

# Department of Environmental Conservation



THE STATE  
of **ALASKA**  
GOVERNOR MIKE DUNLEAVY

DIVISION OF AIR QUALITY  
Air Permits Program

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February 9, 2024

Fred Werth, Kenai Plant Manager  
Nutrien Kenai Nitrogen Operations  
PO Box 575  
Kenai, AK 99611

Subject: PSD Permit and Approval to Construct – Second Permit Extension Request dated October 25, 2023, for Nutrien US LLC’s Kenai Nitrogen Operations Facility, Air Quality Control Construction Permit AQ0083CPT07 Revision 1

Dear Mr. Werth:

The Alaska Department of Environmental Conservation (the Department) in a letter dated October 25, 2023, received a request from Nutrien US LLC (Nutrien) for a second extension to the deadline for commencing construction of the Kenai Nitrogen Operations (KNO) Facility. In accordance with 40 CFR 52.21(r), AS 46.14, and 18 AAC 50, of the Prevention of Significant Deterioration (PSD) rules, the KNO Facility was required to commence construction within 18 months after issuance of the permit. Since the PSD permit was issued on March 26, 2021 to Nutrien (then Agrium, U.S. Inc.), the date for commencing construction would have been September 26, 2022. With the approval of the first extension granted by the Department, the extended date for commencing construction would have been March 26, 2024.

Nutrien is requesting an extension because it is having difficulties securing the necessary contracts with natural gas suppliers to ensure that sufficient natural gas will be available for the facility to meet its target production levels at the time the plant begins operation. Nutrien has worked to secure necessary natural gas contracts for the facility since the issuance of this permit, for a variety of reasons these negotiations are still on-going. Nutrien continues to believe that it will ultimately be able to obtain contracts for sufficient natural gas in order to assure viable operations at the KNO Facility. Nutrien does not, however, wish to begin construction on the modifications necessary to the plant, which will involve a substantial capital investment, until such time as it has contractual assurances that sufficient natural gas is available to operate the facility at target production levels. Therefore, Nutrien is requesting the date for commencing construction be extended an additional 18 months to September 26, 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 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. In the October 25, 2023 letter, Nutrien provided additional information related to the BACT limits established on March 26, 2021. Nutrien researched the RACT/BACT/LAER Clearinghouse (RBLC) and indicated that no new permits have been issued since the date of the Construction Permit for the KNO Facility that contain BACT limits that are more stringent than those reviewed as part of the original BACT determination in Construction Permit AQ0083CPT07.

Nutrien and the Department reviewed the RBLC database for the permitted emission unit types at the KNO Facility for permits issued after March 26, 2021 and found that the existing BACT limits are consistent with those contained in more recent permit approval determinations and that the proposed facility is technologically consistent with recent BACT determinations.

The following emissions unit types were evaluated:

- Primary Reformer (Unit 12) - New permit limits have been added to the RBLC database for Cronus Chemicals, LLC (IL-0134)<sup>1</sup> and Midwest Fertilizer Company LLC (IN-0324). The BACT limits found for the Midwest Fertilizer Company LLC are slightly lower than those required by Construction Permit No. AQ0083CPT07 for the KNO Facility. They are listed as follows: 59.61 lb/MMBtu CO<sub>2e</sub>, 0.0194 lb/MMBtu CO, 9 ppmvd NO<sub>x</sub>, 0.0024 lb/MMBtu PM-10, 0.0024 lb/MMBtu PM-2.5, and 0.0014 lb/MMBtu VOC. The BACT limits found for these two facilities are slightly lower than those required by Construction Permit No. AQ0083CPT07 for the KNO Facility. They are listed as follows: 59.61 lb/MMBtu CO<sub>2e</sub> for IN-0324 and no limit listed for IL-0134, 0.0194 lb/MMBtu CO, 9 ppmvd NO<sub>x</sub> for IN-0324 and 0.0109 lb/MMBtu for IL-0134, 0.0024 lb/MMBtu PM-10, 0.0024 lb/MMBtu PM-2.5, and 0.0014 lb/MMBtu VOC. These facilities are technologically consistent with the proposed KNO Facility.
- CO<sub>2</sub> Vent (Unit 14) - New permit limits have been added to the RBLC database for RBLC database for Cronus Chemicals, LLC (IL-0134)<sup>1</sup> and Midwest Fertilizer Company LLC (IN-0324). The BACT limits contained in these permits are no more stringent than limits contained in permits that were reviewed as a part of the BACT analysis submitted with the KNO Facility's permit application.
- Urea Granulation (Units 35 and 36) - No new RBLC entries were identified in the database for urea granulation units.
- Package Boilers (Units 44, 48, and 49) and Startup Heater (Unit 13) - The current RBLC summary includes three new entries for sources with boilers or process heaters with a heat input above 100 MMBtu/hr but less than 250 MMBtu/hr. These sources are Cronus Chemicals, LLC (IL-0134)<sup>1</sup>, Valencia Project LLC (OH-0391)<sup>1</sup>, Midwest Fertilizer Company LLC (IN-0324). The BACT limits contained in these permits are no more stringent than limits contained in permits that were reviewed as a part of the BACT analysis submitted with the KNO Facility's permit application.
- Solar Turbine/Generator Sets (Units 55, 56, 57, 58, and 59) - No new RBLC entries were identified in the database for small combined cycle turbines.

Upon review, the Department concurs with the conclusion that the proposed KNO Facility is technologically consistent with recent BACT determinations and therefore finds that the technology does not require additional top down BACT review beyond that in the existing record.

As a part of its PSD application, Nutrien provided an air quality impact analysis demonstrating that the project would not result in an ambient impact that exceeded permissible increments under PSD rules, nor would the project cause an exceedance of National Ambient Air Quality Standards (NAAQS). Although the Extension Memorandum does not indicate that the air quality impact analysis must be revisited as a part of a second permit extension request, Nutrien reevaluated air quality in the area of its site as a part of this request.

Nutrien reviewed the ADEC website to identify Construction Permits for major sources that had been issued since the PSD permit was issued to Nutrien in March 2021. Nutrien identified two PSD Construction Permits that have been issued since the date of its permit in March 2021. The first permit issued was Construction Permit No. AQ1539CPT01 for AGDC's Liquefaction Plant on July 7, 2022.

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<sup>1</sup> Note that this is a draft determination in the RBLC database.

There are currently no impacts resulting from the Liquefaction Plant because construction has not commenced with the Department issuing a first permit extension request for the Liquefaction Plant on January 22, 2024. The second permit issued was Construction Permit AQ0934CPT02 for the Donlin Gold Project on July 1, 2023. The Donlin Gold Project is located over 200 miles to the west of the KNO Facility on the opposite side of the Alaska Range and is therefore not expected to impact the area in the vicinity of the KNO Facility.

The region surrounding the KNO Facility has experienced little change in population since the PSD permit was issued in March 2021, nor have any significant plant expansions occurred in the area since this time. Because there has been no significant growth in the area over the past thirty six months, the Department finds that the air quality data collected to characterize the area are still an accurate representation of background air quality.

EPA guidance indicates that extension requests should be made for 18-month intervals as PSD decisions and the associated control devices may change. Therefore, the Department is granting an 18-month extension to the deadline for commencing construction because no reanalysis of substantive conditions of the permits needs to be conducted at this time. This extension requires that construction of the KNO Facility commence no later than **September 26, 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 3<sup>rd</sup> PSD extension request in order for the 3<sup>rd</sup> PSD extension request to be considered.** This stipulation was also required in the most recently granted 3<sup>rd</sup> PSD extension request approvals that the Department issued for the KNO Facility on June 21, 2019, for Construction Permit AQ0083CPT06, and the Donlin Gold Project on December 1, 2021, for Construction Permit AQ0934CPT01.

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 8<sup>th</sup> Floor, Suite 800, State Office Building, Juneau, Alaska 99801. If emailed use [DEC.AQ.airreports@alaska.gov](mailto:DEC.AQ.airreports@alaska.gov).

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 8<sup>th</sup> Floor, Suite 800, State Office Building, 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](mailto:dave.jones2@alaska.gov).

Sincerely,



James R. Plosay, Manager  
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