

April 13, 2022

Ms. Alice Edwards and Mr. Aaron Simpson  
State of Alaska Dept. of Environmental Conservation  
Division of Air Quality  
410 Willoughby Avenue, Suite 603  
Juneau, AK 99811-1800

RE: Preliminary Air quality Construction Permit No. AQ1539CPT01 – Alaska LNG Liquefaction Plant  
Permit Application Addendum – Revised BACT Analysis

Dear Ms. Edwards and Mr. Simpson:

The Alaska Gasline Development Corporation (AGDC) has reviewed the Liquefaction Plant Best Available Control Technology (BACT) Analysis submitted in our original permit application in light of the public comments ADEC received on Preliminary Permit AQ1539CPT01. Specifically, the comments regarding selective catalytic reduction (SCR) consideration for BACT for NOx emissions on the gas-fired turbines Emission Units (EUs) Nos. 1 – 10 shown on the following table.

EU#	EU Description	Fuel	Rating/Max Capacity
1	Simple Cycle Treated Gas Compressor Turbine (Train 1a)	Fuel Gas	1,113 <sup>1</sup> MMBtu/hr
2	Simple Cycle Treated Gas Compressor Turbine (Train 1b)	Fuel Gas	1,113 <sup>1</sup> MMBtu/hr
3	Simple Cycle Treated Gas Compressor Turbine (Train 2a)	Fuel Gas	1,113 <sup>1</sup> MMBtu/hr
4	Simple Cycle Treated Gas Compressor Turbine (Train 2b)	Fuel Gas	1,113 <sup>1</sup> MMBtu/hr
5	Simple Cycle Treated Gas Compressor Turbine (Train 3a)	Fuel Gas	1,113 <sup>1</sup> MMBtu/hr
6	Simple Cycle Treated Gas Compressor Turbine (Train 3b)	Fuel Gas	1,113 <sup>1</sup> MMBtu/hr
7	Combined Cycle Power Generation Combustion Turbine	Fuel Gas	384 <sup>1</sup> MMBtu/hr
8	Combined Cycle Power Generation Combustion Turbine	Fuel Gas	384 <sup>1</sup> MMBtu/hr
9	Combined Cycle Power Generation Combustion Turbine	Fuel Gas	384 <sup>1</sup> MMBtu/hr
10	Combined Cycle Power Generation Combustion Turbine	Fuel Gas	384 <sup>1</sup> MMBtu/hr

<sup>1</sup> The capacity listed for EUs 1 through 10 reflects the rating for each unit at the yearly average ambient temperature for the Liquefaction Plant of 40°F.

Our review has resulted in a revised conclusion to voluntarily select SCR with dry low NOx burners for NOx emissions BACT for EUs 1 – 10. Accordingly, AGDC is submitting the enclosed revised *Alaska LNG*

Alaska Gasline Development Corporation

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*Liquefaction Plant Best Available Control Technology (BACT) Analysis (3043-HSE-RTA-0008 Rev 3)* as an addendum to our original permit application. The revised analysis is based on achieving a controlled NOx emission rate of 2 ppmv at 15% O<sub>2</sub> for EUs 1 – 10.

Please contact Lisa Haas (907-947-9353, lhaas@agdc.us) or I if you have questions regarding this permit application addendum.

Sincerely,

A handwritten signature in blue ink, appearing to read "F. T. Richards".

Frank T. Richards, P.E.

President

Enclosure(s): *Alaska LNG Liquefaction Plant Best Available Control Technology (BACT) Analysis (3043-HSE-RTA-0008 Rev 3)*

cc:

Lisa Haas, AGDC