

Department of Environmental Conservation



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

DIVISION OF AIR QUALITY
Air Permits Program

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July 14, 2023

Frank T. Richards, President
Alaska Gasline Development Corporation
3201 C Street
Anchorage, AK 99503

Subject: PSD Permit and Approval to Construct – Second Permit Extension Request dated May 12, 2023, for Alaska Gasline Development Corporation’s Gas Treatment Plant, Air Quality Control Construction Permit AQ1524CPT01

Dear Mr. Richards:

The Alaska Department of Environmental Conservation (the Department) in a letter dated May 12, 2023, received a request from Alaska Gasline Development Corporation (AGDC) for a second extension to the deadline for commencing construction of the Gas Treatment Plant (GTP). In accordance with 40 CFR 52.21(r), AS 46.14, and 18 AAC 50, of the Prevention of Significant Deterioration (PSD) rules, the GTP was required to commence construction within 18 months after issuance of the permit. Since the PSD permit was issued on August 13, 2020, the date for commencing construction would have been February 13, 2022. With the approval of the first extension granted by the Department, the extended date for commencing construction would have been August 13, 2023.

AGDC is requesting an extension because the GTP is part of the Alaska LNG Project (Project), which is a large complex project involving an 807-mile pipeline and a liquefaction facility with total estimated construction costs of over 40 billion dollars, and AGDC needs extra time to allow for the completion of the final Front End Engineering Design (FEED) and to obtain the necessary funding to commence construction and begin operations. AGDC is currently working with Goldman Sachs to obtain private sector investment to complete the FEED stage of the Alaska LNG Project and to move to the Final Investment Decision (FID). AGDC’s goal is to begin the FEED stage of the Project in 2023, complete FEED by the end of 2024, and reach FID and begin construction in 2025. AGDC notes that the project is expected to lower energy costs for residents and businesses on Alaska’s gas distribution network, and U.S. allies including Japan and South Korea have demonstrated strong interest in the project to help meet their countries climate goals and to replace liquified natural gas that has recently been redirected from the U.S. Gulf Coast to Europe. AGDC also notes that the Project was provided federal loan guarantees by the Department of Energy. However, the process for receiving those loans is still under development. Therefore, AGDC is requesting the date for commencing construction be extended an additional 18 months to February 13, 2025.

EPA’s Memorandum dated January 31, 2014, titled “Guidance on Extension of Prevention of Significant Deterioration (PSD) Permits under 40 C.F.R. 52.21(r)(2)” (Extension Memorandum) states the following:

First Permit Extension Request

In accordance with 40 CFR 52.21(r)(2), a Permittee's first PSD permit extension request should include a detailed justification of why the source cannot commence construction within the initial 18-month period. For example, relevant factors for this justification could include ongoing litigation over any PSD permit, natural disasters that directly affect the facility, significant or unusual economic impediments (including inability to secure financial resources necessary to commence construction), and/or delays in obtaining other required permits.

Furthermore, the EPA believes that in order to give meaning to the extension provision in 40 CFR 52.21(r)(2), review or redo of substantive permit analyses such as Best Available Control Technology (BACT), air quality impacts analysis (AQIA) or PSD increment consumption analyses should generally not be necessary for a first permit extension request.

Second Permit Extension Request

The EPA believes that in most cases a request for a second extension of the commencement of construction deadline should include a substantive re-analysis and update of PSD requirements. Only in rare circumstances would a detailed justification of why a source cannot commence construction by the current deadline (as is recommended above for the purpose of requesting the first extension) be sufficient to support a second extension. Generally, the benefits of conducting an updated substantive review of the PSD requirements after 36 months from the initial issuance of the PSD permit would outweigh the considerations discussed above that favor an initial extension without such analysis. While the EPA's experience is that pollution control technology for criteria pollutants has not been advancing at the same rate that it once was, the EPA believes that it is more likely that technology and air quality considerations will become outdated when construction does not begin until 36 months or longer after the EPA has taken final action to issue a PSD permit. Therefore, when a second extension of the deadline for commencing construction is requested, the EPA will evaluate on a case-by-case basis whether a second permit extension is justified. In some cases, the EPA may ask the permittee to apply for a new PSD permit rather than conduct its review through a permit extension proceeding.

In the absence of regulations or guidance specifically addressing PSD permit amendments, the regulatory definitions of Best Available Control Technology (BACT) and the information requirements for PSD permits suggest that permit issuers must evaluate proposed PSD permit amendments on a case-by-case basis to determine whether new information relating to the BACT analysis underlying the original permit warrants revisiting that analysis because such information is "necessary" to ensure that BACT will be applied.

While the New Source Review Manual does not specifically address PSD permit modifications, the manual's methodology for BACT analysis suggests principles which permit issuers may use on a case-by-case basis in evaluating whether revisiting a BACT analysis is required in the context of a proposed PSD permit amendment.

Based on the aforementioned EPA guidance, the Department must evaluate the second extension request on a case-by-case basis. On June 16, 2023, AGDC provided additional information containing BACT emission limits and control types found in the RACT/BACT/LAER Clearinghouse (RBLC) that were established after the GTP's original construction permit was issued on August 13, 2020. AGDC found that there are other turbine installations where BACT emission limits for NO_x were lower than the limits established for the GTP, including emission limits established for the Project's Liquefaction Facility, which includes both Dry Low NO_x (DLN) and selective catalytic reduction (SCR). However, AGDC

notes that the decision to implement SCR as BACT on the Liquefaction Facility's turbines was based in part on the more favorable cost effectiveness and technical design and operating conditions in Nikiski, which is located in South Central Alaska, as opposed to the GTP on Alaska's North Slope.

The Department also performed a search of the RBLC for similar emissions unit types to those found at the GTP. While the majority of entries for both simple cycle and combined cycle gas turbines with a rating above 25 MW included SCR controls for NO_x, there were entries other than the GTP that did not include SCR. The Lansing Board of Water and Light's Erickson Station had entries for permits in 2018 (RBLC No. MI-0441), 2021 (RBLC No. MI-0447), and 2022 (RBLC No. MI-0454) for a simple cycle gas turbine operating with DLN and a NO_x limit of 25 ppmv at 15% O₂. Louisiana Generating, LLC's Big Cajun I Power Plant has an entry for a permit in 2019 (RBLC No. LA-0365) for two combined cycle gas turbines operating with DLN and water injection and a NO_x limit of 23 ppmv at 15% O₂. Meanwhile, the GTP's combined cycle turbines EUs 1 through 24 and simple cycle turbines EUs 25 through 30 both use DLN and good combustion practices as BACT to control NO_x emissions with limits of 17 ppmv at 15% O₂ and 15 ppmv at 15% O₂, respectively, which are lower NO_x emission rates than the above referenced determinations. Additionally, the combined cycle turbines EUs 1 through 24 have oxidation catalysts selected as BACT for controlling CO and VOC emissions while the simple cycle turbines EUs 25 through 30 use clean fuel and good combustion practices. These CO and VOC controls are in line with recent RBLC determinations for simple and combined cycle gas turbines.

The Department finds that the numerical emission limits and controls listed in the PSD permit do not require additional top-down BACT review beyond that in the existing record. Therefore, the Department is granting the request for a second extension to the deadline for commencing construction because no reanalysis of the substantive conditions of the permit needs to be conducted. This extension requires that construction of the GTP commence no later than **February 13, 2025**. The Department is not requiring a public comment period since this is a decision to extend the deadline for commencing construction without any changes to the permit. **However, if construction has not commenced by the new deadline set forth in this letter, the Department will require a new PSD construction permit application be submitted concurrently with a 3rd PSD extension request in order for the 3rd PSD extension request to be considered.** This stipulation was also required in the most recently granted 3rd PSD extension request approvals that the Department issued for the Kenai Nitrogen Operations Facility on June 21, 2019, and the Donlin Gold Project on December 1, 2021.

A person authorized under a provision of 18 AAC 15 may request an informal review of a contested decision by the Division Director in accordance with 18 AAC 15.185 and/or an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340. See DEC's "Appeal a DEC Decision" web page <https://dec.alaska.gov/commish/review-guidance/> for access to the required forms and guidance on the appeal process. Please provide a courtesy copy of the adjudicatory hearing request in an electronic format to the parties required to be served under 18 AAC 15.200.

Informal review requests must be made not later than 20 days after issuance of this construction permit extension approval. The request may be made by mail, or electronic mail to the Air Quality Division Director. If mailed via the U.S. Postal Service use PO Box 111800, Juneau, Alaska 99811-1800, or via another mail carrier (e.g., UPS, FedEx, DHL) use 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801. If emailed use DEC.AQ.airreports@alaska.gov, if faxed use 907-465-5129.

Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, either via the U.S. Postal Service to PO Box 111800, Juneau, Alaska 99811-1800, or by any other mail carrier to 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 30 days of issuance of this construction permit extension approval. If a hearing is not requested

within 30 days, the right to appeal is waived. If a hearing is granted, it will be limited to the issues related to this permit decision. You are reminded that even if a request for an adjudicatory hearing has been granted, all permit terms and conditions remain in full force and effect.

Please note that Alaska's air quality statutes, regulations, and permit application information can be obtained from the department's web page at the following address: <http://dec.alaska.gov/air/air-permit>.

If you have any further questions, please feel free to contact the undersigned or Mr. Dave Jones of my staff at 907-465-5122, or dave.jones2@alaska.gov.

Sincerely,



James R. Plosay, Manager
Air Permits Program

cc: Grace Germain, ADEC/APP, Juneau
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