

November 9, 2023

Mr. Doug Emerson  
Environmental Affairs Manager  
American Crystal Sugar Company  
P.O. Box 190  
Drayton, ND 58225

Re: Request for Potential Project Changes since December 2022

Dear Mr. Emerson:

The North Dakota Department of Environmental Quality (Department) is conducting its air quality review of your December 28, 2022, permit application. As part of the review, we are reaching out to inquire whether any additional process or project changes have been identified during the engineering design review that has likely occurred since the submittal of the Prevention of Significant Deterioration (PSD) major modification permit application. Specifically, Page 7 of the permit application states that final process changes would be communicated with the Department during the permit application review and approval process. The Department wants to ensure that the project captured in the permit and analysis is accurate, as any deviation from the permit without prior approval may be subject to appropriate enforcement action and would be evaluated independently of the upcoming permit action. *40 CFR §52.21(r)(1)* states:

*Any owner or operator who constructs or operates a source or modification not in accordance with the application submitted pursuant to this section or with the terms of any approval to construct, or any owner or operator of a source or modification subject to this section who commences construction after the effective date of these regulations without applying for and receiving approval hereunder, shall be subject to appropriate enforcement action.*

The Department will not finalize the permit application review without a response. If you have any questions, please contact me at (701)328-5229 or [destroh@nd.gov](mailto:destroh@nd.gov).

Sincerely,



David Stroh  
Environmental Engineer  
Division of Air Quality

DES/RTT:lc

xc: Chris Patullo, American Crystal Sugar (via email: [cpatullo@crystalsugar.com](mailto:cpatullo@crystalsugar.com))  
Greg Raetz, HDR (via email: [Gregory.Raetz@hdrinc.com](mailto:Gregory.Raetz@hdrinc.com))



November 29, 2023

Mr. David Stroh  
North Dakota Department of Environmental Quality  
Division of Air Quality  
4201 Normandy St.  
Bismarck, ND 58503-1324

**Re: Response to Request for Potential Project Changes Since December 2022**

Dear Mr. Stroh:

American Crystal Sugar Company (ACSC) has reviewed your November 9, 2023, letter requesting an update to potential project changes since December of 2022 with respect to the December 28, 2022, permit application for the Drayton facility.

The permit application indicated that final process changes would be communicated to the North Dakota Department of Environmental Quality (NDDEQ) during the application review and approval process to ensure that the project captured in the permit and analysis is accurate.

The following is a list of individual process modifications presented in the December 28, 2022, permit application with notations reflecting any changes in design:

- Decommissioning and replacement of Pulp Dryer No. 2 *[This modification will include upgrades to the pulp dryer ash system and dry pulp surge bin]*
- Installation of a natural gas-fired package boiler
- Various heaters, pumps, and condensate upgrades
- High melter/STD liquid tank
- Evaporator modifications
- Affination pump upgrade
- Cold water tank modifications
- South 2<sup>nd</sup> carbonation tank repair
- Diffuser tower and arc screens
- Cossette mixer
- Seal water line
- 50# reducing station
- Low raw vertical vacuum pan (VKT)
- White pan (2) addition *[Current proposed design for this system is not a direct white pan addition, but rather an expansion to the process which will likely involve the installation of additional VKT]*
- Two (2) new white centrifugals

- Carbonation clarifier upgrade
- Cooler chiller system/discharge
- Screen house upgrade
- Two (2) new pulp presses
- Two (2) new intermediate centrifugals
- Wet hopper extension
- CO<sub>2</sub> blower addition
- PKF station upgrade
- Standard liquor filters *[Current proposed design for this system is a juice filtration upgrade that will include replacement of second carbonation filters]*
- Sugar screen modifications
- White pan (1) addition *[The white pan addition will not be required if the VKT expansion is performed as indicated above under White pan (2) addition]*
- USC bulk loadout modifications (Internal modifications inside the bulk loadout building. The building vents to a baghouse, which will not be modified as part of this project.)
- Turbine/generator upgrade
- Molasses tank/loading upgrade
- Pellet bin (Internal modifications inside the bulk loadout building. The building vents to a baghouse, which will not be modified as part of this project.)
- Secondary truck tipper/hopper

The following additional process modifications have been identified as part of the final project design:

- Beet slicer station upgrade
- Flume heating upgrade – no direct fuel combustion/emission source
- Replacement of pulp press spindles
- Coal crushing/screening upgrade for boilers and pulp dryers – enclosed equipment
- Pellet mill dust mitigation – conveyor aspiration upgrades to increase efficiency of dust collection
- Beet chips and tailing recovery – pressing of weeds/tailings and chips, wet process
- Beet handling – conveyor upgrades

The above listed changes to the proposed process modifications reflect changes to indirect process sources that impact overall facility throughput and annual production. No additional direct emission points or emission limitations are proposed. Therefore, the future potential-to-actual emission calculations presented in the December 28, 2022, permit application accurately characterize the project and incorporate the above-described process modifications.



If you have any questions regarding the proposed design updates or require additional information, please do not hesitate to contact me at (218) 236-4777, or via e-mail at [demerson@crystalsugar.com](mailto:demerson@crystalsugar.com).

Sincerely,

AMERICAN CRYSTAL SUGAR COMPANY

A handwritten signature in black ink, appearing to read "Doug Emerson".

Doug Emerson  
Environmental Affairs Manager

cc: Chris Patullo, ACSC  
Derek Pokrzywinski, ACSC  
Paul King, ACSC  
Dan Bernhardson, ACSC  
Dan Weber, ACSC  
Rhannon Thorton, NDDEQ  
Jim Semerad, NDDEQ  
Paige McDaniel, NDDEQ



December 7, 2023

Mr. David Stroh  
North Dakota Department of Environmental Quality  
Division of Air Quality  
4201 Normandy St.  
Bismarck, ND 58503-1324

**Re: Supplemental Response to Request for Potential Project Changes Since December 2022**

Dear Mr. Stroh:

American Crystal Sugar Company (ACSC) is providing the following supplemental information in support of our November 29, 2023, letter regarding updated project changes included in the December 28, 2022, permit application for the Drayton facility.

The North Dakota Department of Environmental Quality (NDDEQ) provided comments to the November 29, 2023, letter in a discussion with HDR Engineering, Inc. (HDR) on December 5, 2023. Based on that discussion, the following information has been provided to further detail proposed project changes and regulatory applicability.

The November 29, 2023 letter confirmed several proposed process modifications listed in the December 28, 2022 permit application that would result in capacity changes to indirect emission units throughout the facility and that would result in improved production consistency and debottlenecking of certain production operations to achieve the 11,000 ton per day slice rate proposed in the December 28, 2022 permit application. Also included in the November 29, 2023, letter were seven additional process modifications that were not included in the original application submittal.

Because the proposed process modifications involve indirect emission units that affect production bottlenecks and internal system capacities, the potential emissions calculations presented in the December 28, 2022, permit application incorporate and include all emission increases resulting from the proposed changes. The potential to emit calculations are based on the maximum capacity operations of the facility to achieve a continuous 11,000 ton per day slice rate and evaluate facility operations at 8,760 hours per year. The additional process modifications would not increase the proposed overall maximum production capacity of 11,000

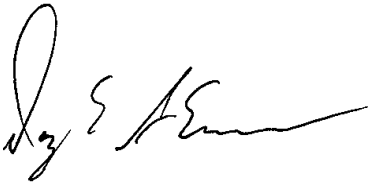
tons per day and would not impact the potential to emit calculations included in the December 28, 2022, permit application.

ACSC is aware of the source obligation requirements detailed in 40 CFR 52.21(r)(1) and confirms all proposed process changes are in accordance with the December 28, 2022, permit application and accurately represented by the potential emission increase calculations included in the application. No additional direct emission unit analysis, including best available control technology analysis or dispersion modeling parameters would be affected by the proposed process changes.

If you have any questions regarding the proposed design updates or require additional information, please do not hesitate to contact me at (218) 236-4777, or via e-mail at [demerson@crystalsugar.com](mailto:demerson@crystalsugar.com).

Sincerely,

AMERICAN CRYSTAL SUGAR COMPANY

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Doug Emerson  
Environmental Affairs Manager

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