



October 21, 2010

Tracking Number: 68043

Authorization Number: 8808

REGISTERED MAIL

NW Energy (Williams Lake) Corp.
4455 Mackenzie Avenue
Mail Bag Service 1000
Williams Lake, BC V2G 4R7

Dear Permittee:

Enclosed is Amended Permit 8808 issued under the provisions of the *Environmental Management Act*. Your attention is respectfully directed to the terms and conditions outlined in the permit. An annual fee will be determined according to the Permit Fees Regulation.

This permit does not authorize entry upon, crossing over, or use for any purpose of private or Crown lands or works, unless and except as authorized by the owner of such lands or works. The responsibility for obtaining such authority rests with the permittee. This permit is issued pursuant to the provisions of the *Environmental Management Act* to ensure compliance with Section 120(3) of that statute, which makes it an offence to discharge waste, from a prescribed industry or activity, without proper authorization. It is also the responsibility of the permittee to ensure that all activities conducted under this authorization are carried out with regard to the rights of third parties, and comply with other applicable legislation that may be in force.

This decision may be appealed to the Environmental Appeal Board in accordance with Part 8 of the *Environmental Management Act*. An appeal must be delivered within 30 days from the date that notice of this decision is given. For further information, please contact the Environmental Appeal Board at (250) 387-3464.

Administration of this permit will be carried out by staff from the Cariboo Region. Plans, data and reports pertinent to the permit are to be submitted to the Regional Manager, Environmental Protection, at Ministry of Environment, Regional Operations, Cariboo Region, Suite 400 - 640 Borland St., Williams Lake, BC V2G 4T1.

Yours truly,

A handwritten signature in black ink, appearing to read "Douglas Hill". The signature is written in a cursive, slightly slanted style.

Douglas J. Hill, P.Eng.
for Director, *Environmental Management Act*
Cariboo Region

Enclosure

cc: Environment Canada



MINISTRY OF ENVIRONMENT

PERMIT

8808

Under the Provisions of the Environmental Management Act

NW Energy (Williams Lake) Corp.
4455 Mackenzie Avenue North
Williams Lake, British Columbia V2G 1M3

is authorized to discharge emissions to the air from an electrical power generating plant located at 4455 Mackenzie Avenue North in Williams Lake, British Columbia, subject to the terms and conditions listed below. Contravention of any of these conditions is a violation of the Environmental Management Act and may lead to prosecution.

This Permit supersedes and amends all previous versions of Permit 8808 issued under Part 2, Section 14 of the Environmental Management Act.

1. AUTHORIZED DISCHARGES

1.1 This section applies to the discharge of air from a BIOMASS FUELLED BOILER. The site reference number for this discharge is E218415.

1.1.1 The maximum rate of discharge is 110 m³/second, on a dry basis.

1.1.2 The authorized discharge period is continuous.

1.1.3 The characteristics of the discharge shall be equivalent to or better than:

Total Particulate Matter Maximum: 50 mg/m³*
*corrected to 8% O₂

Nitrogen Oxides Maximum: 320 mg/m³*
*1 hour average, as NO₂, corrected to 8% O₂

Opacity Maximum: 10 %*

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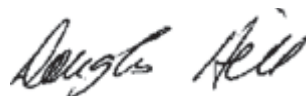
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for Director, Environmental Management Act
Cariboo Region

*Opacity determined by continuous in-stack opacity measurement.
Opacity shall not be exceeded for more than 3 minutes in any half hour period.

- 1.1.4 The authorized works are a biomass fired boiler, multiclones, a five field electrostatic precipitator and related appurtenances approximately located as shown on the attached Site Plan.
- 1.1.5 The location of the facilities from which the discharge originates and the point of discharge is Lot B of District Lot 72 Cariboo District Plan PGP35292 (Parcel Identifier: 017-247-276).
- 1.2 This section applies to the discharge of air from **WATER COOLING TOWERS**. The site reference number for this discharge is E218417.
- 1.2.1 The rate of discharge is estimated to be 5,800 m³/second.
- 1.2.2 The authorized discharge period is continuous.
- 1.2.3 The characteristics of the discharge shall consist of water droplets including dissolved minerals naturally present and water conditioning additives for pH control and prevention of algal growth, water vapour and air.
- 1.2.4 The authorized works are three cooling towers, piping and related appurtenances approximately located as shown on the attached Site Plan.
- 1.2.5 The location of the facilities from which the discharge originates and the point of discharge is the same as Section 1.1.5 above.
- 1.3 This section applies to the discharge of air from an **ASH SILO VENT**. The site reference number for this discharge is E218419.
- 1.3.1 The maximum rate of discharge is variable and intermittent.
- 1.3.2 The authorized discharge period is continuous.
- 1.3.3 The characteristics of the discharge are of the nature of an ash silo vent at a biomass fuelled electrical generating facility.

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- 1.3.4 The authorized works are mechanical conveyors, piping, an ash silo, vent and related appurtenances approximately located as shown on the attached Site Plan.
- 1.3.5 The location of the facilities from which the discharge originates and the point of discharge is the same as Section 1.1.5 above.
- 1.4 This section applies to the discharge of air from **MISCELLANEOUS VENTS**. The site reference number for this discharge is E218418.
 - 1.4.1 The maximum rate of discharge is variable and intermittent.
 - 1.4.2 The authorized discharge period is continuous.
 - 1.4.3 The characteristics of the discharge are of the nature of steam and water safety relief vents at a biomass fuelled electrical generating facility.
 - 1.4.4 The authorized works are fans, piping, vents and related appurtenances approximately located as shown on the attached Site Plan.
 - 1.4.5 The location of the facilities from which the discharge originates and the point of discharge is the same as Section 1.1.5 above.

2. **GENERAL REQUIREMENTS**

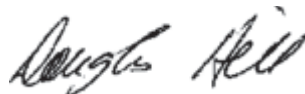
2.1 **Standard Conditions**

For the administration of this permit all gaseous volumes shall be converted to standard conditions of 293.15 K and 101.325 kPa with zero percent moisture.

2.2 **Maintenance of Works and Emergency Procedures**

The authorized works shall be inspected regularly and maintained in good working order. In the event of an emergency or condition beyond the control of the Permittee which prevents effective operation of the authorized works or leads to an unauthorized discharge, the Permittee shall take appropriate remedial action and notify the Director immediately. The Director may reduce or suspend operations to protect the environment until the authorized works has been restored, and/or corrective steps taken to prevent unauthorized discharges.

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2.3 Bypasses

Any bypass of the authorized works is prohibited unless the approval of the Director is obtained and confirmed in writing.

2.4 Process Modifications

The Director shall be notified prior to implementing changes to any process that may adversely affect the quality and/or quantity of the discharge. Despite notification under this section, permitted levels must not be exceeded.

2.5 Disposal of Ash

The residue of combustion shall be removed from the boiler regularly and shall be disposed of on a site and in a manner approved by the Director.

2.6 Water Vapour

The Permittee shall provide additional works or take the necessary steps to reduce the effects of water vapour discharged to the air if, in the opinion of the Director, conditions develop which may interfere with visibility or the normal conduct of transport or business.

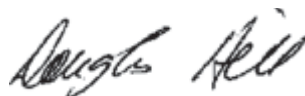
2.7 Authorized Fuel

The authorized fuel is untreated wood residue unless authorized below or the approval of the Director is obtained and confirmed in writing.

2.7.1 The incineration of wood residue treated with creosote and/or a creosote-pentachlorophenol blended preservative (treated wood) is authorized subject to the following conditions:

- The treated wood component shall not exceed 5% of the total biomass fuel supply calculated on an annual basis;
- The treated wood waste shall be well mixed with untreated wood waste prior to incineration;
- The incineration of wood residue treated with metal derived preservatives is prohibited;
- The Permittee shall measure and record the weight of treated wood residue received. The source of treated wood shall be recorded.

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The Permittee may request authorization to increase the proportion of treated wood residue incinerated by submitting a request in writing to the Director.

2.7.2 The incineration of hydrocarbon contaminated wood residues originating from accidental spills is authorised provided that written approval in accordance with section 52 of the Hazardous Waste Regulation has been received by the responsible party for disposal of the waste by incineration. The Permittee shall maintain a record of the quantity, date received, and identity of the responsible party of hydrocarbon contaminated wood residues originating from accidental spills.

2.7.3 Vegetative residues (i.e. green foliage, invasive weeds, diseased plants, etc.), seedling boxes, and paper records are authorized as fuel provided such materials constitute less than 1% of the daily feed into the boiler. Non-biomass contaminants (e.g. plastic, glass metal) shall not exceed 1% of the daily feed into the boiler.

2.8 **Fuel Stockpile Fire Prevention and Control**

The Permittee shall prepare and submit to the Director by December 31, 2010, a Fire Prevention and Control Plan which documents plans and procedures to prevent and control spontaneous combustion of stockpiled hog fuel. Amendments to the Plan shall be submitted to the Director within 30 days of adoption.

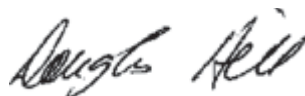
2.9 **Fugitive Dust Control**

Fugitive dust created within the operational area shall be suppressed. If fugitive dust becomes a concern, the Director will, in consultation with the Permittee, evaluate the sensitivity of the receiving environment, the contribution of the sources, plus any other pertinent information. The Director may require development and submission of a Fugitive Dust Management Plan or additional control measures on fugitive dust sources.

2.10 **Storm Water Management**

The Permittee shall prepare and submit to the Director by June 30, 2011, a Storm Water Management Plan which documents plans and procedures to control site runoff and protect water quality of receiving waters. The Plan shall

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include, but not be limited to, a description of surface water flow patterns, water quality characteristics, measures to control and manage site runoff, and ongoing monitoring and reporting. Amendments to the Plan shall be submitted to the Director within 30 days of adoption. The Director may require the Permittee to implement additional measures to control, monitor or assess water discharges from the operational area.

3. MONITORING AND REPORTING REQUIREMENTS

3.1 Discharge Monitoring

The Permittee shall monitor the boiler emissions authorized in section 1.1 in accordance with the following monitoring program:

<u>Parameter</u>	<u>Frequency</u>	<u>Method</u>
Particulate	Annually	manual in-stack sampling
Opacity	Continuous	continuous emission monitor
Nitrogen oxides	Continuous	continuous emission monitor

The Director may modify the monitoring program by providing written direction to the Permittee.

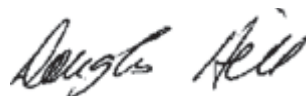
3.2 Operating Conditions

The Permittee shall sample the emissions from the boiler in section 1.1 under normal operating conditions. The Permittee shall record the operating conditions of the boiler in terms of steam load (lb/hr) for the sampling period and for the ninety day period prior to the sampling event.

3.3 Sampling Procedures

Sampling is to be carried out in accordance with the procedures described in the "British Columbia Field Sampling Manual for Continuous Monitoring and the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment, and Biological Samples, 2003 Edition (Permittee)", or most recent edition, or by suitable alternative procedures as authorized by the Director.

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A copy of the above manual may be purchased from the Queen's Printer Publications Centre, P. O. Box 9452, Stn. Prov. Gov't. Victoria, British Columbia, V8W 9V7 (1-800-663-6105 or (250) 387-6409) or via the internet at www.crownpub.bc.ca. A copy of the manual is also available for review at all Environmental Protection offices.

The continuous emission monitors shall be maintained and audited in accordance with Environment Canada's EPS 1/PG/7 Protocols and Performance Specifications for Continuous Monitoring of Gaseous Emissions from Thermal Power Generation.

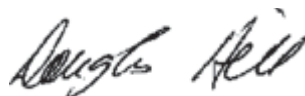
3.4 **Reporting**

The required records of treated wood residue received under section 2.7.1 and of hydrocarbon contaminated wood residues originating from accidental spills under section 2.7.2 shall be maintained and submitted to the Director, annually. The report shall be submitted by January 30 annually for the preceding calendar year.

The continuous emission monitoring (CEM) data collected as required by section 3.1 shall be submitted in a format using suitable summary statistics as approved by the Director, on a monthly schedule. The CEM monthly data shall be submitted within 30 days of the end of the reported month. All CEM data shall be maintained by the permittee for inspection.

The annual particulate monitoring data required by section 3.1 and the operating condition records required under section 3.2 shall be maintained and submitted, suitably tabulated, to the Director, within 60 days of completion of the manual stack sampling event.

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SITE PLAN



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