



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Mike Braun
Governor

Clint Woods
Commissioner

NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding a
Significant Modification to a
Part 70 Operating Permit
for POET Biorefining - North Manchester, LLC in Wabash County
Significant Source Modification No.: 169-49560-00068
Significant Permit Modification No.: 169-49678-00068

The Indiana Department of Environmental Management (IDEM) has received an application from POET Biorefining - North Manchester, LLC, located at 868 E 800 N, North Manchester, IN 46962, for a significant modification of its Part 70 Operating Permit issued on April 25, 2022. If approved by IDEM's Office of Air Quality (OAQ), this proposed modification would allow POET Biorefining - North Manchester, LLC to make certain changes at its existing source. POET Biorefining - North Manchester, LLC has submitted an application relating to the following:

- (1) The source is requesting to increase the beerfeed throughput rate for the fermentation and distillation processes from 72,000 gallons per hour to 75,000 gallons per hour. The increased beerfeed throughput rate is due to process optimization and the removal of constraints in the fermentation and distillation systems, described in more detail below.
 - (i) **Fermentation Retention Time:**
The primary historical bottleneck was fermentation retention time, which limited starch conversion efficiency and overall throughput. Additional fermenters were constructed following prior IDEM approval, allowing for extended residence time and improved starch-to-ethanol conversion. As a result, residual starch concentrations at the end of fermentation have decreased, supporting more stable downstream operation. The overall pump, piping, and heat exchanger configuration between the fermentation and distillation systems has been reviewed to confirm a higher feasible beerfeed rate of 1,250 gallons per minute.
 - (ii) **Scrubber Packing:**
Although not above the compliance limit, the prior scrubber packing material previously exhibited elevated differential pressure due to aging packing material, which restricted vapor flow and caused backpressure on the upstream distillation equipment. The packing has since been replaced with a higher-efficiency packing and has successfully passed subsequent stack testing. As a result, both the differential pressure across the scrubber and the upstream/backpressure have decreased significantly.
 - (iii) **Evaporator Steam Supply:**
The evaporators, located upstream of the distillation system, provide essential process heat. Steam piping to the evaporators has been modified to enhance heat delivery capacity and improve overall heat transfer efficiency. This improvement enables more consistent energy input to the distillation columns, improving column stability and throughput without altering the basic design.
- (2) The beerfeed throughput increase will also increase the potential to emit for the DDGS dryers EU025 and EU026 and the fluidized DDGS cooler EU029.
- (3) The source is requesting to update the pressure drop range for scrubber CE008 from 1.0 to 12.0 inches of water to 0.1 to 12.0 inches of water. The source has installed high-efficiency style scrubber

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We appreciate your input!



packing material since the initial pressure drop range was established. At other POET facilities that installed this style of packing, the pressure drop is significantly reduced from previous styles, and 0.1 inches of water is now an appropriate minimum.

- (4) The source is requesting to modify the natural gas condensate storage tanks T002 and T005. These tanks will have the ability to store either natural gas condensate or unleaded gasoline, which will make these tanks subject to 40 CFR, Part 63, Subpart BBBBBB.
- (5) The source will add two additional evaporators to the distillation process. These units have not been constructed yet. The evaporators work by removing water from the process stream, converting to steam and used in the distillation process. The source states that adding two additional evaporators would improve both energy and water efficiency.
- (6) The cartridge filters CE18, CE19, and CE20 (stacks SV020, SV021, and SV022, respectively) have been removed from A.2 and D.1.6 of the permit. These control devices were permitted in 2019 (SPM No. 169-41624-00068, issued October 22, 2019) but were never installed.
- (7) The emission unit description for Tank T001 has been updated in permit conditions A.3, E.2, and E.3 to remove the words "off-spec."

This draft permit does not contain any new equipment that would emit air pollutants; however, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g., changes that add or modify synthetic minor emission limits). This notice fulfills the public notice procedures to which those conditions are subject. IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow for these changes.

IDEM is aware that the modified equipment has been modified and operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take appropriate action. This draft permit contains provisions to bring unpermitted equipment into compliance with modification and operation permit rules.

A copy of the permit application and IDEM's preliminary findings have been sent to:

North Manchester Public Library
405 N Market St
North Manchester, IN 46962

A copy of the preliminary findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>.

A copy of the application and preliminary findings is also available via IDEM's Virtual File Cabinet (VFC) located at <https://www.in.gov/idem/legal/public-records/virtual-file-cabinet/>. Once you have accessed VFC, you will then have the option to search for source related documents using a variety of criteria. To find documents related to this air permit, click on "Advanced Search", specify "OAQ" in the Program search field, specify the five-digit permit number "49560" or the five-digit source modification number "49678" in the Permit # search field, then click the Search button at the top or bottom of the webpage.

How can you participate in this process?

This notice is posted on IDEM's website (<https://www.in.gov/idem/public-notice/>). The date that this notice is posted on IDEM's website marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If IDEM decides to conduct a public hearing and/or public meeting, IDEM will post a separate announcement of the date, time, and location of that public hearing and/or public meeting on IDEM's website (<https://www.in.gov/idem/public-notice/>). At a hearing, you would have an opportunity to

submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number SPM 169-49678-00068 and SSM 169-49560-00068 in all correspondence.

Comments should be sent to:

Tessa Dedek
IDEM, Office of Air Quality
Indiana Government Center North
100 North Senate Avenue, Room 13W
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for Tessa Dedek
Or dial directly: (317) 234-5401
Fax: (317) 232-6749 attn: Tessa Dedek
E-mail: tdedek@idem.IN.gov

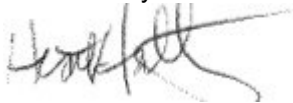
All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Air Permits page on the Internet at: <https://www.in.gov/idem/airpermit/public-participation/>; and the Citizens' Guide to IDEM on the Internet at: <https://www.in.gov/idem/resources/citizens-guide-to-idem/>.

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the addresses indicated above and will also be sent to the local library indicated above.

If you have any questions, please contact Tessa Dedek or my staff at the above address.



Heath Hartley, Section Chief
Permits Branch
Office of Air Quality