ENVIRONMENTAL PROTECTION NOTICE

Application for a Permit under the Provisions of the *Environmental Management Act*

We, LNG Canada Development Inc., 400 4th Avenue SW Calgary, AB, T2P 0J4, intend to submit this application to the Director to authorize the discharge of air emissions from Phase 1 of the LNG Canada liquefied natural gas facility (Phase 1 is based on two liquefication trains operating). The major point sources of air emissions include the acid gas incinerators, gas turbines (via the waste heat recovery units) and the flare system.

The land upon which the facility is situated and air emissions will originate is Lot A District Lots 187 and 6050 Plan EPP67347, Lot B District Lot 6004 Plan EPP79160, Lot A District Lot 187 Plan EPP92698, The West 1/2 of District Lot 6003, Lot 1 District Lot 6003 Plan EPP94745, Lot 1 District Lot 186 Plan EPP94746, Lot 2 District Lot 6002 Plan EPP79161, District Lot 8156, Lot 1 District Lot 73 Plan EPP94747, Lot 3 District Lot 6001 Plan EPP79161, Lot A District Lot 94 Plan EPP92697, and Lot 1 District Lots 981, 5469 and 7940 Plan 12731, Range 5 Coast District, near Kitimat, British Columbia, within the traditional territory of Haisla Nation.

There will be continuous and intermittent sources of air emissions from Phase 1 of the LNG Canada facility; with a number of emission controls in place to meet or remain under proposed limits established in the permit.
The sources and characteristics of the continuous air emissions are outlined in the below table, with further details provided in the permit application on the smaller continuous sources of venting from various sources; plus the intermittent and emergency events.

Source	**Rate (m^3/s)[a,b,c]**		**Contaminant Concentration (kg/hour)[a,c]**				
	Maximum[d]	**Average[e]**	**Oxides of Nitrogen (NOx)[f]**	**Sulphur Dioxide (SO_2)[g]**	**Particulate Matter (PM)**	**Carbon Monoxide (CO)**	**Volatile Organic Compounds (VOC)**
Acid Gas Incinerators (2)[a,f]		36.86	13.92	139.78[g]	0.91	6.96	0.04
Gas Turbines (via the Waste Heat Recovery Units) (4)[a]							
- Initial Performance Period[f]		725.24	181.44	1.18[g]	1.48	141.00	231.22
- Normal Operations[f]		725.24	153.04	1.18[g]	1.48	141.00	231.22
Vapour Flare[d,e]:							
- Warm/Wet	846.52	0.13	0.25	0.003	0.44	1.15	2.44
- Cold/Dry	462.30	0.16	0.37	0.004	0.66	1.70	3.63
- Storage/Loading	118.84	0.10	0.08	0.001	0.14	0.35	0.75
- Spare	846.52	0.003	0.01	0.001	0.02	0.05	0.10
Liquid Burner[b,d,e]	121.20	0.05	0.02	0.00	0.04	0.10	0.21

Notes:

a. Rates and concentrations are presented as the total aggregate amount from each type of source based on two liquefaction trains operating in Phase 1 (i.e., two (2) Acid Gas Incinerators and four (4) gas turbines with waste heat recovery units).
b. Rate of waste discharged (cubic meters per second) are based on standard conditions (dry, 1 atm or 101.325 kPa, and 20°C). For the liquid burner, it is liquid flow at actual conditions, and gas flow at standard conditions.
c. Mass flow rates and contaminants will be measured through the Continuous Emissions Monitoring System (CEMS), in accordance with the Environment and Climate Change Canada protocol: "Protocols and Performance specifications for Continuous Monitoring of Gaseous Emissions from Thermal Power Generation Report EPS 1/PG/7". These specifications provide the requirements for accuracy on measurements including third party accuracy testing.
d. "Maximum rates" are shown for the vapour flare and liquid burner only, which represent when these systems are being used to support start-up. For the vapour flare, the maximum rate is based on support start-up of an LNG train when an emergency

condition occurs in the 2nd LNG train at the same time. For the liquid burner, the maximum rate is based on the start-up of the Main Cryogenic Heat Exchanger (MCHE).

e. The "Average rates" for the flare systems represent operating in "standby" mode, with the flare pilot and small continuous sources of process gas, such as the compressor seal gas and analyzer sample returns to the vapour flare). The contaminant concentrations for the vapour flare and liquid burners are based on these average operating conditions.

f. In the "Initial Performance Period" (IPP), may experience elevated emissions of NOx from the gas turbines for up to 36 months following liquefied natural gas (LNG) production at the facility. NOx emissions from the gas turbines may be up to 30ppmv at 15% O_2 during the IPP (rather than 25ppmv during normal operations) and included in the emissions table for the gas turbines (vie the waste heat recovery units) only. Further information provided in the application material.

g. Quantity of SO_2 emissions is a function of the facility inlet sulphur rate. Values presented are based on the estimated maximum sulphur in rich feed gas (33.5mg/m^3) rather than the estimated average inlet sulphur content of the feed gas (9 mg/m^3).

Any person may review a printed copy of the application at the Kitimat Public Library or request an electronic copy of the application materials by emailing the applicant (comments@jfjvkitimat.com). Any person who may be adversely affected by the proposed discharge of air emissions and wishes to provide relevant information may, within 60 days after the last date of posting, publishing, service or display, submit written comments at the JFJV Project Resource Centre at 234 City Centre, Kitimat, with a copy to Environmental Stewardship, BC Energy Regulator at 6534 100 Ave, Fort St. John BC, V1J 8C5. Comments may also be submitted by email to the applicant (comments@jfjvkitimat.com), with a copy to the BC Energy Regulator (waste.management@bc-er.ca). The identity of any respondents and the contents of anything submitted in relation to this application will become part of the public record.

Dated this 6th day of July, 2023. signed J. Pope

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