the effect of reducing sulphur content in a fuel and the resulting sulphur dioxide emissions. Therefore, reducing the

sulphur content in the fuel burned at the HTGS by 50% will result in a 50% reduction in sulphur dioxide emissions.

Hydro has determined that this is a prudent first step to take towards mitigating its sulphur dioxide emissions. While it is not certain that this level of emissions reduction will be sufficient to ensure compliance with the *Air Pollution Control Regulations, 2004*, it is believed that there is a strong likelihood that this measure will be effective and Hydro has determined that it will await further testing outcomes before any further increases in its emission related operating costs are incurred or before any significant related capital improvements are undertaken.

Attached to my evidence for your reference are the following:

- Environmental Protection Act (excerpts)
- Air Pollution Control Regulations, 2004
- Certificate of Approval for the operation of a thermal generating station, including power house, waste water treatment plant, hazardous waste landfill and associated works located at Holyrood, NL pursuant to the *Environmental Protection Act, SNL 2002 c E-14.2 Section 83*

James R. Haynes, P. Eng., Vice President Regulated Operations

Witness Profile

- Mr. Haynes graduated from Memorial University with a Bachelor of Engineering Degree in 1977 and at that time joined Newfoundland and Labrador Hydro as a graduate engineer.

- Since then he has held a number of positions with Newfoundland and Labrador Hydro Instrumentation Engineer at, Transmission Planning Engineer, Manager of Transmission, Director of Plant Operations and Maintenance (CF(L)Co, General Manager (CF(L)Co and director Production at Hydro

- In 1999 Mr. Haynes was appointed to the position of Vice-President, Production for Newfoundland and Labrador Hydro

- In 2005 was appointed the Vice-President of Regulated Operations

- Mr. Haynes has testified before the Board of Commissioners of Public Utilities during Newfoundland and Labrador Hydro's 2003 and 2004 Capital Budget Hearings, as well as the 2003 General Rate Application.

The following is pre-filed testimony of Mr. James R. Haynes, P. Eng. Vice-President Regulated Operations, which testimony will be adopted by Mr. Haynes at the hearing:

Like many electric utilities, Newfoundland and Labrador Hydro (Hydro) is dependent upon fossil fuels to produce a significant portion of its electrical energy. The Holyrood Thermal Generating Station (HTGS) is of fundamental importance to the production of electrical power and energy to the Island portion of the Province, typically producing between 30 and 40% of Hydro's Island energy sales.

Burning fossil fuels necessarily causes the creation of pollutants and their subsequent release into the atmosphere. The HTGS is a significant emitter of pollutants into the atmosphere and Hydro is striving to ensure that it does not emit pollutants in quantities that are in excess of the levels set out in the legislation and regulations that govern it.

Adhering to the legislation is becoming increasingly more challenging as legal requirements change and as the administration and enforcement of environmental legislation become more onerous. In the case of the HTGS, earlier this year Hydro reduced the sulpur content in the No. 6 fuel it acquires for consumption at the HTGS from 2% to 1% sulphur. This action was taken in an effort to comply with the Province's regulations concerning the emission of sulphur dioxide into the atmosphere.

Representatives of the Minister of Environment and Conservation informed Hydro that it was their opinion that, based upon the modeling they had undertaken, the sulphur dioxide emissions from the HTGS were in excess of those permitted by regulation. Hydro undertook engineering studies to determine what could be done to ensure that it operated within the standards set out in the applicable legislation and regulations and determined that an effective and the least cost method was to reduce the level of sulphur in its No. 6 fuel. Other alternatives considered included the retrofitting of the HTGS with flue gas desulphurization (FGD) and Electrostatic precipitator (ESP) equipment. Installing FGD and ESP equipment at the HTGS is a very costly prospect both in terms of capital and operating costs. It is worthy of note that were a new fossil generating station like the HTGS to be constructed today, Provincial regulations would require it to include the best available emission control technology, which would likely be FGD and ESP equipment.

Using lower slphur fuel has an additional advantage over the retrofitting of the HTGS with FGD equipment in that there are no sunk costs associated with acquiring low sulphur fuel. This aspect is very important when considering the prospects of using alternative fuels, such as natural gas, that may become available for use at some time in the future. Likewise, in the event that the Island portion of the province were able to access Labrador hydro-electricity through a transmission in-feed, a very large capital investment in emissions control improvements for the HTGS would not represent prudent spending by Hydro and would have long term negative implications for the ratepayer.

We believe that reducing the sulphur content of the fuel consumed at the HTGS from 2% sulphur to 1% sulphur is a prudent and conservative measure that will likely permit Hydro to operate within the environmental legislation and regulations of the Province. We are not absolutely certain that this measure will be sufficient and we will be testing and monitoring our environmental performance at the HTGS to determine whether further or other steps are required. In the meantime, this measure has the very important benefit of being fiscally prudent because (1) it is the least cost method of attaining compliance with the environmental regulations, and (2) it involves no sunk costs beyond the most recent delivery of No. 6 fuel that Hydro has received to any point in time and it avoids investments of hundreds of millions of dollars that would turn out to be unnecessary should natural gas become available or a transmission infeed from Labrador materialize.

This is not the official version.

SNL2002 CHAPTER E-14.2

ENVIRONMENTAL PROTECTION ACT

Amended:

2004 cL-3.1 s28

CHAPTER E-14.2

AN ACT RESPECTING ENVIRONMENTAL PROTECTION

(Assented to May 22, 2002)

Analysis

(a) "activity" means an activity or part of an activity as defined and prescribed by regulation;

(b) "adverse effect" means an effect that impairs or damages the environment and includes an adverse effect to the health of humans;

(c) "air" means air not enclosed in a building, structure, machine, chimney, stack, flue, tank, pipe or other human made structure;

(d) "analyst" means a person appointed as an analyst under section 122;

(e) "approval", unless the context indicates otherwise, means an approval issued under this Act in accordance with Part XI and the regulations with respect to an activity and includes an amended, varied, qualified or renewed approval and terms and conditions that the minister may apply to an approval and to an amended, varied, qualified or renewed approval;

(f) "compliance agreement" means an agreement made as permitted by this Act in accordance with section 105;

(g) "compost" means the treatment of waste and organic matter by aerobic decomposition and microbial action to produce a stable, inert material;

(h) "contaminant" means, unless otherwise defined in the regulations, a substance that causes or may cause an adverse effect;

(i) "contaminated site" means a site designated as a contaminated site by the minister under section 26;

(j) "court", unless the context indicates otherwise, means the Provincial Court of Newfoundland and Labrador ;

(k) "dangerous goods" means an organism, substance or thing designated as being dangerous goods under the regulations;

(l) "department", unless the context indicates otherwise, means the department presided over by the minister;

(m) "environment" includes

(i) air, land and water,

(ii) plant and animal life, including human life,

(iii) the social, economic, recreational, cultural and aesthetic conditions and factors that influence the life of humans or a community,

(iv) a building, structure, machine or other device or thing made by humans,

(v) a solid, liquid, gas, odour, heat, sound, vibration or radiation resulting directly or indirectly from the activities of humans, or

(vi) a part or a combination of those things referred to in subparagraphs (i) to (v) and the interrelationships between 2 or more of them;

(n) "environmental audit" means an independent assessment of

(i) a person's compliance with this Act and approvals issued under this Act,

environmental effect;

(nn) "waste" includes rubbish, offal, slime, tailings, effluent, sludge, sewage, garbage, refuse, scrap, litter or other substances or waste products that would or could cause an adverse effect;

(oo) "waste dangerous goods" means a substance designated as waste dangerous goods by regulation;

(pp) "waste management system" means a system for the collection, transportation, handling, storage, treatment, utilization, diversion, recycling, reuse, recovery, reduction or disposal of waste;

(qq) "water" includes a surface or subterranean source of fresh or salt water within the jurisdiction of the province, whether or not that source usually contains liquid or frozen water, water above the bed of the sea that is within the jurisdiction of the province, a river, stream, brook, creek, watercourse, lake, pond, spring, lagoon, ravine, gully, wetland, canal and other flowing or standing water and land at any time covered by water;

(rr) "waterworks" means a public, commercial or industrial works for the collection, production, treatment, storage, supply and distribution of water or a part of those works; and

(ss) "works" includes all property, buildings, erections, plant, machinery, installations, materials, dams, canals, devices, fittings, apparatus, appliances and equipment.

2002 cE-14.2 s2

PART I
APPLICATION

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Crown bound

3. (1) This Act is binding upon the Crown, its corporations, agents, administrators, servants, employees and agencies.

(2) In this section "Crown" means the Crown in right of the province and in so far as the legislative competence of the province extends, includes the Crown in right of Canada .

2002 cE-14.2 s3

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Conflict with another Act

4. (1) Where there is a conflict between this Act and another Act, this Act prevails.

(2) A licence, permit, approval or other authorization issued under another enactment does not constitute an approval under this Act, unless otherwise stated in the regulations.

(3) A provision of another Act or of a regulation or by-law of a municipality is not in conflict with this Act by reason only that it imposes a restriction or requires a condition for the protection of the environment in excess of that required by this Act.

(4) Nothing in this Act affects or impairs the validity of a regulation or by-law of a municipality or an authorization issued by a municipality relating to matters dealt with in this Act unless the regulation, by-law or authorization is in conflict or inconsistent with this Act.

Boards and committees

6. The minister may establish and appoint members to those boards, committees and councils that are necessary or desirable to help and advise him or her in carrying out this Act or a Part of this Act.

2002 cE-14.2 s6

PART III
RELEASE OF SUBSTANCES

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Prohibition

7. (1) A person shall not release or permit the release of a substance into the environment in an amount, concentration or level or at a rate of release that in the opinion of the minister causes or may cause an adverse effect, unless authorized under this Act or an approval issued under this Act.

(2) A person shall not release or permit the release of a substance into the environment in an amount, concentration or level or at a rate of release exceeding that expressly authorized under this Act or an approval issued under this Act.

2002 cE-14.2 s7

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Report of release

8. (1) A person responsible for the release of a substance into the environment that has caused, is causing or may cause an adverse effect shall, as soon as that person knows or ought to know of the release, report it to

(a) the department or other appropriate agency at its emergency telephone number or as required by the department or agency;

(b) the owner of the substance if the person reporting knows or is readily able to ascertain the identity of the owner;

(c) the person having care, management or control of the substance if the person reporting knows or is readily able to ascertain the identity of that person; and

(d) another person who the person reporting knows or ought to know may be directly affected by the release.

(2) A person responsible for a release of a substance into the environment that is in excess of an amount, concentration, level or rate of release expressly authorized under this Act or an approval issued under this Act, shall immediately, as soon as that person knows or ought to know of the release, report it as required under this Act or an approval to the persons identified in paragraphs (1)(a) to (d).

2002 cE-14.2 s8

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Remedial measures

9. A person responsible for the release of a substance shall, at that person's own cost, and as

PART VI
AIR QUALITY MANAGEMENT

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Air quality standards and controls

22. The minister may

(a) establish provincial ambient air quality standards or objectives necessary for the protection of the environment;

(b) establish performance specifications, standards and methods for air quality testing and monitoring;

(c) maintain inventories and establish reporting requirements for emissions of air contaminants;

(d) establish air emission standards for odour, toxic, and common and nuisance air contaminants;

(e) establish performance specifications for vehicles, equipment, operations and facilities emissions;

(f) test, monitor and regulate the release of substances into the air;

(g) establish performance standards and specifications for wood burning stoves and furnaces and other stationary combustion sources;

(h) adopt overall provincial emission caps, production goals and product manufacturing, sale and use restrictions with respect to air quality issues of regional or global significance;

(i) conduct or require air quality and meteorological studies and compliance monitoring programs;

(j) establish regional air quality management programs to address the combined effects of multiple sources of air contaminants;

(k) enter into agreements respecting air quality management issues;

(l) prepare model by-laws and otherwise cooperate with municipalities to promote improved air quality; and

(m) establish requirements with respect to the design, operation or maintenance of equipment, devices or services that may emit or limit the issuance of contaminants into the air and require alterations to them where they are not functioning in the manner that the minister considers to be appropriate.

2002 cE-14.2 s22

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Air quality management areas

23. (1) The minister may establish air quality management areas in the province.

(2) The minister may develop an air quality management plan for an area established under

province, and by a board or committee, with respect to the conduct of an environmental assessment of an undertaking.

2002 cE-14.2 s74

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Notice of registrations and decisions

75. The minister shall issue a notice of the registration of an undertaking and of a decision, direction or determination with respect to an environmental assessment under this Part within the time period required by regulation.

2002 cE-14.2 s75

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Power included

76. (1) The power to release an undertaking under this Part includes a power to amend that release in the same manner in which the original release was made.

(2) The power to exempt or release an undertaking under this Part subject to terms and conditions includes the power to require, as a term or condition, the posting of a bond or another form of security by the proponent of that undertaking.

2002 cE-14.2 s76

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Reclamation order

77. Where a person is convicted of an offence under subsection 114(2), in addition to another penalty that may be imposed under section 115, the court may, having regard to the nature of the offence and the circumstances surrounding its commission, make an order directing the offender to

(a) take the action the court considers necessary to remedy or prevent an environmental effect that results or may result from the act that constituted the offence; and

(b) post a bond or other form of security acceptable to the court or pay money into court in an amount that will ensure compliance with an order made under this section.

2002 cE-14.2 s77

PART XI
APPROVALS

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Approvals

78. (1) A person shall not commence or continue an activity that requires an approval under this Act unless that person holds the appropriate approval.

(2) An activity that requires an approval shall be listed in the regulations.

(3) Notwithstanding subsection (2), the minister may require that an approval be issued for an activity not listed in the regulations before that activity may proceed.

action or a proceeding for or in respect of an act or thing done or omitted by him or her in good faith in the exercise or purported exercise of his or her duties or powers under this Act or for costs in connection with an action or proceeding.

(2) Notwithstanding subsection 5(4) of the *Proceedings Against the Crown Act,* the liability of the Crown in respect of anything done or omitted to be done by an inspector, officer or an employee of the department, a member of a board or committee or other person in the performance of his or her duties under this Act or the regulations is the same as if subsection (1) were not in force.

2002 cE-14.2 s98

PART XIII
ORDERS

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Order

99. (1) Where the minister believes on reasonable grounds that a person responsible has contravened or will contravene this Act or the terms or conditions of an agreement, approval, amended or varied approval, licence or an undertaking exempted or released under this Act, the minister may, whether or not that person has been charged or convicted in respect of the contravention, issue an order, in writing, requiring a person at that person's own expense, to

(a) stop or shut down an activity or an undertaking immediately, permanently, or for a specified time, where, with respect to that activity or undertaking, there has been a contravention of this Act, the regulations or a term or condition applicable to that activity or undertaking;

(b) do all things and take all steps that are necessary to control, manage, eliminate, remedy or prevent an adverse effect or an environmental effect and to comply with this Act, the regulations or terms or conditions applicable to an approval, activity or undertaking in accordance with directions set out in the order;

(c) post a bond or other form of security acceptable to the minister or pay money to the Crown in an amount that the minister considers will ensure compliance with an order made under this section;

(d) install, remove, replace or alter equipment, a tank, container or thing designed to control, contain, reduce or eliminate the release into the environment of a substance;

(e) shut down or make a change to waterworks and to a source of water supply in accordance with directions set out in the order;

(f) shut down, alter or add to sewage works in accordance with directions set out in the order; and

(g) where that person is using, handling, storing, applying or disposing of dangerous goods, waste dangerous goods or pesticides, notwithstanding anything contained in an approval or licence, take the action specified in the order to manage, eliminate, remedy or prevent contamination or other adverse effects by those substances,

and there shall be served on the person responsible a copy of the order and a statement showing the reasons for the making of the order and upon receipt of the copy and statement, that person shall comply with the order.

(2) In environmentally sensitive areas, an order under subsection (1) may impose terms and conditions in excess of requirements provided under this Act and policies, guidelines, approval or standards prescribed or adopted by the department.

(3) In addition to other requirements that may be included in an order issued under this Part, an order may contain provisions

(a) requiring a person, at that person's own expense, to

(i) maintain records on a relevant matter and report periodically to the minister or a person appointed by the minister,

(ii) hire an expert to prepare a report for submission to the minister or a person appointed by the minister,

(iii) submit to the minister or a person appointed by the minister, a proposal, plan or information specified by the minister setting out an action to be taken by the person,

(iv) prepare and submit a contingency plan,

(v) undertake tests, investigations, surveys and other action and report results of these to the minister, and

(vi) take another measure that the minister considers necessary to facilitate compliance with the order or to protect or restore the environment;

(b) establishing the manner, method, or procedures to be used in carrying out the measures required by the order; and

(c) establishing a time within which a measure required by the order is to be commenced and the time within which the measure, order or a portion of the measure or order must occur.

(4) Where a stop order is issued under this section, the inspector, minister or other employee shall, by written notice, not more than 48 hours after issuing that order, give to the person against whom the order is made reasons for it and shall immediately forward a copy of the stop order and the notice to the minister.

(5) The minister may authorize an official, officer or employee of the department to issue amend, vary, revoke and give reasons for an order under this section.

2002 cE-14.2 s99

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Amendment or revocation of order

100. (1) The minister may, with respect to an order made under this Part,

(a) amend a term or condition of, add a term or condition to, or delete a term or condition from an order;

(b) revoke an order; and

(c) amend a typographical error in an order.

(2) A copy of an order amended or revoked under subsection (1) shall be served as required by this Act on the person to whom the original order was directed and served.

2002 cE-14.2 s100

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Effects of order

101. (1) An order made under this Part may deal with more than one substance and may be directed to one or more persons.

(2) An order under this Part remains in effect until revoked by the minister.

(3) An order issued under this Part is binding on the heirs, successors, executors, administrators, trustees, receivers, receiver managers and assigns of the person to whom it is directed.

(4) An order made under this Part may be issued against a person responsible regardless of whether or not the act or omission that resulted in the issuance of the order, occurred before or after the coming into force of this Act.

2002 cE-14.2 s101

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Compliance

102. (1) Where an order is served upon the person to whom it is directed, that person shall comply with the order immediately or, where a period of compliance is specified in the order, within the time period specified.

(2) Where a person to whom an order is directed does not comply with the order or part of the order or service of that order cannot be carried out, the minister may take whatever action he or she considers necessary to carry out the terms of the order.

(3) Where the minister

(a) takes an action under subsection (2) to carry out the terms of an order; or

(b) incurs costs, expenses or charges in order to investigate and monitor the compliance of a person with an order,

the reasonable costs, expenses or charges incurred by the minister in taking that action are recoverable by the minister from the person to whom the order was directed as a debt owed to the Crown and the minister shall notify the person against whom the order is made of his or her determination of the amount of the recoverable costs, expenses and charges.

(4) Where a person defaults in paying a debt owed to the Crown in accordance with subsection (3), the minister may issue a certificate stating the amount due and remaining unpaid to the Crown and the name of the person by whom it is payable, and file the certificate with the Registrar of the Supreme Court and when that certificate is filed with the Registrar of the Supreme Court, it is of the same effect and all proceedings may be taken on the certificate, as if it were a judgment of the Trial Division for the recovery of the amount stated in the certificate against the person named in the certificate.

(5) Where a stop order is made under this Part, costs and expenses incurred by the proponent or person responsible for the stopped undertaking or activity with respect to that undertaking or activity shall not be recoverable from the Crown.

(6) For the purpose of subsection (3), reasonable costs, expenses or charges include costs incurred by the department in investigating and responding to a matter to which an order relates or the failure to comply with an order, and costs and expenses for lodging, salaries, remuneration, transportation and meals incurred by the department in monitoring a person required to comply with an order and in carrying out an action necessary to comply with an order.

2002 cE-14.2 s104

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Compliance agreements

105. (1) Where the minister may enter into a compliance agreement under this Act, and where he or she has reason to believe that a person is or will be in contravention of this Act, or the terms and conditions of an approval, and the minister has information which would have him or her believe that,

(a) the contravention is beyond the control of the person; and

(b) the contravention is not likely to cause short or long term health problems to persons or environmental damage beyond the assimilative capacity of the immediate environment; and

(c) failure to enter into a compliance agreement would result in serious economic hardship to the person without benefit to others or the environment,

and the minister is of the opinion that a compliance agreement is in the public interest and within the purpose of this Act, the minister may, in the form that he or she requires, enter into a written compliance agreement with the person and that agreement shall contain the terms and conditions required by this section and the minister.

(2) A compliance agreement made under this section shall be for a fixed period of time that the minister considers to be reasonable.

(3) A compliance agreement made under this section may

(a) require that monitoring data collected as required by a term of that agreement or under this Act or the terms and conditions of an approval issued under this Act, be provided to the department as required by the minister;

(b) contain a term whereby the person entering the compliance agreement agrees to refrain from engaging in specified actions that caused the alleged contravention of this Act or of an approval;

(c) contain a term requiring a person to develop and implement a pollution prevention plan acceptable to the minister;

(d) specify persons to be compensated for damages to public property;

(e) require that financial security be made or compensation, in whole or in part, be paid to the Crown for the cost of remedial or preventive action taken by or caused to be taken by the minister as a result of a contravention;

(f) establish the liability of secured creditors, receivers, receiver managers, trustees in bankruptcy, executors, administrators and others;

(g) require that the Crown be compensated, in whole or in part, for the cost of investigations related to a contravention;

(h) require that pollution control devices be upgraded;

(i) require that an activity that caused a contravention be carried out in a specified manner;

(j) require that a person comply with other terms and conditions that the minister considers appropriate; and

(k) require that a notice of the terms and conditions of the compliance agreement be published in the *Gazette* .

(4) The minister may, with the written consent of other parties to the compliance agreement, amend a term or condition of, add a term or condition to or delete a term or condition from that agreement.

(5) A compliance agreement is in force only for the time period indicated in the compliance agreement and, notwithstanding that agreement, during that time

(a) the terms and conditions set out in the compliance agreement; or

(b) this Act and the terms and conditions of an approval that are not varied by the compliance agreement,

apply to the activity that is the subject of the compliance agreement.

(6) A person who adheres to a compliance agreement shall not be charged with an offence under this Act with respect to a contravention of this Act that is the subject of that agreement but evidence of the contravention may be introduced as evidence in subsequent court proceedings.

(7) A compliance agreement made under this section shall not prohibit the minister and the department from exercising powers under this Act that comply with or are outside the substance of the compliance agreement.

(8) Where a person does not adhere to a compliance agreement made under this section or has not complied with the compliance agreement within the time specified in that agreement, that agreement shall be considered to not be in force.

(9) Notwithstanding subsection (8), the minister and a person who is a party to a compliance agreement may, as a term of that agreement, agree to an alternative form of dispute resolution where a term or condition of that agreement is in dispute, provided that the alternative resolution method shall occur and be completed within the time during which that agreement is in effect, and

(a) where a resolution of the matter occurs within the required time, the terms of that resolution shall be incorporated into the compliance agreement; and

(b) where a resolution of the matter does not occur within the required time, the compliance agreement shall be considered not to be in force.

2002 cE-14.2 s105

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Administrative penalties

106. (1) Where the minister is of the opinion that a person has committed, as specified by regulation, a contravention of this Act for which an administrative penalty applies, the minister or a person authorized by the minister may, in writing, notify that person that he or she is to pay to the government of the province an administrative penalty in the amount set out in the notice for each day or part of a day the contravention occurs or continues to occur.

(2) A person who pays an administrative penalty with respect to a contravention may not be charged with an offence under this Act with respect to that contravention.

(3) Where a person fails to pay an administrative penalty in accordance with a notification under subsection (1), the government of the province may recover the amount owing in respect of the penalty as a debt owed to the Crown.

(4) For the purpose of this section, an administrative penalty is a monetary penalty imposed in accordance with the regulations for a contravention of this Act.

considered void and the decision being appealed shall be considered to be final.

(7) The judge shall hear an appeal made under subsection (1) and the evidence brought forward by the appellant and the Crown in a summary manner and shall decide the matter of the appeal by

(a) upholding, amending or revoking the order or decision; or

(b) making another order or decision that the judge considers proper in the circumstances.

(8) An appeal made under this section shall be dismissed by the Trial Division if the sole ground for relief established on the appeal is a defect in form or a technical irregularity.

(9) A judge may make an order as to costs for or against the appellant or the Crown and may fix the amount of those costs.

(10) An appeal may only be taken from a decision of a judge of the Trial Division to the Court of Appeal on a point of law raised upon the hearing of the appeal by the judge of the Trial Division.

(11) The filing of an appeal under this section shall not affect the order or decision appealed from and the order shall remain in force pending the outcome of the appeal.

2002 cE-14.2 s108

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Civil remedy

109. A civil remedy for an act or omission is not suspended or affected by reason only that the act or omission is an offence under this Act or gives rise to a remedy under this Act and nothing in this Act shall be considered to repeal, reduce or remove a remedy available to a person under another Act of the province, at common law or under an Act of the government of Canada or of another province of Canada.

2002 cE-14.2 s109

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Evidence of damage

110. Where a person is convicted of an offence under this Act, the conviction is evidence of negligence and a person who suffers loss or damage as a result of the conduct that constituted the offence may, in a court of competent jurisdiction, sue for loss or damages suffered as a result of the conduct which constituted the offence.

2002 cE-14.2 s110

PART XV
REGULATIONS

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Regulations

111. (1) The Lieutenant-Governor in Council may make regulations

(a) defining a word that is not already defined in this Act for the purpose of this Act;

(b) respecting releases of substances, environmental rehabilitation funds and levies, remediation, terms for the rehabilitation of the environment, allocation of liability and compliance and other agreements made under this Act;

(c) respecting environmental audits and environmental site assessments;

(d) adopting a code or standards of an agency or government of another province, or of Canada ;

(e) respecting environmentally sensitive areas;

(f) respecting the burning of waste and respecting waste disposal practices at construction sites, commercial and service outlets, public and private events, public areas and the placement of flyers on utility poles, vehicles, structures and generally respecting all things which may result in the unlawful disposal of litter;

(g) respecting emergency measures, the training of persons to respond to emergencies that relate to environmental emergencies and hazards;

(h) respecting the establishment of standards and requirements for waste separation, management and disposal programs, waste management, the implementation and operation of waste management programs, waste facilities, waste disposal systems, waste management agencies and sites, recycling, including the recycling of dangerous goods and their treatment when not recyclable and designating substances as waste;

(i) respecting the Multi-Material Stewardship Board continued under section 19;

(j) respecting the restricting, prohibiting or enabling of the use or sale of products that may be composted;

(k) respecting the payment of a deposit for the recycling of oil and tires, on a package or container or a class of packaging or container and requiring the development of packaging waste reduction and prevention plans and respecting the establishment and management of a waste management trust fund and the disbursement of money from that fund ;

(l) prohibiting or restricting the manufacture, composition, formulation, sale, use or disposal of a substance that may directly or indirectly have the potential by way of biological, chemical or physical means to release substances into the environment and which may have an adverse effect;

(m) providing for the issuing of approvals to persons dealing with ozone depleting substances and vehicles, machinery or equipment containing those substances and respecting ozone depleting substances and their replacement substances;

(n) respecting the installation of systems or devices and procedures to limit the concentration or quantity of emissions into the atmosphere, either alone or in combination with another substance and requiring the submission of information related to the release of substances into the atmosphere and establishing standards and objectives relating to ambient air quality and governing or prohibiting practices or activities that may emit contaminants into the atmosphere;

(o) respecting air quality management areas, air quality advisory committees and air quality plans and programs;

(p) respecting motor vehicle and engines emissions and equipment and fuel of motor vehicles and requiring the inspection, maintenance and repair of motor vehicles, engines and equipment attached to motor vehicles for the purpose of limiting the emission of air contaminants, to promote fuel efficiency and requiring new motor vehicles be sold in the province with emission control warranties;

(q) respecting the quality, characteristics and composition of fuels sold for use in the province and restricting the use, type and quality of fuel used in specified engines, equipment and motor vehicles;

(r) respecting the designation of assessment and rehabilitation criteria for contaminated sites and for the cleanup of those sites and determining responsibility for contaminated sites and the duties and rights of vendors, purchasers or other persons with respect to property which may be contaminated;

(s) respecting waste effluents and methods of treatment for those effluents;

(t) respecting and designating substances as dangerous goods and waste dangerous goods, classifying dangerous goods and waste dangerous goods, establishing permissible concentrations upon release of those goods into the environment, the quantity or concentration which may be handled, the purpose for which they or a product containing them may be handled, regulating or prohibiting the handling, sale or distribution of them, and containers holding those goods and respecting signs, labelling or other public notification on those containers;

(u) respecting the submission to the minister of information, including manifests relating to dangerous goods, waste dangerous goods or pesticides and requiring manufacturers, distributors or sellers to recall products or materials containing dangerous goods, waste dangerous goods or pesticides;

(v) respecting the use, operation and cleaning of vehicles, aircraft, vessels, machinery, equipment and containers used in connection with the handling of dangerous goods, waste dangerous goods or pesticides;

(w) respecting pesticide licences and classes of those licences for the purposes of Part IX, the terms and conditions applicable to licences, providing for the suspension, cancellation and reinstatement of those licences including the implementation and requirements for a demerit point system for those licences and exempting a person or class of persons from the application of Part IX or regulations made with respect to pesticides;

(x) prescribing or restricting the manner in which a pesticide or material mixed or treated with a pesticide may be prohibited, restricted, used, stored, transported, packaged, handled, sold, distributed and applied including methods of application in public and private dwellings, residences, buildings and other places;

(y) prescribing the manner in which and sites at which pesticides and their containers may be disposed;

(z) prescribing the reports, returns, statements, books, accounts and records to be kept by persons to whom this Act applies, the manner in which the books, accounts and records are to be kept and prescribing periods of preservation of those books, returns, statements, accounts and records;

(aa) respecting insurance policies required under this Act;

(bb) defining the word "activity" for the purposes of this Act and regulations and designating activities, a class of activities and operations for which an approval is required, and specifying the kind of approval required, the manner in which those activities and operations can be carried out, the length of time for which they are valid and establishing exemptions from the requirements of an approval;

(cc) respecting and prohibiting the manufacture, sale or use of equipment, devices or services designed or provided for a purpose under this Act;

(dd) designating undertakings and classes of undertakings to which this Act applies;

(ee) prescribing the manner of preparation and submission of and information contained in registrations, environmental preview reports, and environmental impact statements;

(ff) establishing criteria for the examination of undertakings in order to determine whether an environmental impact statement is required, an environmental preview report is required or the undertaking may be released;

(gg) respecting the manner in which registrations, environmental preview reports and environmental impact statements and comments and responses to them are to be produced, submitted, reproduced, and disseminated, including electronic and other technological means and respecting component studies of environmental impact statements;

(hh) prescribing time periods by which notices, submissions, orders, procedures, commencements of undertakings and other actions expire or are to be carried out and prescribing when reregistrations, extensions and agreements with respect to the time periods may apply;

(ii) prescribing duties and qualifications of board and committee members and procedures with respect to boards, committees and public hearings under Part X;

(jj) prescribing methods and procedures by which the members of the general public may be involved in environmental assessments and approvals and the manner in which the proponent or his or her agent shall meet with, provide information to, and record the opinions, concerns and questions of, interested persons;

(kk) exempting a person, class of persons, undertaking or class of undertakings from this Act or a section of this Act;

(ll) providing for the requirements, design and implementation of environmental monitoring and rehabilitation programs in respect of undertakings;

(mm) respecting the fees for offsetting costs under section 74, the posting of a bond or the provision of another form of security as a condition of a release of an undertaking under Part X and generally respecting the provision of financial and other security for the purposes of this Act;

(nn) establishing an amount for the projected capital cost for the purposes of section 74;

(oo) respecting class environmental assessments;

(pp) respecting agreements, approvals, permits and orders made under this Act including the implementation of a demerit point system for approvals and permits issued under this Act;

(qq) respecting partnership and other agreements that the minister may enter into with persons and organisations for the purpose of the implementation and administration of this Act or provisions of this Act;

(rr) respecting the contravention of sections of this Act and agreements for which an administrative penalty may be imposed and the time and manner in which these penalties shall be imposed and collected;

(ss) providing for the payment of remuneration and expenses to members of a board or committee established under this Act; and

(tt) generally to carry out the purpose of this Act.

(2) Regulations made under subsection (1) with respect to Part V of this Act may be made

with retroactive effect.

(3) Regulations made under section (1) may be stated to apply to a part or parts of the province only.

2002 cE-14.2 s111

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Fees and forms

112. The minister may set fees and establish forms for the purpose and administration of this Act.

2002 cE-14.2 s112

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Service

113. (1) A notice, order, approval or other document under this Act or the regulations is sufficiently given or served where delivered personally or sent by registered mail addressed to the person to whom delivery or service is to be made at the latest address appearing on the records of the department.

(2) Where a person to whom a notice, order, approval or other document is to be given or served as described in subsection (1) is a corporate body, it shall be considered to be sufficiently given or served where

(a) delivered personally to a director or chief executive officer of that corporate body; or

(b) delivered personally or by registered mail to the registered office of that corporate body in the province.

2002 cE-14.2 s113

PART XVI
OFFENCE AND PENALTY

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Offence

114. (1) A person who

(a) provides false or misleading information under a requirement under this Act or the regulations to provide information;

(b) does not provide information as required under this Act or the regulations;

(c) hinders or obstructs an inspector or another person who is exercising powers or carrying out duties under this Act or the regulations;

(d) contravenes a term or a condition of a licence issued under Part IX;

(e) contravenes a term or condition of an approval;

(f) contravenes an order made under this Act or the regulations;

(g) does not comply with a term or condition imposed under this Act or the regulations with respect to an undertaking; and

(h) contravenes this Act or the regulations,

is guilty of an offence.

(2) A person who, with respect to Part X and regulations made with respect to Part X

(a) provides false or misleading information in respect of a requirement to provide information;

(b) does not provide information as required under this Act;

(c) hinders or obstructs a person who is exercising powers or carrying out duties under this Act;

(d) does not comply with an order or direction made under this Act or the regulations by the minister or the Lieutenant-Governor in Council;

(e) does not comply with a term or condition imposed with respect to an undertaking; and

(f) otherwise contravenes Part X or regulations made with respect to Part X,

is guilty of an offence.

(3) Each continuance for a day or a part of a day of an offence referred to in this section constitutes a separate offence.

2002 cE-14.2 s114

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Penalty

115. (1) A person found guilty of an offence under subsection 114(1) or another Part of this Act other than subsection 114(2) is liable on summary conviction

(a) in the case of a corporation, including a municipality,

(i) for a first conviction, to a fine of not less than $1,000 and not more than $1,000,000, and

(ii) for a subsequent conviction, to a fine of not less than $4,000 and not more than $1,000,000; and

(b) in the case of a person who is not a corporation, or municipality,

(i) for a first conviction, to a fine of not less than $500 and not more than $10,000 or to a term of imprisonment of not more than 3 months, or to both a fine and imprisonment, and

(ii) for a subsequent conviction, to a fine of not less than $1,000 and not more than $10,000 or to a term of imprisonment of not more than 6 months, or to both a fine and imprisonment.

(2) A person convicted of an offence under subsection 114(2) is liable on summary conviction

(a) in the case of a person who is not a corporation, to a fine of not less than $1,000 and not more than $50,000 or to imprisonment for a term not exceeding 6 months, or to both a fine and imprisonment; and

(b) in the case of a corporation, to a fine of not less than $5,000 and not more than $1,000,000.

(3) A person who is convicted for a second or subsequent time for an offence under subsection 114(2) that is a violation of the same paragraph of subsection 114(2) is liable on summary conviction

(a) in the case of a person who is not a corporation, to a fine of not less than $3,000 and not more than $50,000 or to imprisonment for a term not exceeding 6 months, or to both a fine and imprisonment; and

(b) in the case of a corporation, to a fine of not less than $15,000 and not more than $1,000,000.

(4) Where a corporation commits an offence under section 114, a person who is an officer, director or agent of the corporation and who directed, authorized, assented to, acquiesced in or participated in that offence is liable, on summary conviction, to the punishments provided in paragraphs (2)(b) and (3)(b) and, in default of payment of the fines imposed under those paragraphs, the court may impose upon that person a term of imprisonment not exceeding 6 months.

(5) Where a person is convicted of an offence under this Act and the court is satisfied that, as a result of the commission of that offence, monetary benefit accrued to the offender, the court may order the offender to pay, in addition to a fine under this section, a fine in an amount equal to the estimation of the court of the amount of those monetary benefits.

(6) Where a person is convicted of an offence under this Act and that person fails to comply with an order of the court under subsection (5) or section 119, that person commits an offence and is liable on summary conviction to a penalty referred to in subsection (3).

2002 cE-14.2 s115

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Employer liability

116. In a prosecution for an offence under this Act, it is sufficient proof of the offence to establish that it was committed by an employee or an agent of the accused, whether or not the employee or agent is identified or has been prosecuted for the offence, unless the accused establishes that the offence was committed without the knowledge and consent of the accused.

2002 cE-14.2 s116

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Director liability

117. An officer, director or agent of a corporation who directs, authorizes, assents to, acquiesces in or participates in the contravention of this Act is guilty of an offence and is liable on summary conviction to the punishment provided for the offence for that corporation, whether or not that corporation has been prosecuted or convicted.

2002 cE-14.2 s117

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NEWFOUNDLAND AND LABRADOR
REGULATION 39/04

Air Pollution Control Regulations, 2004
under the
Environmental Protection Act
(O.C. 2004-232)

(Filed May 20, 2004)

Under the authority of sections 22 and 111 of the *Environmental Protection Act*, the Lieutenant-Governor in Council makes the following regulations.

Dated at St. John's, May 19, 2004.

Robert C. Thompson
Clerk of the Executive Council

REGULATIONS

Analysis

Short title

1. These regulations may be cited as the *Air Pollution Control Regulations, 2004*.

Definitions

2. In these regulations

(a) "Act" means the *Environmental Protection Act*;

(b) "air contaminant" means any discharge, release, or other propagation into the air and includes, but is not limited to, dust, fumes, mist, smoke, particulate matter, vapours, gases, odours, odorous substances, acids, soot, grime or any combination of them;

(c) "air pollution" means the presence in air of an air contaminant or combination of air contaminants in excess of the maximum permissible standard, concentration or level as prescribed by these regulations or an approval issued under the Act;

(d) "air quality management plan" means a plan developed by the minister to manage the level of air contaminants in an area, and may include a company specific air quality management plan approved by the minister;

(e) "ambient air" means the portion of the atmosphere which is external to buildings, structures or underground spaces;

(f) "Canadian standard" means the Canadian Standards Association Code CAN/CSA-B415.1, *Performance Testing of Solid Fuel Burning Heating Appliances*;

(g) "combustion process equipment" means a furnace, boiler, dryer, apparatus, stack and all appurtenances used in the combustion process but does not include mobile internal combustion engines when used to provide propulsion;

(h) "department" means the department presided over by the minister;

(i) "emission" means an air contaminant emitted into the environment;

(j) "emission source" means any combustion process equipment, installation, machinery, appliance, equipment or tanks from which air contaminants may be released or discharged;

(k) "facility" means any stationary property, real or personal, taken as a whole, which has an emission source;

(l) "fuel" means any fuel used directly or indirectly for heating, steam generation or electricity production, or for combustion in industrial processes;

(m) "good engineering stack height (Hg)" means the greater of:

(i) 45 metres,

(ii) the height as calculated using the formula Hg = H + 1.5L where H is the height of any nearby structure and L is the lesser of the height H or projected width of any nearby structure, as measured from the ground level elevation at the base of the stack, or

(iii) the height demonstrated by a fluid model or approved field study which ensures that stack emissions do not result in air pollution resulting from atmospheric downwash or wakes created by the facility, nearby emission sources or terrain features;

(n) "heavy duty motorized vehicle" means a vehicle with a gross vehicle weight rating greater than 2721.6 kilograms for the 1987 model year and older, and greater than 3855.5 kilograms for the 1988 model year and newer;

(o) "light duty motorized vehicle" means a vehicle with a gross vehicle weight rating less than or equal to 2721.6 kilograms for the 1987 model year and older, and less than or equal to 3855.5 kilograms for the 1988 model year and newer;

(p) "minister" means the minister appointed under the *Executive Council Act* to administer the Act;

(q) "modified" means any addition or alteration to emission sources which may cause:

(i) an increase in the release of an air contaminant, or

(ii) an emission of an air contaminant that was not previously emitted;

(r) "nearby" means within the lesser of 800 metres or 5 times the lesser of the height or the projected width of a structure;

(s) "opacity" means the degree to which an emission reduces the passage of light or obscures the view of an object in the background, expressed numerically from 0%, transparent, to 100%, opaque;

(t) "particulate matter" means a material, except water in an uncombined form, that is or has been airborne and exists as a liquid or a solid at reference conditions;

(u) "point of impingement" includes a part or combination of those things referred to in subparagraphs (i) to (iii) upon which an air contaminant may impinge

(i) land and water,

(ii) plant and animal life, including human life, and

(iii) a building, structure, machine or other device or thing made by humans;

(v) "projected width" means the greatest distance between two points on a structure;

(w) "reference conditions" means a dry gas temperature of 25° Celsius and a gas pressure of 101.325 kilopascals;

(x) "stack" means a chimney, flue, conduit or duct arranged to conduct an air contaminant into the environment;

(y) "sulphur content" means the amount of sulphur by weight as determined by standard methods;

(z) "used oil" means a used lubricating oil or waste oil;

(aa) "US EPA standard" means the *Standards of Performance for New Residential Wood Heaters*, Title 40, Part 60, Subpart AAA of the Code of Federal Regulations, published by the United States Environmental Protection Agency; and

(bb) "visible emission" means an emission which can be detected by the naked eye.

Ambient air quality standards

3. (1) The ambient air quality standards prescribed in Schedule A shall be used to maintain air quality in the province.

(2) The concentration of air contaminants due to all sources shall not exceed the standards prescribed in Schedule A.

(3) For the purpose of ensuring that the standards prescribed in Schedule A are met, the minister may:

(a) specify a condition in an approval issued under Part XI of the Act; or

(b) develop an air quality management plan specifying the provisions to reduce the level of air contaminants emitted by each facility identified in the plan, and the owner or operator of each facility shall

(i) provide the minister with any information he or she may require regarding the development of an air quality management plan, including a company specific air quality management plan, and

(ii) comply with the provisions of the plan within the time specified by the minister.

Incineration prohibition

4. An owner or operator shall not operate or permit the operation of new incineration or pyrometric equipment having an in-stack concentration in excess of the standards prescribed in Schedule B.

Good engineering stack height

5. (1) Commencing July 1, 2004, all new stack installations with annual releases in excess of 20 tonnes of particulate matter or sulphur dioxide shall meet good engineering stack height.

(2) Subject to subsection (1), for the purposes of enforcing these regulations, the calculated concentration of an air contaminant at a point of impingement shall be from good engineering stack height.

Best available control technology

6. (1) An owner or operator who installs a new or modified emission source shall employ the best available control technology.

(2) Notwithstanding subsection (1), an owner or operator may install a new or modified emission source which does not comply with that subsection with the written approval of the minister.

(3) Notwithstanding subsection (1), best available control technology shall not apply to:

(a) routine maintenance, repair and parts replacement;

(b) normal increases in production rates unless otherwise prohibited;

(c) increases in hours of operation unless otherwise prohibited; or

(d) use of an alternative cleaner fuel or raw material.

(4) Best available control technology shall be acceptable to the department and shall, in that particular circumstance, be:

(a) the most effective emission control device or technique;

(b) the most stringent emission control device or technique;

(c) proven reliable in comparable processes; and

(d) economically feasible as determined by the minister in light of industry standards after consultation with the particular owner or operator.

Sulphur dioxide emission cap

7. (1) There is established a provincial sulphur dioxide emission cap which shall be 60,000 tonnes per calendar year.

(2) Subsection (1) shall come into effect on January 1, 2005.

(3) The owner or operator of a facility which releases in excess of 20 tonnes of sulphur dioxide per year in the aggregate, shall submit to the department an annual report on fuel usage, fuel sulphur content, fuel specific gravity and sulphur dioxide emissions, no later than February 28 of each subsequent year.

(4) The first report under subsection (3) shall be submitted to the department no later than February 28, 2006.

Administrative penalty

8. (1) For the purpose of environmental protection, the minister may, under the authority of section 106 of the Act, impose an administrative penalty prescribed in Schedule C against an owner or operator who emits an air contaminant.

(2) Administrative penalties imposed under this section shall be payable within 60 days of notification of the penalty by the department.

Opacity of visual emissions

9. (1) The owner or operator of an emission source with a nameplate capacity greater than 100 GJ / hr, or with an annual particulate matter release greater than 100 tonnes shall determine the opacity of a visible emission on a continuous basis.

(2) Notwithstanding subsection (1), the minister may require the owner or operator of other emission sources to determine the opacity of a visible emission on a continuous basis.

(3) The opacity of a visible emission shall be determined by means of a continuous opacity monitoring system and shall be calculated as a 6 minute arithmetic average of instantaneous observations.

(4) An owner or operator shall not cause or permit to be caused a visible emission having an opacity greater than 20%.

(5) Notwithstanding subsection (4), a visible emission may have an opacity exceeding 20% but not exceeding 25% for one 6 minute period in any one hour period.

(6) Notwithstanding subsections (4) and (5), every time a fire is started in combustion process equipment, a visible emission may have an opacity exceeding 20%, but not exceeding 40% for one 6 minute period in the first 30 minute period after that new fire is started.

(7) Commencing July 31, 2005, opacity readings under subsections (1) and (2) shall be reported monthly to the department by the last day of each subsequent month.

(8) Where an emission source employs best available control technology, an owner or operator shall be exempt from the provisions of subsections (1) to (7).

(9) Where an emission source employs best available control technology, the owner or operator of that emission source shall

(a) provide the minister with a contingency plan detailing the remedial action for compliance with the provisions of this section when best available control technology is non-operational;

(b) the contingency plan may be approved by the minister, including any additions or deletions that the minister may require; and

(c) the owner or operator shall comply with the approved contingency plan.

(10) Where a continuous opacity monitoring system does not achieve a monthly valid data capture rate of 95 %, an administrative penalty of $5 shall be payable with respect to each non-measured opacity reading below the valid data capture rate.

(11) Commencing January 1, 2006 an administrative penalty, as prescribed in Schedule D, shall be payable with respect to opacity which exceeds the standards in this section.

(12) Administrative penalties imposed under this section shall be payable within 60 days of notification of the penalty by the department.

Performance testing facilities

10. (1) The owner or operator of good engineering stack height installations shall provide the following performance testing facilities:

(a) sampling ports adequate for testing devices and applicable methods;

(b) safe sampling platforms;

(c) safe access to sampling platforms; and

(d) utilities for sampling and testing devices.

(2) The minister may require the owner or operator of an emission source other than the emission source referred to in subsection (1) to provide performance testing facilities.

Potential for air pollution in accident, emergency or urgent circumstances

11. (1) Where a facility has the potential for air pollution due to an unanticipated failure to operate in the normal manner due to an accident, emergency or urgent situation, a change in operating conditions, or a shut-down of a pollution control device, the owner or operator of the facility shall:

(a) take immediate remedial action to reduce any emissions and provide the department with the particulars of that failure, change or shutdown; and

(b) provide the department in writing with the particulars of the remedial action taken under paragraph (a) and the reasons for that action as soon as it is practicable.

(2) Where the minister considers an emission by a facility to be a nuisance, the owner or operator of that facility shall:

(a) investigate to determine the nature of the emission; and

(b) provide the minister with a remediation plan.

(3) The minister may approve the plan required by paragraph 2(b) subject to any changes he or she may require and an owner or operator shall comply with an approved plan.

(4) Notwithstanding sections 3 and 9, the minister may, under the authority of section 105 of the Act, enter into a compliance agree-

ment with the owner or operator in writing regarding a situation contemplated by subsection (1), authorizing the continuance of the operation for the period of time as the minister considers reasonable.

Burning prohibited

12. (1) A person shall not burn or permit the burning of any material listed in Schedule E in a fire.

(2) Notwithstanding subsection (1), a person may burn or permit the burning of materials listed in Schedule E in a fire with the written approval of the minister.

Burning of waste products

13. Notwithstanding section 12, a person shall not burn or permit the burning of used oil, waste products or other materials in combustion process equipment except

(a) where the design and the intended use of the equipment according to the manufacturer's manual permits the burning of the specific material;

(b) where the equipment has the combustion and emission control devices that may be required by the minister;

(c) where the rate does not exceed the equipment design; and

(d) where the written approval of the minister has been obtained.

Burning of grades 4, 5, or 6 fuel prohibited

14. Commencing January 1, 2005, a person shall not burn, or permit the burning of any fuel, grade numbers 4, 5 or 6

(a) where emission sources employ best available control technology ,

(i) containing a sulphur content in excess of 3.0%; and

(ii) containing a sulphur content in excess of 2.0% on an annual basis, as calculated by the formula:

where:

SO_2 = sulphur dioxide emissions in tonnes

$$\frac{(SO_2)(100000)}{(1.9579)(V_t)}$$

V_t = volume of fuel in litres; and

(b) where emission sources do not employ best available control technology,

(i) containing a sulphur content in excess of 2.2%, and

(ii) containing a sulphur content in excess of 2.0% on an annual basis, as calculated by the formula:

$$\frac{\sum_{i=1}^{n}(S_i)(V_i)}{\sum_{i=1}^{n}(V_i)}$$

where:

n = number of shipments during a calendar year

S_i = sulphur content of each shipment, expressed as %

V_i = volume of each shipment.

Residential wood combustion prohibition

15. (1) Commencing July 1, 2008 a person shall not manufacture, sell or permit the selling of a residential woodstove, fireplace insert or factory built fireplace which may emit particulate matter into the environment in excess of:

(a) the emission requirements of the Canadian standard; or

(b) the emission requirements of the US EPA standard.

(2) The emission requirements under subsection (1) shall be determined by the test methods and procedures contained in that standard.

(3) Each unit manufactured, permitted or sold under subsection (1) shall have a readily visible, permanently affixed manufacturer's label which:

(a) conforms to the labelling requirements in that standard; and

(b) indicates that the unit conforms to the particulate matter emission requirements of that standard.

Motorized vehicles

16. (1) A person shall not operate or permit the operation of a light duty motorized vehicle having an emission in excess of the standards prescribed in Schedule F.

(2) The opacity of a visible emission from a diesel fuelled heavy duty motorized vehicle, as determined by procedure SAE J1667 entitled *Snap Acceleration Smoke Test Procedure for Heavy-Duty Diesel Vehicles*, shall not exceed:

(a) 40% for 1991 model vehicles and newer; and

(b) 55% for 1990 model vehicles and older.

(3) For the purpose of ensuring that the standards prescribed in Schedule F and subsection (2) are met, according to paragraph 111(1)(p) of the Act, the minister may, by regulation, establish an emission inspection and maintenance program as a means of reducing exhaust and evaporative air contaminants.

Non-portable aboveground storage tanks

17. (1) Commencing January 1, 2012, all new and existing non-portable aboveground storage tanks with a volume greater than 4 m^3 and storing a volatile organic liquid with a vapour pressure greater than 10 kPa at 21.1° Celsius shall comply with the provisions of the CCME guidelines *"Environmental Guidelines for Controlling Emissions of Volatile Organic Compounds from Aboveground Storage Tanks, PN 1180"* including any amendments to those guidelines.

(2) The owner or operator of emission sources shall provide the department in writing with a plan outlining its schedule for compliance with subsection (1) no later than January 1, 2006.

(3) All records under Part 7 of the guidelines shall be reported annually to the department by February 28 of each subsequent year.

(4) The first report under subsection (3) is due no later than February 28, 2012.

Gasoline distribution networks

18. (1) Commencing January 1, 2011, all new and existing persons engaged in the gasoline distribution network shall comply with the vapour balancing, recovery and control requirements of the CCME guidelines *"Environmental Code of Practice for Vapour Recovery in Gasoline Distribution Networks, PN 1057"* including any amendments to those guidelines.

(2) Subsection (1) shall not apply to:

(a) terminals with an annual gasoline throughput less than 25 million litres;

(b) bulk plants with an annual gasoline throughput less than 4.5 million litres;

(c) service stations with an annual gasoline throughput less than one million litres;

(d) cargo tank trucks with a capacity less than 21,000 litres; or

(e) ships and barges.

(3) The owner or operator of emission sources shall provide the department in writing with a compliance schedule no later than January 1, 2006.

(4) All records under Parts 3, 4, 5, & 6 of the guidelines, shall be reported annually to the department by February 28 of each subsequent year.

(5) The first report under subsection (4) is due no later than February 28, 2011.

NOx standards for fossil fuel fired boilers and heaters

19. All new and modified fossil fuel fired boilers and heaters, with a nameplate capacity equal to or greater than 10.5 GJ/hr, shall not exceed the emission standards prescribed in Schedule G.

Monitoring and recording devices

20. The minister may require the installation of

(a) devices which are necessary to record the throughput and operation of process, combustion or control equipment; and

(b) monitoring and recording devices which are necessary to measure and record concentrations of air contaminants, opacity and flow at their origin and at point of impingement.

Manner of measurements, recording and analyses

21. All measurements, recordings and analyses conducted under these regulations shall be

(a) performed at locations and by devices and methods acceptable to the department; and

(b) made readily accessible to the department in a time and manner acceptable to the department.

Repeal

22. The *Air Pollution Control Regulations, 2003*, Newfoundland and Labrador Regulation 56/03, are repealed.

Schedule A

Table I: Ambient Air Quality Standards at Reference Conditions

ITEM	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
	Name of Contaminant	Contaminant Code or CAS No.	Unit of Concentration	Concentration	Period of Time	Additional Notes
1	Ammonia	7664-41-7	Micrograms per cubic metre of air	100	24 hour	
2	Arsenic	7440-38-2	Total micrograms of arsenic in free and combined form per cubic metre of air	0.3	24 hour	
3	Asbestos	1332-21-4	Micrograms per cubic metre of air	1.5	24 hour	
4	Cadmium	7440-43-9	Total micrograms of cadmium in free and combined form per cubic metre of air	2	24 hour	
5	Carbon monoxide	630-08-0	Micrograms per cubic metre of air	35000 15000	1 hour 8 hour	
6	Copper	7440-50-8	Total micrograms of copper in free and combined form per cubic metre of air	50	24 hour	
7	Dustfall		Grams of dustfall per square metre	7.0 4.6	30 day 1 year	(1) (1)
8	Hydrogen sulphide	7783-06-4	Micrograms per cubic metre of air	15 5	1 hour 24 hour	
9	Lead	7439-92-1	Total micrograms of lead in free and combined form per cubic metre of air	2.0 0.7	24 hour 30 day	 (1)

ITEM	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
	Name of Contaminant	Contaminant Code or CAS No.	Unit of Concentration	Concentration	Period of Time	Additional Notes
10	Mercaptans		Total micrograms of mercaptans per cubic metre expressed as methyl mercaptan	20	1 hour	
11	Mercury	7439-97-6	Total micrograms of mercury in free and combined form per cubic metre of air	2	24 hour	
12	Nickel	7440-02-0	Total micrograms of nickel in free and combined form per cubic metre of air	2	24 hour	
13	Nitrogen dioxide	10102-44-0	Total micrograms of nitrogen oxides per cubic metre of air, expressed as NO_2	400 200 100	1 hour 24 hour 1 year	(1)
14	Ozone	10028-15-6	Micrograms per cubic metre of air	160 87	1 hour 8 hour	
15	Particulate matter (less than 2.5 microns)		Micrograms per cubic metre of air	25	24 hour	
16	Particulate matter (less than 10 microns)		Micrograms per cubic metre of air	50	24 hour	
17	Particulate matter (total)		Micrograms per cubic metre of air	120 60	24 hour 1 year	(2)
18	Polychlorinated biphenyls (PCBs)	1336-36-3	Micrograms per cubic metre of air	0.15 0.035	24 hour 1 year	(1)
19	Reduced sulphur compounds		Micrograms of reduced sulphur compounds per cubic metre of air expressed as hydrogen sulphide	30	1 hour	

ITEM	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
	Name of Contaminant	Contaminant Code or CAS No.	Unit of Concentration	Concentration	Period of Time	Additional Notes
20	Sulphur dioxide	7446-09-5	Micrograms per cubic metre of air	900 600 300 60	1 hour 3 hour 24 hour 1 year	 (1)
21	Vanadium	7440-62-2	Total micrograms of vanadium in free and combined form per cubic metre of air	2	24 hour	
22	Zinc	7440-66-6	Micrograms per cubic metre of air	120	24 hour	

(1) Arithmetic mean

(2) Geometric mean

Table II: Ambient Air Quality Standards for Dioxins and Furans at Reference Conditions

ITEM	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6
	Name of Contaminant	Contaminant Code or CAS No.	Unit of Concentration	Concentration	Period of Time	Additional Notes
1	Polychlorinated dibenzo-p-dioxins (PCDDs) & polychlorinated dibenzofurans (PCDFs) (TEQ)		Picograms (TEQ) per cubic metre of air	5	24 hour	(3)

(3) The Total Equivalent Quotient (TEQ) concentration of PCDDs and PCDFs is determined by multiplying the concentration of each congener listed in Column 1 of Table III by the corresponding

toxicity factor set out in Column 2 of that item and by adding the products of them.

TABLE III: Dioxins and Furans Toxicity Factors

ITEM	COLUMN 1	COLUMN 2
	Congener	Toxicity Factor
1	2,3,7,8-T4CDD	1
2	1,2,3,7,8-P5CDD	0.5
3	1,2,3,4,7,8-H6CDD	0.1
4	1,2,3,6,7,8-H6CDD	0.1
5	1,2,3,7,8,9-H6CDD	0.1
6	1,2,3,4,6,7,8-H7CDD	0.01
7	OCDD	0.001
8	2,3,7,8-T4CDF	0.1
9	1,2,3,7,8-P5CDF	0.05
10	2,3,4,7,8-P5CDF	0.5
11	1,2,3,4,7,8-H6CDF	0.1
12	1,2,3,6,7,8-H6CDF	0.1
13	1,2,3,7,8,9-H6CDF	0.1
14	2,3,4,6,7,8-H6CDF	0.1
15	1,2,3,4,6,7,8-H7CDF	0.01
16	1,2,3,4,7,8,9-H7CDF	0.01
17	OCDF	0.001

Schedule B

In-Stack Standards for Incineration and Pyrolysis

Facility Type	Mercury (1)	Polychlorinated dibenzo-p-dioxins (PCDDs) & poly-chlorinated dibenzofurans (PCDFs) (1)
Municipal Waste Incineration	20 $\mu g/m^3$	80 pg I-TEQ/m^3
Medical Waste Incineration	20 $\mu g/m^3$	80 pg I-TEQ/m^3
Hazardous Waste Incineration	50 $\mu g/m^3$	80 pg I-TEQ/m^3
Sewage Sludge Incineration	70 $\mu g/m^3$	80 pg I-TEQ/m^3

(1) at reference conditions, dry gas basis, corrected to 11% oxygen by volume

Where:

(a) (ug/m3) = micrograms per cubic metre; and

(b) (pg I-TEQ/m3) = International Total Equivalent Quotient picograms per cubic metre

Schedule C

Administrative Penalties for
Emissions Exceedences

Pollutant	Maximum Allowable Annual Emission Without Administrative Penalty	Administrative Penalty
Ammonia	10 tonnes	$2 / tonne
Nickel	10 tonnes	$2 / tonne
Vanadium	10 tonnes	$2 / tonne
Carbon Monoxide	20 tonnes	$2 / tonne
Nitrogen Oxides	20 tonnes	$2 / tonne
Particulate Matter (total)	20 tonnes	$2 / tonne
Sulphur Dioxide	20 tonnes	$2 / tonne
Arsenic	50 kilograms	$2 / kilogram
Lead	50 kilograms	$2 / kilogram
Cadmium	5 kilograms	$2 / kilogram
Mercury	5 kilograms	$2 / kilogram
Polychlorinated dibenzo-p-dioxins (PCDDs) & polychlorinated dibenzofurans (PCDFs)(TEQ)	1000 milligrams TEQ	$2 / milligram TEQ

Schedule D

Administrative Penalties for Opacity Exceedences

New Fire	Best Available Control Tech-nology	Time Frame	Opacity	1st Exceedence	Subsequent Exceedences
NO	NO	1 Hour	> 20% , ≤ 25%	$ 0	$ 5
NO	NO	1 Hour	> 25% , ≤ 30%	$ 5	$ 10
NO	NO	1 Hour	> 30%	$ 10	$ 15
YES	NO	30 Minutes	> 20% , ≤ 40%	$ 0	$ 5
YES	NO	30 Minutes	> 40% , ≤ 50%	$ 5	$ 10
YES	NO	30 Minutes	> 50%	$ 10	$ 15

Schedule E

Materials Prohibited from Burning in a Fire

(a) tires	(k) manure
(b) plastics	(l) rubber
(c) treated lumber	(m) tar paper
(d) asphalt and asphalt products	(n) railway ties
(e) drywall	(o) paint and paint products
(f) demolition waste	(p) fuel and lubricant containers
(g) hazardous waste	(q) used oil
(h) biomedical waste	(r) animal cadavers
(i) domestic waste	(s) hazardous substances
(j) trash, garbage, or other waste from commercial, industrial or municipal operations	(t) materials disposed of as part of the removal or decontamination of equipment, buildings or other structures

Schedule F

Standards for Vehicle Emissions for Light Duty Motorized Vehicles at Idle Speed

Category Definitions			Passenger Vehicles		Light Duty Trucks (1)	
Item	Model Year	Engine Size (litres)	Hydro-carbons (ppm)	Carbon Monoxide (%)	Hydro-carbons (ppm)	Carbon Monoxide (%)
1	pre 1973	<= 2.5	1500	7.5	1500	7.5
2	pre 1973	> 2.5	1500	5.5	1500	5.5
3	1973 - 1974	<= 2.5	750	6.0	750	6.0
4	1973 - 1974	> 2.5	650	5.0	650	5.0
5	1975 - 1981	<= 2.5	450	5.0	450	5.0
6	1975 - 1981	> 2.5	400	4.5	400	4.5
7	1982 - 1987	<= 1.8	350	4.0	350	4.0
8	1982 - 1987	> 1.8, <= 2.6	350	4.0	350	4.0
9	1982 - 1987	> 2.6, <= 4.0	300	3.5	300	3.5
10	1982 - 1987	> 4.0	300	3.5	300	3.5
11	1988 - 1995	<= 1.8	130	1.1	260	2.2
12	1988 - 1995	> 1.8, <= 2.6	120	1.0	240	2.0
13	1988 - 1995	> 2.6, <= 4.0	105	0.8	210	1.6
14	1988 - 1995	> 4.0	90	0.6	180	1.2
15	1996 +	<= 1.8	90	0.6	180	1.2
16	1996 +	> 1.8, <= 2.6	80	0.5	160	1.0
17	1996 +	> 2.6, <= 4.0	80	0.4	160	0.8
18	1996 +	> 4.0	80	0.4	160	0.8

(1) LDT = Light Duty Truck (pre 1988, <= 2721.6 kg gross vehicle weight rating (GVWR))

LDT = Light Duty Truck (1988 +, <= 3855.5 kg gross vehicle weight rating (GVWR))

Where:

(a) (ppm) = parts per million by volume

(b) (%) = percentage by volume

Schedule G

Emission Standards for NO_x

Capacity	NO_x Emission Limit (g / GJ)		
(GJ / hr)	Gaseous Fuel	Distillate Oil	Residual Oil
10.5 - 105	26	40	90
> 105	40	50	90

Where:

(a) (GJ/hr)= gigajoules/hour

(b) (g/GJ)- grams per gigajoule.

GOVERNMENT OF
NEWFOUNDLAND AND LABRADOR
Department of Environment and Conservation

CERTIFICATE OF APPROVAL

Pursuant to the Environmental Protection Act, SNL 2002 c E-14.2 Section 83

Issue Date: ***February 2, 2006*** Approval No. AA06-025458

Expiration: ***February 2, 2011*** File No. 716.008

Proponent: **Newfoundland and Labrador Hydro**
P.O. Box 29
Holyrood, NL
A0A 2R0

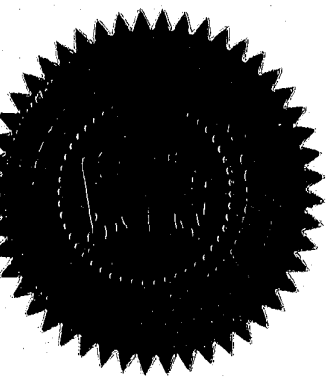
Attention: Mr. Wayne Rice, Environment and Performance Manager

Re: **Holyrood Thermal Generating Station**

Approval is hereby given for: the operation of a thermal generating station, including power house, waste water treatment plant, hazardous waste landfill and associated works located at Holyrood, NL.

This certificate of approval does not release the proponent from the obligation to obtain appropriate approvals from other concerned provincial, federal and municipal agencies. Nothing in this certificate of approval negates any regulatory requirement placed on the proponent. Where there is a conflict between conditions in this certificate of approval and a regulation, the condition in the regulation shall take precedence. Approval from the Department of Environment and Conservation shall be obtained prior to any significant change in the design, construction, installation, or operation of the facility, including any future expansion of the works. This certificate of approval shall not be sold, assigned, transferred, leased, mortgaged, sublet or otherwise alienated by the proponent without obtaining prior approval from the Minister.

This certificate of approval is subject to the terms and conditions as contained in Appendix 'A' attached hereto, as may be revised from time to time by the Department. Failure to comply with any of the terms and conditions may render this certificate of approval null and void, may require the proponent to cease all activities associated with this certificate of approval, may place the proponent and its agent(s) in violation of the *Environmental Protection Act*, and will make the proponent responsible for taking such remedial measures as may be prescribed by the Department. The Department reserves the right to add, delete or modify conditions to correct errors in the certificate of approval or to address significant environmental or health concerns.



MINISTER

APPENDIX "A"

TERMS AND CONDITIONS FOR APPROVAL No. AA06-025458
February 2, 2006

General

1. This Certificate of Approval is for: the operation of a thermal generating station, including power house, waste water treatment plant, hazardous waste landfill and associated works located at Holyrood, NL. Future modification or expansion may require an amendment to this Approval or a separate Approval.

2. Any inquires concerning this approval shall be directed to the St. John's office of the Pollution Prevention Division (telephone: (709) 729-2555; or facsimile: (709) 729-6969).

3. In this Certificate of Approval:

- **accredited** means the formal recognition of the competence of a laboratory to carry out specific functions;
- **acutely lethal** means that the effluent at 100% concentration kills more than 50% of the rainbow trout subjected to it during a 96-hour period, when tested in accordance with the ALT;
- **Administrative Boundary** means the boundary surrounding the thermal generating station outside of which the ambient air quality standards, outlined in Schedule A of the ***Air Pollution Control Regulations, 2004***, apply;
- **air contaminant** means dust, fumes, mist, smoke, other particulate matter, vapour, gas, odorous substances or a combination of them in air which may impair the quality of the natural environment for any use that can be made of it, cause harm or discomfort to a person, adversely affect the health or impair the safety of a person or cause injury or damage to property or to plant or animal life;
- **ALT (acute lethality test)** means a test conducted as per Environment Canada's Environmental Protection Series reference method EPS/1/RM-13 Section 5 or 6;
- **blanketed** means to cover a vessel with a lid that is specifically designed to contain vapours;
- **BOD_5** means biochemical oxygen demand (5 day test);
- **CEMS** means the continuous emissions monitoring system used to measure gaseous releases of SO_2, NO_X, CO_2, CO and O_2 from each boiler;

- **CO** means carbon monoxide;
- **CO_2** means carbon dioxide;
- **Department** means the Department of Environment and Conservation, and its successors;
- **Director** means the Director of the Pollution Prevention Division of the Department;
- **discharge criteria** means the maximum allowable levels for the parameters listed in Table 3;
- **effluent** means waste water resulting from the thermal generating station operations, including process water, boiler blowdown water, wash-down water, cooling water and leachate from the landfill;
- **grab sample** means a quantity of undiluted effluent collected at any given time;
- **hazardous waste** means a product, substance or organism that is intended for disposal or recycling, including storage prior to disposal or recycling, and that:
  (a) is listed in Schedule III of the *Export and Import of Hazardous Waste Regulations under the Canadian Environmental Protection Act, 1999*;
  (b) is included in any of Classes 2 to 6, and 8 and 9 of the *Transportation of Dangerous Goods Regulations* under the *Transportation of Dangerous Goods Act, 1992*; or
  (c) exhibits a hazard classification of a gas, a flammable liquid, an oxidizer, or a substance that is dangerously reactive, toxic, infectious, corrosive or environmentally hazardous;
- **HYDRO** means Newfoundland and Labrador Hydro;
- **Landfill Operations Manual** means the ***HTGS Procedures Manual for the Controlled Waste Landfill*** (most recent version);
- **licenced** means has a Certificate of Approval issued by the Minister to conduct an activity;
- **liquid waste** is defined by the *Slump Test* (Canadian Standards Association test method A23.2-5C for determining the slump of concrete). The liquid waste slump test involves placing the waste in a 30 cm open inverted cone. The cone is removed and the immediate decrease (slump) in height of the waste material is measured. If the material slumps such that the original height is reduced by 15 cm or more, the waste is considered liquid;
- **leachate holding pond** means the detention pond for leachate control prior to transfer to the on-site waste water treatment plant;

- **malfunction** means any sudden, infrequent and not reasonably preventable failure of air pollution control equipment, waste water treatment equipment, process equipment, or a process to operate in a normal or usual manner. Failures caused in part by poor maintenance or careless operation are not malfunctions;

- **Minister** means the Minister of the Department;

- **NO_x** means oxides of nitrogen;

- **NO_2** means nitrogen dioxide;

- **O_2** means oxygen;

- **on-scene commander** means the person designated to co-ordinate and direct pollution control efforts at the scene of an existing spill of a toxic or hazardous material;

- **PCBs** means polychlorinated biphenyls;

- **PM_{10}** means particulate matter with a diameter of 10 μm or less;

- **$PM_{2.5}$** means particulate matter with a diameter of 2.5μm or less;

- **proficiency testing** means the use of inter-laboratory comparisons to determine the performance of individual laboratories for specific tests or measurements;

- **QA/QC** means Quality Assurance/Quality Control;

- **register(ed)**, in the context of storage tanks, means that information regarding the storage tank system has been submitted to a Government Service Centre office and a registration number has been assigned to the storage tank system. In the context of source testing, registered means source testing results that have been submitted to and approved by the department in accordance with the *Stack Emission Testing Guidance Document* (GD-PPD-016.1);

- **regulated substance** means a substance subject to discharge limit(s) under the *Environmental Control Water and Sewage Regulations, 2003*;

- **SO_2** means sulfur dioxide;

- **SOP** means Standard Operating Procedure;

- **spill or spillage** means a loss of gasoline or associated product in excess of 70 litres from a storage tank system, pipeline, tank vessel or vehicle, or of any volume of a regulated substance, onto or into soil or a body of water;

- **storage tank system** means a tank and all vent, fill and withdrawal piping associated with it installed in a fixed location and includes a temporary arrangement;

- **TDS** means total dissolved solids;

- **TPH** means total petroleum hydrocarbons as measured by the Atlantic PIRI method;

- **TSP** means total suspended particulate with diameters less than 100μm. For the purposes of this approval, TSP shall be measured using a high volume TSP sampler;

- **TSS** means total suspended solids;

- **used lubricating oil** means lubricating oil that as a result of its use, storage or handling, is altered so that it is no longer suitable for its intended purpose but is suitable for refining or other permitted uses;

- **used oil** means a used lubricating oil or waste oil;

- **waste oil** means an oil that as a result of contamination by any means or by its use, is altered so that it is no longer suitable for its intended purpose; and

- **waste water treatment plant** means HYDRO's treatment plant for waste water streams resulting from periodic cleaning of boiler fireside equipment, and includes the periodic basin, the batch reactor, filter press and all associated works.

4. All necessary measures shall be taken to ensure compliance with all applicable acts, regulations, policies and guidelines, including the following, or their successors:

- *Environmental Protection Act;*
- *Water Resources Act;*
- *Air Pollution Control Regulations, 2004;*
- *Environmental Control Water and Sewage Regulations, 2003;*
- *Storage and Handling of Gasoline and Associated Products Regulations, 2003;*
- *Halocarbon Regulations;*
- *Used Oil Control Regulations;*
- *Storage of PCB Waste Regulations, 2003;*
- *Ambient Air Monitoring Policy Directive;*
- *Accredited and Certified Laboratory Policy;*
- *Compliance Determination Guidance Document;*
- *Stack Emission Testing Guidance Document; and*
- *Plume Dispersion Modelling Guidance Document.*

This Approval provides terms and conditions to satisfy various requirements of the above listed acts, regulations, Departmental policies and guidelines. If it appears that all of the pertinent requirements of these acts, regulations, policies and guidelines are not being met, then a further review of the thermal generating station shall be conducted, and suitable

pollution control measures may be required by the Minister.

5. All reasonable efforts shall be taken to minimize the impact of the thermal generating station on the environment. Such efforts include minimizing the area disturbed by the thermal generating station, minimizing air or water pollution, finding alternative uses, acceptable to the Director, for waste or rejected materials, and considering the requirement for the eventual rehabilitation of disturbed areas when planning the development of any area on the thermal generating station property.

6. HYDRO shall provide to the Department, within a reasonable time, any information, records, reports or access to data requested or specified by the Department.

7. HYDRO shall keep all records or other documents required by this Approval at the thermal generating station location for a period of not less than three (3) years, beginning the day they were made. These records shall be made available for review by Departmental representatives when requested.

8. Should HYDRO wish to deviate in any way from the terms and conditions of this Certificate of Approval, a written request detailing the proposed deviation shall be made to the Minister. HYDRO shall comply with the most current terms and conditions until the Minister has authorized otherwise. In the case of meeting a deadline requirement, the request shall be made 60 days ahead of the applicable date as specified in this Approval or elsewhere by the Department.

Waste Management

9. All waste generated at the thermal generating station is subject to compliance with the ***Environmental Protection Act***. All non-industrial waste shall be placed in closed containers and, on at least a weekly basis, removed from the site. If required, industrial waste shall be disposed of by a licenced operator. These wastes shall be disposed of at an authorized waste disposal site with the permission of the owner/operator of the site.

10. HYDRO shall submit a Waste Management Plan for their thermal generating station operation. With the goal of minimizing adverse effects on the environment, the Waste Management Plan shall: be comprehensive, including all operations within the thermal generating station; identify the types of waste materials (i.e. boiler ash, sewage, empty chemical packaging, etc.); provide general direction in dealing with the handling, storage, transport, treatment and disposal of waste materials; and incorporate the basic waste management principles of reduce, reuse, recycle, recover and residual disposal. An outline of the Plan shall be submitted to the Director for review by ***October 2, 2006***. The outline shall include a schedule of dates for preparation and implementation for each section of the Plan. The completed Plan shall then be submitted to the Director for review by ***February 2, 2007***. Every year the Waste Management Plan shall be reviewed and revised as necessary, accounting for expanding or alteration of activities. All proposed revisions shall be submitted to the Director for review. The Department will acknowledge receipt of the Plan and/or

revisions, and shall provide any review comments within a reasonable time frame.

11. HYDRO shall ensure that all volatile chemical and solvent wastes, if they can not be reused, are placed in suitable covered containers for disposal in a manner acceptable to the Department. Disposal of liquid wastes at waste disposal sites in the province is not considered an acceptable alternative.

12. Disposal of hazardous waste in a municipal or regional waste disposal site in this Province is prohibited. Transporters of hazardous waste shall have an approval issued by the Minister. Those generating hazardous waste shall have a waste generators number issued by the Director and shall also complete the required information outlined in the Waste Manifest Form.

Noise

13. HYDRO shall submit a Noise Management Plan with the goal of minimizing noise resulting from the thermal generating station operations. The Noise Management Plan shall be comprehensive, including all sources within the thermal generating station which generate noise in the surrounding environment, and shall provide direction in dealing with the noise levels. An outline of the plan shall be submitted to the Director by ***October 2, 2006***. The complete plan then shall be submitted to the Director for review by ***February 2, 2007***. Every year the Noise Management Plan shall be reviewed and revised as necessary. All proposed revisions shall be submitted to the Director for review. The Department will acknowledge receipt of the Plan and/or revisions, and shall provide any review comments within a reasonable time frame.

Chemical Operations

14. All chemical loading and blending shall be done inside the thermal generating station, with no chemical containers being opened outside. All vessels storing volatile chemicals or solvents shall be blanketed to eliminate vapour or odour releases.

Spill Prevention and Containment

15. Areas in which chemicals are stored shall have impermeable floors and dykes or curbs and shall not have a floor drain system, nor shall it discharge to the environment. Areas inside the dykes or curbs shall have an effective secondary containment capacity of at least **110%** of the chemical storage container capacity, in the case of a single container. If there is more than one storage container, the dyked area shall be able to retain no less than **110% of the capacity of the largest container or 100 % of the capacity of the largest container plus 10% of the aggregate capacity of all additional containers, whichever is greater.**

16. All on site storage of petroleum shall comply with the ***Storage and Handling of Gasoline***

and Associated Products Regulations, 2003, or its successor. Storage tank systems shall be registered with the Government Service Centre. All aboveground storage tanks shall be clearly and visibly labelled with their GAP registration numbers.

17. Where applicable, all tanks and fuel delivery systems shall be inspected to appropriate American Petroleum Institute or Underwriters' Laboratories of Canada standards, or any other standards acceptable to this Department. The required frequency of inspections may be changed at the discretion of the Director.

18. An inventory of all petroleum and chemical storage tanks shall be submitted to the Director for review by ***August 2, 2006***. This inventory shall include a plan showing location, registration and/or approval number (where applicable), identification number, material stored, capacity, tank material, tank type, year of manufacture, date of installation, date of last inspection, failure history, maintenance history, dyke capacity and date of next planned inspection. Every two (2) years, an update of any significant changes to the inventory shall be submitted to the Director.

Contingency Plan

19. A contingency plan for the operation of HYDRO's thermal generating station shall be submitted to the Director for review by ***August 2, 2006***. The contingency plan shall clearly describe the actions to be taken in the event of a spill of a toxic or hazardous material. It shall include, as a minimum: notification and alerting procedures; duties and responsibilities of the "on-scene commander" and other involved staff; spill control and clean-up procedures; restoration of the spill site; information on disposal of contaminants; and resource inventory. Copies of the plan shall be placed in convenient areas throughout the thermal generating station so that employees can easily refer to it when needed. HYDRO shall ensure that all employees are aware of the plan and understand the procedures and the reporting protocol to be followed in the event of an emergency. An annual response exercise is recommended for response personnel. Every year, as a minimum, the plan shall be reviewed and revised as necessary. Any proposed significant revisions shall be submitted to the Director for review. Changes which are not considered significant include minor variations in equipment or personnel characteristics which do not effect implementation of the plan.

20. Every time HYDRO implements the contingency plan, information shall be recorded for future reference. This will assist in reviewing and updating the plan. The record shall consist of all incidents with environmental implications, and include such details as: date; time of day; type of incident (i.e. liquid spill, gas leak, granular chemical spill, equipment malfunction, etc.); actions taken; problems encountered; and other relevant information that would aid in later review of the plan performance. A summary of all incident reports shall be submitted as per the ***Reporting*** section.

Site Decommissioning and Restoration Plan

21. A plan to restore areas disturbed by the thermal generating station shall be submitted to the Director for review at the time that closure of the thermal generating station is determined. For guidance on the preparation of the plan, refer to Appendix B. Wherever possible, the plan shall promote progressive reclamation of disturbed areas. HYDRO shall proceed through a phased environmental site assessment process to closure.

Bunker C

22. Each delivery of Bunker C shall be analysed for the parameters listed in Table 1. Analysis shall be on a representative sample of the Bunker C received.

Table 1: Fuel Analysis Program

Parameters			Frequency
A.P.I. Gravity @ 60 °F	Density (kg/m3 @ 15 °C)	Flash Point	**every batch delivered**
Pour Point	Viscosity cSt @ 51 °C	Viscosity SFS @ 122 °F	
Sulfur % by weight	BTU's per US Gallon	Ash % by weight	
Sediment % by weight	Water % by volume	Asphaltenes % by weight	
Aluminum	Nickel	Silicon	
Sodium	Vanadium		

23. HYDRO shall maintain, and submit to the Director as per the ***Reporting*** section, a record of all Bunker C received. The record shall include:
    - name of the supplier;
    - date and volume of Bunker C unloaded;
    - the certificate of analysis for each batch of Bunker C delivery received; and
    - the name of the laboratory where the analysis was performed.

24. HYDRO is permitted to accept and burn alternative fuel only with the written approval of the Department.

Used Oil

25. Used oil shall be retained in an approved tank or closed container, and disposed of by a company licenced for handling and disposal of used oil products.

26. An SOP for the handling and storage of used oil shall be submitted to the Director by ***August 2, 2006***. The SOP shall, as a minimum, detail procedures for the following:
    - storage and handling of used oil generated on-site; and
    - recording of volumes of used oil generated from each source.

Waste Water Flows and Treatment

27. The thermal generating station's once-through cooling water shall be obtained from Indian Pond, and shall be discharged directly to Conception Bay.

28. The thermal generating station's south-east floor drains shall be routed through an oil/water separator and then to Indian Pond through the storm water collection system;

29. The thermal generating station's south-west floor drains shall be routed through a grease trap and an oil/water separator and then to the cooling water discharge piping associated with Units # 1 & 2;

30. The thermal generating station's north-east and north-west floor drains shall be routed through a grease trap and an oil/water separator and then to a 900 m^3 equalization basin (continuous basin).

31. All oil/water separators shall be checked routinely to ensure they are working properly. A log of these checks shall be maintained.

32. Waste water streams resulting from daily operations, including raw water clarification, filter backwashes, boiler blowdown and other similar activities shall be directed to the continuous basin. Any flow or drainage from the continuous basin shall be discharged to Indian Pond.

33. Demineralizer regeneration waste water flows may be directed to the seal pit associated with Units # 1 & 2, during such times that at least one cooling water pump is active.

34. Waste water streams resulting from periodic events where water is used to clean boiler fireside equipment, including air preheater wash flows, fireside boiler wash flows and boiler acid wash flows, shall be directed to a 900 m^3 equalization basin (periodic basin). Any flow or drainage from the periodic basin shall be directed to the waste water treatment plant.

35. Any flow or drainage from the waste water treatment plant shall be discharged to the cooling water intakes for Units # 1 & 2.

36. Effluent from the dewatering of filter cake shall be re-cycled through the waste water treatment plant.

37. All solid waste generated from the waste water treatment plant operations shall be directed to the hazardous waste landfill.

Effluent Monitoring and Discharge

38. HYDRO shall perform an Effluent Monitoring Program as per Table 2.

Table 2: Effluent Monitoring Program					
Location	**Parameters**				**Frequency**
Batch Reactor	Aluminum Vanadium	Iron pH	Magnesium TSS	Nickel TPH	grab sample prior to each batch release †
	ALT				grab sample from each batch following new addition of waste water to the periodic basin
Continuous Basin outfall	Iron TSS	Nickel TPH	Vanadium	pH	weekly grab
	ALT				monthly grab
† grab samples for all parameters shall be taken from the batch reactor at the same time					

All results from the Effluent Monitoring Program shall be submitted to the Director as per the ***Reporting*** section.

39. Refer to Table 3 for the discharge criteria.

Table 3 - Effluent Discharge Criteria†	
Parameter	**Allowable Limits ***
Iron	10
Nickel	0.5
Vanadium	0.5
pH	5.5 - 9.0 pH units
TSS	30
TPH	15
† over background for metals and suspended solids * units are in mg/L unless otherwise indicated	

40. If effluent is determined to be acutely lethal for three consecutive ALTs, HYDRO shall implement a toxicity identification evaluation (TIE) to identify the toxin, and from this develop measures to prevent or reduce the toxin. The report, written as a result of these identification activities, shall be submitted to the Director for review, ***within 60 days*** of the third consecutive failed acutely lethal test result. After review of the report, the Director may

place additional requirements upon the proponent for treatment of effluent prior to discharge.

Water Chemistry Analysis

41. HYDRO shall perform a Water Chemistry Analysis Program every three (3) months, starting ***June, 2006***, as per Table 4.

Table 4 - Water Chemistry Analysis Program

Location	Parameters
1. Cooling water intake at Indian Pond (grab sample) 2. Cooling water outfall stream, prior to release into Conception Bay (grab sample) 3. Continuous Basin outfall stream, prior to release into Indian Pond (grab sample)	**General Parameters** - must include the following: pH TSS **Metals Scan** - must include the following: aluminum, antimony, arsenic, barium, beryllium, bismuth, boron, cadmium, chromium, cobalt, copper, iron, lead, manganese, molybdenum, mercury, nickel, selenium, silver, strontium, thallium, tin, titanium, uranium, vanadium, zinc

All results shall be submitted to the Director as per the ***Reporting*** section. The Water Chemistry Analysis Program may be discontinued after two (2) years of quarterly analysis are submitted to the Department, and the results are satisfactory.

Environmental Effects Monitoring

42. HYDRO shall conduct an Environmental Effects Monitoring study to monitor the impacts of the discharge of the cooling water, the continuous basin's water and the waste water treatment plant's treated water on Conception Bay. An outline of the study shall be submitted to the Director for review and approval by ***June 31, 2008.*** The results of the completed study shall be submitted to the Director for review by ***June 31, 2009***.

Hazardous Waste Landfill Operations

43. The hazardous waste landfill shall be operated in the manner described in the ***Landfill Operations Manual***. Any proposed revisions to the ***Landfill Operations Manual*** shall be submitted to the Director for review and approval prior to such revisions being made.

44. Only waste identified in Section 5.1 (Waste Characterization) of the ***Landfill Operations Manual*** shall be placed in the hazardous waste landfill. These include:

- bottom and fly ash;
- periodic basin sludge;
- continuous basin sludge;
- waste water treatment plant filtercake;
- raw-water treatment ion exchange resins; and
- clean-up from chemical spills.

In addition, Bunker C ash from institutions, such as hospitals, may be disposed of in space efficient containers in the hazardous waste landfill. HYDRO shall notify the Department prior to deposition of ash from sources other than from the thermal generating station.

45. Liquid waste shall not be disposed of in the landfill.

46. The Department reserves the right to require some form of pretreatment of waste before placement in the site.

47. HYDRO shall periodically review opportunities for reuse and/or recycling of the waste types disposed of in the site.

48. HYDRO shall maintain a landfill security fence with a sign affixed to the fence identifying the site as a hazardous waste containment system. This sign shall identify the owner of the landfill and a contact phone number. The sign and its placement shall be acceptable to the Department.

49. No activities shall occur within the fenced area of the landfill, except for the deposition of waste; extraction of leachate; or other maintenance requirements of the landfill cap or the landfill.

50. An annual inspection program shall be performed as per the ***Landfill Operations Manual***.

51. Leachate accumulated in each of the hazardous waste landfill collection systems, including the leachate holding pond, shall be removed as required so that leachate does not overflow the collection system.

52. Any flow or drainage from the leachate holding pond shall be directed to the periodic basin. Leachate shall not be discharged directly to the environment without prior authorization by the Department.

Hazardous Waste Landfill Monitoring

53. HYDRO shall perform an Environmental Monitoring Program as per section 7.12 (Environmental Monitoring) of the ***Landfill Operations Manual***. This shall include monitoring of:
    - groundwater quality and levels;
    - surface water quality;

- leachate leakage;
- liner integrity; and
- physical movement of the landfill.

54. HYDRO shall perform a Groundwater Monitoring Program as per Table 5. This monitoring program shall be performed throughout the operational life of the landfill, and during the 25 years following closure.

Table 5: Groundwater Monitoring Program

Location	Parameters				Frequency
Monitoring Wells: BH-1 BH-2 BH-3 BH-4 BH-5 BH-6 BH-7	Aluminum Vanadium	Iron	Magnesium	Nickel	**every four months**
Monitoring Wells: BH-1 BH-2 BH-3 BH-4 BH-5 BH-6 BH-7	Antimony Bismuth Chromium Mercury Selenium PCB's pH	Arsenic Cadmium Copper Molybdenum Silver VOC's	Barium Calcium Lead Phosphorus Sodium TSS	Beryllium Cobalt Manganese Potassium Zinc TDS	**annual**

55. HYDRO shall perform a Surface Water Monitoring Program as per Table 6. This monitoring program shall be performed throughout the operational life of the landfill, and during the 25 years following closure.

Table 6: Surface Water Monitoring Program

Location	Parameters			Frequency
3 locations from the upstream drainage ditch (i.e background) 3 locations from the downstream drainage ditch	Cadmium Lead Vanadium TSS	Chromium (total) Mercury pH VOCs	Iron Nickel TDS	**monthly (provided water is flowing in the ditches during the month)**

56. The total monthly flow:

- from the primary and secondary leachate collection systems;
- from the leachate holding pond to the periodic basin; and
- through the primary cell and holding pond leak detection manholes;

shall be accurately measured and recorded. This record and all results from the Groundwater and Surface Water Monitoring Programs shall be submitted to the Director as per the ***Reporting*** section.

57. HYDRO shall submit an annual Landfill Operating Report to the Director by ***February 28*** of the subsequent year. This report shall include:

- results of the Environmental Monitoring Program; and
- summaries of all materials placed in the landfill site including: waste characterization reports, volumes of waste deposited in the landfill, source(s) of the waste, identification of contaminants of concern, and copies of the hazardous waste manifest forms.

Ambient Air

58. HYDRO shall operate an ambient air monitoring program as per the conditions in this Approval and its amendments. Approval shall be obtained from the Director prior to purchase or installation of any monitoring equipment.

59. Locations and parameters to be monitored are outlined in Table 7.

Table 7 - Ambient Air Monitoring Program

Site	Parameter
Butter Pot	$PM_{2.5}$, SO_2, NO_x, NO_2
Green Acres	TSP, $PM_{2.5}$, SO_2, NO_x, NO_2, Nickel*, Vanadium*
Indian Pond	TSP, $PM_{2.5}$, SO_2, NO_x, NO_2
Lawrence Pond	TSP, $PM_{2.5}$, SO_2, NO_x, NO_2
Lower Indian Pond Drive	TSP, $PM_{2.5}$, SO_2, NO_x, NO_2, Nickel*, Vanadium*
Main Gate	TSP, $PM_{2.5}$, Nickel*, Vanadium*
* Nickel and Vanadium analyses shall be performed on all TSP samples for these sites	

60. Ambient air monitoring shall be done in accordance with the ***Ambient Air Monitoring Policy Directive (PPD 98-01)***, its successors, or alternate methods approved by the Director.

61. Frequency of sampling of TSP shall coincide with the National Air Pollution Survey (NAPS) schedule. Sampling of all other parameters shall be continuous. All results from the Ambient Air Monitoring Program shall be submitted to the Director as per the ***Reporting*** section.

62. TSP shall be determined by the United States EPA Test Method: "Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere (High Volume Method)" Section 2.2, 1983, and by a method indicated in United States EPA 40 CFR 50, Appendix J, "Reference Method for the Determination of Particulate Matter as PM_{10} in the Atmosphere (High Volume PM_{10} Sampler Method)," or alternate method approved by the Director.

63. SO_2 shall be determined by the United States EPA Test Method: "Reference Method for the Determination of Sulfur Dioxide in the Atmosphere (Fluorescence)" Section 2.9, 1982, or alternate method approved by the Director.

64. NOx (as NO_2) shall be determined by the United States EPA Test Method: "Reference Method for the Determination of Nitrogen Dioxide in the Atmosphere (Chemiluminescence)" Section 2.3, February 2002, or alternate method approved by the Director.

65. Automated $PM_{2.5}$ monitors shall determine $PM_{2.5}$ by a method indicated in United States EPA 40 CFR 50, Appendix L, "Reference Method for the Determination of Fine Particulate Matter as $PM_{2.5}$ in the Atmosphere," or alternate method approved by the Director. Installation and operation of these monitors shall comply with United States EPA Quality Assurance Guidance Document 2.12 "Monitoring $PM_{2.5}$ in Ambient Air Using Designated Reference or Class 1 Equivalent Methods." Automated monitors for $PM_{2.5}$ and PM_{10} shall be approved as United States EPA designated equivalent methods for PM_{10} in ambient air, and must be acceptable to the Director.

66. HYDRO shall operate and maintain a meteorological station at Green Acres site in accordance with the guidelines specified in the United States EPA document "Meteorological Monitoring Guidance for Regulatory Modeling Applications," EPA-454/R-99-005, February 2000, or its successors. Parameters to be measured and recorded shall include: wind speed, wind direction, ambient air temperature, dew point, solar radiation, barometric pressure, cloud height and precipitation. All results from this station shall be submitted in an acceptable digital format annually or as otherwise specified by the Department, as per the ***Reporting*** section.

67. The data loggers for SO_2, NOx and $PM_{2.5}$ shall be Campbell Scientific array-based data loggers, or alternates approved by the Director, with battery backup of data. The Green Acres data logger shall have enough differential input channels to allow input of meteorological station data. All dataloggers shall be remotely programmable and compatible with current Departmental standards for access to data for monthly Quality Assurance, and for scheduled access for data download.

68. All analysers shall be operated and maintained in accordance with United States EPA "List of Designated Reference and Equivalent Methods" issued October 9, 2003, or its successors.

Continuous Opacity Monitoring System

69. Opacity of emissions from each boiler shall be continuously measured and recorded using a Continuous Opacity Monitoring System (COMS) that meets all the requirements of *Performance Specification 1 (PS-1) - Specifications and Test Procedures for Opacity Continuous Emission Monitoring Systems in Stationary Sources,* of the United States *Code of Federal Regulations - 40 CFR Part 60, Appendix B.* Minimum QA/QC requirements are specified to assess the quality of COMS performance. Daily zero and span checks, quarterly performance audits, and annual zero alignment checks are required to assure the proper functioning of the COMS and the accuracy of the COMS data. These shall be recorded in a written log and a copy made available on request.

70. The United States EPA Federal Register *Test Method 203 - Determination of the Opacity of Emissions from Stationary Sources by Continuous Opacity Monitoring Systems* shall be used to determine compliance with the ***Air Pollution Control Regulations, 2004***, or its successor.

71. Monthly opacity data reports, in digital format, shall be submitted in the form of six minute arithmetic averages of instantaneous readings, as per the ***Reporting*** section. Each six minute average data point shall be identified by date, time and average percent opacity.

Continuous Emissions Monitoring System

72. By ***August 2, 2006***, HYDRO shall submit to the Director a plan for the automated CEMS to meet the requirements of Environment Canada's 1993 Report *Protocols and Performance Specifications for Continuous Monitoring of Gaseous Emissions from Thermal Power Generation (EPS 1/PG/7)*, or its successor. The plan shall identify the proposed actions to be taken by HYDRO and shall include the time-lines for completion. Upon review of the plan and in consultation with HYDRO, the Director will establish a reasonable deadline for completion of activities necessary for the CEMS to meet the requirements of *EPS 1/PG/7*, or its successor. Notwithstanding this, application of specific requirements of *EPS 1/PG/7* to the CEMS may be modified subject to approval by the Director.

73. Monthly CEM data reports containing one-hour arithmetic averages of emission rates of SO_2, NO_X, NO_2, CO_2, CO and O_2 (all expressed in ppmv) shall be submitted in digital format, as per the ***Reporting*** section.

Administrative Boundary

74. Under this approval the Administrative Boundary shall be established as the land boundary of the thermal generating station property, as indicated on the land boundary map forwarded to the Department on ***December 7, 2005***.

Stack Emissions Testing and Dispersion Modelling

75. Stack emissions testing shall be done in accordance with the ***Source Emission Testing Guidance Document (GD-PPD-016)***. Dispersion Modeling shall be done in accordance with the ***Plume Dispersion Modeling Guidance Document (GD-PPD-019)***. Determination of frequency of stack emissions testing and dispersion modeling shall be done in accordance with the ***Compliance Determination Guidance Document (GD-PPD-009.02)***.

76. HYDRO shall be required to complete stack emissions testing once every four years if it has been shown, via a registered dispersion model, that the thermal generating station is in compliance with this Approval. If it has been shown, via a registered dispersion model, that the thermal generating station is not in compliance with section 3(2) and Schedule A of the ***Air Pollution Control Regulations, 2004***, then the thermal generating station shall complete stack emissions testing every two years. Plume dispersion modeling results shall be submitted to the Department within ***120 days*** of completion of the stack emissions testing.

Annual Air Emissions Reporting

77. HYDRO shall submit an annual Air Emission Report to the Director by ***February 28*** of the subsequent year. This report shall include:

- total fuel consumption;
- the weighted average sulphur content of the fuel;
- the fuel specific gravity;
- the estimated, or, if available, the monitored annual emissions of the following flue gas constituents: SO_2, NO_X, CO_2, CO and particulate; and
- the actual calculations including factors, formulae and/or assumptions used.

Analysis and QA/QC

78. Unless otherwise stated herein, all solids and liquids analysis performed pursuant to this Approval shall be done by either a contracted commercial laboratory or an in-house laboratory. Contracted commercial laboratories shall have a recognized form of accreditation. In-house laboratories have the option of either obtaining accreditation or submitting to an annual inspection by a representative of the Department, for which HYDRO shall be billed for each laboratory inspection in accordance with Schedule 1 of the ***Accredited and Certified Laboratory Policy (GD: PP2001-01)***. Recommendations of the Director stemming from the annual inspections shall be addressed within 6 months, otherwise further analytical results shall not be accepted by the Director.

79. If HYDRO wish to perform in-house laboratory testing and submit to an annual inspection by the Department then a recognized form of proficiency testing recognition shall be obtained for compliance parameters for which this recognition exists. The compliance

parameters are listed in the ***Effluent and Monitoring*** section. If using a commercial laboratory, HYDRO shall contact that commercial laboratory to determine and to implement the sampling and transportation QA/QC requirements for those activities.

80. The exact location of each sampling point shall remain consistent over the life of the monitoring programs, unless otherwise approved by the Director.

81. HYDRO shall bear all expenses incurred in carrying out the environmental monitoring and analysis required under the conditions of this Approval.

Monitoring Alteration

82. The Director has the authority to alter monitoring programs or require additional testing at any time when:

- pollutants might be released to the surrounding environment without being detected;
- an adverse environmental effect may occur; or
- it is no longer necessary to maintain the current frequency of sampling and/or the monitoring of parameters at a particular sampling station.

83. HYDRO may, at any time, request that monitoring program or requirements of this Approval be altered by:

- requesting the change in writing to the Director; and;
- providing sufficient justification, as determined by the Director.

The requirements of this Approval shall remain in effect until altered, in writing, by the Director.

Reporting

84. Monthly reports containing the environmental compliance monitoring and sampling information required in this Approval, as summarized in Table 8, shall be received by the Director, in hardcopy and digital formats (e-mail, diskette or CD), within 30 calendar days of the reporting month. A hardcopy of all related laboratory reports shall be submitted to the Director with the monthly report. The digital copy, if e-mailed, shall be sent to the following address: <<statenv@gov.nl.ca>>

Table 8 - Monthly Reporting Requirements	
Section	**Condition(s)**
Bunker C	22
Effluent Monitoring and Discharge	38
Water Chemistry Analysis *	41
Hazardous Waste Landfill Monitoring	54, 55
Ambient Air	59, 66
Continuous Opacity Monitoring System	71
Continuous Emissions Monitoring System	73
* to be included for the following reporting months; January, April, July and October	

85. All incidents of:

- *Contingency Plan* implementation; or
- non-conformance of any condition within this approval; or
- spillage or leakage of a regulated substance; or
- whenever discharge criteria is, or is suspected to be, exceeded; or
- verbal/written complaints of an environmental nature from the public received by HYDRO related to the thermal generating station, whether or not they are received anonymously;

shall be immediately reported, within one working day, to a person, message manager or facsimile machine as follows:

- contact this Department (St. John's office) by phoning (709) 729-2556, or faxing (709) 729-6969.

A written report including a detailed description of the incident, summary of contributing factors, and an action plan to prevent future incidents of a similar nature, shall be submitted to the Director. The action plan shall include a description of actions already taken and future actions to be implemented, and shall be submitted within two weeks from the date of the initial incident. The address for written report submission is:

Director, Pollution Prevention Division
Department of Environment and Conservation
P.O. Box 8700
St, John's, NL
A1B 4J6
Telephone: (709) 729-2556
Facsimile: (709) 729-6969

86. Any spillage or leakage of gasoline or associated product shall be reported immediately through the Canadian Coast Guard at 1-(709)-772-2083.

Liaison Committee

87. The Department recognizes the benefits, and at times the necessity, of accurate, unbiased communication between the public and industrial operations which have an impact on the properties and residents in the area. Regular meetings of the Liaison Committee, comprised of representatives of HYDRO, the Department and independent members of the general population of Holyrood and Conception Bay South, shall be maintained so as to provide a clear conduit of communication between concerned citizens and HYDRO.

Expiration

88. This Certificate of Approval expires ***February 2, 2011.***

89. Should HYDRO wish to continue to operate the thermal generating station beyond this expiry date, a written request shall be submitted, by ***August 2, 2010***, to the Director for the renewal of this Approval.

APPENDIX B

Industrial Site Decommissioning and Restoration Plan Guidelines

As part of the Department of Environment and Conservation's ongoing commitment to minimize the residual impact of industrial activities on the environment of the province, the Department requires that HYDRO develop a decommissioning and restoration plan for the thermal generating station at Holyrood and its associated property. The guidelines listed below are intended to provide some general guidance as to the expectations of the Department with regard to the development of a decommissioning and restoration plan, and to identify areas that are of particular concern or interest. The points presented are for consideration, and are open to interpretation and discussion.

Decommissioning and restoration plans are intended to present the scope of activities that a company shall undertake at the time of final closure and/or decommissioning of the industrial properties. Where it is useful and practical to do so the company is encouraged to begin undertaking some of the activities outlined in the plan prior to final closure and decommissioning. The objectives of the restoration work to be undertaken can be summarized as follows:

- to ensure that abandoned industrial facilities do not endanger public health or safety;
- to prevent progressive degradation and to enhance the natural recovery of areas affected by industrial activities;
- to ensure that industrial facilities and associated wastes are abandoned in a manner that will minimize the requirement for long term maintenance and monitoring;
- to mitigate, and if possible prevent, the continued loadings of contaminants and wastes to the environment. The primary objective shall be to prevent the release of contaminants into the environment. Where prevention is not practical due to technical or economic limitations then activities intended to mitigate the consequence of such a release of contaminants shall become the objective of restoration work;
- to return affected areas to a state compatible with the original undisturbed condition, giving due consideration to practical factors including economics, aesthetics, future productivity and future use; and
- to plan new facilities so as to facilitate eventual rehabilitation.

The decommissioning and restoration plan should:

- identify areas of known historical or current contamination;
- identify past or existing operational procedures and waste management practices that have, or may have, resulted in site contamination;
- highlight the issues or components to be addressed;
- identify operational procedures and waste management practices that can prevent or reduce site contamination;
- consider future land use, regulatory concerns and public concerns;
- enable estimation of the resources and time frame required to decommission the facility and restore the site to a condition acceptable to the Department;
- enable financial planning to ensure the necessary funds for decommissioning and restoration are set aside during the operational life of the facility, and;
- include arrangements for appropriate project management to ensure successful completion of the decommissioning and restoration program.

cc: Mr. Kevin Power, P.Eng. - Head
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Confederation Building
St. John's, NL

Mr. Scott Devereaux - Chief Administrative Officer / Town Clerk
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Holyrood, NL

Ms. Gail Pomroy - Acting Town Clerk
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