

## AIR QUALITY CLASS I OPERATING PERMIT SIGNIFICANT REVISION

**PERMIT NUMBER:** OP26M1-027

**PERMIT EXPIRES:** August 28, 2030

**DWEE ID:** 58049

121646

**Program ID:** AIR 001-00044

AIR 001-00147

**Permit Issued To:**

Chief Ethanol Fuels, Inc.

CC Hastings Capture Company, LLC

**Name of Source in Application:**

Chief Ethanol Fuels, Inc.

CC Hastings Capture Company, LLC

**Mailing Address:**

4225 East South Street, Hastings, Nebraska, 68901

3550 Prairieview Street, Grand Island, Nebraska, 68803

**Source Location:**

4225 East South Street, STE A, Hastings, Adams County, Nebraska

4225 East South Street, STE B, Hastings, Adams County, Nebraska

**Revised Operating Permit(s):** Operating permit OP25R1-004 issued August 29, 2025.

**The above Operating Permit is hereby revised as follows:** Existing Conditions I.(A), III.(B) and III.(E) are being edited and reissued in their entirety. Permit Attachments (C), (D), and (E) are being removed, with a new Permit Attachment (C) being added. All other provisions of the original permit are still in effect and, in concert with this revision, constitute the effective operating permit.

Pursuant to Title 129, Chapter 10, of the Nebraska Air Quality Regulations amended September 22, 2022, the public has been notified by prominent advertisement of this significant revision and the thirty (30) day period allowed for comments has elapsed. No other terms or conditions of the operating permits described above are being revised or otherwise modified by this document. This revision does not trigger any additional requirements under Nebraska Title 129.

Except as provided above, all other provisions of the original permit are still in effect and, in concert with this revision, constitute the effective operating permit. This operating permit revision shall be attached to the original operating permit and maintained with it henceforth.

Compliance with this permit shall not be a defense to any enforcement action for violation of an ambient air quality standard. Unless otherwise noted the conditions of this permit are enforceable by the United States Environmental Protection Agency (USEPA) and the Nebraska Department of Water, Energy, and Environment (DWEE). The permit holder, owner, and operator of the facility shall assure that the operation and maintenance of all equipment is in compliance with all of the conditions of this permit.

The undersigned issues this document on behalf of the Director in accordance with Title 129 – Nebraska Air Quality Regulations.

**D R A F T**

\_\_\_\_\_  
Date

\_\_\_\_\_  
Reuel S. Anderson, Administrator  
Permitting & Engineering Division

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| Condition I.<br><br>Title 129 – Air Quality Regulations was amended on June 28, 2026. Operating permit OP25R1-004 issued August 29, 2025 was written under Title 129 – Air Quality Regulations as amended September 28, 2022. The State Implementation Plan (SIP) approved Title 129 as amended September 28, 2022 cited in this permit and denoted by an asterisk (*).                                                                                                            | 1           |
| Condition II.<br><br>Title 129 – Air Quality Regulations was amended on June 28, 2026. Operating permit OP25R1-004 issued August 29, 2025 was written under Title 129 – Air Quality Regulations as amended September 28, 2022. The State Implementation Plan (SIP) approved Title 129 as amended September 28, 2022 cited in this permit and denoted by an asterisk (*). An amendment to the permit shield was made to include NSPS VVb.                                           | 7           |
| Condition III.(B) Specific Conditions for Fermentation and Distillation Operations<br><br>Updated the Condition to incorporate conditions from Construction Permit CP24-010 issued May 7, 2025 and Construction Permit CP25-014 issued January 26, 2026 as part of a carbon capture project. The Condition was also updated to include the combined acetaldehyde and combined VOC limits for emission points EP-8-4, EP-CC-003, EP-CC-FUG EP-8-1, EP-8-2, EP-8-3, EP-9, and EP-10. | 13          |
| Condition III.(E) Specific Conditions for DDGS Conveyance, Drying, Storage, and Loadout<br><br>Updated the Condition to incorporate conditions from Construction Permit CP24-010 issued May 7, 2025 as part of a carbon capture project. The Condition was updated to include the combined acetaldehyde and combined VOC limits for emission points EP-8-4, EP-CC-003, EP-CC-FUG EP-8-1, EP-8-2, EP-8-3, EP-9, and EP-10.                                                          | 22          |
| Condition III.(F) Specific Conditions for Equipment Leaks<br><br>Undated the Condition to incorporate conditions from Construction Permit CP25-014 issued January 26, 2026.                                                                                                                                                                                                                                                                                                        |             |
| Attachment C: Compliance Assurance Monitoring Plan Fermentation Scrubber #4 (C-1401A)<br><br>The Attachment was updated to reflect the new CAM plan for Scrubber C-1401A.                                                                                                                                                                                                                                                                                                          | 28          |

## **I. STANDARD CONDITIONS**

The following Standard Conditions apply to this permit unless otherwise provided for in the Specific Conditions of this permit.

**(A) Regulatory authority:**

- (1) Title 40 Protection of Environment, Code of Federal Regulations that apply to the source including those found at 40 CFR Part 52, Subpart CC or 40 CFR Part 70, Appendix A (federally enforceable requirements); and
  - (a) The State Implementation Plan (SIP) approved Title 129 as amended September 28, 2022 cited in this permit and denoted by an asterisk (\*) are federally enforceable. When Title 129 as amended June 28, 2026 cited in this permit becomes SIP approved and federally enforceable it will supersede Title 129 as amended September 28, 2022.
- (2) The Environmental Protection Act, Neb. Rev. Stat. §§ 81-1501 to 81-1532, and Nebraska Administrative Code Title 129 as amended June 28, 2026 (Title 129).

**(B) The source shall allow the DWEE, USEPA or an authorized representative, upon presentation of credentials (Neb. Rev. Statute §81-1504; Title 129, Chapter 6, Section 003.11\*; Title 129, Chapter 6, Section 003.11) to:**

- (1) Enter upon the source's premises during reasonable hours where a source subject to this permit is located, emissions-related activity is conducted, or where records must be kept under the conditions of this permit, for the purpose of ensuring compliance with this permit or applicable requirements;
- (2) Have access to and copy, during reasonable hours, any records that must be kept under the conditions of this permit, for the purpose of ensuring compliance with this permit or applicable requirements;
- (3) Inspect during reasonable hours any facilities, pollution control equipment, including monitoring and air pollution control equipment, practices, or operations regulated or required under this permit, for the purpose of ensuring compliance with this permit or applicable requirements;
- (4) Sample or monitor, during reasonable hours, substances or parameters for the purpose of ensuring compliance with the permit or applicable requirements.

**(C) All requested permit amendments and revisions must adhere to the requirements of Title 129, Chapter 9\*; Title 129, Chapter 9.**

**(D) The following methods may be used to determine compliance with the term and conditions in this permit ((Title 129, Chapter 15, Section 005.08)\*; Title 129, Chapter 15, Section 005.08):**

- (1) Any compliance test method specified in the State Implementation Plan;
- (2) Any test or monitoring method approved for the source in a permit issued pursuant to Title 129, Chapters 3\*, 4\*, or Chapter 13, Section 004\*; Title 129, Chapters 3, 4, or Chapter 13, Section 004;
- (3) Any test or monitoring method provided for in Title 129; or
- (4) Any other test, monitoring, or information-gathering method that produces information comparable to that produced by any method described in Condition I.(D)(1) through (3).

**(E) Application for review of plans or advice furnished by the Director will not relieve the source of legal compliance with any provision of these regulations, or prevent the Director from enforcing**

or implementing any provision of these regulations ((Title 129, Chapter 1, Section 001.06)\*; Title 129, Chapter 1, Section 001.06).

- (F) If and when the Director declares an air pollution episode as defined in Title 129, Chapter 2, Section 006.01\*; Title 129, Chapter 2, Section 006.01, the source shall immediately take all required actions listed in Title 129, Appendix II, Paragraph 1.1\*, 1.2\*, and 1.3\*; Title 129, Appendix II, Paragraph 1.1, 1.2, and 1.3, respectively, until the Director declares the air pollution episode terminated ((Title 129, Chapter 2, Section 006.03)\*; Title 129, Chapter 2, Section 006.03).
- (G) Recordkeeping: To ensure compliance with this permit, records shall be maintained as outlined below. Records include: electronic and/or paper copies of all application materials, notifications, reports, test protocols, test results, and plans; and, electronic and/or original paper copies of all required monitoring results, measurements, inspections, and observations (Title 129, Chapter 15, Section 005.06\*; Title 129, Chapter 15, Section 005.06; Neb. Rev. Stat. §81-1504):
- (1) All records required by this permit shall be kept for a minimum of five (5) years and shall be clear and readily accessible to DWEE representatives during an inspection, unless otherwise specified in this permit.
  - (2) Monthly calculations and records required throughout this permit shall be compiled no later than the fifteenth (15<sup>th</sup>) day of each calendar month and shall include all records and calculations generated through the previous calendar month, unless otherwise specified in this permit. ((Title 129, Chapter 6, Section 003.03)\*; Title 129, Chapter 6, Section 003.03).
  - (3) The source shall keep the following records for each malfunction, start-up and shutdown where emissions were, or may have been, in excess of an emission limitation or standard ((Title 129, Chapter 11, Sections 002 and 005, Chapter 15, Sections 006.02, 006.04, and 006.05)\*; Title 129, Chapter 11, Sections 002 and 005, Chapter 15, Sections 006.02, 006.04, and 006.05):
    - (a) The identity of the equipment.
    - (b) Reason for, or cause of, the malfunction, shutdown, or start-up.
    - (c) Duration of period of excess emissions.
    - (d) Date and time of the malfunction, shutdown, or start-up.
    - (e) Physical and chemical composition of pollutants whose emissions are affected by the action.
    - (f) Methods, operating data, and/or calculations used to determine these emissions.
    - (g) Quantification of emissions in the units of the applicable emission control regulation.
    - (h) All measures utilized to minimize the extent and duration of excess emissions during the malfunction, shutdown, and start-up.
  - (4) The source shall keep records of maintenance performed on components of permitted emission units that would affect or potentially affect the emission rate of that unit and on control and monitoring equipment associated with the permitted emission unit ((Title 129, Chapter 15, Sections 005.06, 006.06B and 006.06E)\*; Title 129, Chapter 15, Sections 005.06, 006.06B and 006.06E).
  - (5) All records of opacity readings, instrument readings, visual equipment inspections, logbook/sheet entries, and any other record of equipment performance shall identify the individual who entered the record, except for continuously generated electronic records.

- (6) Operation and maintenance manuals, or equivalent documentation, detailing proper operation and maintenance of all permitted emission units, required control equipment and required monitoring equipment shall be kept for the life of the equipment.
- (H) All permitted emission units, associated emissions conveyances, required control equipment, and required monitoring equipment shall be properly installed, operated, and maintained (Title 129 Chapter 6, Sections 003.01\* and 003.13\*; Chapter 15, Section 005.06\*; Title 129 Chapter 6, Sections 003.01 and 003.13; Chapter 15, Section 005.06; Neb. Rev. Stat. §81-1504 and §81-1506).
  - (1) All emissions from emission units using required controls shall be captured and routed through associated emission conveyances to the required control equipment, except for uncaptured emissions described in the permit application and any additional information submitted prior to permit issuance.
  - (2) All equipment must be maintained to minimize the amount of uncontrolled pollutants that are released to the atmosphere. Proper equipment maintenance activities may include repair or replacement, and include, but are not limited to activities in response to the following:
    - (a) cracks, holes or gaps,
    - (b) broken, cracked, or otherwise damaged seals or gaskets, and
    - (c) broken, missing or open hatches, access covers, caps, or other closure devices.
- (I) When the source makes physical or operational changes to an emissions unit or associated control equipment that may cause an increase in emissions that makes the original testing not representative of current operating conditions or emissions, the source shall submit a notification of the change. Such notification shall be received by DWEE within fifteen (15) days after such change. The DWEE may require performance testing based on review of the specific changes identified in the notification and the resulting potential impact on emissions from the unit(s) and/or performance of the control equipment ((Title 129, Chapter 15, Section 005.01)\*; Title 129, Chapter 15, Section 005.01).
  - (1) This notification requirement applies to emissions units and/or control equipment that meet the following requirements, except as provided in Condition I.(I)(5):
    - (a) Emissions from the emissions unit and/or control equipment is subject to an emissions limit;
    - (b) A valid performance test has been conducted for the pollutant to which the emissions limit applies;
    - (c) Changes that may cause emissions to increase or invalidate prior testing include, but are not limited to, increasing the capacity of an emissions unit, changing the operational parameters of any control equipment outside of the range allowed for under this permit that makes the control equipment less efficient, changing the type of scrubber packing, or increasing the inlet pollutant loading of any control equipment.
  - (2) For emission units that have had a performance test conducted after January 1, 2012, the source shall make a one-time notification to the DWEE within fifteen (15) days of when there is a 10% increase in daily production/throughput rate, over the tested rate recorded during the most recent valid performance test unless otherwise specified in this permit. If there are subsequent 10% increases over the rate most recently notified to the DWEE, the source shall

- make a one-time notification to the DWEE of each such subsequent increase. This will not apply to emissions that already have emission rates that are normalized to production and/or throughput rates.
- (3) The notification shall include the date of the changes, a description of the changes made, and an evaluation of the expected impact on emissions from the emissions units and/or control equipment.
- (4) The following definitions apply for purposes of Condition I.(I)(2) above:
- (a) “rate” shall mean the production or throughput of an emissions unit in the same units of production or throughput as the “tested rate” as defined below; and,
  - (b) “tested rate” shall mean the production or throughput rate of an emissions unit as recorded in the most recent valid performance test and reported to the DWEE in the source’s written copy of the test results, or test report, documenting the maximum capacity of the unit(s). The tested rate shall be extrapolated to daily. Examples include, but are not limited to, tons per hour to tons per day or gallons per hour to gallons per day.
- (5) The above notification requirements do not apply when compliance with the emission limitation is demonstrated through the use of a CEMS, PEMS or COMS.
- (J) No person shall cause or allow emissions, from any source, which are of an opacity equal to or greater than twenty percent (20%), as evaluated by an EPA approved method, or recorded by a continuous opacity monitoring system operated and maintained pursuant to 40 CFR Part 60 Appendix B except as provided for in Title 129, Chapter 15, Sections 001.05\* or 001.06\*; Title 129, Chapter 15, Sections 001.05 or 001.06 ((Title 129, Chapter 15, Section 001.04)\*; Title 129, Chapter 15, Section 001.04).
- (K) Open fires are prohibited except as allowed by Title 129, Chapter 15, Section 002\*; Title 129, Chapter 15, Section 002.
- (L) Particulate Matter – General Requirements ((Title 129, Chapter 15, Section 003)\*; Title 129, Chapter 15, Section 003):
- (1) The source shall not cause or permit the handling, transporting or storage of any material in a manner which allows particulate matter to become airborne in such quantities and concentrations that it remains visible in the ambient air beyond the property line.
  - (2) The source shall not cause or permit the construction, use, repair or demolition of a building, its appurtenances, a road, a driveway, or an open area without applying all reasonable measures to prevent particulate matter from becoming airborne and remaining visible beyond the property line. Such measures include, but are not limited to, paving or frequent cleaning of roads, driveways and parking lots; application of dust-free surfaces; application of water; and planting and maintenance of vegetative ground cover.
- (M) Testing:
- (1) Performance testing if required by this permit or required by the DWEE shall be completed as follows:
    - (a) The source shall provide the DWEE a written notice at least thirty (30) days prior to testing to afford the DWEE an opportunity to have an observer present. The DWEE may, in writing, approve a notice of less than 30 days. If the testing is pursuant to an underlying requirement contained in a federal rule, the notice provisions of the underlying requirement apply ((Title 129, Chapter 15, Section 005.03)\*; Title 129, Chapter 15, Section 005.03).

- (b) The notification required by Condition I.(M)(1)(a) shall include the following ((Title 129, Chapter 15, Section 005.03)\*; Title 129, Chapter 15, Section 005.03):
  - (i) Facility Name, Address and FID number.
  - (ii) Company Name, Address and Contact Person's name.
  - (iii) Test schedule including date and estimated start time of testing.
  - (iv) List all applicable regulatory requirements that testing is being conducted for (permit condition, MACT, NSPS, etc.).
  - (v) Types of pollutants to be sampled including applicable emission limits and demonstration requirements.
  - (vi) Test methods and documentation of any proposed variations from the specified procedures and reason for variance.
- (c) Testing shall be conducted according to the methodologies found in Title 129, Chapter 15, Section 005.02\*; Title 129, Chapter 15, Section 005.02, or other DWEE approved methodologies ((Title 129, Chapter 15, Section 005.02)\*; Title 129, Chapter 15, Section 005.02).
- (d) Performance tests shall be performed under those representative (normal) conditions that: represent the range of combined process and control measure conditions under which the facility expects to operate (regardless of the frequency of the conditions); and are likely to most challenge the emissions control measures of the facility with regard to meeting the applicable emission standards, but without creating an unsafe condition. ((Title 129, Chapter 15, Section 005)\*; Title 129, Chapter 15, Section 005).
- (e) Performance tests shall be conducted for a minimum of three (3) one-hour runs unless another run-time is specified by the applicable Subpart or as deemed appropriate by the DWEE.
- (f) The source shall monitor and record the operating parameters for process and control equipment during the performance testing required in the permit.
- (g) A certified written copy of the test results, signed by the person conducting the test, shall be provided to the DWEE within sixty (60) days of completion of the test, unless a different time period is specified in the underlying requirements of an applicable federal rule, and will, at a minimum, contain the following items ((Title 129, Chapter 15, Section 005.02G)\*; Title 129, Chapter 15, Section 005.02G):
  - (i) A description of:
    - 1. The operating parameters for the emissions unit during testing. Examples include, but are not limited to, production rates, process throughputs, firing rates of combustion equipment, or fuel usage; and,
    - 2. The operating parameters for the control equipment during testing. Examples include, but are not limited to, baghouse fan speeds, scrubber liquid flow rates, or pressure drop across the control device.
  - (ii) Copies of all data sheets from the test run(s).
  - (iii) A description and explanation of any erroneous data or unusual circumstance(s) and the cause for such situation.
  - (iv) A final conclusion section describing the outcome of the testing device.

## II. GENERAL OPERATING PERMIT CONDITIONS

The following General Conditions apply to this permit unless otherwise provided for in the Specific Conditions of this permit. Terms and conditions of this permit are in accordance with the requirements of Title 129, Chapter 6, Section 003\*; Title 129, Chapter 6, Section 003.

### (A) Submittals/Reporting:

All submittals, including reports, required by Condition II.(A) and Condition I.(M)(1)(g) shall contain a certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete ((Title 129, Chapter 1, Section 002.89; Chapter 6, Sections 002.06 and 003.11)\*; Title 129, Chapter 1, Section 002.92; Chapter 6, Sections 002.06 and 003.11).

The source shall submit reports to the DWEE as follows:

- (1) The source shall submit a report of all instances of deviations from permit requirements including monitoring requirements stated in the permit every six (6) calendar months to the DWEE. The report for the first six (6) months (January through June) shall be submitted by September 30 of each year. The report for the second six (6) months (July through December) shall be submitted by March 31 of the following year ((Title 129, Chapter 6, Section 003.03B)\*; Title 129, Chapter 6, Section 003.03B).
- (2) The source shall report all deviations from permit requirements, including those attributable to start-ups, shutdowns or malfunctions, the probable cause of such deviations, and any corrective actions or preventive measures taken. The probable cause, corrective actions, or preventive measures do not have to be provided if that information has already been submitted in other reports to the DWEE, such as for 40 CFR 60.7; however reported deviations must reference these other reports. All reports of deviations must be submitted within the time frame as per Conditions II.(A)(2)(a), (b), and (c) below ((Title 129, Chapter 6, Sections 003.03B and 003.03B4; and Chapter 15, Sections 006.04 and 006.05)\*; Title 129, Chapter 6, Sections 003.03B and 003.03B4; and Chapter 15, Sections 006.04 and 006.05).
- (a) Any deviation resulting from emergency or upset conditions shall be reported within two (2) working days of the date on which the source first becomes aware of the deviation. The initial report may be submitted without a certification by the responsible official, as required by Condition II.(A) above, if an appropriate certification is provided within ten (10) days thereafter, together with the information required under Condition II.(A)(2) and any corrected or supplemental information required concerning the deviation.
- (b) Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported as soon as is practicable. The report may be submitted initially without a certification by a responsible official in accordance with Condition II.(A) above, if an appropriate certification is provided within ten (10) days thereafter, together with any corrected or supplemental information required concerning the deviation.
- (c) All other deviations shall be reported as per Condition II.(A)(1).
- (3) The source shall submit completed emission inventories electronically utilizing the State and Local Emissions Inventory System (SLEIS) for the preceding calendar year to the DWEE by March 31 of each year ((Title 129, Chapter 11)\*; Title 129, Chapter 11).
- (4) The source shall submit fees, due July 1 of each year, based on the actual emission tonnage, up to and including 4,000 tons per year for each regulated pollutant for fee purposes, as established in the emission inventory for the previous calendar year ((Title 129, Chapter 1,

Section ~~002.88~~; Chapter 6, Sections 003.07 and 009)\*; Title 129, Chapter 1, Section 002.91; Chapter 6, Sections 003.07 and 008).

- (5) Certification of compliance with the terms and conditions of this permit, including emission limitations, standards, or work practices, for the preceding calendar year, shall be submitted to DWEE and to U.S. EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>) or by mail to Nebraska Air Compliance Coordinator, U.S. EPA, Region 7, ECAD/AB, 11201 Renner Boulevard, Lenexa, KS 66219 by March 31 each year. The report shall be certified by a responsible official in accordance with Condition II.(A) and shall include the following ((Title 129, Chapter 6, Section 003.11)\*; Title 129, Chapter 6, Section 003.11).
- (a) The identification of each term or condition of the permit that is the basis of the certification.
  - (b) The compliance status;
  - (c) A determination of whether compliance was continuous or intermittent; and
  - (d) The methods used for determining the compliance status of the source, currently and over the reporting period.
- (6) Any emissions due to malfunctions, unplanned shutdowns, and ensuing start-ups that are, or may be in excess of applicable emission limitations shall be reported to the DWEE in accordance with Condition II.(A)(2)(a).
- (B) The source shall comply with 40 CFR Part 82, Protection of the Stratospheric Ozone. Affected controlled substances include, but are not limited to: chlorofluorocarbon (CFC) and hydrochlorofluorocarbon (HCFC) refrigerants, solvents and propellants, halons, carbon tetrachloride, and methyl chloroform (specific affected controlled substances are listed in 40 CFR Part 82, Subpart A, Appendices A, (Class I) and B (Class II)).
- The following subparts and Sections of 40 CFR Part 82 are conditions of this permit:
- Subpart A - Production and Consumption Controls
  - Subpart B - Servicing of Motor Vehicle Air Conditioners
  - Subpart E - Labeling of Products Using Ozone-Depleting Substances: Sections 82.106 Warning statement requirements, 82.108 Placement of warning statement, 82.110 Form of label bearing warning statement, and 82.112 Removal of label bearing warning statement.
  - Subpart F - Recycling and Emissions Reduction: Sections 82.156 Required practices, 82.158 Standards for recycling and recovery equipment, 82.161 Technician certification, and 82.166 Reporting and recordkeeping requirements
  - Subpart G - Significant New Alternatives Policy Program
- (C) This permit is issued for a fixed term of five (5) years. A timely renewal application is one that is submitted to the DWEE a minimum of six (6) months and a maximum of eighteen (18) months before permit expiration. Provided a timely and complete renewal application has been submitted, the conditions of this permit shall continue until the effective date of a new permit. ((Title 129, Chapter 6, Sections 002.01C and 003.02)\*; Title 129, Chapter 6, Sections 002.01C and 003.02).
- (D) The source shall comply with all conditions of this permit. Any permit noncompliance shall constitute a violation of the Nebraska Environmental Protection Act and/or the Federal Clean Air

- Act, and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application ((Title 129, Chapter 6, Section 003.06A)\*; Title 129, Chapter 6, Section 003.06A).
- (E) It shall not be a defense for the source in an enforcement action to claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit ((Title 129, Chapter 6, Section 003.06B)\*; Title 129, Chapter 6, Section 003.06B).
- (F) This permit may be modified; revoked, reopened, and reissued; or terminated for cause in accordance with Title 129 and Title 115- Rules of Practice and Procedure. The filing of a request by the source for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not supersede any permit condition ((Title 129, Chapter 6, Section 003.06C)\*; Title 129, Chapter 6, Section 003.06C).
- (G) Conditions under which this permit will be reopened, revoked and reissued or terminated during its term for cause, include but are not limited to ((Title 129, Chapter 6, Section 003.09; Title 129, Chapter 9, Section 006)\*; Title 129, Chapter 6, Section 003.09; Title 129, Chapter 9, Section 006):
- (1) Additional applicable requirements under the Nebraska Environmental Protection Act or the Federal Clean Air Act, which become applicable to this source with a remaining permit term of three (3) or more years. No such reopening will occur if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended;
  - (2) Additional requirements, including excess emissions requirements, that become applicable to an affected source under the acid rain program under Title 129, Chapter 5\*; Title 129, Chapter 5.
- (H) This permit does not convey any property rights of any sort, or any exclusive privilege ((Title 129, Chapter 6, Section 003.06D)\*; Title 129, Chapter 6, Section 003.06D).
- (I) The source shall furnish to the DWEE, within the time specified by the DWEE, any information requested by the DWEE in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the source shall also furnish to the DWEE copies of records required to be kept in accordance with the permit or, for information claimed to be confidential, the source may furnish such records along with a claim of confidentiality pursuant to Title 115 - Rules of Practice and Procedure ((Title 129, Chapter 6, Section 003.06E)\*; Title 129, Chapter 6, Section 003.06E).
- (J) The provisions of this operating permit incorporate all applicable requirements contained in all previously issued active construction permits. Although the previously issued construction permits are still active, this operating permit will be the compliance and enforcement instrument for all applicable requirements incorporated into the operating permit (40 CFR 70.2 – Applicable Requirements (2)).
- (K) In the event of a challenge to any portions of this permit, the unchallenged permit requirements shall remain valid ((Title 129, Chapter 6, Section 003.05)\*; Title 129, Chapter 6, Section 003.05).
- (L) Changes allowed without an operating permit revision ((Title 129, Chapter 9, Section 007)\*; Title 129, Chapter 9, Section 007).
- (1) The source may make the changes identified in Condition II.(L)(1)(a) within a permitted facility without a permit revision if the change is not a modification under Title 129, Chapter 12\*; Chapter 13, Sections 001\*, 002\*, 003\*, and 004\*; Title 129, Chapter 12; Chapter 13, Sections 001, 002, 003 and 004; the change does not require a construction permit under

Chapters 3\* or 4\*; Chapters 3 or 4; and the change does not result in the emissions allowable under the permit (whether expressed therein as a rate of emissions or in the terms of total emissions) being exceeded. The permit shield in Condition II.(M) shall not apply to any change made under this condition ((Title 129, Chapter 9, Section 007.01)\*; Title 129, Chapter 9, Section 007.01).

(a) Changes in the configuration of the facility's equipment, as defined in Section 502(b)(10) of the Act ((Title 129, Chapter 9, Section 007.01)\*; Title 129, Chapter 9, Section 007.01). Written notification of these changes shall be sent to the DWEE and the administrator of EPA as follows:

(i) Non-Emergencies ((Title 129, Chapter 9, Section 007.01)\*; Title 129, Chapter 9, Section 007.01).

1. Written notification shall be received by the DWEE a minimum of seven (7) days in advance of the proposed changes;

(ii) Emergencies ((Title 129, Chapter 9, Section 007.01)\*; Title 129, Chapter 9, Section 007.01):

1. Initial notification shall be made within two (2) working days of the date on which the source first becomes aware of the need for the change;

2. A follow-up written notification shall be submitted as soon as practicable; and,

3. The notifications shall include an explanation of the nature of the emergency.

(iii) Required information ((Title 129, Chapter 9, Section 007.01)\*; Title 129, Chapter 9, Section 007.01):

1. A brief description of the change within the permitted source;

2. The date on which the change will occur;

3. Any change in emissions; and,

4. Any permit term or condition that is no longer applicable as a result of the change.

(iv) A copy of the notification shall be attached to the source's copy of the operating permit (40 CFR Part 70.4(b)(12)).

(2) The source may make changes that are not defined as Section 502(b)(10) changes under the Act within a permitted facility without a permit revision if the change is not a modification under Title 129, Chapters 12\* or 13\*, Sections 001\*, 002\*, 003\*, and 004\*; Title 129, Chapters 12 or 13, Sections 001, 002, 003, and 004; and the change is not a change which would require a construction permit under Chapters 3\* or 4\*; Chapters 3 or 4 ((Title 129, Chapter 9, Section 007.02)\*; Title 129, Chapter 9, Section 007.02).

(a) Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition ((Title 129, Chapter 9, Section 007.02)\*; Title 129, Chapter 9, Section 007.02).

(b) The source shall provide contemporaneous written notice to the Director and the Administrator of EPA, except for changes that qualify as insignificant activities under the provisions of Title 129, Chapter 6, Sections 002.05C and 002.05D\*; Title 129, Chapter 6, Sections 002.05C and 002.05D. Such written notice shall include ((Title 129, Chapter 9, Section 007.02)\*; Title 129, Chapter 9, Section 007.02):

(i) A description of each change;

- (ii) The date the change will be made;
- (iii) A description of any change in emissions;
- (iv) A list of the pollutants emitted; and,
- (v) A list of any applicable requirements that would apply as a result of the change, including terms and conditions established in the relevant operating permit for synthetic minor purposes.
- (c) A copy of the notification in Condition II.(L)(2)(b) shall be attached to the source's copy of the operating permit.
- (d) Any change under Condition II.(L)(2) shall not qualify for a permit shield under Title 129, Chapter 6, Section 003.12\*; Title 129, Chapter 6, Section 003.12 ((Title 129, Chapter 9, Section 007.02)\*; Title 129, Chapter 9, Section 007.02).
- (e) The source shall keep a record describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and emissions resulting from those changes ((Title 129, Chapter 9, Section 007.02)\*; Title 129, Chapter 9, Section 007.02).
- (f) Upon review of a notice submitted in accordance with Condition II.(L)(2)(b), the DWEE may require a source to apply for an operating permit if the change does not meet the requirements of Condition II.(L)(2) ((Title 129, Chapter 9, Section 007.02)\*; Title 129, Chapter 9, Section 007.02).
- (3) Testing requirements:
  - (a) Testing may be required if a change reported under Condition II.(L)(1) or II.(L)(2) involves an emissions unit that was previously tested ((Title 129, Chapter 6, Section 003.03; Title Chapter 15, Section 005)\*; Title 129, Chapter 6, Section 003.03; Title Chapter 15, Section 005).
- (M) A permit shield is granted ((Title 129, Chapter 6, Section 003.12)\*; Title 129, Chapter 6, Section 003.12).
- (1) During the term of this permit compliance with Conditions I.(G), (H), (J), (L), and (M); Conditions II.(A), (B), (D) and (N); and Condition III constitutes compliance with all applicable requirements. The origin and/or authority for each applicable requirement are identified in the condition.
- (2) The permit shield does not affect:
  - (a) The emergency provisions of Neb. Rev. Stat. §81-1507 of the Nebraska Environmental Protection Act;
  - (b) The USEPA's authority under the provisions of Section 303, Emergency Powers, of the Clean Air Act;
  - (c) Liability for any violation of applicable requirements or applicable requirements under the Federal Clean Air Act prior to or at the time of permit issuance;
  - (d) The applicable requirements of Chapter 5\*; Chapter 5.
  - (e) The authority of the DWEE or USEPA to obtain information; or
  - (f) Any other permit provisions, terms, or conditions, including, but not limited to, construction permits issued pursuant to Chapter 3\*; Chapter 3 or permits issued pursuant to other State authorities and Titles.

- (3) The DWEE has determined the requirements specifically identified in the following table are not applicable to this source. Therefore, a permit shield is granted as allowed under Title 129, Chapter 6, Section 003.12\*; Title 129, Chapter 6, Section 003.12:

| <b>Requirement</b>                | <b>Shield Request Basis and Determination</b>                                                                                       |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| NSPS, Subpart NNN; 40 CFR 60.660  | Does not apply to biological processes, including the manufacture of ethanol from grain.                                            |
| NSPS, Subpart RRR; 40 CFR 60.700  | Does not apply to biological processes, including the manufacture of ethanol from grain.                                            |
| NSPS, Subpart VVa; 40 CFR 60.480a | No affected facility that commenced construction, reconstruction, or modification after the applicability date of November 7, 2006. |
| NSPS, Subpart VVb; 40 CFR 60.480b | No affected facility that commenced construction, reconstruction, or modification after the applicability date of November 7, 2006. |

- (N) When applicable, the source shall comply with the requirements of 40 CFR Part 68, Chemical Accident Prevention Provisions, Risk Management Plan (RMP), as part of the compliance certification submitted under Condition II.(A)(5). The source shall submit a certification statement that the source is in compliance with all requirements of Part 68, including the registration and submission of the RMP (40 CFR 68.215(a); Title 129, Chapter 6, Section 003.10\*; Title 129, Chapter 6, Section 003.10).

### III. SPECIFIC CONDITIONS FOR AFFECTED EMISSION POINTS:

#### (B) Specific Conditions for Fermentation and Distillation Operations

##### (1) Permitted Emission Points:

- (a) The following table identifies emission points, emission units, permitted capacities, permitted fuel types, required control equipment the source must operate, and applicable standards at the source at the time of permit issuance, in accordance with operating permit OP25R1-004, issued September 2, 2025, Construction Permit CP24-010, issued May 7, 2025, Construction Permit CP25-014, issued January 26, 2026, and Significant Operating Permit Revision Application OP26M1-027, received June 9, 2026, including any supporting information received prior to issuance of this permit:

| Control Equipment ID# and Description                         | Emission Unit Description                                                           | Applicable NSPS Requirements | Applicable NESHAP Requirements |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------|--------------------------------|
| Emission Point ID#: EP-8-4                                    |                                                                                     |                              |                                |
| C-1404A: Fermentation Scrubber #4; installed in 2025 (EP-8-4) | EU-8.3: Fermentation Tank #2A, 78,762 gallons maximum capacity; installed in 1984   | None                         | None                           |
|                                                               | EU-8.4: Fermentation Tank #2B, 78,762 gallons maximum capacity; installed in 1984   |                              |                                |
|                                                               | EU-8.5: Fermentation Tank #3A, 159,679 gallons maximum capacity; installed in 1984  |                              |                                |
|                                                               | EU-8.6: Fermentation Tank #3B, 159,679 gallons maximum capacity; installed in 1984  |                              |                                |
|                                                               | EU-8.7: Fermentation Tank #4A, 159,679 gallons maximum capacity; installed in 1984  |                              |                                |
|                                                               | EU-8.8: Fermentation Tank #4B, 159,679 gallons maximum capacity; installed in 1984  |                              |                                |
|                                                               | EU-8.9: Fermentation Tank #5A, 272,000 gallons maximum capacity; installed in 1992  |                              |                                |
|                                                               | EU-8.10: Fermentation Tank #5B, 272,000 gallons maximum capacity; installed in 1992 |                              |                                |
|                                                               | EU-8.11: Fermentation Tank #5C, 925,000 gallons maximum capacity; installed in 2006 |                              |                                |
|                                                               | EU-8.12: Fermentation Tank #6, 705,000 gallons maximum capacity; installed in 1998  |                              |                                |
|                                                               | EU-8.13: Beer Well Tank #7, 705,000 gallons maximum capacity; installed in 1998     |                              |                                |
|                                                               | EU-8.14: Fermentation Tank #5D, 925,000 gallons maximum capacity; installed in 2025 |                              |                                |
| Emission Point ID#: EP-CC-03                                  |                                                                                     |                              |                                |
| N/A                                                           | EU-CC-03: TEG Reboiler Still Vent; installed in 2025                                | None                         | None                           |
| Emission Point ID#: EP-CC-FUG                                 |                                                                                     |                              |                                |
| N/A                                                           | EU-CC-01: CO <sub>2</sub> Compressor Rodpacking; installed in 2025                  | None                         | None                           |

|                                                                         |                                                              |      |      |
|-------------------------------------------------------------------------|--------------------------------------------------------------|------|------|
|                                                                         | EU-CC-02: CO <sub>2</sub> Blowdown Vapors; installed in 2025 |      |      |
|                                                                         | EU-CC-04: Equipment Leaks; installed in 2025                 |      |      |
| Emission Point ID#: EP-9                                                |                                                              |      |      |
| S-1501: Unit 1 Distillation Scrubber; installed in 1998 (1984 original) | EU-9.1: Unit 1 Beer Column; installed in 1984                | None | None |
|                                                                         | EU-9.2: Unit 1 Rectifying Column; installed in 1984          |      |      |
|                                                                         | EU-9.3: Unit 1 Mole Sieve; installed in 1998                 |      |      |
| Emission Point ID#: EP-10                                               |                                                              |      |      |
| C-11533: Unit 2 Distillation Scrubber; installed in 1993                | EU-10.1: Unit 2 Beer Column; installed in 1993               | None | None |
|                                                                         | EU-10.2: Unit 2 Rectifying Column; installed in 1993         |      |      |
|                                                                         | EU-10.3: Unit 2 Stripper Column; installed in 1997           |      |      |
|                                                                         | EU-10.4: Unit 2 Mole Sieve; installed in 1993                |      |      |
|                                                                         | EU-10.5: Unit 3 Alcohol Column; installed in 2008            |      |      |
|                                                                         | EU-10.6: Unit 3 Mole Sieve; installed in 2008                |      |      |

(2) Emission Limitations and Testing Requirements:

- (a) Pollutant emission rates from each emission point identified in the table below shall not exceed the permitted limits. Performance testing, if required, shall be conducted in accordance with Standard Condition I.(M).

| Pollutant                                                           | Permitted Limit                                          | Averaging Period                              | Basis for Permit Limit                                                                                                                                           | Performance Testing Required |
|---------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| <b>Emission Point ID#: EP-8-4, EP-9, EP-10, EP-CC-03, EP-CC-FUG</b> |                                                          |                                               |                                                                                                                                                                  |                              |
| VOC                                                                 | 8.30 lb/hr <sup>[1]</sup><br>(combined limit with EP-13) | Three 1-hour test runs or test method average | Construction Permit CP25-014, Condition III.(B)(2)(a), issued January 26, 2026;<br><br>Construction Permit CP24-010, Condition III.(C)(2)(a); issued May 7, 2025 | Yes <sup>[2]</sup>           |

| Pollutant                                                           | Permitted Limit                           | Averaging Period                              | Basis for Permit Limit                                                                                                                                           | Performance Testing Required |
|---------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| <b>Emission Point ID#: EP-8-4, EP-9, EP-10, EP-CC-03, EP-CC-FUG</b> |                                           |                                               |                                                                                                                                                                  |                              |
| Acetaldehyde                                                        | 2.15 lb/hr<br>(combined limit with EP-13) | Three 1-hour test runs or test method average | Construction Permit CP25-014, Condition III.(B)(2)(a), issued January 26, 2026;<br><br>Construction Permit CP24-010, Condition III.(C)(2)(a); issued May 7, 2025 | Yes <sup>[2]</sup>           |

<sup>[1]</sup> Expressed as mass of VOC.

<sup>[2]</sup> See Condition III.(B)(2)(b) for specific testing requirements.

(b) In order to demonstrate compliance with Condition III.(B)(2)(a), the source shall conduct performance tests for Acetaldehyde and VOC on emission points EP-8-4, EP-9, and EP-10. The frequency of the testing shall be as follows: [Title 129, Chapter 15, Section 005.01\*; Title 129, Chapter 6, Section 003.03\*; Title 129, Chapter 15, Section 005.01; Title 129, Chapter 6, Section 003.03]:

- (i) The first performance test shall be conducted during the third calendar quarter (July through September) in the calendar year of 2027.
- (ii) The subsequent performance tests shall be conducted every two years thereafter.
- (iii) Performance testing shall be conducted during the third calendar quarter (July through September) each year testing is required.
- (iv) Performance testing for Acetaldehyde and VOC required by this condition on the Fermentation Scrubbers (EP-8-4), and Distillation Scrubbers (EP-9 and EP-10) shall be conducted concurrently (during the same testing period) with Acetaldehyde and VOC testing required by Condition III.(E)(2)(b) on the DDGS Drying Scrubber (EP-13).
- (v) Only one valid performance test may be conducted at each operating range when conducting performance tests on the Scrubber Control Systems (EP-8-4, EP-9, EP-10, and EP-13).
  - 1. Subsequent performance tests may be conducted if the facility chooses to change any one or all operational parameters (chemical addition rate, type of chemical used, chemical concentration, and liquid flow rate) in order to demonstrate compliance with permitted limits.
- (vi) Performance test port(s) for the exhaust from C-1404A shall be located prior to the connection to the carbon capture facility.
  - 1. The test port(s) shall be representative of the entire flow of the gas from C-1404A.

**(3) Operational and Monitoring Requirements:**

- (a) Operation and maintenance of fermentation scrubber C-1404A shall be in accordance with the following requirements [Construction Permit CP25-014, Condition III.(B)(3)(a), issued January 26, 2026; Title 129, Chapter 6, 003.03\*; Title 129, Chapter 6, 003.03]:

- (i) C-1404A, shall be operated and control emissions at all times when any of the associated emission units are in operation [Construction Permit CP25-014, Condition III.(B)(3)(a)(i), issued January 26, 2026].
  - 1. The vapor stream from emission units EU-8.3, EU-8.4, EU-8.5, EU-8.6, EU-8.7, EU-8.8, EU-8.9, EU-8.10, EU-8.11, EU-8.12, EU-8.13, and EU-8.14 shall be controlled by C-1404A, regardless of whether the vapor stream is released to ambient air or routed elsewhere.
- (ii) C-1404A shall be equipped with devices that continuously monitor and record the following operating parameters [Construction Permit CP25-014, Condition III.(B)(3)(b)(ii), issued January 26, 2026; Title 129, Chapter 6, 003.03\*; Title 129, Chapter 6, 003.03]:
  - 1. Scrubbing liquid flow rate shall be monitored and recorded continuously;
  - 2. Recirculation liquid flow rate shall be monitored and recorded continuously;
  - 3. Chemical addition flow rate shall be monitored and recorded continuously, if utilized;
  - 4. Scrubber pressure differential shall be monitored and recorded continuously;
  - 5. Scrubbing liquid temperature shall be monitored and recorded continuously; and
  - 6. Recirculation liquid inlet temperature shall be monitored and recorded continuously.
- (iii) When chemical addition is utilized, the total monthly amount of chemical, in gallons, added to C-1404A shall be monitored and recorded [Construction Permit CP25-014, Condition III.(B)(3)(a)(iii), issued January 26, 2026].
- (iv) Upon request by DWEE personnel, chemical drawdown checks shall be performed to verify that the flow meter is working correctly [Construction Permit CP25-014, Condition III.(B)(3)(a)(iv), issued January 26, 2026].
- (v) The following operating parameters of C-1404A shall be maintained as described below [Construction Permit CP25-014, Condition III.(B)(3)(v), issued January 26, 2026]:
  - 1. The scrubbing liquid temperature shall be maintained at or below the tested level(s) recorded during the most recent valid performance test under normal operating conditions.
- (vi) Observations at least once each day during daylight hours of scrubber operation shall be conducted to determine whether there are leaks, noise, or other indications that corrective action is necessary. If corrective action is necessary, it shall occur immediately [Construction Permit CP25-014, Condition III.(B)(3)(a)(vi), issued January 26, 2026].
- (vii) Flow meters for recording scrubbing liquid, recirculation liquid, and chemical addition flow rates shall be maintained and calibrated according to manufacturer's instructions [Construction Permit CP25-014, Condition III.(B)(3)(a)(vii), issued January 26, 2026].
- (viii) Flow meters for recording scrubbing liquid and chemical addition flow rates (if chemical addition is utilized) shall be maintained and calibrated according to manufacturer's instructions [Title 129, Chapter 6, 003.03\*; Title 129, Chapter 6, Section 003.03].

- (b) The source shall operate Fermentation Scrubber C-1401A (EP 8-4) in accordance with the Fermentation Scrubber #4 Compliance Assurance Monitoring (CAM) Plan, submitted by the source on June 9, 2026. The CAM requirements include, but are not limited to, the following (See Attachment C) [40 CFR 64.6(c); Title 129, Chapter 6, 010\*; Title 129, Chapter 6, Section 009]:

(i) CAM requirements for scrubber feed water flow rate:

1. An exceedance is defined as a daily average scrubber feed water flow rate of less than the average gallon-per-minute (gpm) flow rate established during the most recent valid performance test.
  - A. An exceedance triggers a response per 40 CFR 64.7(d) and reporting and recordkeeping per 40 CFR 64.9.
2. The scrubber feed water flow rate shall be measured continuously using a flow meter located in the scrubber feed water line.
3. The scrubber inlet flow meters shall each be calibrated at least annually.
  - A. The acceptance criterion for scrubber inlet flow meter accuracy shall be no more than  $\pm 5$  percent of measured value.

(ii) CAM requirements for re-circulation water flow rate:

1. An exceedance is defined as a daily average scrubber re-circulation water flow rate of less than the average gallon-per-minute (gpm) flow rate established during the most recent valid performance test.
  - A. An exceedance triggers a response per 40 CFR 64.7(d) and reporting and recordkeeping per 40 CFR 64.9.
2. The scrubber re-circulation water flow rate shall be measured continuously using a flow meter located in the scrubber re-circulation water line.
3. The scrubber re-circulation water flow meter shall each be calibrated at least annually.
  - A. The acceptance criterion for scrubber re-circulation flow meter accuracy shall be no more than  $\pm 5$  percent of measured value.

(iii) CAM requirements for scrubber feed water temperature:

1. An exceedance is defined as a daily average scrubber feed water temperature of greater than the average temperature established during the most recent valid performance test.
  - A. An exceedance triggers a response per 40 CFR 64.7(d) and reporting and recordkeeping per 40 CFR 64.9.
2. The scrubber feed water temperature shall be measured continuously using a thermocouple located in the scrubber feed water line.
3. The temperature thermocouple shall be calibrated at least annually.
  - A. The acceptance criterion for thermocouple accuracy shall be no more than  $\pm 5$  percent of measured value.

(iv) CAM requirements for scrubber recirculation water temperature:

1. An exceedance is defined as a daily average scrubber recirculation water temperature

- of greater than the average temperature established during the most recent valid performance test.
- A. An exceedance triggers a response per 40 CFR 64.7(d) and reporting and recordkeeping per 40 CFR 64.9.
  - 2. The scrubber recirculation water temperature shall be measured continuously using a thermocouple located in the scrubber feed water line.
  - 3. The temperature thermocouple shall be calibrated at least annually.
    - A. The acceptance criterion for thermocouple accuracy shall be no more than  $\pm 5$  percent of measured value.
  - (v) The source shall comply with the obligations to conduct monitoring and fulfill other obligations as specified in 40 CFR 64.7 and 64.9.
- (c) Operation and maintenance of distillation scrubbers S-1501 and C-11533 shall be in accordance with the following requirements [Construction Permit CP24-010, Condition III.(C)(3)(a), issued May 7, 2025; Title 129, Chapter 6, 003.03\*; Title 129, Chapter 6, 003.03]:
- (i) S-1501 and C-11533 shall be operated and control emissions at all times when any of the associated emission units are in operation [Construction Permit CP24-010, Condition III.(C)(3)(a)(i), issued May 7, 2025].
  - (ii) S-1501 and C-11533 shall be equipped with devices that continuously monitor and record the following operating parameters in the manner described below; except as noted [Construction Permit CP24-010, Condition III.(C)(3)(a)(ii), issued May 7, 2025; Title 129, Chapter 6, 003.03\*; Title 129, Chapter 6, 003.03]:
    - 1. Scrubbing liquid flow rate shall be monitored and recorded continuously;
    - 2. Chemical addition flow rate, if utilized, shall be monitored and recorded continuously;
    - 3. Scrubber inlet pressure shall be monitored and recorded continuously; and
    - 4. Scrubbing liquid temperature shall be continuously monitored and recorded once per day.
  - (iii) When chemical addition is utilized, the total monthly amount of chemical, in gallons, added to S-1501 and C-11533 shall be monitored and recorded [Construction Permit CP24-010, Condition III.(C)(3)(a)(iii), issued May 7, 2025].
  - (iv) Upon request by DWEE personnel, chemical drawdown checks shall be performed to verify that the flow meter is working correctly [Construction Permit CP24-010, Condition III.(C)(3)(a)(iv), issued May 7, 2025].
  - (v) The following operating parameters of S-1501 and C-11533 shall be maintained as described below [Construction Permit CP24-010, Condition III.(C)(3)(a)(v), issued May 7, 2025]:
    - 1. Scrubber liquid shall be comprised of only well water to ensure consistent liquid temperature. In the event that the owner or operator uses an alternate scrubber liquid source, or scrubber liquid recirculation, compliance testing may be required to determine an appropriate scrubber liquid temperature and/or percent recirculation limit.

2. The scrubbing liquid flow rate, flow rate of chemical additions, and concentration of the chemical injected into the scrubber shall be maintained at or above the levels recorded during testing. Chemical concentration, as documented by the supplier, shall be recorded upon use of the chemical.
- (vi) Observations at least once each day during daylight hours of scrubber operation shall be conducted to determine whether there are leaks, noise, or other indications that corrective action is necessary. If corrective action is necessary, it shall occur immediately [Construction Permit CP24-010, Condition III.(C)(3)(a)(vi), issued May 7, 2025].
- (vii) Flow meters for recording scrubbing liquid and chemical addition flow rates shall be maintained and calibrated according to manufacturer's instructions [Construction Permit CP24-010, Condition III.(C)(3)(a)(vii), issued May 7, 2025].
- (d) Except for applicable requirements prescribed in Conditions I and II, this condition establishes no additional specific operational or monitoring requirements for emission points EP-CC-03 and EP-CC-FUG in Condition III.(B)(1).
- (4) Recordkeeping and Reporting Requirements:
  - (a) The source shall maintain the following records for fermentation scrubber C-1404A [Construction Permit CP25-014, Condition III.(B)(5), issued January 26, 2026]:
    - (i) The source shall maintain records that document the continuously monitored operating parameter data for C-1404A, including the date and time of the readings. The records shall include [Construction Permit CP25-014, Condition III.(B)(5)(a), issued January 26, 2026]:
      1. Scrubbing liquid flow rate [Construction Permit CP25-014, Condition III.(B)(5)(a)(i), issued January 26, 2026];
      2. Recirculation liquid flow rate [Construction Permit CP25-014, Condition III.(B)(5)(a)(ii), issued January 26, 2026];
      3. Chemical addition flow rate, if utilized [Construction Permit CP25-014, Condition III.(B)(5)(a)(iii), issued January 26, 2026];
      4. Scrubber pressure differential [Construction Permit CP25-014, Condition III.(B)(5)(a)(v), issued January 26, 2026];
      5. Scrubbing liquid temperature readings [Construction Permit CP25-014, Condition III.(B)(5)(vi), issued January 26, 2026];
      6. Recirculation liquid inlet temperature [Construction Permit CP25-014, Condition III.(B)(5)(vii), issued January 26, 2026].
    - (ii) Monthly records that document the purchase date, concentration, amount, and type of chemical purchased for chemical injection associated with C-1404A [Construction Permit CP25-014, Condition III.(B)(5)(b), issued January 26, 2026].
    - (iii) Records that document the operating parameters developed during the most recent valid performance test conducted at the facility [Construction Permit CP25-014, Condition III.(B)(5)(c), issued January 26, 2026].
    - (iv) Records that document the date and time of routine observations with a description, including operating parameters, atypical parameters observed, and any corrective actions taken, for each day C-1404A is in operation [Construction Permit CP25-014, Condition III.(B)(5)(d), issued January 26, 2026].

- (v) Records that document corrective action. Each corrective action shall be documented at time of occurrence, including the date, time, observations, and a description of the corrective action [Construction Permit CP25-014, Condition III.(B)(5)(e), issued January 26, 2026].
- (vi) Records that document the date and time of routine maintenance and preventive actions performed and that include a description of the actions performed. [Construction Permit CP25-014, Condition III.(B)(5)(f), issued January 26, 2026].
- (b) The source shall maintain the following records for distillation scrubbers S-1501 and C-11533 [Construction Permit CP24-010, Condition III.(C)(5), issued May 7, 2025]:
  - (i) Records that document the continuously monitored operating parameter data for S-1501 and C-11533, including the date and time of the readings, except as noted. The records shall include: [Construction Permit CP24-010, Condition III.(C)(5)(a), issued May 7, 2025]:
    1. Scrubbing liquid flow rate [Construction Permit CP24-010, Condition III.(C)(5)(a)(i), issued May 7, 2025];
    2. Chemical addition flow rate [Construction Permit CP24-010, Condition III.(C)(5)(a)(ii), issued May 7, 2025];
    3. Scrubber inlet pressure readings [Construction Permit CP24-010, Condition III.(C)(5)(a)(iii), issued May 7, 2025]; and
    4. Daily scrubbing liquid temperature readings [Construction Permit CP24-010, Condition III.(C)(5)(a)(iv), issued May 7, 2025].
  - (ii) Monthly records that document the purchase date, concentration, amount, and type of chemical purchased for chemical injection associated with S-1501 and C-11533. [Construction Permit CP24-010, Condition III.(C)(5)(b), issued May 7, 2025].
  - (iii) Records that document the operating parameters developed during the most recent valid performance test conducted at the facility. [Construction Permit CP24-010, Condition III.(C)(5)(c), issued May 7, 2025].
  - (iv) Records that document the date and time of routine observations with a description, including operating parameters, atypical parameters observed, and any corrective actions taken, for each day S-1501 and C-11533 are in operation. [Construction Permit CP24-010, Condition III.(C)(5)(d), issued May 7, 2025].
  - (v) Records that document corrective action. Each corrective action shall be documented at time of occurrence, including the date, time, observations, and a description of the corrective action. [Construction Permit CP24-010, Condition III.(C)(5)(e), issued May 7, 2025].
  - (vi) Records that document the date and time of routine maintenance and preventive actions performed and that include a description of the actions performed. [Construction Permit CP24-010, Condition III.(C)(5)(f), issued May 7, 2025].
- (c) The source shall keep records of any yeast strains and/or enzyme changes, including the name or identifier of the yeast strain/enzyme and the date the change occurred [Construction Permit CP25-014, Condition III.(B)(5)(g), issued January 26, 2026; Title 129, Chapter 6, 003.11\*; Title 129, Chapter 6, Section 003.11].
- (d) The source shall maintain the following CAM-related records for fermentation scrubber C-1404A [40 CFR 64.9; Title 129, Chapter 6, 010\*; Title 129, Chapter 6, Section 009]:

- (i) Records of all CAM exceedances.
- (ii) Records of all corrective actions taken in response to CAM excursions.
- (iii) The Scrubber feed water flow rate shall be recorded at least once every fifteen minutes.
  - 1. A daily average of readings shall be calculated and recorded.
- (iv) The re-circulation water flow rate shall be recorded at least once every fifteen minutes.
  - 1. A daily average of readings shall be calculated and recorded.
- (v) The Scrubber feed water temperature shall be recorded at least once every fifteen minutes.
  - 1. A daily average of readings shall be calculated and recorded.
- (vi) All reporting and recordkeeping as required by 40 CFR 64.9.
- (e) Except for applicable requirements prescribed in Conditions I and II, this condition establishes no additional specific recordkeeping or reporting requirements for emission points EP-CC-03 and EP-CC-FUG in Condition III.(B)(1).

### III. SPECIFIC CONDITIONS FOR AFFECTED EMISSION POINTS:

#### (E) Specific Conditions for DDGS Conveyance, Drying, Storage, and Loadout

##### (1) Permitted Emission Points:

- (a) The following table identifies emission points, emission units, permitted capacities, permitted fuel types, required control equipment the source must operate, and applicable standards at the source at the time of permit issuance, in accordance with operating permit OP25R1-004, issued September 2, 2025, Construction Permit CP24-010 issued May 7, 2025, Construction Permit CP25-030 issued July 6, 2026, and Significant Operating Permit Revision Application OP26M1-027, received June 9, 2026, including any supporting information received prior to issuance of this permit:

| Control Equipment ID# and Description                                 | Emission Unit Description                                                   | Applicable NSPS Requirements | Applicable NESHAP Requirements |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------|--------------------------------|
| Emission Point ID#: EP-11                                             |                                                                             |                              |                                |
| F-6201: A&B DDGS Transfer Baghouse; installed in 2014 (1984 original) | EU-11.1: A Dryer DDGS Transfer, 100 tons/day (est.); installed in 1984      | None                         | None                           |
|                                                                       | EU-11.2: B Dryer DDGS Transfer, 100 tons/day (est.); installed in 1984      |                              |                                |
| Emission Point ID#: EP-13                                             |                                                                             |                              |                                |
| C-11801: Dryer Scrubber; installed in 1993 (1984 Original)            | EU-13.1: A Dryer, Rotary Steam Disk, 100 tons/day (est.); installed in 2015 | None                         | None                           |
|                                                                       | EU-13.3: B Dryer, Rotary Steam Disk, 100 tons/day (est.); installed in 1993 |                              |                                |
| Emission Point ID#: EP-20                                             |                                                                             |                              |                                |
| N/A                                                                   | EU-20.1: DDGS Loadout, 50 tons/hr; installed in 1984                        | None                         | None                           |
| Emission Point ID#: EP-32-1                                           |                                                                             |                              |                                |
| N/A                                                                   | EU-32.1: West WDGS Storage & Loadout                                        | None                         | None                           |
| Emission Point ID#: EP-32-2                                           |                                                                             |                              |                                |
| N/A                                                                   | EU-32-2: North WDGS Storage & Loadout                                       | None                         | None                           |

##### (2) Emission Limitations and Testing Requirements:

- (a) Pollutant emission rates from each emission point identified in the table below shall not exceed the permitted limits. Performance testing, if required, shall be conducted in accordance with Standard Condition I.(M).

| Pollutant                        | Permitted Limit                                                                                  | Averaging Period                              | Basis for Permit Limit                                                                                                                            | Performance Testing Required |
|----------------------------------|--------------------------------------------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|
| <b>Emission Point ID#: EP-11</b> |                                                                                                  |                                               |                                                                                                                                                   |                              |
| PM (Filterable)                  | 4.33 lb/hr<br>(combined limit with EP-1, EP-2, and EP-3)                                         | Three 1-hour test runs or test method average | Title 129, Chapter 6, Section <u>003.13</u> *;<br>Title 129, Chapter 3*;<br>Title 129, Chapter 6, Section <u>003.13</u> ;<br>Title 129, Chapter 3 | No                           |
| PM <sub>10</sub>                 | 4.33 lb/hr<br>(combined limit with EP-1, EP-2, and EP-3)                                         | Three 1-hour test runs or test method average | Title 129, Chapter 6, Section <u>003.13</u> *;<br>Title 129, Chapter 3*;<br>Title 129, Chapter 6, Section <u>003.13</u> ;<br>Title 129, Chapter 3 | No                           |
| Opacity                          | < 20 Percent <sup>[1]</sup>                                                                      | 6 Minutes                                     | Title 129, Chapter 15, Section <u>001.04</u> *;<br>Title 129, Chapter 15, Section <u>001.04</u>                                                   | No                           |
| <b>Emission Point ID#: EP-13</b> |                                                                                                  |                                               |                                                                                                                                                   |                              |
| VOC                              | 8.30 lb/hr<br>(combined limit with EP-8-4, EP-CC-003, EP-CC-FUG, EP-9, and EP-10) <sup>[2]</sup> | Three 1-hour test runs or test method average | Construction Permit CP24-010, Condition III.(D)(2)(a), issued May 7, 2025                                                                         | Yes <sup>[3]</sup>           |
| Acetaldehyde                     | 2.15 lb/hr<br>(combined limit with EP-8-4, EP-CC-003, EP-CC-FUG, EP-9, and EP-10)                | Three 1-hour test runs or test method average | Construction Permit CP24-010, Condition III.(D)(2)(a), issued May 7, 2025                                                                         | Yes <sup>[3]</sup>           |
| Opacity                          | < 20 Percent <sup>[1]</sup>                                                                      | 6 Minutes                                     | Title 129, Chapter 15, Section <u>001.04</u> *;<br>Title 129, Chapter 15, Section <u>001.04</u>                                                   | No                           |

<sup>[1]</sup> Compliance with Condition III.(E)(3)(d) demonstrates compliance with the Opacity limitation.

<sup>[2]</sup> Expressed as mass of VOC.

<sup>[3]</sup> Performance testing shall be conducted in accordance with Condition III.(E)(2)(b) for VOCs and Acetaldehyde.

- (b) In order to demonstrate compliance with Condition III.(E)(2)(a) and to verify the assumptions used in the permit application, the source shall conduct performance tests for Acetaldehyde and VOC on the DDGS Dryer Scrubber (EP-13). VOC emissions shall be expressed as weight of VOC. The frequency of the testing shall be as follows [Title 129, Chapter 15, Section 005.01\*; Title 129, Chapter 6, Section 003.03\*; Title 129, Chapter 15, Section 005.01; Title 129, Chapter 6, Section 003.03]:
- (i) Performance testing for Acetaldehyde and VOC required by this condition shall be conducted concurrently (during the same testing period) with Acetaldehyde and VOC testing required for emission points EP-8-4, EP-9, and EP-10 per Conditions

III.(B)(2)(b)(ii), (iii) and (iv) [Title 129, Chapter 15, Section 005\*; Title 129, Chapter 15, Section 005].

(3) Operational and Monitoring Requirements:

- (a) PM/PM<sub>10</sub> emissions from the DDGS conveying and storage (EP-11) shall be controlled using a baghouse (F-6201) [Construction Permit CP25-030, Condition III.(F)(3)(a), issued July 6, 2026; Title 129, Chapter 6, Section 003.03\*; Title 129, Chapter 6, Section 003.03].
- (b) VOC emissions from the DDGS drying operations (EU-13.1, and EU-13.3) shall be controlled by a scrubber (C-11801). Operation of the scrubber shall be in accordance with the following requirements [Construction Permit CP24-010, Condition III.(D)(3)(a), issued May 7, 2025; Title 129, Chapter 6, Section 003.03\*; Title 129, Chapter 6, Section 003.03]:
  - (i) The scrubber shall be operated and be controlling emissions at all times when the associated emission units are in operation. [Construction Permit CP24-010, Condition III.(D)(3)(a)(i), issued May 7, 2025]
  - (ii) The scrubber shall be properly designed, installed, operated and maintained. The manufacturer's operation and maintenance manual, or its equivalent, detailing proper operation, inspection and maintenance of the scrubber shall be kept on site and readily available to DWEE representatives [Title 129, Chapter 6, Section 003.03\*; Title 129, Chapter 6, Section 003.03].
  - (iii) The scrubber shall be equipped with devices capable of monitoring the following operating parameters in the manner described below [Construction Permit CP24-010, Condition III.(D)(3)(a)(ii), issued May 7, 2025; Title 129, Chapter 6, Section 003.03\*; Title 129, Chapter 6, Section 003.03]:
    - 1. Scrubbing liquid flow rate and recirculation liquid flow rate shall each be monitored and recorded continuously;
    - 2. Chemical addition flow rate shall be monitored and recorded continuously if chemical addition is utilized;
    - 3. Scrubber inlet pressure shall be monitored and recorded continuously; and,
    - 4. Scrubbing recirculation liquid temperature shall be monitored and recorded continuously.
  - (iv) If chemical addition is utilized the total monthly amount of chemical, in gallons, added to the scrubber shall be monitored and recorded by the source [Construction Permit CP24-010, Condition III.(D)(3)(a)(iii), issued May 7, 2025; Title 129, Chapter 6, Section 003.03\*; Title 129, Chapter 6, Section 003.03].
  - (v) If chemical addition is utilized, chemical draw down checks shall be performed upon request by DWEE personnel to verify that the flow meter is working correctly [Construction Permit CP24-010, Condition III.(D)(3)(a)(iv), issued May 7, 2025].
  - (vi) The scrubber operating parameters shall be maintained as described below [Construction Permit CP24-010, Condition III.(D)(3)(a)(v), issued May 7, 2025; Chapter 6, Section 003.03\*; Title 129, Chapter 6, Section 003.03]:
    - 1. The scrubbing recirculation liquid temperature shall be maintained at the levels recorded during the most recent valid performance test, which shall mean at or below the tested levels(s) under normal operating conditions.

2. The scrubbing liquid flow rates, recirculation liquid flow rates, flow rate of chemical additions (if chemical addition is utilized), and concentration of the chemical injected (if chemical addition is utilized) into the scrubber shall be maintained at or above the levels recorded during testing. Chemical concentration, as documented by the supplier, shall be recorded upon use of the chemical.
- (vii) Observations at least once each day during daylight hours of scrubber operation shall be conducted to determine whether there are atypical operating parameters, visible leaks, noise, or other indications that corrective action is necessary. If corrective action is necessary, it shall occur immediately [Construction Permit CP24-010, Condition III.(D)(3)(a)(vi), issued May 7, 2025; Title 129, Chapter 6, Section 003.03\*; Title 129, Chapter 6, Section 003.03].
- (viii) Flow meters for recording scrubbing liquid, recirculation liquid, and chemical addition flow rates (if chemical addition is utilized) shall be maintained and calibrated according to manufacturer's instructions [Construction Permit CP24-010, Condition III.(D)(3)(a)(vii); Title 129, Chapter 6, Section 003.03\*; Title 129, Chapter 6, Section 003.03].
- (c) The operation of the baghouse (F-6201) shall be in accordance with the following requirements [Construction Permit CP25-030, Condition III.(F)(3)(b), issued July 6, 2026; Title 129, Chapter 6, Section 003.13\*; Title 129, Chapter 6, Section 003.13]:
  - (i) The baghouse shall be operated at all times the associated equipment is in operation.
  - (ii) The baghouse shall be properly installed, operated, and maintained. Manufacturer's instructions, if available, shall be kept on site and readily available to DWEE representatives.
  - (iii) The baghouse shall be equipped with an operational pressure differential indicator. The pressure differential indicator readings shall be recorded at least once each day that the associated baghouse is operating. The pressure indicator shall be properly installed, operated, calibrated, and maintained. The manufacturer's operation and maintenance manual, or its equivalent, detailing proper operation, inspection, and maintenance of the equipment shall be kept on site and readily available to DWEE representatives.
  - (iv) Routine observations (at least once each day of baghouse operation) shall be conducted to determine whether there are visible emissions from the stack, leaks or noise, atypical pressure differential readings, or other indicators, which may necessitate corrective action. Corrective action shall be taken immediately if necessary.
  - (v) Collected waste material from the baghouse shall be handled, transported, and stored in a manner that ensures compliance with Condition I.(L).
  - (vi) Baghouse filter bags are to be inspected and/or replaced according to the operation and maintenance manual or more frequently as indicated by pressure differential indicator readings or other indication of bag failure.
- (d) A source representative shall conduct visible emissions surveys for emission point EP-11 on a daily basis. These surveys shall be conducted during daylight hours while each emission unit is operating under normal conditions [Title 129, Chapter 6, Section 003.03\*; Title 129, Chapter 6, Section 003.03].

- (i) For deviation reporting purposes, visible emissions (excluding water vapor) from any emission point shall be considered a deviation and shall be reported in accordance with Condition II.(A).

(4) Recordkeeping and Reporting Requirements:

- (a) The source shall maintain the following records for the scrubber (C-11801) [Construction Permit CP24-010, Condition III.(D)(5), issued May 7, 2025; Title 129, Chapter 6, Section 003.03\*; Title 129, Chapter 6, Section 003.03]:
  - (i) Records that document the operating parameters developed during the most recent valid performance test conducted at the facility [Construction Permit CP24-010, Condition III.(D)(5)(c), issued May 7, 2025].
  - (ii) Records documenting date and time of routine observations with a description, including operating parameters (e.g. pressure readings, scrubbant flow rates), atypical parameters observed, and any corrective actions taken, for each day the scrubber (C-11801) is in operation [Construction Permit CP24-010, Condition III.(D)(5)(d), issued May 7, 2025; Title 129, Chapter 6, Section 003.03\*; Title 129, Chapter 6, Section 003.03].
  - (iii) Records documenting equipment failures, malfunctions, or other variations, including date and time of occurrence, observations, remedial action taken, and when corrections were made to the scrubber (C-11801) [Construction Permit CP24-010, Condition III.(D)(5)(e), issued May 7, 2025; Title 129, Chapter 6, Section 003.03\*; Title 129, Chapter 6, Section 003.03].
  - (iv) Records documenting the date and time when routine maintenance and corrective actions were performed with a description of the maintenance and/or corrective action performed [Construction Permit CP24-010, Condition III.(D)(5)(f), issued May 7, 2025].
  - (v) Records that document the operating parameter data for the scrubber (C-11801), including the date and time of the readings. The records shall include [Construction Permit CP24-010, Condition III.(D)(5)(a), issued May 7, 2025; Title 129, Chapter 6, Section 003.03\*; Title 129, Chapter 6, Section 003.03]:
    - 1. Continuous scrubbing liquid flow rate and recirculation liquid flow rate data;
    - 2. Continuous chemical addition flow rate data if chemical addition is utilized;
    - 3. Continuous scrubber recirculation liquid temperature readings; and
    - 4. Continuous inlet pressure readings.
  - (vi) If chemical addition is utilized, monthly records that document the amount, concentration, and type of chemical injected into the water supplied to the scrubber [Construction Permit CP24-010, Condition III.(D)(5)(b), issued May 7, 2025].
  - (vii) If chemical addition is utilized, monthly records that document the purchase date, concentration, amount, and type of chemical purchased for chemical injection associated with the scrubber [Construction Permit CP24-010, Condition III.(D)(5)(b), issued May 7, 2025].
- (c) Inspection and maintenance records for the baghouse (F-6201), to demonstrate compliance with Condition III.(E)(3)(c) shall include the following [Construction Permit CP25-030, Condition III.(F)(5)(b), issued July 6, 2026; Title 129, Chapter 6, Section 003.03\*; Title 129, Chapter 6, Section 003.03]:

- (i) Records documenting when routine observations were performed with a description including pressure differential readings and any atypical observations.
  - (ii) Records documenting when routine maintenance and corrective actions were performed with a description of the maintenance and/or corrective action performed.
  - (iii) Records documenting the date, time, and pressure differential reading for each day the baghouse is in operation.
  - (iv) Filter replacement records including filter type, and date of filter installation.
  - (v) Records documenting equipment failures, malfunctions, or other variations, including time of occurrence, remedial action taken, and when corrections were made.
- (d) The results of each visible emissions survey for emission point (EP-11) shall be recorded in a log, which shall include, at a minimum, the following items [Title 129, Chapter 6, Section 003.03\*; Title 129, Chapter 6, Section 003.03]:
- (i) The emission points included in the survey.
  - (ii) All emission points from which visible emissions occurred (except for water vapor).
  - (iii) Emission points for which the emission units were not in operation during the survey.
  - (iv) Each survey shall be dated and initialed by the person conducting the visible emissions survey.

### III. SPECIFIC CONDITIONS FOR AFFECTED EMISSION POINTS:

#### (F) Specific Conditions for Equipment Leaks

##### (1) Permitted Emission Points:

- (a) The following table identifies emission points, emission units, permitted capacities, permitted fuel types, required control equipment the source must operate, and applicable standards at the source at the time of permit issuance, in accordance with operating permit OP25R1-004, issued September 2, 2025, Construction Permit CP25-014 issued January 26, 2026, and Significant Operating Permit Revision Application OP26M1-027, received June 9, 2026, including any supporting information received prior to issuance of this permit:

| Control Equipment ID# and Description | Emission Unit Description                                                                                                                                                                                                                                  | Applicable NSPS Requirements                                                                                             | Applicable NESHAP Requirements |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>Emission Point ID#: EP-24</b>      |                                                                                                                                                                                                                                                            |                                                                                                                          |                                |
| None                                  | Each applicable valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, flange, or other connector in VOC service and any device or system required by NSPS Subpart VV located throughout the ethanol plant | 40 CFR Part 60, Subpart A; Title 129, Chapter 12, Section <u>001.01</u> *; Title 129, Chapter 12, Section <u>001.01</u>  | None                           |
|                                       |                                                                                                                                                                                                                                                            | 40 CFR Part 60, Subpart VV; Title 129, Chapter 12, Section <u>001.50</u> *; Title 129, Chapter 12, Section <u>001.50</u> | None                           |

##### (2) Emission Limitations and Testing Requirements:

- (a) The source shall comply with all applicable emission limitations and testing requirements in NSPS Subpart VV for emission point EP-24 [40 CFR 60 Subparts A and VV; Construction Permit CP25-014, Condition III.(E)(2), issued January 26, 2026].
- (i) The source is subject to the applicable testing requirements of 40 CFR 60.485.
- Method 21 shall be used to determine the presence of leaking sources [40 CFR 60.485(b)(1)]
  - Method 21 shall be used to determine the background level [40 CFR 60.485(c)(2)]
  - Procedures that conform to the general methods in ASTM E-260, E-168, E-169 (incorporated by reference – see §60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment [40 CFR 60.485(d)(1)].
  - Standard reference texts or ASTM D-2879 (incorporated by reference – see §60.17) shall be used to determine the vapor pressure of the components in the liquid in the light liquid service. [40 CFR 60.485(e)(1)]

(3) Operational and Monitoring Requirements:

- (a) The source shall comply with all applicable operational and monitoring requirements in NSPS Subpart VV for emission units listed under emission point EP-24 [40 CFR 60 Subparts A and VV; Construction Permit CP25-014, Condition III.(E)(3), issued January 26, 2026].
  - (i) Equipment under this subpart is defined as each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service and any devices or systems required by this subpart (40 CFR 60.481) [Construction Permit CP25-014, Condition III.(E)(3)(a), issued January 26, 2026].
  - (ii) Emissions will be controlled by the Leak Detection and Repair Program as defined in 40 CFR 60.482-1 through 60.482-10 as required [Construction Permit CP25-014, Condition III.(E)(3)(a)(1), issued January 26, 2026].

(4) Recordkeeping and Reporting Requirements:

- (a) The source shall keep records including the date in which leak detection testing occurred, which valves, pumps, seals, open-ended lines, flanges, connectors, etc. were tested, and name of the individual who conducted the testing [Construction Permit CP25-014, Condition III.(E)(5), issued January 26, 2026; Title 129, Chapter 6, 003.03\*; Title 129, Chapter 6, 003.03].
- (b) The owner or operator shall submit a leak detection and repair report every six (6) calendar months to the Department. The initial semi-annual report shall be submitted beginning six (6) months after the initial startup date [60.487 (a)]. Subsequent reports for each six (6) calendar month reporting period shall be submitted within 45 days following June 30 and December 31 of each year. Each report must be certified by a responsible official and include the following items [Construction Permit CP25-014, Condition III.(E)(3)(a)(1), issued January 26, 2026; Title 129, Chapter 6, 003.03\*; Title 129, Chapter 6, 003.03]:
  - (i) Date and time testing occurred;
  - (ii) Name of individual who conducted the testing; and
  - (iii) Additional information required to be reported to the Department in accordance with 40 CFR 60.480.
- (c) The source shall comply with all applicable recordkeeping and reporting requirements in NSPS Subpart VV for emission point EP-24 [40 CFR 60 Subparts A and VV; Construction Permit CP25-014, Condition III.(E)(5), issued January 26, 2026].
  - (i) The source is subject to the applicable recordkeeping and reporting requirements of 40 CFR 60.486 and 60.487.

**Attachment C:**  
**Compliance Assurance Monitoring Plan**  
**Fermentation Scrubber #4 (C-1401A)**

## MONITORING APPROACH SUBMITTAL

### XIII. Background

#### a. Emission Unit

Description: Fermentation Scrubber #4<sup>1</sup>  
Identification: C-1404A (EP 8-4)  
Facility: Chief Ethanol Fuels, Inc.  
Hastings, Nebraska

#### b. Applicable Regulation, Emission Limit, and Monitoring Requirements

Emission Limits and Regulation:

*Volatile Organic Compounds (VOC) –EP-8-4, EP-CC-03,  
EP-CC-FUG*

8.30 lb/hr combined emission limit, three 1-hour test runs or test method average –  
Construction Permit CP25-014 Condition III.(B), issued January 26, 2026, and Title  
129, Chapter 3

*Hazardous Air Pollutants (HAPs) – EP-8-4, EP-CC-03,  
EP-CC-FUG*

2.15 lb/hr combined limit for Acetaldehyde, three 1-hour test runs or test method  
average – Construction Permit CP25-014 Condition III.(B), issued January 26, 2026,  
and Title 129, Chapter 3

Monitoring requirements: Monitor scrubber feed water flow rate, recirculation  
water flow rate, scrubber feed water temperature, and  
recirculation water inlet temperature

#### c. Control Technology

CO<sub>2</sub> Scrubber

### XIV. Monitoring Approach

The key elements of the monitoring approach are presented in the following table:

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<sup>1</sup> Per the Department's guidance on CAM applicability, if multiple emission units are controlled by the same pollution control device, then CAM shall be assessed based upon the sum of the uncontrolled emissions at the inlet of the pollution control device. This Monitoring Plan has been completed accordingly for the group of multiple emission units that are controlled by the same pollution control device, as allowed by 40 CFR 64.4(f).

#### MONITORING APPROACH

|                                       |                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                   |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I. Indicator                          | Scrubber Feed Water Flow Rate                                                                                                                                                                                                                                                                       | Scrubber Feed Water Temperature                                                                                                                                                                                                                                                   |
| Measurement Approach                  | The scrubber flow rate is measured by a flow meter.                                                                                                                                                                                                                                                 | The temperature is measured by thermocouple.                                                                                                                                                                                                                                      |
| II. Indicator Range                   | An exceedance is defined as a daily average scrubber feed water flow rate of less than the average gallons-per-minute (gpm) flow rate established during the most recent valid performance test. Exceedances trigger a response per 40 CFR 64.7(d) and reporting and recordkeeping per 40 CFR 64.9. | An exceedance is defined as a daily average scrubber feed water temperature of greater than the average temperature established during the most recent valid performance test. Exceedances trigger a response per 40 CFR 64.7(d) and reporting and recordkeeping per 40 CFR 64.9. |
| III. Performance Criteria             |                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                   |
| A. Data Representativeness            | The scrubber feed water flow rate is measured using a flow meter located in the scrubber feed water line.                                                                                                                                                                                           | The scrubber feed water temperature is measured using a thermocouple located in the scrubber feed water line.                                                                                                                                                                     |
| B. Verification of Operational Status | NA                                                                                                                                                                                                                                                                                                  | NA                                                                                                                                                                                                                                                                                |
| C. QA/QC Practices and Criteria       | Annual calibration/instrument check. Acceptance criteria: +/- 5 percent of measured value.                                                                                                                                                                                                          | Annual calibration/instrument check. Acceptance criteria: +/- 5 percent of measured value.                                                                                                                                                                                        |
| D. Monitoring Frequency               | Measured continuously.                                                                                                                                                                                                                                                                              | Measured continuously                                                                                                                                                                                                                                                             |
| Data Collection Procedure             | Recorded at least once every fifteen minutes.                                                                                                                                                                                                                                                       | Recorded at least once every fifteen minutes.                                                                                                                                                                                                                                     |
| Averaging Period                      | A daily average of readings is calculated and recorded.                                                                                                                                                                                                                                             | A daily average of readings is calculated and recorded.                                                                                                                                                                                                                           |

### MONITORING APPROACH

| I. Indicator                          | Scrubber Re-circulation Flow Rate                                                                                                                                                                                                                                                                            | Scrubber Re-circulation Water Temperature                                                                                                                                                                                                                                                   |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measurement Approach                  | The scrubber re-circulation flow rate is measured by a flow meter.                                                                                                                                                                                                                                           | The temperature is measured by a thermocouple.                                                                                                                                                                                                                                              |
| II. Indicator Range                   | An exceedance is defined as a daily average scrubber re-circulation water flow rate of less than the average gallon-per-minute (gpm) flow rate established during the most recent valid performance test. Exceedances trigger a response per 40 CFR 64.7(d) and reporting and recordkeeping per 40 CFR 64.9. | An exceedance is defined as a daily average scrubber re-circulation water temperature of greater than the average temperature established during the most recent valid performance test. Exceedances trigger a response per 40 CFR 64.7(d) and reporting and recordkeeping per 40 CFR 64.9. |
| III. Performance Criteria             |                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                             |
| A. Data Representativeness            | The scrubber re-circulation water flow rate is measured using a flow meter located in the scrubber re-circulation water line.                                                                                                                                                                                | The scrubber re-circulation water temperature is measured using a thermocouple located in the re-circulation inlet line.                                                                                                                                                                    |
| B. Verification of Operational Status | NA                                                                                                                                                                                                                                                                                                           | NA                                                                                                                                                                                                                                                                                          |
| C. QA/QC Practices and Criteria       | Annual calibration/instrument check. Acceptance criteria: +/- 5 percent of measured value.                                                                                                                                                                                                                   | Annual calibration/instrument check. Acceptance criteria: +/- 5 percent of measured value.                                                                                                                                                                                                  |
| D. Monitoring Frequency               | Measured continuously.                                                                                                                                                                                                                                                                                       | Measured continuously                                                                                                                                                                                                                                                                       |
| Data Collection Procedure             | Recorded at least once every fifteen minutes.                                                                                                                                                                                                                                                                | Recorded at least once every fifteen minutes.                                                                                                                                                                                                                                               |
| Averaging Period                      | A daily average of readings is calculated and recorded.                                                                                                                                                                                                                                                      | A daily average of readings is calculated and recorded.                                                                                                                                                                                                                                     |

## JUSTIFICATION

### XVIII. Background

Chief Ethanol Fuels, Inc. uses a continuous fermentation process to produce ethanol. Scrubber C-1404A is used to control emissions from the fermentation process. The scrubber is used to reduce VOC and HAP emissions.

### XIX. Rationale for Selection of Performance Indicators

The emissions from the fermenters and beer well are controlled using a packed bed water scrubber. The performance indicators selected are water injection flow rate to the scrubber and scrubber water temperature. To achieve the desired VOC emission reduction, a minimum water flow rate must be supplied to absorb the given amount of VOC in the gas stream, given the size of the tower and height of the packed bed. The liquid-to-gas (L/G) ratio is a key operating parameter of the scrubber. If the L/G ratio decreases below a certain level, sufficient mass transfer of the pollutant from the gas phase to the liquid phase will not occur. The minimum liquid flow required to maintain the proper L/G ratio at the maximum gas flow and vapor loading through the scrubber can be determined. Maintaining this minimum liquid flow, even during periods of reduced gas flow, will ensure the required L/G ratio is achieved at all times. A water flow and re-circulation rates that ensure compliance with the applicable emission limit were established during testing conducted at maximum capacity. Maintaining these water flow rates will ensure an adequate L/G ratio to ensure compliance with the applicable emission limit.

The scrubber water and re-circulation water temperatures will be monitored and maintained below established temperature levels because temperature affects solubility. In particular, scrubbing efficiency decreases with increasing scrubber water temperature. This parameter is included because Chief has some operational control over scrubber water temperature and because an existing permit establishes temperature as a monitored and maintained parameter.

Finally, the performance indicators selected include, at a minimum, the parameters specified in EPA's Example Monitoring Approach Submittal, Appendix A.4, of the CAM Technical Guidance. In accordance with 40 CFR 64, the selected performance indicators are considered to be presumptively acceptable CAM monitoring.

### XX. Rationale for Selection of Indicator Ranges

The indicator ranges chosen for an exceedance for the system are a daily average scrubber feed water flow rate that is less than the average gallon-per-minute (gpm) scrubber water flow rate established during the most recent valid performance test, and a daily average scrubber water temperature that is greater than the average temperature of the scrubber water established during the most recent valid performance test. No changes to the system have taken place that could result in a significant change in the control system performance or the selected ranges or designated conditions for the indicators to be monitored since the performance test was conducted. The daily averaging period for an exceedance is consistent with EPA's Appendix A.4 because parameters are maintained historically at relatively constant rates; and it is consistent with an existing permit requirement. In addition, compliance can reasonably be assured on the basis of this averaging period because Chief uses a continuous fermentation process.