

British Columbia Energy Regulator

6534 100th Avenue, Fort St. John, B.C.
V1J 8C5

APPROVAL
AA 111909

Under Section 15 of the Environmental Management Act

LNG Canada Development Inc.
4000 – 500 Centre Street S.E
Calgary, Alberta
T2G 1A6

is authorized to discharge contaminants to the environment from the use of air curtain incinerators within the immediate vicinity of the certified project area of a-5-B/103-I-02, subject to the conditions listed below. Contravention of any of these conditions is a violation of the *Environmental Management Act* and may result in prosecution.

1. DEFINITIONS

For the purpose of this approval, the following definitions apply:

- 1.1. ***Act*** means the *Environmental Management Act*.
- 1.2. ***Approval Holder*** means LNG Canada Development Inc.
- 1.3. ***BCER*** means the British Columbia Energy Regulator.
- 1.4. ***Custom Ventilation Forecast*** means a forecast of the atmosphere's ability in a geographic area to disperse smoke in accordance with section 16 of the Open Burning Smoke Control Regulation.
- 1.5. ***Custom Ventilation Forecaster*** means a person who a) is a meteorologist employed by environment Canada and classified as a Meteorologist 3 or above, b) is a Weather Forecaster, a Fire Weather Forecaster, an Air Quality Meteorologist or an Air Quality Science Specialist employed by or under contract with the government, or c) has similar knowledge and experience as described in a) or b) and is approved in writing by a director to conduct custom ventilation forecasts for the purposes of the Open Burning Smoke Control Regulation.



Kristofer Siriunas, P.Eng
Air Emissions Scientist

Date Issued: November 17th, 2023
Data Amended: November 22nd, 2024
Date of Expiry: February 17th, 2025

- 1.6. **Discharge** means the total mass of a solid, liquid or gaseous material introduced into the environment.
- 1.7. **Manager** means a BCER employee authorized to exercise the powers of the BCER under Section 15 of the *Environmental Management Act*;
- 1.8. **Qualified Professional** a person who has training, experience and expertise in a discipline relevant to the area of practice set out in the condition, and who is registered with the appropriate professional organization in British Columbia, is acting under that organization's code of ethics and is subject to disciplinary action by that organization.

2. **AUTHORIZED DISCHARGES**

- 2.1 This subsection applies to the discharge of air contaminants from **ONE (1) AIR CURTAIN INCINERATOR ACI-02**. The site reference number for this discharge is E336764.
- 2.1.1. The authorized location of ACI-02 is described as within the Marine Terminal Area Laydown, approximate coordinates 54.0025 N, 128.6838 W.
- 2.1.2. The authorized discharge period is continuous, provided discharge from ACI-01 is not occurring.
- 2.1.3. The maximum authorized loading rate is 240 tonnes per month.
- 2.1.4. The authorized work is one (1) S220 air curtain incinerator and related appurtenances.
- 2.1.5. The authorized material to be combusted is clean wood waste generated during the construction and commissioning of the facility. This includes solid wood, lumber, pallets, crane matting and survey sticks which are unpainted, unstained and untreated. Cardboard and paper waste generated during the construction activity may also be combusted if the capacity of the local recycling facilities are exceeded.
- 2.1.6. Waste which is defined in section 2 of Schedule 1 of the Waste Discharge Regulation is prohibited from being burned.
- 2.1.7. Operation of the air curtain incinerator shall follow the stipulations outlined within Section 28 of the *Open Burning Smoke Control Regulation*.



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- 2.2** This subsection applies to the discharge of air contaminants from **ONE (1) AIR CURTAIN INCINERATOR ACI-01**. The site reference number for this discharge is E332832.
- 2.2.1. The authorized location of ACI-01 is described as within the Site Wide Services Laydown, approximate coordinates 54.0218 N, 128.6959 W.
- 2.2.2. Open burning starts not earlier than one hour after sunrise and authorized material is added to the ignited air curtain incinerator only during the period that starts one hour after sunrise and ends at sunset. Discharge may not occur simultaneously with discharge from ACI-02.
- 2.2.3. The maximum authorized loading rate is 240 tonnes per month.
- 2.2.4. The authorized work is one (1) S220 air curtain incinerator and related appurtenances.
- 2.2.5. The authorized material to be combusted is clean wood waste generated during the construction and commissioning of the facility. This includes solid wood, lumber, pallets, crane matting and survey sticks which are unpainted, unstained and untreated. Cardboard and paper waste generated during the construction activity may also be combusted if the capacity of the local recycling facilities are exceeded.
- 2.2.6. Waste which is defined in section 2 of Schedule 1 of the Waste Discharge Regulation is prohibited from being burned.
- 2.2.7. Operation of the air curtain incinerator shall follow the stipulations outlined within Section 28 of the *Open Burning Smoke Control Regulation*.
- 2.3** This subsection applies to the **DISPOSAL OF ASH** from the combustion of wood waste authorized under this Approval.
- 2.3.1. The authorized discharge period is continuous.
- 2.3.2. The ash may be disposed of at a suitable disposal facility which has been authorized under the Environmental Management Act to receive municipal waste including ash from the combustion of wood waste. Alternatively, the ash may be disposed of on-site by incorporating the ash into the soil throughout the certified project boundary in accordance with the conditions of this approval.
- 2.3.3. Prior to conducting any on-site disposal of ash under condition 2.3.2, the Approval Holder shall have a qualified professional prepare an ash



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disposal plan to the satisfaction of the Manager. This plan shall include details pertaining to the disposal locations, pre- and post-disposal soil sampling, how the ash will be managed to ensure timely incorporation of the ash into the soil to prevent unintended mobilization by runoff or wind.

- 2.3.4. The waste that may be discharged is the ash generated from the combustion of the authorized materials specified within sections 2.1 & 2.2.

3.0 **GENERAL REQUIREMENTS**

3.1 **Operational Requirements**

3.1.1 **Open Fires not Authorized by Regulation**

Nothing in the Approval authorizes an open fire that is

- (a) prohibited by a ban on igniting open fires imposed by
 - (i) a fire department, as defined in the Fire Services Act,
 - (ii) a local government, or
 - (iii) an improvement district, as defined in the Local Government Act, or
- (b) contrary to the Wildfire Act or any other enactment.

3.1.2 **Conditions When Open Burning Starts**

Despite this Approval, the Approval Holder must not start open burning or add material to the ignited piles if the local air flow or atmospheric mixing is likely to cause the smoke emitted by the open burning to

- (a) negatively impact a nearby population centre or work camp,
- (b) be a navigation hazard at nearby airports or on nearby highways by significantly reducing visibility.

3.1.3 **Submission of Custom Ventilation Forecast**

The Approval Holder must ensure that the custom ventilation forecast is submitted by email to the Ministry of Environment & Climate Change Strategy using the email address made known by the ministry & to Waste.Management@bc-er.ca before starting the open burning.



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3.1.4 Fire Protection

As a safeguard against accidental fires and to ensure proper operation of the ACI, an attendant must be on duty at the site while the ACI is in use. Adequate fire protection equipment must be maintained on site to extinguish any fires that may ignite outside of the ACI.

3.1.5 Cessation of Fire Feeding and Burning

The Manager may require the Approval Holder to cease the operation of the ACI at any time if the Manager has reason to believe that emissions from the ACI are impacting the receiving environment or when complaints are received regarding local ambient air quality.

3.1.6 Environmental Impact

Inspections of the facilities and discharge may be carried out by BCER personnel as part of the routine inspection procedure. Based on these inspections and any other information available to the Manager on the effect of the discharge on the receiving environment, the Approval Holder may be required to undertake monitoring, additional studies, change the method of operation or shutdown the operations.

3.1.7 Disposal of Ash

The residual of combustion must be removed from the ACI regularly and allowed to cool to ambient temperature prior to being disposed of to an authorized facility or land spread. The ash may not be deposited within 100 m of a stream or permanent waterbody.

The Approval Holder must take the necessary precautions for avoiding aerial dispersion of ash and the risk of ash leachate at all times.

3.1.8 Maintenance of Works and Emergency Procedures

The Approval Holder must inspect the authorized works regularly and maintain them in good working order. Records of inspection shall be maintained and provided to the BCER upon request. In the event of an emergency or condition beyond the control of the Approval Holder which prevents effective operation of the approved method of pollution control, the Approval Holder must notify the Manager immediately, and take appropriate remedial action. The Manager may reduce or suspend the operation of the Approval Holder to protect the environment until the approved method of pollution control has been restored.



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Instances of approval non-compliance shall be self-disclosed upon discovery, as outlined within Chapter 3 of the BCER Compliance and Enforcement Manual; Waste.Management@bc-er.ca shall also be informed of the self-disclosure.

For spills which meet the Spill Reporting Regulation reporting criteria, a report shall be made immediately to the Provincial Emergency Program telephone 1-800-663-3456.

3.1.9 Bypasses

The Approval Holder must ensure that no waste is discharged to the environment without being processed through the authorized works unless prior written approval is received from the Manager.

3.2 Ambient Air Quality and Meteorological Criteria

- 3.2.1 The Approval Holder must review and record the daily meteorological conditions from the five monitoring stations in the Kitimat valley (Riverlodge, Whitesail, Haul Road, Haisla Village & the Workforce Accommodation Centre). The meteorological conditions include the hourly and 24-hour rolling average PM_{2.5} concentrations and the hourly wind speed. Daily records must be compiled and analyzed on a monthly basis.
- 3.2.2 To ensure ambient air quality does not exceed the PM_{2.5} BC Air Quality Objectives (AQO) in Kitimat, material is allowed to be ignited or added to the ACI only when the ambient 24 hour running average PM_{2.5} measured at all stations in Kitimat is less than 15 µg/m³.
- 3.2.3 Following the operational manual specifications, the ACIs must be positioned such that the prevailing wind must not disrupt the air curtain.
- 3.2.4 The ACI operator must stop adding material to the firebox when the mean wind speed measured at either the Haul Road or the Workforce Accommodation Centre exceeds 30 km/hr or 8.3 m/s for 3 consecutive hours.
- 3.2.5 The operator must cease feeding the wood fuel to the ACI firebox, but continue operating the fans to encourage good combustion, when the smoke plume is fumigating and in touch with the ground for more than one hour.



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4.0 **MONITORING AND REPORTING REQUIREMENTS**

4.1 **Visual Monitoring of the ACI Emissions**

Opacity monitoring must consist of a visible emission reading at least once a day. The opacity reading must be conducted while the unit is in operation, but not during periods of start-up, shutdown, or malfunction.

The ACI's owner or operator must maintain a monitoring log, with daily records compiled and analyzed on a monthly basis. The monitoring log must contain the following information for each opacity reading:

1. The date and time the visible emissions/opacity reading was performed.
2. The percentage opacity observed.
3. Description of remedial actions taken to reduce opacity if the observed opacity was greater than 15%.
4. Re-evaluation of opacity to ensure it is less than 15%.
5. Signature of person performing visible emission reading and/or visible emission.

Additionally, the Approval Holder must provide high-definition images (video or pictures) of the works to the Manager and stakeholders upon request of the Manager. The images must have enough contrast to capture the emissions from the ACI, as well as the work settings during the operation. The images must include the date and time when taken.

4.2 **Discharge Monitoring**

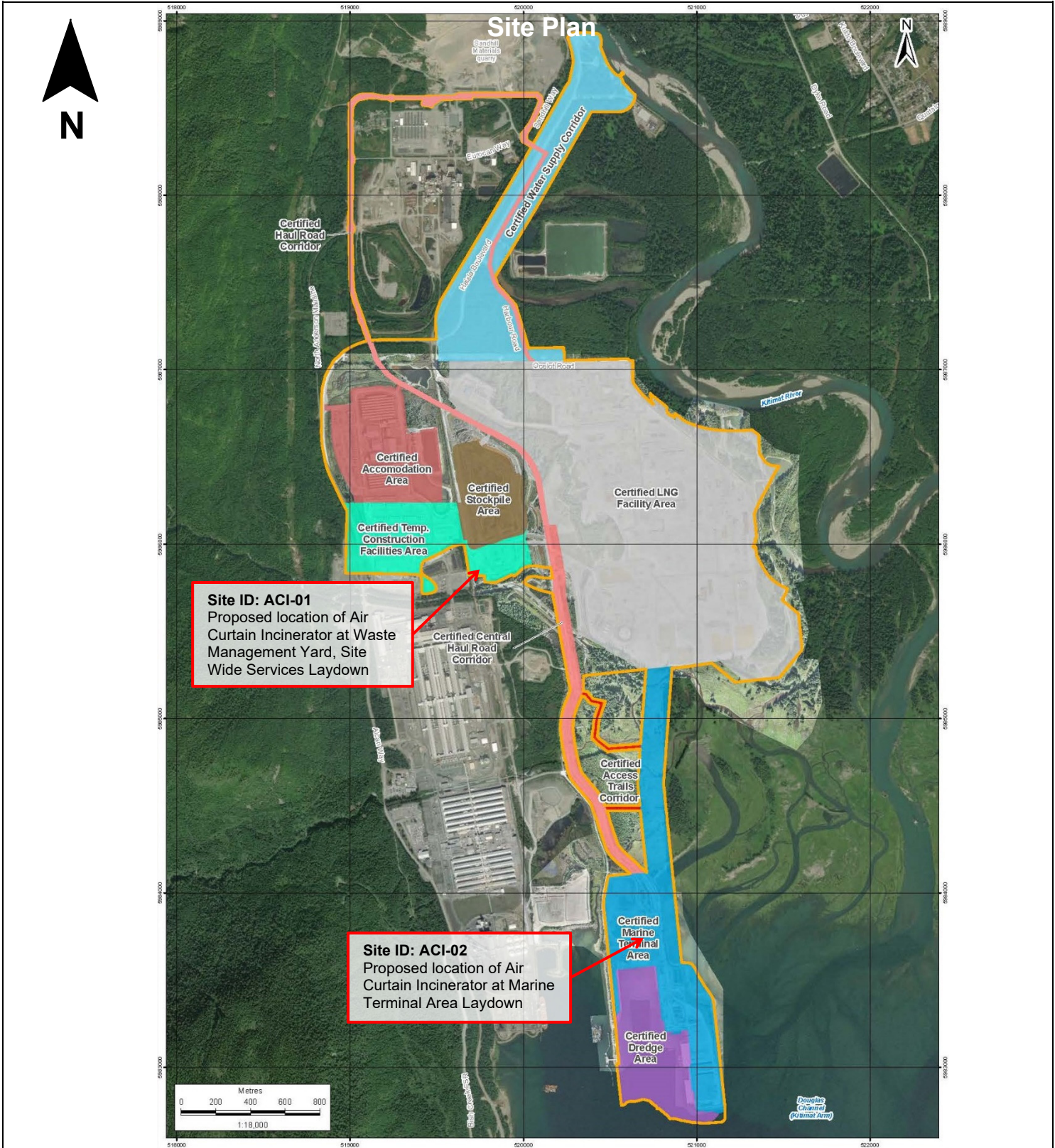
The Approval Holder must track the status of the ACI operation, including the ventilation forecast or custom ventilation forecasts obtained in respect to open burning, operational hours, load frequency, approximate tonnage of wood waste burned per day, opacity readings and any fumigation issues. Daily records must be compiled and analyzed on a monthly basis.

4.3 **Discharge Reporting**

A monthly report of the operational works & monitoring, including data collected and recorded under sections 3.2, 4.1, & 4.2 must be submitted to the Manager and Haisla First Nation on a monthly basis. If operation of the ACI did not occur in a month, a monthly report is not required. Periods of ACI inactivity will be summarized in the following monthly report. A final report must be submitted within 60 days after the expiry of this Approval.



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AUTHORIZATION:

Date:

(Office Use Only)

for Director, *Environmental Management Act*
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Under Section 15 of the Environmental Management Act

LNG Canada Development Inc.
400 – 4th Avenue SW,
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is authorized to discharge contaminants to the environment from the use of air curtain incinerators within the immediate vicinity of the certified project area of a-5-B/103-I-02, subject to the conditions listed below. Contravention of any of these conditions is a violation of the *Environmental Management Act* and may result in prosecution.

1. DEFINITIONS

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Devin Scheck, P.Ag
Supervisor, Environmental Stewardship

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2. **AUTHORIZED DISCHARGES**

- 2.1 This subsection applies to the discharge of air contaminants from **ONE (1) AIR CURTAIN INCINERATOR ACI-02**. The site reference number for this discharge is E332831.
- 2.1.1. The authorized location of ACI-02 is described as the southeast corner of the main plant site, approximate coordinates 54.0169 N, -128.6749 W.
- 2.1.2. The authorized discharge period is continuous, provided discharge from ACI-01 is not occurring.
- 2.1.3. The maximum authorized loading rate is 240 tonnes per month.
- 2.1.4. The authorized work is one (1) S220 air curtain incinerator and related appurtenances.
- 2.1.5. The authorized material to be combusted is clean wood waste generated during the construction and commissioning of the facility. This includes solid wood, lumber, pallets, crane matting and survey sticks which are unpainted, unstained and untreated. Cardboard and paper waste generated during the construction activity may also be combusted if the capacity of the local recycling facilities are exceeded.
- 2.1.6. Waste which is defined in section 2 of Schedule 1 of the Waste Discharge Regulation is prohibited from being burned.
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- 2.2** This subsection applies to the discharge of air contaminants from **ONE (1) AIR CURTAIN INCINERATOR ACI-01**. The site reference number for this discharge is E332832.
- 2.2.1. The authorized location of ACI-01 is described as within the Site Wide Services Laydown, approximate coordinates 54.0218 N, -128.6959 W.
- 2.2.2. Open burning starts not earlier than one hour after sunrise and authorized material is added to the ignited air curtain incinerator only during the period that starts one hour after sunrise and ends at sunset. Discharge may not occur simultaneously with discharge from ACI-02.
- 2.2.3. The maximum authorized loading rate is 240 tonnes per month.
- 2.2.4. The authorized work is one (1) S220 air curtain incinerator and related appurtenances.
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- 2.3** This subsection applies to the **DISPOSAL OF ASH** from the combustion of wood waste authorized under this Approval.
- 2.3.1. The authorized discharge period is continuous.
- 2.3.2. The ash may be disposed of at a suitable disposal facility which has been authorized under the Environmental Management Act to receive municipal waste including ash from the combustion of wood waste. Alternatively, the ash may be disposed of on-site by incorporating the ash into the soil throughout the certified project boundary in accordance with the conditions of this approval.
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disposal plan to the satisfaction of the Manager. This plan shall include details pertaining to the disposal locations, pre and post-disposal soil sampling, how the ash will be managed to ensure timely incorporation of the ash into the soil to prevent unintended mobilization by runoff or wind.

- 2.3.4. The waste that may be discharged is the ash generated from the combustion of the authorized materials specified within sections 2.1 & 2.2.

3.0 **GENERAL REQUIREMENTS**

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Nothing in the Approval authorizes an open fire that is

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Despite this Approval, the Approval Holder must not start open burning or add material to the ignited piles if the local air flow or atmospheric mixing is likely to cause the smoke emitted by the open burning to

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The Approval Holder must ensure that the custom ventilation forecast is submitted by email to the Ministry of Environment & Climate Change Strategy using the email address made known by the ministry & to Waste.Management@bc-er.ca before starting the open burning.



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3.1.5 Cessation of Fire Feeding and Burning

The Manager may require the Approval Holder to cease the operation of the ACI at any time if the Manager has reason to believe that emissions from the ACI are impacting the receiving environment or when complaints are received regarding local ambient air quality.

3.1.6 Environmental Impact

Inspections of the facilities and discharge may be carried out by BCER personnel as part of the routine inspection procedure. Based on these inspections and any other information available to the Manager on the effect of the discharge on the receiving environment, the Approval Holder may be required to undertake monitoring, additional studies, change the method of operation or shutdown the operations.

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Instances of approval non-compliance shall be self-disclosed upon discovery, as outlined within Chapter 3 of the BCER Compliance and Enforcement Manual; Waste.Management@bc-er.ca shall also be informed of the self-disclosure.

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- 3.2.4 The ACI operator must stop adding material to the firebox when the mean wind speed measured at either the Haul Road or the Workforce Accommodation Centre exceeds 30 km/hr or 8.3 m/s for 3 consecutive hours.
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4.0 **MONITORING AND REPORTING REQUIREMENTS**

4.1 **Visual Monitoring of the ACI Emissions**

Opacity monitoring must consist of a visible emission reading at least once a day. The opacity reading must be conducted while the unit is in operation, but not during periods of start-up, shutdown, or malfunction.

The ACI's owner or operator must maintain a monitoring log, with daily records compiled and analyzed on a monthly basis. The monitoring log must contain the following information for each opacity reading:

1. The date and time the visible emissions/opacity reading was performed.
2. The percentage opacity observed.
3. Description of remedial actions taken to reduce opacity if the observed opacity was greater than 15%.
4. Re-evaluation of opacity to ensure it is less than 15%.
5. Signature of person performing visible emission reading and/or visible emission.

Additionally, the Approval Holder must provide high-definition images (video or pictures) of the works to the Manager and stakeholders upon request of the Manager. The images must have enough contrast to capture the emissions from the ACI, as well as the work settings during the operation. The images must include the date and time when taken.

4.2 **Discharge Monitoring**

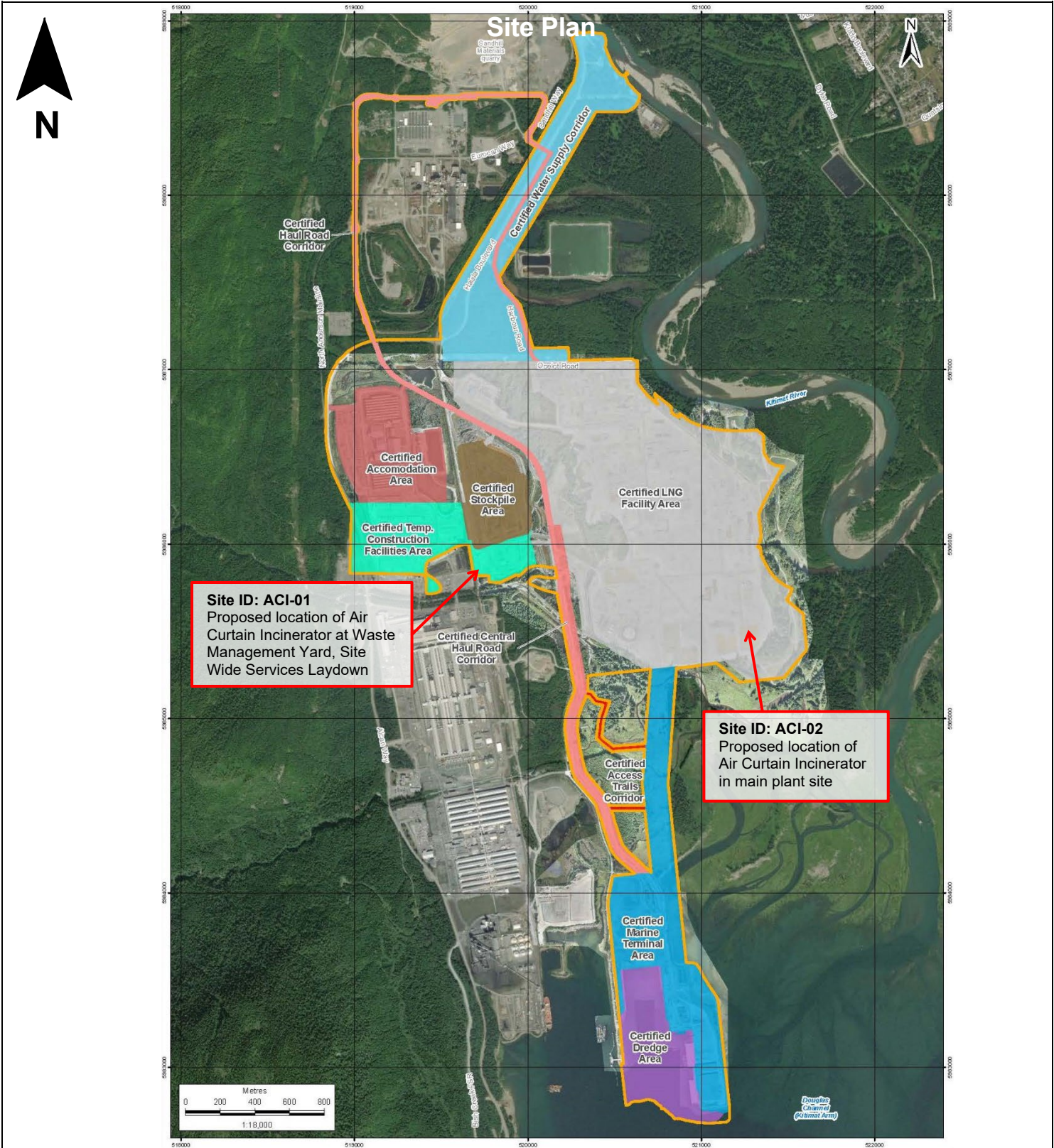
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4.3 **Discharge Reporting**

A monthly report of the operational works & monitoring, including data collected and recorded under sections 3.2, 4.1, & 4.2 must be submitted to the Manager and Haisla First Nation on a monthly basis. If operation of the ACI did not occur in a month, a monthly report is not required. Periods of ACI inactivity will be summarized in the following monthly report. A final report must be submitted within 60 days after the expiry of this Approval.



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