Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Biomass Receiving Building, EU044 Maximum Capacity = 180 tons/hour
Control Equipment:	None
Emission Point:	SV031
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
10-A-337-S2	13-379	Modify Stack Characteristics	11/22/13	Yes

Under the Direction of the Director of
the Department of Natural Resources

[SMC]

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PERMIT CONDITIONS

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment[1] (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

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5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:
   (1) Per 567 IAC 22.3(3)"b":
      (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
      (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
      (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
      (b) at least seven (7) days before equipment relocation.
   (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

      Air Quality Bureau
      Iowa Department of Natural Resources
      7900 Hickman Road, Suite 1
      Windsor Heights, IA 50324

      and include the following information:
      - The date of ownership change,
      - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
      - The construction permit number(s) of the equipment changing ownership.
   (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
      - the time,
      - the place,
      - the name of the person who will conduct the tests,
      - and other information as required by the Department;

      If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:
   (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
   (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
   (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
   (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.66[3]	NA	0.1 gr/dscf	23.4(7)
PM_{10}	0.35[3]	NA	NA	NAAQS
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	No VE[4]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_x)	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] Emission limits established to restrict the facilities potential to emit for Project 10-141 below PSD major thresholds (Synthetic Minor). In addition, this emission rate was used to demonstrate no predicted exceedences of the National Ambient Air Quality Standards for PM_{10}.
[4] An opacity of "No Visible Emissions" is established in lieu of stack testing for PM and PM_{10}. The opacity test shall be performed during loading operations; however, the limit of No Visible Emissions applies at all times.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	51.25
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	55.25
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (scfm)	25,000

The emission point consists of four separate exhaust fans, each with the parameters in the above table.

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	No	NA	NA
$PM_{2.5}$	No	NA	NA
Opacity	Yes	Stack Testing	NA[1]
SO_2	No	NA	NA
NO_x	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
Individual HAP	No	NA	NA
Total HAP	No	NA	NA

[1] The facility shall test for opacity during loading operations. Should visible emissions be observed during the initial compliance demonstration additional stack testing for opacity, PM, and/or PM10 may be required.

If an initial compliance demonstration specified above is testing, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 22
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 25A
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS) at this time.

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

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14. Operating Limits

This permit does not set any operating limits for the emission unit, at this time.

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15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner.

This permit does not require operating condition monitoring, at this time.

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16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
10-A-337	10-141	Original Permit	08/27/10	Yes
10-A-337-S1	12-424	Modify Process	04/03/13	Yes

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Biomass Shredding, EU045 Maximum Capacity = 70 tons/hour
Control Equipment:	Pulse Jet Baghouse, CE027
Emission Point:	SV032
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
10-A-338-S2	13-379	Modify Stack Characteristics	11/22/13	Yes

Under the Direction of the Director of
the Department of Natural Resources

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No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Owner and Operator Responsibility

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Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment[1] (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

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5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:
   (1) Per 567 IAC 22.3(3)"b":
      (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
      (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
      (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
      (b) at least seven (7) days before equipment relocation.
   (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

      Air Quality Bureau
      Iowa Department of Natural Resources
      7900 Hickman Road, Suite 1
      Windsor Heights, IA 50324

      and include the following information:
      - The date of ownership change,
      - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
      - The construction permit number(s) of the equipment changing ownership.
   (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
      - the time,
      - the place,
      - the name of the person who will conduct the tests,
      - and other information as required by the Department;

      If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:
   (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
   (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
   (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
   (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	1.54[5]	NA	0.1 gr/dscf	23.4(7)
PM_{10}	1.54[6]	NA	NA	NAAQS
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	40%[3][4]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_x)	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] The emission limit is a six (6) minute average.
[4] An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
[5] Emission limit for PM established to restrict potential emissions from this emission point.
[6] The limit for PM_{10} emissions is established to restrict emissions below levels that predict exceedances of the 24-hour NAAQS and the annual NAAQS for PM_{10}.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	22
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	45
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (scfm)	45,000

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	Yes	Stack Testing	One-time
$PM_{2.5}$	No	NA	NA
Opacity	Yes	Stack Testing	One-time
SO_2	No	NA	NA
NO_x	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
Individual HAP	No	NA	NA
Total HAP	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 22
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 25A
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS) at this time.

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

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14. Operating Limits

This permit does not set any operating limits for the emission unit, at this time.

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15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner.

This permit does not require operating condition monitoring, at this time.

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16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
10-A-338	10-141	Original Permit	08/27/10	Yes
10-A-338-S1	12-424	Modify Process	04/03/13	Yes

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Fines Transfer, EU047 Maximum Capacity = 5 tons/hour
Control Equipment:	Pulse Jet Baghouse, CE029
Emission Point:	SV034
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
10-A-340-S2	13-379	Modify Stack Characteristics	11/22/13	No

Under the Direction of the Director of
the Department of Natural Resources

[SMC]

¦CPFP¦7401022¦11222013¦13379¦10A340S2¦

PERMIT CONDITIONS

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment[1] (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:
   (1) Per 567 IAC 22.3(3)"b":
      (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
      (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
      (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
      (b) at least seven (7) days before equipment relocation.
   (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

      Air Quality Bureau
      Iowa Department of Natural Resources
      7900 Hickman Road, Suite 1
      Windsor Heights, IA 50324

      and include the following information:
      - The date of ownership change,
      - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
      - The construction permit number(s) of the equipment changing ownership.
   (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
      - the time,
      - the place,
      - the name of the person who will conduct the tests,
      - and other information as required by the Department;

      If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:
   (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
   (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
   (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
   (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.20[5]	NA	0.1 gr/dscf	23.4(7)
PM_{10}	0.20[6]	NA	NA	NAAQS
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	40%[3][4]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_x)	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] The emission limit is a six (6) minute average.
[4] An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
[5] Emission limit for PM established to restrict potential emissions from this emission point.
[6] The limit for PM_{10} emissions is established to restrict emissions below levels that predict exceedances of the 24-hour NAAQS and the annual NAAQS for PM_{10}.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	10
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	15
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (scfm)	5,000

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	No	NA	NA
$PM_{2.5}$	No	NA	NA
Opacity	No	NA	NA
SO_2	No	NA	NA
NO_x	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
Individual HAP	No	NA	NA
Total HAP	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 25A
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

---

13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS) at this time.

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

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14. Operating Limits

This permit does not set any operating limits for the emission unit, at this time.

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15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner.

This permit does not require operating condition monitoring, at this time.

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16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
10-A-340	10-141	Original Permit	08/27/10	No
10-A-340-S1	12-424	Modify Process	04/03/13	No

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Pre-Steaming Bin Vent, EU048 Maximum Capacity = 770 tons/day
Control Equipment:	None
Emission Point:	SV035
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
10-A-341-S2	13-379	Modify Stack Characteristics	11/22/13	No

Under the Direction of the Director of
the Department of Natural Resources

[SMC]

¦CPFP¦7401022¦11222013¦13379¦10A341S2¦

PERMIT CONDITIONS

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment[1] (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

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5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:
   (1) Per 567 IAC 22.3(3)"b":
      (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
      (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
      (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
      (b) at least seven (7) days before equipment relocation.
   (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

      Air Quality Bureau
      Iowa Department of Natural Resources
      7900 Hickman Road, Suite 1
      Windsor Heights, IA 50324

      and include the following information:
      - The date of ownership change,
      - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
      - The construction permit number(s) of the equipment changing ownership.
   (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
      - the time,
      - the place,
      - the name of the person who will conduct the tests,
      - and other information as required by the Department;

      If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:
   (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
   (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
   (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
   (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.01[5]	NA	0.1 gr/dscf	23.4(7)
PM_{10}	0.01[6]	NA	NA	NAAQS
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	40%[3][4]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_x)	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] The emission limit is a six (6) minute average.
[4] An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
[5] Emission limit for PM established to restrict potential emissions from this emission point.
[6] The limit for PM_{10} emissions is established to restrict emissions below levels that predict exceedances of the 24-hour NAAQS and the annual NAAQS for PM_{10}.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	100
Discharge Style	Horizontal
Stack Opening (inches, diameter)	24
Exhaust Temperature (°F)	180
Exhaust Flowrate (scfm)	1530

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	No	NA	NA
$PM_{2.5}$	No	NA	NA
Opacity	No	NA	NA
SO_2	No	NA	NA
NO_x	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
Individual HAP	No	NA	NA
Total HAP	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 25A
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

---

13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS) at this time.

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

---

14. Operating Limits

This permit does not set any operating limits for the emission unit, at this time.

---

15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner.

This permit does not require operating condition monitoring, at this time.

---

16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
10-A-341	10-141	Original Permit	08/27/10	No
10-A-341-S1	12-424	Modify Process	04/03/13	No

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Liberty Fermentation & Distillation Process, EU050 (See Permit Condition 11 for list) Maximum Capacity = 2800 gallons/hour (200-proof ethanol)
Control Equipment:	Packed Bed Scrubber, CE031
Emission Point:	SV036
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
10-A-343-S2	13-379	Modify Stack Characteristics	11/22/13	Yes

Larry Smith

Under the Direction of the Director of
the Department of Natural Resources

[SMC]

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PERMIT CONDITIONS

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment[1] (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

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5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:
   (1) Per 567 IAC 22.3(3)"b":
      (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
      (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
      (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
      (b) at least seven (7) days before equipment relocation.
   (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

      Air Quality Bureau
      Iowa Department of Natural Resources
      7900 Hickman Road, Suite 1
      Windsor Heights, IA 50324

      and include the following information:
      - The date of ownership change,
      - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
      - The construction permit number(s) of the equipment changing ownership.
   (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
      - the time,
      - the place,
      - the name of the person who will conduct the tests,
      - and other information as required by the Department;

      If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:
   (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
   (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
   (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
   (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.20[5]	NA	0.1 gr/dscf	23.4(7)
PM_{10}	0.20[6]	NA	NA	NAAQS
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	40%[3][4]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_x)	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	7.0[5]	NA	NA	Synthetic Minor
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
(Single HAP)	0.27[7]	9.4[8]	NA	Synthetic Minor
(Total HAP)	0.50[7]	24.4[8]	NA	Synthetic Minor

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] The emission limit is a six (6) minute average.
[4] An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
[5] Emission limit established to restrict potential emissions from this emission point.
[6] The limit for PM_{10} emissions is established to restrict emissions below levels that predict exceedances of the 24-hour NAAQS and the annual NAAQS for PM_{10}.
[7] Emission limit required to maintain synthetic minor status for 112(g) and/or any applicable NESHAP. The specific Individual HAP are primarily acetaldehyde, acrolein, formaldehyde, and methanol. The emission limit applies to each individual HAP separately.
[8] Plant wide limit on HAP to keep the facility a synthetic minor for 112(g) and/or any applicable NESHAP.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	33
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	16
Exhaust Temperature (°F)	70
Exhaust Flowrate (scfm)	6100

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

11. Emission Point Characteristics (Continued)

The following equipment vents emissions to the Packed Bed Scrubber, CE031, directly or indirectly, and the associated emission points (SV036 or SV058):

Emission Unit	Maximum Capacity
5 Fermenters	783,000 gallons each
Beerwell	914,000 gallons
3 Seed Fermenters	90,000 gallons each
Slurry Tank	15,500 gallons
4 Liquefaction Tanks	90,000 gallons each
200 Proof Condenser	60 gallons/minute
190 Proof Condenser	16,000 gallons per hour
Regen Tank Vent	na
Distillation Vacuum Vent	na
12 Evaporators	10,000 gallons/hr (each)
3 Molecular Sieves	4,000 gallons/hr (each)
Saccharification (9 tanks)	706,000 gallons each

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	No	NA	NA
$PM_{2.5}$	No	NA	NA
Opacity	No	NA	NA
SO_2	No	NA	NA
NO_x	No	NA	NA
VOC[2]	Yes	Stack Test[1]	See Footnote (1)
CO	No	NA	NA
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
Individual HAP[3]	Yes	Stack test[1]	See Footnote (1)
Total HAP	Yes	Stack test[1]	See Footnote (1)

[1] Initial stack testing shall be conducted in a manner to verify compliance with all emission limitations with all equipment operating in a worst case scenario. Stack testing shall be required after emissions have been vented through this emission point for 500 hours and for each year that emissions are vented through this emission point for more than 1000 hours/calendar year.
[2] VOC compliance testing may be determined using the sum of the Method 320 or Method 18 results.
[3] Acrolein, acetaldehyde, formaldehyde and methanol shall be tested for specifically. With the exception of acrolein, acetaldehyde, formaldehyde and methanol, any HAP whose emissions are below the detection limit shall be assumed to be zero.

If an initial compliance demonstration specified above is testing, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

12. Compliance Demonstration(s) (Continued)

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18 or 320

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This facility has process units that are subject to NSPS Subpart VV – *Standard of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry*. However, the facility has chosen to comply with the provisions of NSPS subpart VVa (40 CFR Part 60 §60.480a) to satisfy the requirements of NSPS Subpart VV. The facility is also subject to Subpart A (*General Provisions*).

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

14. Operating Limits

Operating limits for this permit shall be:

A. The owner and operator shall follow the applicable standards of Subpart VVa, 40 CFR 60.480a through 60.489a.

B. The scrubber (CE31) shall maintain an average pressure drop across the wet scrubber that is between 2 and 12 inches water column based on a 24-hour averaging period. POET Biorefining shall establish an alarm setting for the purpose of initiating corrective action based on a pressure drop across the wet scrubber of less than 2 inch water column or a pressure drop across the wet scrubber of greater than 12 inches water column.

C. The scrubber (CE31) shall have a minimum scrubber liquid (water) flow rate equal to or greater than 20 gallons per minute.

D. Any additive added to the scrubber liquid during a compliance test to enhance the efficiency of the scrubber shall be added at a rate greater than or equal to the rate recorded during a previous performance test that demonstrated compliance with all applicable emission limitations.

E. The owner or operator shall inspect and maintain the control equipment according to manufacturer's recommendations.

15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

A. The owner or operator shall keep records of control equipment inspection and maintenance.

B. The owner or operator shall keep records for Subpart VVa as required in 40 CFR 60.486a, and reports as required in 40 CFR 60.487a.

C. Record the scrubber pressure drop on a continuous basis. On those days when there is an alarm for the pressure drop reaching less than 2 inches water column or greater than 12 inches water column, calculate and record the average pressure drop across the scrubber based on a 24-hour average. This requirement shall not apply on the days that the scrubber is not in operation. If the pressure drop deviates outside the range required, then record the time, date and actions taken to correct the situation and when the pressure drop is back in the average pressure drop range required.

D. Record the scrubber liquid (water) flow rate on a continuous basis. If the flow rate deviates below the minimum flow rate required (i.e., 20 gallons per minute), then record the time, date and actions taken to correct the situation and when the flow rate is back above the minimum flow rate required.

E. Record the rate of additive added (additive feed rate) to the scrubber liquid on a continuous basis. If the additive feed rate deviates below the rate required (i.e., additive feed rate during a previous performance test that demonstrated compliance), then record the time, date and actions taken to correct the situation and also when the additive feed rate is greater than or equal to the required additive feed rate.

F. Maintain onsite a copy of the previous performance tests for each scrubber operating scenario detailing scrubber pressure drop, scrubber liquid flow rate, and additive feed rate measured during each performance test, which demonstrated compliance with Permit Condition 10.

16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
10-A-343	10-141	Original Permit	08/27/10	Yes
10-A-343-S1	12-424	Modify Process	04/03/13	Yes

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Liberty Biogas Flare, EU051
Control Equipment:	Flare, CE033
Emission Point:	SV038
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
10-A-344-S2	13-379	Modify Operating Conditions	11/22/13	No

Under the Direction of the Director of
the Department of Natural Resources

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No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

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Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

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[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

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This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:
   (1) Per 567 IAC 22.3(3)"b":
      (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
      (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
      (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
      (b) at least seven (7) days before equipment relocation.
   (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

      Air Quality Bureau
      Iowa Department of Natural Resources
      7900 Hickman Road, Suite 1
      Windsor Heights, IA 50324

      and include the following information:
      - The date of ownership change,
      - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
      - The construction permit number(s) of the equipment changing ownership.
   (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
      - the time,
      - the place,
      - the name of the person who will conduct the tests,
      - and other information as required by the Department;

      If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:
   (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
   (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
   (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
   (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	NA	NA
PM_{10}	NA	NA	NA	NA
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	0%[3]	NA
Sulfur Dioxide (SO_2)	1.3[4]	NA	500 ppm	23.3(3)
Nitrogen Oxides (NO_x)	7.3[4]	NA	NA	Synthetic Minor
Volatile Organic Compounds (VOC)	15.0[4]	NA	NA	Synthetic Minor
Carbon Monoxide (CO)	39.7[4]	NA	NA	Synthetic Minor
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
(Single HAP)	NA	9.4[5]	NA	Synthetic Minor
(Total HAP)	NA	24.4[5]	NA	Synthetic Minor

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] Smokeless design.
[4] Emission limit established to restrict potential emissions from this emission point.
[5] Plant wide limit on HAP to keep the facility a synthetic minor for 112(g) and/or any applicable NESHAP.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	25
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	18
Exhaust Temperature (°F)	1850
Exhaust Flowrate (scfm)	1600

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	No	NA	NA
$PM_{2.5}$	No	NA	NA
Opacity	No	NA	NA
SO_2	No	NA	NA
NO_x	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
Individual HAP	No	NA	NA
Total HAP	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 22
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18 or 320

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This facility has process units that are subject to NSPS Subpart VV – *Standard of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry*. However, the facility has chosen to comply with the provisions of NSPS subpart VVa (40 CFR Part 60 §60.480a) to satisfy the requirements of NSPS Subpart VV. The facility is also subject to Subpart A (*General Provisions*).

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

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14. Operating Limits

Operating limits for this permit shall be:

A. Maintain the control equipment according to manufacturer specifications and maintenance schedule.

B. The flare shall adhere to the specifications of 40 CFR Part 60.18 (i.e. smokeless design).

C. The amount of biogas consumed by the emission units permitted to combust biogas at this facility shall not exceed 200 MMscf per rolling 12-month period.

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15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

A. The owner or operator shall keep records of control equipment inspection and maintenance.

B. During first twelve (12) months of biogas production, determine monthly the total amount of biogas consumed in the combustion units at the facility. After the first twelve (12) months of operation, determine the annual amount of biogas consumed in the combustion units at the facility. The facility shall calculate and record the total amount of biogas combusted per month. The facility shall monthly update and record the 12-month rolling total amount of biogas combusted.

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16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
10-A-344	10-141	Original Permit	08/27/10	No
10-A-344-S1	12-424	Modify Emission Limits	04/03/13	No

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s): Liberty 190 Proof Ethanol Storage Tank, TK007
Maximum Capacity = 180,000 gallons

Control Equipment: Internal Floating Roof

Emission Point: SV041

Equipment Location: 4724 380th Street
Emmetsburg, Iowa 50536

Plant Number: **74-01-022**

Permit No.	Proj. No.	Description	Date	Testing
10-A-347	10-141	Original Permit	08/27/10	No
10-A-347-S1	13-183	Re-issue original permit	05/17/13	No

Under the Direction of the Director of
the Department of Natural Resources

|CPFP|7401022|05172013|13183|10A347S1|

PERMIT CONDITIONS

The permit holder, owner and operator of the facility shall assure that the installation, operation, and maintenance of this equipment is in compliance with all of the conditions of this permit and all other applicable requirements. This permit and its provisions are subject to the appeal rights set forth in Iowa Administrative Code (IAC), rule 561—7.5.

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 34; and 40 CFR Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The DNR assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the DNR shall be notified in writing at least fourteen (14) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given thirty (30) days prior to the relocation of equipment[1] (See Permit Condition 8.A.6). The owner will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplements permit shall be required prior to the initiation of construction of additional control equipment or equipment modifications needed to meet the standards.

The permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for compliance with the provisions of this permit. No person shall construct, install, reconstruct or alter this emissions unit, control equipment or emission point without the required revisions to this permit.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

3. Construction

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

This permit shall become void if any one of the following conditions occur:

(1) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not completed within a time period specified elsewhere in this permit.

3. Construction (Continued)

3.a. Original Permits

The owner or operator shall obtain a new permit if any changes are made to the final plans and specifications submitted for the proposed project.

3.b. Modified or Supplemental Permits

This permit supersedes any and all previous permits issued for the emission point(s) or emission unit(s) permitted herein.

However, the permittee may continue to act under the provisions of the previous permit for the emission point(s) or emission unit(s) until one of the following conditions occurs:

(1) The proposed project authorized by this permit is completed as it affects the emission point(s) permitted herein; or
(2) The permit becomes void.

The owner or operator shall obtain a new permit if:

(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

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4. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part 60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 34.

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5. Owner Responsibility

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

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6. Excess Emissions

Excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one six-minute period per one-hour period. An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported to the appropriate DNR field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See section 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required oral reports within seven (7) days of the onset of the upset condition.

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7. Disposal of Contaminants

The disposal of materials collected by the control equipment shall meet all applicable rules.

8. Notification, Reporting, and Recordkeeping

A. The owner shall furnish the DNR the following written notifications:
   1. The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
   2. The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   3. The date of each compliance test required by Permit Condition 12, at least thirty (30) days before the anticipated compliance test date;
   4. The date of each pretest meeting, at least fifteen (15) days before the proposed meeting date. The owner shall request a proposed test plan protocol questionnaire at least sixty (60) days prior to each compliance test date. The completed questionnaire shall be received by the DNR at least fifteen (15) days before the pretest meeting date;
   5. Transfer of equipment ownership, within 30 days of the occurrence;
   6. Portable equipment relocation, at least fourteen (14) days before equipment relocation or at least thirty (30) days before equipment relocation to an area currently classified as nonattainment for ambient air quality standards or to an area under a maintenance plan for ambient air quality standards.

B. The owner shall furnish the DNR with the following reports:
   1. Oral excess emissions reports, in accordance with 567 IAC 24.1;
   2. A written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
   3. Operation of this emission unit(s) or control equipment outside of those limits specified in Permit Conditions 10 and 14 and according to the schedule set forth in 567 IAC 24.1.

C. The owner shall send correspondence regarding this permit to the following address:

   Construction Permit Supervisor
   Air Quality Bureau
   Iowa Department of Natural Resources
   7900 Hickman Road, Suite 1
   Windsor Heights, IA 50324
   Telephone: (515) 281-8189
   Fax: (515) 242-5094

D. The owner shall send correspondence concerning stack testing to:

   Stack Testing Coordinator
   Air Quality Bureau
   Iowa Department of Natural Resources
   7900 Hickman Road, Suite 1
   Windsor Heights, IA 50324
   Telephone: (515) 242-6001
   FAX: (515) 242-5127

E. The owner shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 281-8448 Fax: (515) 242-5127	Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

F. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording.

9. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and 2 years in jail according to Iowa Code Section 455B.146A.

10. Emission Limits

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM)	NA	NA	NA	NA
PM_{10}	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_X)	NA	NA	NA	NA
Volatile Organic Compounds	NA	[3]	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Individual HAP	NA	NA	NA	NA
Total HAP	NA	NA	NA	NA

[1] Standard is expressed as the average of 3 runs.
[2] Standard is a 12-month rolling total.
[3] Calculated PTE is 0.17 tpy.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	25
Discharge Style	Downwards
Stack Opening, (inches, diameter)	10
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (acfm)	NA – Vent for Breathing Loss

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

12. Compliance Demonstration(s) and Performance Testing

Pollutant	Initial	Subsequent	Methodology	Frequency
PM (federal)	No	No	NA	NA
PM (state)	No	No	NA	NA
PM_{10}	No	No	NA	NA
Opacity	No	No	NA	NA
SO_2	No	No	NA	NA
NO_X	No	No	NA	NA
VOC[3]	No	No	NA	NA
CO	No	No	NA	NA
Pb	No	No	NA	NA
Individual HAP	No	No	NA	NA
Total HAP	No	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency noted above.

If testing is required, the owner shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM (federal)	1 hour	40 CFR 60, Appendix A, Method 5
PM (state)	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M, Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_X	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
Individual HAP	1 hour	According to IDNR approved method
Total HAP	1 hour	According to IDNR approved method

The unit(s) being sampled should be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

A pretest meeting shall be held at a mutually agreeable site no less than fifteen (15) days prior to the date of each test. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. The owner shall be responsible for the installation and maintenance of test ports. The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

13. NSPS and NESHAP Applicability

This emission unit is subject to Subpart A (*General Provisions*), Subpart VVa, *Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006*, and Subpart Kb, *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984* of the New Source Performance Standards (NSPS).

This emission unit is not of the source type subject to any subpart of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

14. Operating Limits

Operating limits for this permit shall be:

A. The owner or operator shall follow the applicable standards of Subpart Kb, 40 CFR 60.112b(a)(1) and inspect as required in 40 CFR 60.113b(a).

B. The owner or operator shall follow the applicable standards of Subpart VVa, 40 CFR 60.480a through 40 CFR 60.489a.

C. This tank shall be used to store only 190 Proof ethanol.

15. Operating Condition Monitoring

All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

A. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the lifetime of the source.

B. The owner or operator shall follow the applicable recordkeeping and reporting standards of Subpart Kb, 40 CFR 60.115b through 60.116b.

C. The owner or operator shall keep records for Subpart VVa as required in 40 CFR 60.486a, and reports as required in 40 CFR 60.487a.

16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

17. Description of Terms and Acronyms

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
CFR	Code of Federal Regulations
Department	Iowa Department of Natural Resources
DNR	Iowa Department of Natural Resources
gr/dscf	Grains per dry standard cubic foot
HAP	Hazardous Air Pollutant(s)
IAC	Iowa Administrative Code
MMBtu	One million British thermal units
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NO_X	Nitrogen Oxides
Owner	The owner or authorized representative
Permit	This document including permit conditions and all submitted application materials
PM_{10}	Particulate Matter equal to or less than 10 microns in aerodynamic diameter
scfm	Standard cubic feet per minute
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
VOC	Volatile Organic Compound

END OF PERMIT CONDITIONS

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Liberty 200 Proof Ethanol Storage Tank, TK008 Maximum Capacity = 250,000 gallons
Control Equipment:	Internal Floating Roof
Emission Point:	SV042
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Permit No.	Proj. No.	Description	Date	Testing
10-A-348	10-141	Original Permit	08/27/10	No
10-A-348-S1	13-183	Re-issue original permit	05/17/13	No

Under the Direction of the Director of
the Department of Natural Resources

|CPFP|7401022|05172013|13183|10A348S1|

PERMIT CONDITIONS

The permit holder, owner and operator of the facility shall assure that the installation, operation, and maintenance of this equipment is in compliance with all of the conditions of this permit and all other applicable requirements. This permit and its provisions are subject to the appeal rights set forth in Iowa Administrative Code (IAC), rule 561—7.5.

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 34; and 40 CFR Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The DNR assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the DNR shall be notified in writing at least fourteen (14) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given thirty (30) days prior to the relocation of equipment[1] (See Permit Condition 8.A.6). The owner will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplements permit shall be required prior to the initiation of construction of additional control equipment or equipments modifications needed to meet the standards.

The permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for compliance with the provisions of this permit. No person shall construct, install, reconstruct or alter this emissions unit, control equipment or emission point without the required revisions to this permit.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

3. Construction

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

This permit shall become void if any one of the following conditions occur:

(1) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not completed within a time period specified elsewhere in this permit.

3. Construction (Continued)

3.a. Original Permits

The owner or operator shall obtain a new permit if any changes are made to the final plans and specifications submitted for the proposed project.

3.b. Modified or Supplemental Permits

This permit supersedes any and all previous permits issued for the emission point(s) or emission unit(s) permitted herein.

However, the permittee may continue to act under the provisions of the previous permit for the emission point(s) or emission unit(s) until one of the following conditions occurs:

(1) The proposed project authorized by this permit is completed as it affects the emission point(s) permitted herein; or
(2) The permit becomes void.

The owner or operator shall obtain a new permit if:

(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

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4. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part 60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 34.

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5. Owner Responsibility

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

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6. Excess Emissions

Excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one six-minute period per one-hour period. An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported to the appropriate DNR field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See section 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required oral reports within seven (7) days of the onset of the upset condition.

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7. Disposal of Contaminants

The disposal of materials collected by the control equipment shall meet all applicable rules.

8. Notification, Reporting, and Recordkeeping

A. The owner shall furnish the DNR the following written notifications:
   1. The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
   2. The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   3. The date of each compliance test required by Permit Condition 12, at least thirty (30) days before the anticipated compliance test date;
   4. The date of each pretest meeting, at least fifteen (15) days before the proposed meeting date. The owner shall request a proposed test plan protocol questionnaire at least sixty (60) days prior to each compliance test date. The completed questionnaire shall be received by the DNR at least fifteen (15) days before the pretest meeting date;
   5. Transfer of equipment ownership, within 30 days of the occurrence;
   6. Portable equipment relocation, at least fourteen (14) days before equipment relocation or at least thirty (30) days before equipment relocation to an area currently classified as nonattainment for ambient air quality standards or to an area under a maintenance plan for ambient air quality standards.

B. The owner shall furnish the DNR with the following reports:
   1. Oral excess emissions reports, in accordance with 567 IAC 24.1;
   2. A written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
   3. Operation of this emission unit(s) or control equipment outside of those limits specified in Permit Conditions 10 and 14 and according to the schedule set forth in 567 IAC 24.1.

C. The owner shall send correspondence regarding this permit to the following address:

   Construction Permit Supervisor
   Air Quality Bureau
   Iowa Department of Natural Resources
   7900 Hickman Road, Suite 1
   Windsor Heights, IA 50324
   Telephone: (515) 281-8189
   Fax: (515) 242-5094

D. The owner shall send correspondence concerning stack testing to:

   Stack Testing Coordinator
   Air Quality Bureau
   Iowa Department of Natural Resources
   7900 Hickman Road, Suite 1
   Windsor Heights, IA 50324
   Telephone: (515) 242-6001
   FAX: (515) 242-5127

E. The owner shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 281-8448 Fax: (515) 242-5127	Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

F. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording.

9. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and 2 years in jail according to Iowa Code Section 455B.146A.

10. Emission Limits

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM)	NA	NA	NA	NA
PM_{10}	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_X)	NA	NA	NA	NA
Volatile Organic Compounds	NA	[3]	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Individual HAP	NA	NA	NA	NA
Total HAP	NA	NA	NA	NA

[1] Standard is expressed as the average of 3 runs.
[2] Standard is a 12-month rolling total.
[3] Calculated PTE is 0.17 tpy.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	25
Discharge Style	Downwards
Stack Opening, (inches, diameter)	10
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (acfm)	NA – Vent for Breathing Loss

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

12. Compliance Demonstration(s) and Performance Testing

Pollutant	Initial	Subsequent	Methodology	Frequency
PM (federal)	No	No	NA	NA
PM (state)	No	No	NA	NA
PM_{10}	No	No	NA	NA
Opacity	No	No	NA	NA
SO_2	No	No	NA	NA
NO_X	No	No	NA	NA
$VOC^{(3)}$	No	No	NA	NA
CO	No	No	NA	NA
Pb	No	No	NA	NA
Individual HAP	No	No	NA	NA
Total HAP	No	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency noted above.

If testing is required, the owner shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM (federal)	1 hour	40 CFR 60, Appendix A, Method 5
PM (state)	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M, Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_X	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
Individual HAP	1 hour	According to IDNR approved method
Total HAP	1 hour	According to IDNR approved method

The unit(s) being sampled should be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

A pretest meeting shall be held at a mutually agreeable site no less than fifteen (15) days prior to the date of each test. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. The owner shall be responsible for the installation and maintenance of test ports. The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

13. NSPS and NESHAP Applicability

This emission unit is subject to Subpart A (*General Provisions*), Subpart VVa, *Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006*, and Subpart Kb, *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984* of the New Source Performance Standards (NSPS).

This emission unit is not of the source type subject to any subpart of the National Emission Standards for Hazardous Air Pollutants (NESHAP).

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

14. Operating Limits

Operating limits for this permit shall be:

A. The owner or operator shall follow the applicable standards of Subpart Kb, 40 CFR 60.112b(a)(1) and inspect as required in 40 CFR 60.113b(a).

B. The owner or operator shall follow the applicable standards of Subpart VVa, 40 CFR 60.480a through 40 CFR 60.489a.

C. This tank shall be used to store only 200 Proof ethanol.

15. Operating Condition Monitoring

All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

A. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the lifetime of the source.

B. The owner or operator shall follow the applicable recordkeeping and reporting standards of Subpart Kb, 40 CFR 60.115b through 60.116b.

C. The owner or operator shall keep records for Subpart VVa as required in 40 CFR 60.486a, and reports as required in 40 CFR 60.487a.

16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

17. Description of Terms and Acronyms

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
CFR	Code of Federal Regulations
Department	Iowa Department of Natural Resources
DNR	Iowa Department of Natural Resources
gr/dscf	Grains per dry standard cubic foot
HAP	Hazardous Air Pollutant(s)
IAC	Iowa Administrative Code
MMBtu	One million British thermal units
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NO_X	Nitrogen Oxides
Owner	The owner or authorized representative
Permit	This document including permit conditions and all submitted application materials
PM_{10}	Particulate Matter equal to or less than 10 microns in aerodynamic diameter
scfm	Standard cubic feet per minute
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
VOC	Volatile Organic Compound

END OF PERMIT CONDITIONS

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Biomass Bunker East, EU056 Maximum Capacity = 35 tons/hour
Control Equipment:	Cartridge Filters, CE039
Emission Point:	SV043
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-120-S1	13-379	Modify Stack Characteristics	11/22/13	No

Under the Direction of the Director of
the Department of Natural Resources

[SMC]

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PERMIT CONDITIONS

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment[1] (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

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5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:
   (1) Per 567 IAC 22.3(3)"b":
      (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
      (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
      (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
      (b) at least seven (7) days before equipment relocation.
   (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

      Air Quality Bureau
      Iowa Department of Natural Resources
      7900 Hickman Road, Suite 1
      Windsor Heights, IA 50324

      and include the following information:
      - The date of ownership change,
      - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
      - The construction permit number(s) of the equipment changing ownership.
   (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
      - the time,
      - the place,
      - the name of the person who will conduct the tests,
      - and other information as required by the Department;

      If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:
   (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
   (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
   (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
   (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.11[5]	NA	0.1 gr/dscf	23.4(7)
PM_{10}	0.11[6]	NA	NA	NAAQS
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	40%[3][4]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_x)	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] The emission limit is a six (6) minute average.
[4] An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
[5] Emission limit for PM established to restrict potential emissions from this emission point.
[6] The limit for PM_{10} emissions is established to restrict emissions below levels that predict exceedances of the 24-hour NAAQS and the annual NAAQS for PM_{10}.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	49
Discharge Style	Horizontal
Stack Opening (inches, diameter)	13
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (scfm)	3200

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	No	NA	NA
$PM_{2.5}$	No	NA	NA
Opacity	No	NA	NA
SO_2	No	NA	NA
NO_x	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
Individual HAP	No	NA	NA
Total HAP	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 22
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS).

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

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14. Operating Limits

This permit does not set any operating limits for the emission unit.

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15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner.

This permit does not require operating condition monitoring,.

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16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-120	12-424	Original Permit	04/03/13	No

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Biomass Bunker West, EU057 Maximum Capacity = 35 tons/hour
Control Equipment:	Cartridge Filters, CE040
Emission Point:	SV044
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-121-S1	13-379	Modify Stack Characteristics	11/22/13	No

Under the Direction of the Director of
the Department of Natural Resources

[SMC]

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PERMIT CONDITIONS

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment[1] (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

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5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

(1) Per 567 IAC 22.3(3)"b":

(a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;

(b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;

(2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:

(a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;

(b) at least seven (7) days before equipment relocation.

(3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
- The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
- The construction permit number(s) of the equipment changing ownership.

(4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:

- the time,
- the place,
- the name of the person who will conduct the tests,
- and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

(1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.

(2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.

(3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.

(4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.11[5]	NA	0.1 gr/dscf	23.4(7)
PM_{10}	0.11[6]	NA	NA	NAAQS
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	40%[3][4]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_x)	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] The emission limit is a six (6) minute average.
[4] An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
[5] Emission limit for PM established to restrict potential emissions from this emission point.
[6] The limit for PM_{10} emissions is established to restrict emissions below levels that predict exceedances of the 24-hour NAAQS and the annual NAAQS for PM_{10}.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	49
Discharge Style	Horizontal
Stack Opening (inches, diameter)	13
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (scfm)	3200

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	No	NA	NA
$PM_{2.5}$	No	NA	NA
Opacity	No	NA	NA
SO_2	No	NA	NA
NO_x	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
Individual HAP	No	NA	NA
Total HAP	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 22
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS).

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

14. Operating Limits

This permit does not set any operating limits for the emission unit.

15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner.

This permit does not require operating condition monitoring,.

16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-121	12-424	Original Permit	04/03/13	No

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Net Wrap/Twine/Stover Filter Receiver, EU058 Maximum Capacity = 20 tons/hour
Control Equipment:	Pulse Jet Baghouse, CE041
Emission Point:	SV045
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-122-S1	13-379	Modify Stack Characteristics	11/22/13	No

Under the Direction of the Director of
the Department of Natural Resources

[SMC]

¦CPFP¦7401022¦11222013¦13379¦13A122S1¦

PERMIT CONDITIONS

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment[1] (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

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5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:
   (1) Per 567 IAC 22.3(3)"b":
      (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
      (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
      (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
      (b) at least seven (7) days before equipment relocation.
   (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

      Air Quality Bureau
      Iowa Department of Natural Resources
      7900 Hickman Road, Suite 1
      Windsor Heights, IA 50324

      and include the following information:
      - The date of ownership change,
      - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
      - The construction permit number(s) of the equipment changing ownership.
   (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
      - the time,
      - the place,
      - the name of the person who will conduct the tests,
      - and other information as required by the Department;

      If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:
   (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
   (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
   (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
   (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.22[5]	NA	0.1 gr/dscf	23.4(7)
PM_{10}	0.22[6]	NA	NA	NAAQS
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	40%[3][4]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_x)	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] The emission limit is a six (6) minute average.
[4] An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
[5] Emission limit for PM established to restrict potential emissions from this emission point.
[6] The limit for PM_{10} emissions is established to restrict emissions below levels that predict exceedances of the 24-hour NAAQS and the annual NAAQS for PM_{10}.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	10
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	15
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (scfm)	6000

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	No	NA	NA
$PM_{2.5}$	No	NA	NA
Opacity	No	NA	NA
SO_2	No	NA	NA
NO_x	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
Individual HAP	No	NA	NA
Total HAP	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 22
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS).

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

---

14. Operating Limits

This permit does not set any operating limits for the emission unit.

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15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner.

This permit does not require operating condition monitoring,.

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16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-122	12-424	Original Permit	04/03/13	No

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Ash Silo, Maximum Capacity = 20,000 ft^3 (tank capacity), EU059 Loadout Spout, Maximum Capacity = 30 tons/hour (loadout rate)
Control Equipment:	Pulse Jet Baghouse, CE042
Emission Point:	SV046
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-123-S1	13-379	Modify Stack Characteristics	11/22/13	No

Under the Direction of the Director of
the Department of Natural Resources

[SMC]

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PERMIT CONDITIONS

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment[1] (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

---

8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:
   (1) Per 567 IAC 22.3(3)"b":
      (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
      (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
      (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
      (b) at least seven (7) days before equipment relocation.
   (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

      Air Quality Bureau
      Iowa Department of Natural Resources
      7900 Hickman Road, Suite 1
      Windsor Heights, IA 50324

      and include the following information:
      - The date of ownership change,
      - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
      - The construction permit number(s) of the equipment changing ownership.
   (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
      - the time,
      - the place,
      - the name of the person who will conduct the tests,
      - and other information as required by the Department;

      If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:
   (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
   (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
   (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
   (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.60[5]	NA	0.1 gr/dscf	23.3(2)"a"
PM_{10}	0.21[6]	NA	NA	NAAQS
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	40%[3][4]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_x)	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] The emission limit is a six (6) minute average.
[4] An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
[5] Emission limit for PM established to restrict potential emissions from this emission point.
[6] The limit for PM_{10} emissions is established to restrict emissions below levels that predict exceedances of the 24-hour NAAQS and the annual NAAQS for PM_{10}.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	85
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	8
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (scfm)	1200

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	No	NA	NA
$PM_{2.5}$	No	NA	NA
Opacity	No	NA	NA
SO_2	No	NA	NA
NO_x	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
Individual HAP	No	NA	NA
Total HAP	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 22
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS).

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

14. Operating Limits

This permit does not set any operating limits for the emission unit.

15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner.

This permit does not require operating condition monitoring.

16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-123	12-424	Original Permit	04/03/13	No

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Lime Silo, EU060 Maximum Capacity = 6950 ft^3
Control Equipment:	Pulse Jet Baghouse, CE043
Emission Point:	SV047
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-124-S1	13-379	Modify Stack Characteristics	11/22/13	No

Under the Direction of the Director of
the Department of Natural Resources

[SMC]

¦CPFP¦7401022¦11222013¦13379¦13A124S1¦

PERMIT CONDITIONS

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment[1] (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

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5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:
   (1) Per 567 IAC 22.3(3)"b":
      (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
      (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
      (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
      (b) at least seven (7) days before equipment relocation.
   (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

      Air Quality Bureau
      Iowa Department of Natural Resources
      7900 Hickman Road, Suite 1
      Windsor Heights, IA 50324

      and include the following information:
      - The date of ownership change,
      - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
      - The construction permit number(s) of the equipment changing ownership.
   (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
      - the time,
      - the place,
      - the name of the person who will conduct the tests,
      - and other information as required by the Department;

      If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:
   (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
   (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
   (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
   (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.04[5]	NA	0.1 gr/dscf	23.3(2)"a"
PM_{10}	0.04[6]	NA	NA	NAAQS
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	40%[3][4]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_x)	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] The emission limit is a six (6) minute average.
[4] An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
[5] Emission limit for PM established to restrict potential emissions from this emission point.
[6] The limit for PM_{10} emissions is established to restrict emissions below levels that predict exceedances of the 24-hour NAAQS and the annual NAAQS for PM_{10}.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	78
Discharge Style	Horizontal
Stack Opening (inches, diameter)	7
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (scfm)	1200

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	No	NA	NA
$PM_{2.5}$	No	NA	NA
Opacity	No	NA	NA
SO_2	No	NA	NA
NO_x	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
Individual HAP	No	NA	NA
Total HAP	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 22
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS).

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

14. Operating Limits

This permit does not set any operating limits for the emission unit.

15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner.

This permit does not require operating condition monitoring.

16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-124	12-424	Original Permit	04/03/13	No

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Lime Transfer via Boiler Stack, EU061
Control Equipment:	Pulse Jet Baghouse, CE044
Emission Point:	SV048
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-125-S1	13-379	Modify Stack Characteristics	11/22/13	No

Under the Direction of the Director of
the Department of Natural Resources

[SMC]

¦CPFP¦7401022¦11222013¦13379¦13A125S1¦

PERMIT CONDITIONS

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment[1] (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:
   (1) Per 567 IAC 22.3(3)"b":
      (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
      (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
      (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
      (b) at least seven (7) days before equipment relocation.
   (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

      Air Quality Bureau
      Iowa Department of Natural Resources
      7900 Hickman Road, Suite 1
      Windsor Heights, IA 50324

      and include the following information:
      - The date of ownership change,
      - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
      - The construction permit number(s) of the equipment changing ownership.
   (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
      - the time,
      - the place,
      - the name of the person who will conduct the tests,
      - and other information as required by the Department;

      If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:
   (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
   (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
   (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
   (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.04[5]	NA	0.1 gr/dscf	23.3(2)"a"
PM_{10}	0.04[6]	NA	NA	NAAQS
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	40%[3][4]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_x)	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] The emission limit is a six (6) minute average.
[4] An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
[5] Emission limit for PM established to restrict potential emissions from this emission point.
[6] The limit for PM_{10} emissions is established to restrict emissions below levels that predict exceedances of the 24-hour NAAQS and the annual NAAQS for PM_{10}.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	81
Discharge Style	Horizontal
Stack Opening (inches, diameter)	7
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (scfm)	1200

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	No	NA	NA
$PM_{2.5}$	No	NA	NA
Opacity	No	NA	NA
SO_2	No	NA	NA
NO_x	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
Individual HAP	No	NA	NA
Total HAP	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 22
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS).

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

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14. Operating Limits

This permit does not set any operating limits for the emission unit.

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15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner.

This permit does not require operating condition monitoring.

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16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-125	12-424	Original Permit	04/03/13	No

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Bed Additive Storage Tank/Bin Vent, EU063
Control Equipment:	Pulse Jet Baghouse, CE046
Emission Point:	SV050
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-127-S1	13-379	Modify Stack Characteristics	11/22/13	No

Under the Direction of the Director of
the Department of Natural Resources

[SMC]

¦CPFP¦7401022¦11222013¦13379¦13A127S1¦

PERMIT CONDITIONS

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment[1] (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

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5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:
   (1) Per 567 IAC 22.3(3)"b":
      (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
      (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
      (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
      (b) at least seven (7) days before equipment relocation.
   (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

      Air Quality Bureau
      Iowa Department of Natural Resources
      7900 Hickman Road, Suite 1
      Windsor Heights, IA 50324

      and include the following information:
      - The date of ownership change,
      - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
      - The construction permit number(s) of the equipment changing ownership.
   (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
      - the time,
      - the place,
      - the name of the person who will conduct the tests,
      - and other information as required by the Department;

      If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:
   (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
   (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
   (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
   (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.04[5]	NA	0.1 gr/dscf	23.3(2)"a"
PM_{10}	0.04[6]	NA	NA	NAAQS
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	40%[3][4]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_x)	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] The emission limit is a six (6) minute average.
[4] An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
[5] Emission limit for PM established to restrict potential emissions from this emission point.
[6] The limit for PM_{10} emissions is established to restrict emissions below levels that predict exceedances of the 24-hour NAAQS and the annual NAAQS for PM_{10}.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	35
Discharge Style	Horizontal
Stack Opening (inches, length x width)	8 x 13
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (scfm)	1200

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	No	NA	NA
$PM_{2.5}$	No	NA	NA
Opacity	No	NA	NA
SO_2	No	NA	NA
NO_x	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
Individual HAP	No	NA	NA
Total HAP	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 22
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS).

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

14. Operating Limits

This permit does not set any operating limits for the emission unit.

15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner.

This permit does not require operating condition monitoring.

16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-127	12-424	Original Permit	04/03/13	No

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Sulfamic Acid Bag Unloading, EU064
Control Equipment:	Pulse Jet Baghouse, CE047
Emission Point:	SV051
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-128-S1	13-379	Modify Stack Characteristics	11/22/13	No

Under the Direction of the Director of
the Department of Natural Resources

[SMC]

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PERMIT CONDITIONS

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment[1] (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

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5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

(1) Per 567 IAC 22.3(3)"b":

(a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;

(b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;

(2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:

(a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;

(b) at least seven (7) days before equipment relocation.

(3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
- The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
- The construction permit number(s) of the equipment changing ownership.

(4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:

- the time,
- the place,
- the name of the person who will conduct the tests,
- and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

(1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.

(2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.

(3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.

(4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.04[5]	NA	0.1 gr/dscf	23.3(2)"a"
PM_{10}	0.04[6]	NA	NA	NAAQS
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	40%[3][4]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_x)	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] The emission limit is a six (6) minute average.
[4] An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
[5] Emission limit for PM established to restrict potential emissions from this emission point.
[6] The limit for PM_{10} emissions is established to restrict emissions below levels that predict exceedances of the 24-hour NAAQS and the annual NAAQS for PM_{10}.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	10
Discharge Style	Horizontal
Stack Opening (inches, diameter)	6
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (scfm)	500

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	No	NA	NA
$PM_{2.5}$	No	NA	NA
Opacity	No	NA	NA
SO_2	No	NA	NA
NO_x	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
Individual HAP	No	NA	NA
Total HAP	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 22
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS).

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

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14. Operating Limits

This permit does not set any operating limits for the emission unit.

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15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner.

This permit does not require operating condition monitoring.

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16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-128	12-424	Original Permit	04/03/13	No

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s): OSM Enzyme Production, EU065

Control Equipment: None

Emission Point: SV052

Equipment Location: 4724 380th Street
Emmetsburg, Iowa 50536

Plant Number: **74-01-022**

Permit No.	Proj. No.	Description	Date	Testing
13-A-129	12-424	Original Permit	04/03/13	No

Under the Direction of the Director of
the Department of Natural Resources

{CPFP|7401022|04032013|12424|13A129|

PERMIT CONDITIONS

The permit holder, owner and operator of the facility shall assure that the installation, operation, and maintenance of this equipment is in compliance with all of the conditions of this permit and all other applicable requirements. This permit and its provisions are subject to the appeal rights set forth in Iowa Administrative Code (IAC), rule 561—7.5.

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 34; and 40 CFR Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The DNR assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the DNR shall be notified in writing at least fourteen (14) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given thirty (30) days prior to the relocation of equipment[1] (See Permit Condition 8.A.6). The owner will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplements permit shall be required prior to the initiation of construction of additional control equipment or equipments modifications needed to meet the standards.

The permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for compliance with the provisions of this permit. No person shall construct, install, reconstruct or alter this emissions unit, control equipment or emission point without the required revisions to this permit.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

3. Construction

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

This permit shall become void if any one of the following conditions occur:

(1) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not completed within a time period specified elsewhere in this permit.

3. Construction (Continued)

3.a. Original Permits

The owner or operator shall obtain a new permit if any changes are made to the final plans and specifications submitted for the proposed project.

3.b. Modified or Supplemental Permits

This permit supersedes any and all previous permits issued for the emission point(s) or emission unit(s) permitted herein.

However, the permittee may continue to act under the provisions of the previous permit for the emission point(s) or emission unit(s) until one of the following conditions occurs:

(1) The proposed project authorized by this permit is completed as it affects the emission point(s) permitted herein; or
(2) The permit becomes void.

The owner or operator shall obtain a new permit if:

(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

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4. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part 60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 34.

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5. Owner Responsibility

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

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6. Excess Emissions

Excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one six-minute period per one-hour period. An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported to the appropriate DNR field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See section 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required oral reports within seven (7) days of the onset of the upset condition.

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7. Disposal of Contaminants

The disposal of materials collected by the control equipment shall meet all applicable rules.

8. Notification, Reporting, and Recordkeeping

A. The owner shall furnish the DNR the following written notifications:
   1. The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
   2. The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   3. The date of each compliance test required by Permit Condition 12, at least thirty (30) days before the anticipated compliance test date;
   4. The date of each pretest meeting, at least fifteen (15) days before the proposed meeting date. The owner shall request a proposed test plan protocol questionnaire at least sixty (60) days prior to each compliance test date. The completed questionnaire shall be received by the DNR at least fifteen (15) days before the pretest meeting date;
   5. Transfer of equipment ownership, within 30 days of the occurrence;
   6. Portable equipment relocation, at least fourteen (14) days before equipment relocation or at least thirty (30) days before equipment relocation to an area currently classified as nonattainment for ambient air quality standards or to an area under a maintenance plan for ambient air quality standards.

B. The owner shall furnish the DNR with the following reports:
   1. Oral excess emissions reports, in accordance with 567 IAC 24.1;
   2. A written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
   3. Operation of this emission unit(s) or control equipment outside of those limits specified in Permit Conditions 10 and 14 and according to the schedule set forth in 567 IAC 24.1.

C. The owner shall send correspondence regarding this permit to the following address:

   Construction Permit Supervisor
   Air Quality Bureau
   Iowa Department of Natural Resources
   7900 Hickman Road, Suite 1
   Windsor Heights, IA 50324
   Telephone: (515) 281-8189
   Fax: (515) 242-5094

D. The owner shall send correspondence concerning stack testing to:

   Stack Testing Coordinator
   Air Quality Bureau
   Iowa Department of Natural Resources
   7900 Hickman Road, Suite 1
   Windsor Heights, IA 50324
   Telephone: (515) 242-6001
   FAX: (515) 242-5127

E. The owner shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 281-8448 Fax: (515) 242-5127	Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

F. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording.

9. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and 2 years in jail according to Iowa Code Section 455B.146A.

10. Emission Limits

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM)	NA	NA	NA	NA
PM_{10}	NA	NA	NA	NA
Opacity	NA	NA	NA	NA
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_X)	NA	NA	NA	NA
Volatile Organic Compounds	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Methanol	0.11[3]	NA	NA	NA
Ethanol	0.33[3]	NA	NA	NA

[1] Standard is expressed as the average of 3 runs.
[2] Standard is a 12-month rolling total.
[3] Emission limit for PM established to restrict potential emissions from this emission point.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	NA – Vents indoors
Discharge Style	NA
Stack Opening, (inches, diameter)	NA
Exhaust Temperature (°F)	NA
Exhaust Flowrate (acfm)	NA

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

12. Compliance Demonstration(s) and Performance Testing

Pollutant	Initial	Subsequent	Methodology	Frequency
PM (federal)	No	No	NA	NA
PM (state)	No	No	NA	NA
PM_{10}	No	No	NA	NA
Opacity	No	No	NA	NA
SO_2	No	No	NA	NA
NO_X	No	No	NA	NA
VOC	No	No	NA	NA
CO	No	No	NA	NA
Pb	No	No	NA	NA
Individual HAP	No	No	NA	NA
Total HAP	No	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency noted above.

If testing is required, the owner shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM (federal)	1 hour	40 CFR 60, Appendix A, Method 5
PM (state)	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M, Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_X	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 25A
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
Individual HAP	1 hour	According to IDNR approved method
Total HAP	1 hour	According to IDNR approved method

The unit(s) being sampled should be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

A pretest meeting shall be held at a mutually agreeable site no less than fifteen (15) days prior to the date of each test. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. The owner shall be responsible for the installation and maintenance of test ports. The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

13. NSPS and NESHAP Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS) at this time.

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

14. Operating Limits

This permit does not set any operating limits for the emission unit.

15. Operating Condition Monitoring

All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

This permit does not require operating condition monitoring.

16. Continuous Emission Monitoring

This permit does not require continuous emission monitoring.

17. Description of Terms and Acronyms

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
CFR	Code of Federal Regulations
Department	Iowa Department of Natural Resources
DNR	Iowa Department of Natural Resources
gr/dscf	Grains per dry standard cubic foot
HAP	Hazardous Air Pollutant(s)
IAC	Iowa Administrative Code
MMBtu	One million British thermal units
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NO_X	Nitrogen Oxides
Owner	The owner or authorized representative
Permit	This document including permit conditions and all submitted application materials
PM_{10}	Particulate Matter equal to or less than 10 microns in aerodynamic diameter
scfm	Standard cubic feet per minute
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
VOC	Volatile Organic Compound

END OF PERMIT CONDITIONS

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Sulfur Cake Loadout Conveyors, EU066
Control Equipment:	Pulse Jet Baghouse, CE048
Emission Point:	SV053
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-130-S1	13-379	Modify Emission Unit Description	11/22/13	No

Under the Direction of the Director of
the Department of Natural Resources

[SMC]

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PERMIT CONDITIONS

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment[1] (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:
   (1) Per 567 IAC 22.3(3)"b":
      (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
      (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
      (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
      (b) at least seven (7) days before equipment relocation.
   (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

      Air Quality Bureau
      Iowa Department of Natural Resources
      7900 Hickman Road, Suite 1
      Windsor Heights, IA 50324

      and include the following information:
      - The date of ownership change,
      - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
      - The construction permit number(s) of the equipment changing ownership.
   (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
      - the time,
      - the place,
      - the name of the person who will conduct the tests,
      - and other information as required by the Department;

      If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:
   (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
   (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
   (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
   (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.04[5]	NA	0.1 gr/dscf	23.3(2)"a"
PM_{10}	0.04[6]	NA	NA	NAAQS
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	40%[3][4]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_x)	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] The emission limit is a six (6) minute average.
[4] An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
[5] Emission limit for PM established to restrict potential emissions from this emission point.
[6] The limit for PM_{10} emissions is established to restrict emissions below levels that predict exceedances of the 24-hour NAAQS and the annual NAAQS for PM_{10}.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	15
Discharge Style	Vertical Obstructed
Stack Opening (inches, diameter)	8
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (scfm)	1200

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	No	NA	NA
$PM_{2.5}$	No	NA	NA
Opacity	No	NA	NA
SO_2	No	NA	NA
NO_x	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
Individual HAP	No	NA	NA
Total HAP	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 22
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS).

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

14. Operating Limits

This permit does not set any operating limits for the emission unit.

15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner.

This permit does not require operating condition monitoring.

16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-130	12-424	Original Permit	04/03/13	No

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Shredded Stover Transfer Airlock, EU067
Control Equipment:	Cartridge Filters, CE049
Emission Point:	SV054
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-131-S1	13-379	Modify Stack Characteristics	11/22/13	No

Under the Direction of the Director of
the Department of Natural Resources

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PERMIT CONDITIONS

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment[1] (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:
   (1) Per 567 IAC 22.3(3)"b":
      (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
      (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
      (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
      (b) at least seven (7) days before equipment relocation.
   (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

      Air Quality Bureau
      Iowa Department of Natural Resources
      7900 Hickman Road, Suite 1
      Windsor Heights, IA 50324

      and include the following information:
      - The date of ownership change,
      - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
      - The construction permit number(s) of the equipment changing ownership.
   (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
      - the time,
      - the place,
      - the name of the person who will conduct the tests,
      - and other information as required by the Department;

      If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:
   (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
   (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
   (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
   (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	0.04[5]	NA	0.1 gr/dscf	23.3(2)"a"
PM_{10}	0.04[6]	NA	NA	NAAQS
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	40%[3][4]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_x)	NA	NA	NA	NA
Volatile Organic Compounds (VOC)	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] The emission limit is a six (6) minute average.
[4] An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
[5] Emission limit for PM established to restrict potential emissions from this emission point.
[6] The limit for PM_{10} emissions is established to restrict emissions below levels that predict exceedances of the 24-hour NAAQS and the annual NAAQS for PM_{10}.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	11
Discharge Style	Horizontal
Stack Opening (inches, diameter)	7
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (scfm)	250

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	No	NA	NA
$PM_{2.5}$	No	NA	NA
Opacity	No	NA	NA
SO_2	No	NA	NA
NO_x	No	NA	NA
VOC	No	NA	NA
CO	No	NA	NA
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
Individual HAP	No	NA	NA
Total HAP	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 22
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

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13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS).

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

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14. Operating Limits

This permit does not set any operating limits for the emission unit.

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15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner.

This permit does not require operating condition monitoring.

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16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

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17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-131	12-424	Original Permit	04/03/13	No

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s): Bale Core, EU068

Control Equipment: Cartridge Filters, CE050

Emission Point: SV055

Equipment Location: 4724 380th Street
Emmetsburg, Iowa 50536

Plant Number: **74-01-022**

Permit No.	Proj. No.	Description	Date	Testing
13-A-132	12-424	Original Permit	04/03/13	No

Under the Direction of the Director of
the Department of Natural Resources

|CPFP|7401022|04032013|12424|13A132|

PERMIT CONDITIONS

The permit holder, owner and operator of the facility shall assure that the installation, operation, and maintenance of this equipment is in compliance with all of the conditions of this permit and all other applicable requirements. This permit and its provisions are subject to the appeal rights set forth in Iowa Administrative Code (IAC), rule 561—7.5.

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 34; and 40 CFR Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The DNR assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the DNR shall be notified in writing at least fourteen (14) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given thirty (30) days prior to the relocation of equipment[1] (See Permit Condition 8.A.6). The owner will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplements permit shall be required prior to the initiation of construction of additional control equipment or equipments modifications needed to meet the standards.

The permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for compliance with the provisions of this permit. No person shall construct, install, reconstruct or alter this emissions unit, control equipment or emission point without the required revisions to this permit.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

3. Construction

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

This permit shall become void if any one of the following conditions occur:

(1) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not completed within a time period specified elsewhere in this permit.

3. Construction (Continued)

3.a. Original Permits

The owner or operator shall obtain a new permit if any changes are made to the final plans and specifications submitted for the proposed project.

3.b. Modified or Supplemental Permits

This permit supersedes any and all previous permits issued for the emission point(s) or emission unit(s) permitted herein.

However, the permittee may continue to act under the provisions of the previous permit for the emission point(s) or emission unit(s) until one of the following conditions occurs:

(1) The proposed project authorized by this permit is completed as it affects the emission point(s) permitted herein; or
(2) The permit becomes void.

The owner or operator shall obtain a new permit if:

(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

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4. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part 60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 34.

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5. Owner Responsibility

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

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6. Excess Emissions

Excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one six-minute period per one-hour period. An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported to the appropriate DNR field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See section 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required oral reports within seven (7) days of the onset of the upset condition.

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7. Disposal of Contaminants

The disposal of materials collected by the control equipment shall meet all applicable rules.

8. Notification, Reporting, and Recordkeeping

A. The owner shall furnish the DNR the following written notifications:
   1. The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
   2. The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   3. The date of each compliance test required by Permit Condition 12, at least thirty (30) days before the anticipated compliance test date;
   4. The date of each pretest meeting, at least fifteen (15) days before the proposed meeting date. The owner shall request a proposed test plan protocol questionnaire at least sixty (60) days prior to each compliance test date. The completed questionnaire shall be received by the DNR at least fifteen (15) days before the pretest meeting date;
   5. Transfer of equipment ownership, within 30 days of the occurrence;
   6. Portable equipment relocation, at least fourteen (14) days before equipment relocation or at least thirty (30) days before equipment relocation to an area currently classified as nonattainment for ambient air quality standards or to an area under a maintenance plan for ambient air quality standards.

B. The owner shall furnish the DNR with the following reports:
   1. Oral excess emissions reports, in accordance with 567 IAC 24.1;
   2. A written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
   3. Operation of this emission unit(s) or control equipment outside of those limits specified in Permit Conditions 10 and 14 and according to the schedule set forth in 567 IAC 24.1.

C. The owner shall send correspondence regarding this permit to the following address:

   Construction Permit Supervisor
   Air Quality Bureau
   Iowa Department of Natural Resources
   7900 Hickman Road, Suite 1
   Windsor Heights, IA 50324
   Telephone: (515) 281-8189
   Fax: (515) 242-5094

D. The owner shall send correspondence concerning stack testing to:

   Stack Testing Coordinator
   Air Quality Bureau
   Iowa Department of Natural Resources
   7900 Hickman Road, Suite 1
   Windsor Heights, IA 50324
   Telephone: (515) 242-6001
   FAX: (515) 242-5127

E. The owner shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 281-8448 Fax: (515) 242-5127	Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

F. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording.

9. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and 2 years in jail according to Iowa Code Section 455B.146A.

10. Emission Limits

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM)	0.03[3]	NA	0.1 gr/dscf	23.4(7)
PM_{10}	0.03[4]	NA	NA	NAAQS
Opacity	NA	NA	40%[5]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_X)	NA	NA	NA	NA
Volatile Organic Compounds	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Individual HAP	NA	NA	NA	NA
Total HAP	NA	NA	NA	NA

[1] Standard is expressed as the average of 3 runs.
[2] Standard is a 12-month rolling total.
[3] Emission limit for PM established to restrict potential emissions from this emission point.
[4] The limit for PM_{10} emissions is established to restrict emissions below levels that predict exceedences of the 24-hour NAAQS and the annual NAAQS for PM_{10}.
[5] An exceedence of the indicator opacity of "No Visible Emissions" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	10
Discharge Style	Vertical Obstructed
Stack Opening, (inches, diameter)	8
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (acfm)	1000

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

12. Compliance Demonstration(s) and Performance Testing

Pollutant	Initial	Subsequent	Methodology	Frequency
PM (federal)	No	No	NA	NA
PM (state)	No	No	NA	NA
PM_{10}	No	No	NA	NA
Opacity	No	No	NA	NA
SO_2	No	No	NA	NA
NO_X	No	No	NA	NA
VOC	No	No	NA	NA
CO	No	No	NA	NA
Pb	No	No	NA	NA
Individual HAP	No	No	NA	NA
Total HAP	No	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency noted above.

If testing is required, the owner shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM (federal)	2 hours	40 CFR 60, Appendix A, Method 5
PM (state)	2 hours	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M, Method 202
PM_{10}	3 hours	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_X	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 25A
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
Individual HAP	1 hour	According to IDNR approved method
Total HAP	1 hour	According to IDNR approved method

The unit(s) being sampled should be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

A pretest meeting shall be held at a mutually agreeable site no less than fifteen (15) days prior to the date of each test. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. The owner shall be responsible for the installation and maintenance of test ports. The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

13. NSPS and NESHAP Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS) at this time.

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

14. Operating Limits

This permit does not set any operating limits for the emission unit.

15. Operating Condition Monitoring

All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

This permit does not require operating condition monitoring.

16. Continuous Emission Monitoring

This permit does not require continuous emission monitoring.

17. Description of Terms and Acronyms

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
CFR	Code of Federal Regulations
Department	Iowa Department of Natural Resources
DNR	Iowa Department of Natural Resources
gr/dscf	Grains per dry standard cubic foot
HAP	Hazardous Air Pollutant(s)
IAC	Iowa Administrative Code
MMBtu	One million British thermal units
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NO_X	Nitrogen Oxides
Owner	The owner or authorized representative
Permit	This document including permit conditions and all submitted application materials
PM_{10}	Particulate Matter equal to or less than 10 microns in aerodynamic diameter
scfm	Standard cubic feet per minute
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
VOC	Volatile Organic Compound

END OF PERMIT CONDITIONS

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s): Net Wrap & Fines Transfer (Boiler), EU054

Control Equipment: Cartridge Filters, CE037

Emission Point: SV056

Equipment Location: 4724 380th Street
Emmetsburg, Iowa 50536

Plant Number: **74-01-022**

Permit No.	Proj. No.	Description	Date	Testing
13-A-133	12-424	Original Permit	04/03/13	No

Under the Direction of the Director of
the Department of Natural Resources

|CPFP|7401022|04032013|12424|13A133|

PERMIT CONDITIONS

The permit holder, owner and operator of the facility shall assure that the installation, operation, and maintenance of this equipment is in compliance with all of the conditions of this permit and all other applicable requirements. This permit and its provisions are subject to the appeal rights set forth in Iowa Administrative Code (IAC), rule 561—7.5.

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 34; and 40 CFR Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The DNR assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the DNR shall be notified in writing at least fourteen (14) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given thirty (30) days prior to the relocation of equipment[1] (See Permit Condition 8.A.6). The owner will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplements permit shall be required prior to the initiation of construction of additional control equipment or equipments modifications needed to meet the standards.

The permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for compliance with the provisions of this permit. No person shall construct, install, reconstruct or alter this emissions unit, control equipment or emission point without the required revisions to this permit.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

3. Construction

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

This permit shall become void if any one of the following conditions occur:

(1) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not completed within a time period specified elsewhere in this permit.

3. Construction (Continued)

3.a. Original Permits

The owner or operator shall obtain a new permit if any changes are made to the final plans and specifications submitted for the proposed project.

3.b. Modified or Supplemental Permits

This permit supersedes any and all previous permits issued for the emission point(s) or emission unit(s) permitted herein.

However, the permittee may continue to act under the provisions of the previous permit for the emission point(s) or emission unit(s) until one of the following conditions occurs:

(1) The proposed project authorized by this permit is completed as it affects the emission point(s) permitted herein; or
(2) The permit becomes void.

The owner or operator shall obtain a new permit if:

(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

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4. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part 60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 34.

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5. Owner Responsibility

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

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6. Excess Emissions

Excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one six-minute period per one-hour period. An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported to the appropriate DNR field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See section 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required oral reports within seven (7) days of the onset of the upset condition.

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7. Disposal of Contaminants

The disposal of materials collected by the control equipment shall meet all applicable rules.

8. Notification, Reporting, and Recordkeeping

A. The owner shall furnish the DNR the following written notifications:
   1. The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
   2. The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   3. The date of each compliance test required by Permit Condition 12, at least thirty (30) days before the anticipated compliance test date;
   4. The date of each pretest meeting, at least fifteen (15) days before the proposed meeting date. The owner shall request a proposed test plan protocol questionnaire at least sixty (60) days prior to each compliance test date. The completed questionnaire shall be received by the DNR at least fifteen (15) days before the pretest meeting date;
   5. Transfer of equipment ownership, within 30 days of the occurrence;
   6. Portable equipment relocation, at least fourteen (14) days before equipment relocation or at least thirty (30) days before equipment relocation to an area currently classified as nonattainment for ambient air quality standards or to an area under a maintenance plan for ambient air quality standards.

B. The owner shall furnish the DNR with the following reports:
   1. Oral excess emissions reports, in accordance with 567 IAC 24.1;
   2. A written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
   3. Operation of this emission unit(s) or control equipment outside of those limits specified in Permit Conditions 10 and 14 and according to the schedule set forth in 567 IAC 24.1.

C. The owner shall send correspondence regarding this permit to the following address:

   Construction Permit Supervisor
   Air Quality Bureau
   Iowa Department of Natural Resources
   7900 Hickman Road, Suite 1
   Windsor Heights, IA 50324
   Telephone: (515) 281-8189
   Fax: (515) 242-5094

D. The owner shall send correspondence concerning stack testing to:

   Stack Testing Coordinator
   Air Quality Bureau
   Iowa Department of Natural Resources
   7900 Hickman Road, Suite 1
   Windsor Heights, IA 50324
   Telephone: (515) 242-6001
   FAX: (515) 242-5127

E. The owner shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 281-8448 Fax: (515) 242-5127	Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

F. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording.

9. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and 2 years in jail according to Iowa Code Section 455B.146A.

10. Emission Limits

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM)	0.01[3]	NA	0.1 gr/dscf	23.4(7)
PM_{10}	0.01[4]	NA	NA	NAAQS
Opacity	NA	NA	40%[5]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_X)	NA	NA	NA	NA
Volatile Organic Compounds	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Individual HAP	NA	NA	NA	NA
Total HAP	NA	NA	NA	NA

[1] Standard is expressed as the average of 3 runs.
[2] Standard is a 12-month rolling total.
[3] Emission limit for PM established to restrict potential emissions from this emission point.
[4] The limit for PM_{10} emissions is established to restrict emissions below levels that predict exceedences of the 24-hour NAAQS and the annual NAAQS for PM_{10}.
[5] An exceedence of the indicator opacity of "No Visible Emissions" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	8
Discharge Style	Vertical Obstructed
Stack Opening, (inches, diameter)	3
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (acfm)	250

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

12. Compliance Demonstration(s) and Performance Testing

Pollutant	Initial	Subsequent	Methodology	Frequency
PM (federal)	No	No	NA	NA
PM (state)	No	No	NA	NA
PM_{10}	No	No	NA	NA
Opacity	No	No	NA	NA
SO_2	No	No	NA	NA
NO_X	No	No	NA	NA
VOC	No	No	NA	NA
CO	No	No	NA	NA
Pb	No	No	NA	NA
Individual HAP	No	No	NA	NA
Total HAP	No	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency noted above.

If testing is required, the owner shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM (federal)	2 hours	40 CFR 60, Appendix A, Method 5
PM (state)	2 hours	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M, Method 202
PM_{10}	3 hours	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_X	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 25A
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
Individual HAP	1 hour	According to IDNR approved method
Total HAP	1 hour	According to IDNR approved method

The unit(s) being sampled should be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

A pretest meeting shall be held at a mutually agreeable site no less than fifteen (15) days prior to the date of each test. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. The owner shall be responsible for the installation and maintenance of test ports. The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

13. NSPS and NESHAP Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS) at this time.

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

14. Operating Limits

This permit does not set any operating limits for the emission unit.

15. Operating Condition Monitoring

All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

This permit does not require operating condition monitoring.

16. Continuous Emission Monitoring

This permit does not require continuous emission monitoring.

17. Description of Terms and Acronyms

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
CFR	Code of Federal Regulations
Department	Iowa Department of Natural Resources
DNR	Iowa Department of Natural Resources
gr/dscf	Grains per dry standard cubic foot
HAP	Hazardous Air Pollutant(s)
IAC	Iowa Administrative Code
MMBtu	One million British thermal units
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NO_X	Nitrogen Oxides
Owner	The owner or authorized representative
Permit	This document including permit conditions and all submitted application materials
PM_{10}	Particulate Matter equal to or less than 10 microns in aerodynamic diameter
scfm	Standard cubic feet per minute
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
VOC	Volatile Organic Compound

END OF PERMIT CONDITIONS

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s): Fines Pickup, EU055

Control Equipment: Cartridge Filters, CE038

Emission Point: SV057

Equipment Location: 4724 380th Street
Emmetsburg, Iowa 50536

Plant Number: **74-01-022**

Permit No.	Proj. No.	Description	Date	Testing
13-A-134	12-424	Original Permit	04/03/13	No

Under the Direction of the Director of
the Department of Natural Resources

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PERMIT CONDITIONS

The permit holder, owner and operator of the facility shall assure that the installation, operation, and maintenance of this equipment is in compliance with all of the conditions of this permit and all other applicable requirements. This permit and its provisions are subject to the appeal rights set forth in Iowa Administrative Code (IAC), rule 561—7.5.

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 34; and 40 CFR Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The DNR assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the DNR shall be notified in writing at least fourteen (14) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given thirty (30) days prior to the relocation of equipment[1] (See Permit Condition 8.A.6). The owner will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplements permit shall be required prior to the initiation of construction of additional control equipment or equipment modifications needed to meet the standards.

The permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for compliance with the provisions of this permit. No person shall construct, install, reconstruct or alter this emissions unit, control equipment or emission point without the required revisions to this permit.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

3. Construction

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

This permit shall become void if any one of the following conditions occur:

(1) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not completed within a time period specified elsewhere in this permit.

3. Construction (Continued)

3.a. Original Permits

The owner or operator shall obtain a new permit if any changes are made to the final plans and specifications submitted for the proposed project.

3.b. Modified or Supplemental Permits

This permit supersedes any and all previous permits issued for the emission point(s) or emission unit(s) permitted herein.

However, the permittee may continue to act under the provisions of the previous permit for the emission point(s) or emission unit(s) until one of the following conditions occurs:

(1) The proposed project authorized by this permit is completed as it affects the emission point(s) permitted herein; or
(2) The permit becomes void.

The owner or operator shall obtain a new permit if:

(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

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4. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part 60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 34.

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5. Owner Responsibility

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

---

6. Excess Emissions

Excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one six-minute period per one-hour period. An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported to the appropriate DNR field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See section 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required oral reports within seven (7) days of the onset of the upset condition.

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7. Disposal of Contaminants

The disposal of materials collected by the control equipment shall meet all applicable rules.

8. Notification, Reporting, and Recordkeeping

A. The owner shall furnish the DNR the following written notifications:
   1. The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
   2. The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   3. The date of each compliance test required by Permit Condition 12, at least thirty (30) days before the anticipated compliance test date;
   4. The date of each pretest meeting, at least fifteen (15) days before the proposed meeting date. The owner shall request a proposed test plan protocol questionnaire at least sixty (60) days prior to each compliance test date. The completed questionnaire shall be received by the DNR at least fifteen (15) days before the pretest meeting date;
   5. Transfer of equipment ownership, within 30 days of the occurrence;
   6. Portable equipment relocation, at least fourteen (14) days before equipment relocation or at least thirty (30) days before equipment relocation to an area currently classified as nonattainment for ambient air quality standards or to an area under a maintenance plan for ambient air quality standards.

B. The owner shall furnish the DNR with the following reports:
   1. Oral excess emissions reports, in accordance with 567 IAC 24.1;
   2. A written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
   3. Operation of this emission unit(s) or control equipment outside of those limits specified in Permit Conditions 10 and 14 and according to the schedule set forth in 567 IAC 24.1.

C. The owner shall send correspondence regarding this permit to the following address:

   Construction Permit Supervisor
   Air Quality Bureau
   Iowa Department of Natural Resources
   7900 Hickman Road, Suite 1
   Windsor Heights, IA 50324
   Telephone: (515) 281-8189
   Fax: (515) 242-5094

D. The owner shall send correspondence concerning stack testing to:

   Stack Testing Coordinator
   Air Quality Bureau
   Iowa Department of Natural Resources
   7900 Hickman Road, Suite 1
   Windsor Heights, IA 50324
   Telephone: (515) 242-6001
   FAX: (515) 242-5127

E. The owner shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 281-8448 Fax: (515) 242-5127	Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

F. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording.

9. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and 2 years in jail according to Iowa Code Section 455B.146A.

10. Emission Limits

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM)	0.01[3]	NA	0.1 gr/dscf	23.4(7)
PM_{10}	0.01[4]	NA	NA	NAAQS
Opacity	NA	NA	40%[5]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	NA	NA
Nitrogen Oxides (NO_X)	NA	NA	NA	NA
Volatile Organic Compounds	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
Individual HAP	NA	NA	NA	NA
Total HAP	NA	NA	NA	NA

[1] Standard is expressed as the average of 3 runs.
[2] Standard is a 12-month rolling total.
[3] Emission limit for PM established to restrict potential emissions from this emission point.
[4] The limit for PM_{10} emissions is established to restrict emissions below levels that predict exceedences of the 24-hour NAAQS and the annual NAAQS for PM_{10}.
[5] An exceedence of the indicator opacity of "No Visible Emissions" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	8
Discharge Style	Vertical Obstructed
Stack Opening, (inches, diameter)	3
Exhaust Temperature (°F)	Ambient
Exhaust Flowrate (acfm)	50

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

12. Compliance Demonstration(s) and Performance Testing

Pollutant	Initial	Subsequent	Methodology	Frequency
PM (federal)	No	No	NA	NA
PM (state)	No	No	NA	NA
PM_{10}	No	No	NA	NA
Opacity	No	No	NA	NA
SO_2	No	No	NA	NA
NO_X	No	No	NA	NA
VOC	No	No	NA	NA
CO	No	No	NA	NA
Pb	No	No	NA	NA
Individual HAP	No	No	NA	NA
Total HAP	No	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency noted above.

If testing is required, the owner shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM (federal)	4.5 hours	40 CFR 60, Appendix A, Method 5
PM (state)	4.5 hours	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M, Method 202
PM_{10}	7 hours	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_X	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 25A
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
Individual HAP	1 hour	According to IDNR approved method
Total HAP	1 hour	According to IDNR approved method

The unit(s) being sampled should be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

A pretest meeting shall be held at a mutually agreeable site no less than fifteen (15) days prior to the date of each test. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. The owner shall be responsible for the installation and maintenance of test ports. The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

13. NSPS and NESHAP Applicability

This emission unit is not subject to any of the New Source Performance Standards (NSPS) at this time.

This project is not subject to any National Emission Standards for Hazardous Air Pollutants Area Source Standards at this time.

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

14. Operating Limits

This permit does not set any operating limits for the emission unit.

15. Operating Condition Monitoring

All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

This permit does not require operating condition monitoring.

16. Continuous Emission Monitoring

This permit does not require continuous emission monitoring.

17. Description of Terms and Acronyms

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
CFR	Code of Federal Regulations
Department	Iowa Department of Natural Resources
DNR	Iowa Department of Natural Resources
gr/dscf	Grains per dry standard cubic foot
HAP	Hazardous Air Pollutant(s)
IAC	Iowa Administrative Code
MMBtu	One million British thermal units
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NO_X	Nitrogen Oxides
Owner	The owner or authorized representative
Permit	This document including permit conditions and all submitted application materials
PM_{10}	Particulate Matter equal to or less than 10 microns in aerodynamic diameter
scfm	Standard cubic feet per minute
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
VOC	Volatile Organic Compound

END OF PERMIT CONDITIONS

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Solid Fuel Boiler, EU069 (Rated Capacity = 290 MMBtu/hr)
Control Equipment:	Flue Gas Desulfurization, CE034 Selective Non-Catalytic Reduction, CE035 Pulse Jet Baghouse, CE036
Emission Point:	SV058
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-135-S1	13-379	Modify Stack Characteristics	11/22/13	Yes

Under the Direction of the Director of
the Department of Natural Resources

[SMC]

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PERMIT CONDITIONS

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment[1] (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:

(1) Per 567 IAC 22.3(3)"b":

(a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;

(b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;

(2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:

(a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;

(b) at least seven (7) days before equipment relocation.

(3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324

and include the following information:

- The date of ownership change,
- The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
- The construction permit number(s) of the equipment changing ownership.

(4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:

- the time,
- the place,
- the name of the person who will conduct the tests,
- and other information as required by the Department;

If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:

(1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.

(2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.

(3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.

(4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	NA	NA	0.156 lb/MMBtu[3]	Requested
PM_{10}	45.24[4]	NA	0.156 lb/MMBtu[3]	NAAQS
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	40%[5][7]	23.3(2)"d"
Sulfur Dioxide (SO_2)	51.2[4]	NA	0.177 lb/MMBtu[3][6]	NAAQS
Nitrogen Oxides (NO_x)	46.7[4]	NA	0.161 lb/MMBtu[3][6]	NAAQS
Volatile Organic Compounds (VOC)	4.93	NA	NA	Requested Limit
Carbon Monoxide (CO)	40.24[4]	NA	0.139 lb/MMBtu[3][6]	NAAQS
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
Hydrogen Chloride (HCl)	1.74	NA	NA	Synthetic Minor
Total HAP	3.38	NA	NA	Synthetic Minor

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] Emission limit established to restrict potential emissions from this emission point.
[4] The limit is established to restrict emissions below levels that predict exceedences of the applicable NAAQS for the affected pollutant.
[5] An exceedence of the indicator opacity of "10%" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
[6] This standard is a 30-day rolling average not including periods of startup, shutdown, and malfunction. Compliance with the emission standards shall be demonstrated using Continuous Emission Monitoring Systems (CEMS). See Condition 12 and Condition 16 for more information on compliance with the use of CEMS.
[7] The emission limit is a six (6) minute average.

11. Emission Point Characteristics

The following equipment vents emissions to Solid Fuel Boiler, directly or indirectly. Ultimately, these emissions are released through stack SV058:

Emission Unit	Maximum Capacity
5 Fermenters	783,000 gallons each
Beerwell	914,000 gallons
3 Seed Fermenters	90,000 gallons each
Slurry Tank	15,500 gallons
4 Liquefaction Tanks	90,000 gallons each
200 Proof Condenser	60 gallons/minute
190 Proof Condenser	16,000 gallons per hour
Regen Tank Vent	na
Distillation Vacuum Vent	na
12 Evaporators	10,000 gallons/hr (each)
3 Molecular Sieves	4,000 gallons/hr (each)
Saccharification (9 tanks)	706,000 gallons each

11. Emission Point Characteristics (Continued)

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	125
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	78
Exhaust Temperature (°F)	240
Exhaust Flowrate (scfm)	107,100

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	Yes	Stack Test	One-time
$PM_{2.5}$	No	NA	NA
Opacity	Yes	Stack Test	One-time
SO_2	Yes	CEMS[1]	Continuous
NO_x	Yes	CEMS[1]	Continuous
VOC	Yes	Stack test	One-time
CO	Yes	CEMS[1]	Continuous
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
HCl	Yes	Stack test	One-time
Total HAP	No	NA	NA

[1] Compliance shall be measured continuously using a Continuous Emission Monitoring System (CEMS).

<u>If an initial compliance demonstration specified above is testing</u>, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

<u>If subsequent testing is specified above</u>, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

12. Compliance Demonstration(s) (Continued)

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 22
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HCl	1 hour	40 CFR 60, Appendix A, Method 26A

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This emission unit is subject to NSPS 40 CFR Part 60 Subpart Db: Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.

This equipment is of the source category affected by the following federal regulation: National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources [40 CFR Part 63, Subpart JJJJJJ].

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

14. Operating Limits

Operating limits for this permit shall be:

A. This emission unit, EU069, shall be limited to firing on biomass (filter cake, syrup, biomass fines, & net wrap) and natural gas (only for light off, startup, and flame stabilization).

B. A maximum amount of filter cake combusted in the Solid Fuel Boiler (EU069) shall not exceed 560 tons per calendar day.

C. A maximum amount of biomass fines combusted in the Solid Fuel Boiler (EU069) shall not exceed 80 tons per calendar day.

D. A maximum amount of syrup combusted in the Solid Fuel Boiler (EU069) shall not exceed 75 tons per calendar day.

E. A maximum amount of net wrap/biomass combusted in the Solid Fuel Boiler (EU069) shall not exceed 8 tons per calendar day.

F. The baghouse differential pressure drop shall be maintained between 0.5 and 10 inches of water column.

15. Operating Condition Monitoring and Recordkeeping

All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

A. Record on a daily basis, the amount of filter cake combusted in the Solid Fuel Boiler (EU069), in tons.

B. Record on a daily basis, the amount of biomass fines combusted in the Solid Fuel Boiler (EU069), in tons.

C. Record on a daily basis, the amount of syrup combusted in the Solid Fuel Boiler (EU069), in tons.

D. Record on a daily basis, the amount of net wrap/biomass combusted in the Solid Fuel Boiler (EU069), in tons.

E. The owner or operator shall collect and record the pressure drop across the baghouse, in inches of water, once per calendar day. This requirement shall not apply on days that the baghouse is not in operation. If visible emissions are observed at any time from the baghouse or baghouse exhaust, the owner or operator shall, as soon as practicable, investigate the cause of the visible emissions and perform any corrective action that is necessary to eliminate the visible emissions.

16. Continuous Emission Monitoring

A. SO_2: The owner or operator shall install, calibrate, maintain, and operate a continuous monitoring system (CEMS) and record the output of the system, for measuring sulfur dioxide (SO_2) emissions discharged to the atmosphere.

   The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 2 (PS2) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.

B. NOx: The owner or operator shall install, calibrate, maintain and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides (NOx) emissions discharged to the atmosphere.

   The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 2 (PS2) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.

16. Continuous Emission Monitoring (Continued)

C. CO: The owner or operator shall install, calibrate, maintain, and operate a CEMS for measuring CO emissions discharged to the atmosphere and record the output of the system.

The system shall be designed to meet the 40 CFR 60, Appendix B, Performance Specification 4A (PS4A) and Performance Specification 6 (PS6) requirements. The specifications of 40 CFR 60, Appendix F (Quality Assurance/Quality Control) shall apply. Appendix F requirements shall be supplemented with a quarterly notice to the Department with the dates of the quarterly cylinder gas audits and annual relative accuracy test audit.

D. Flowmeter: The owner or operator shall install, certify, operate, and maintain a continuous flow monitoring system meeting the requirements of 40 CFR 60, Appendix B, Performance Specification 6 and 40 CFR 60, Appendix F, Procedure 1. In addition, the owner or operator shall record the output of the system, for measuring the volumetric flow of exhaust gases discharged to the atmosphere.

E. The following data requirements shall apply to all CEMS for the emission standards in this permit:
   1. CEMS required by this permit shall be operated and data recorded during all periods of operation of the emission unit except for CEM breakdowns and repairs. Data is recorded during calibration, checks, and zero and span adjustments.
   2. The 1-hour average SO_2, NO_x, and CO emission rates measured by the CEMS required by this permit shall be used to calculate compliance with the emission standards of this permit. At least two data points must be used to calculate each 1-hour average.
   3. For each hour of missing emission data (NO_x, SO_2, or CO), the owner or operator shall substitute data by:
      i. If the monitor data availability is equal to or greater than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
         a. For the missing data period less than or equal to 24 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
         b. For a missing data period greater than 24 hours, substitute the greater of:
            - The 90th percentile hourly concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
            - The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
      ii. If the monitor data availability is at least 90.0% but less than 95.0%, the owner or operator shall calculate substitute data by means of the automated data acquisition and handling system for each hour of each missing data period according to the following procedures:
         a. For a missing data period of less than or equal to 8 hours, substitute the average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
         b. For the missing data period of more than 8 hours, substitute the greater of:
            - The 95th percentile hourly pollutant concentration recorded by a pollutant concentration monitor during the previous 720 quality-assured monitor operating hours; or
            - The average of the hourly concentrations recorded by a pollutant concentration monitor for the hour before and the hour after the missing data period.
      iii. If the monitor data availability is less than 90.0%, the owner or operator shall obtain actual emission data by an alternate testing or monitoring method approved by the Department.

F. If requested by the Department, the owner/operator shall coordinate the quarterly cylinder gas audits with the Department to afford the Department the opportunity to observe these audits. The relative accuracy test audits shall be coordinated with the Department.

17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-135	12-424	Original Permit	04/03/13	Yes

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s):	Diesel Generator (EU070), Maximum Capacity = 2937 bhp Caterpillar 3516B (Displacement of 4.3125 liters/cylinder)
Control Equipment:	Oxidation Catalyst, CE059
Emission Point:	SV059
Equipment Location:	4724 380th Street Emmetsburg, Iowa 50536
Plant Number:	**74-01-022**

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-136-S1	13-379	Modify Generator Model	11/22/13	Yes

Under the Direction of the Director of
the Department of Natural Resources

[SMC]

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PERMIT CONDITIONS

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant or by the applicant's representative(s) shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 35; and 40 Code of Federal Regulations (CFR) Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The Department assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Owner and Operator Responsibility

This permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. The permit holder, owner, and operator of the facility shall assure that the installation of the equipment listed in this permit conforms to the design in the application (i.e. type, maximum rated capacity, etc.). No person shall construct, install, reconstruct or alter this emission unit(s), control equipment, or emission point without the required amended permit.

Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for assuring that the installation, operation, and maintenance of the equipment listed in this permit is in compliance with the provisions of this permit and all other applicable requirements.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

3. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified in writing at least seven (7) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given fourteen (14) days prior to the relocation of equipment[1] (See Permit Condition 8.A.2). The owner or operator will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or modifications to equipment needed to meet the standards.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

4. Construction

A. General Requirements

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

4. Construction (Continued)

In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. If a proposed project is not timely completed, the owner or operator shall seek a permit amendment in order to revert back to the most recent previous version of the permit. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

This permit or amendment shall become void if any one of the following conditions occurs:
(1) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or implementation of the proposed project, as it affects the emission point permitted herein, is not completed within a time period specified elsewhere in this permit.

B. Changes to Plans and Specifications

The owner or operator shall amend this permit or amendment prior to startup of the equipment if:
(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

Changes to the final plans and specification shall include changes to plans and specifications for permitted equipment and control equipment and the specified operation thereof.

C. Amended Permits

The owner or operator may continue to act under the provisions of the previous permit for the affected emission unit(s) and emission point, together with any previous amendment to the permit, until one of the following conditions occurs:
(1) The proposed project authorized by this amendment is completed as it affects the emission unit(s) and emission point permitted herein; or
(2) This current amendment becomes void.

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5. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part §60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 35.

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6. Excess Emissions

Per 567 IAC 24.1(1), excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one (1) six-minute period per one (1) hour period.

An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported by telephone, electronic mail or in person to the appropriate field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See Permit Condition 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required initial reports within seven (7) days of the onset of the upset condition (See Permit Condition 8.B.2).

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7. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and two (2) years in jail according to Iowa Code Section 455B.146A.

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8. Notification, Reporting, and Recordkeeping

A. The owner or operator shall furnish the Department the following written notifications:
   (1) Per 567 IAC 22.3(3)"b":
      (a) The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
      (b) The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   (2) Per 567 IAC 22.3(3)"f", when portable equipment for which a permit has been issued is to be transferred from one location to another, the Department shall be notified:
      (a) at least fourteen (14) days before equipment relocation if the equipment will be located in a nonattainment area for the National Ambient Air Quality Standards (NAAQS) or a maintenance area for the NAAQS;
      (b) at least seven (7) days before equipment relocation.
   (3) Per 567 IAC 22.3(8), a new owner shall notify the Department of the transfer of equipment ownership within thirty (30) days of the occurrence. The notification shall be mailed to:

      Air Quality Bureau
      Iowa Department of Natural Resources
      7900 Hickman Road, Suite 1
      Windsor Heights, IA 50324

      and include the following information:
      - The date of ownership change,
      - The name, address, and telephone number of the responsible official, the contact person, and the owner of the equipment both before and after the ownership change; and
      - The construction permit number(s) of the equipment changing ownership.
   (4) Unless specified per a federal regulation, notification of each compliance test required by Permit Condition 12 shall be done not less than thirty (30) days before the required test or performance evaluation of a continuous emission monitor [567 IAC 25.1(7)]. The notification shall include:
      - the time,
      - the place,
      - the name of the person who will conduct the tests,
      - and other information as required by the Department;

      If the owner or operator does not provide timely notice to the Department, the Department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with the applicable rules or permit conditions. Upon written request, the Department may allow a notification period of less than thirty (30) days.

B. The owner or operator shall furnish the Department with the following reports:
   (1) Per 567 IAC 24.1(2), an incident of excess emissions as defined in 567 IAC 20.2 shall be reported within eight (8) hours or at the start of the first working day following the onset of the incident. The report may be made by electronic mail, in person or by telephone.
   (2) Per 567 IAC 24.1(3), a written report of an incident of excess emissions as defined in 567 IAC 20.2 shall be submitted as a follow-up to all required initial reports to the Department within seven (7) days of the onset of the upset condition.
   (3) Operation of this emission unit(s) or control equipment outside of those operating parameters specified in Permit Condition 14 in accordance to the schedule set forth in 567 IAC 24.1.
   (4) Per 567 IAC 25.1(6), the owner or operator of any facility required to install a continuous monitoring system or systems shall provide quarterly reports to the Director, no later than thirty (30) calendar days following the end of the calendar quarter, on forms provided by the Director.

8. Notification, Reporting, and Recordkeeping (Continued)

(5) Per 567 IAC 25.1(7), a written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;

C. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording unless otherwise required by another applicable law (i.e. NSPS, NESHAP, etc.)

D. The owner or operator shall send correspondence regarding this permit to the following address:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9549
Fax: (515) 725-9501

E. The owner or operator shall send correspondence concerning stack testing to:

Stack Testing Coordinator
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Windsor Heights, IA 50324
Telephone: (515) 725-9545
Fax: (515) 725-9502

F. The owner or operator shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 725-9550 Fax: (515) 725-9502	IDNR Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

9. Appeal Rights

All conditions within an original permit may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. Amended conditions within a permit amendment may be appealed, subject to the appeal rights set forth in 561 IAC Chapter 7. In permit amendments, all provisions of the original permit remain in full force and effect unless they are specifically changed by the permit amendment. The previous, unchanged permit provisions are included in the amendment for your convenience only and are unappealable.

Per 561 IAC 7.4(1), the owner or operator shall file any written notice of appeal within thirty (30) days of receipt of the issued permit. The written notice of appeal shall be filed with the Director of the Department with a copy to the Legal Services Bureau Chief at the following addresses:

Director Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319	Bureau Chief Legal Services Bureau Iowa Department of Natural Resources 502 East 9th Street Des Moines, IA 50319

10. Emission Limits

The following emission limits shall not be exceeded:

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) – Federal	NA	NA	NA	NA
Particulate Matter (PM) – State	1.94[6]	NA	NA	Requested
PM_{10}	1.17[6]	NA	NA	Requested
$PM_{2.5}$	NA	NA	NA	NA
Opacity	NA	NA	40%[3][4]	23.3(2)"d"
Sulfur Dioxide (SO_2)	0.15[6]	NA	2.5 lb/MMBtu	23.3(3)"b"
Nitrogen Oxides (NO_x)	NA	NA	NA	NA
Volatile Organic Compounds	NA	NA	NA	NA
Carbon Monoxide (CO)	NA	NA	70% CO reduction or 23 ppm_{vd} CO	23.1(4)"cz" [5]
Lead (Pb)	NA	NA	NA	NA
Carbon Dioxide equivalents (CO_2e)	NA	NA	NA	NA
(Single HAP)	NA	NA	NA	NA
(Total HAP)	NA	NA	NA	NA

[1] The emission limit is expressed as the average of three (3) runs.
[2] The emission limit is a twelve (12) month rolling total.
[3] The emission limit is a six (6) minute average.
[4] An exceedance of the indicator opacity of "No Visible Emissions" will require the owner or operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the Department may require additional proof to demonstrate compliance (e.g., stack testing).
[5] IDNR reference to National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines – Subpart ZZZZ (40 CFR §63.6580 through 40 CFR §63.6650).
[6] The emission limit established to reduce the potential emissions from this source.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	15
Discharge Style	Vertical Unobstructed
Stack Opening (inches, diameter)	12
Exhaust Temperature (°F)	752
Exhaust Flowrate (scfm)	5740

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that either the temperature or flowrate above are different than the values stated, the owner or operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

12. Compliance Demonstration(s)

Pollutant	Compliance Demonstration	Compliance Methodology	Frequency
PM – Federal	No	NA	NA
PM – State	No	NA	NA
PM_{10}	No	NA	NA
$PM_{2.5}$	No	NA	NA
Opacity	No	NA	NA
SO_2	No	NA	NA
NO_x	No	NA	NA
VOC	No	NA	NA
CO[(1)]	Yes	Stack testing	Every 3 years
Pb	No	NA	NA
CO_2	No	NA	NA
CH_4	No	NA	NA
N_2O	No	NA	NA
CO_2e	No	NA	NA
Individual HAP	No	NA	NA
Total HAP	No	NA	NA

[(1)] Stack testing shall demonstrate compliance with either 70% CO reduction or an outlet concentration of 23 ppm_{vd} CO at 15% O_2. Should the facility choose demonstrate compliance with the percent CO reduction, it shall measure CO and O_2 at the inlet and outlet of the control device.

<u>If an initial compliance demonstration specified above is testing</u>, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

<u>If subsequent testing is specified above</u>, the owner or the owner's authorized agent shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency and timeframe noted above.

If testing is required, the owner or the owner's authorized agent shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM – Federal	1 hour	40 CFR 60, Appendix A, Method 5
PM – State	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
$PM_{2.5}$	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 22
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_x	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 18 or 320
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
CO_2	1 hour	40 CFR 60, Appendix A, Method 3
CH_4	1 hour	40 CFR 60, Appendix A, Method 18
N_2O	1 hour	40 CFR 60, Appendix A, Method 320
HAP	1 hour	40 CFR 60, Appendix A, Method 18

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

12. Compliance Demonstration(s) (Continued)

Per 567 IAC 25.1(7)"a", at the Department's request, a pretest meeting shall be held not later than fifteen (15) days before the owner or operator conducts the compliance demonstration. A testing protocol shall be submitted to the Department no later than fifteen (15) days before the owner or operator conducts the compliance demonstration. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. A representative of the Department shall be allowed to witness the test(s). The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

The owner shall be responsible for the installation and maintenance of test ports. The unit(s) being sampled shall be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

13. New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

This emission unit is of the source type regulated by the New Source Performance Standards (NSPS) Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR §60.4200 through 40 CFR §60.4219); however, this generator is not subject to the requirements of this subpart based on its construction date.

This equipment is of the source category affected by the following federal regulation: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE NESHAP) [40 CFR Part 63 Subpart ZZZZ] and is also subject to the requirements of 567 IAC 23.1(4)"cz".

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

14. Operating Limits

Operating limits for this permit shall be:

A. This generator shall not operate more than 500 hours per rolling twelve-month period.

B. This generator shall operate, for curtailment purposes, a maximum of 16 times per calendar year and no curtailment event shall exceed six hours in duration.

C. Beginning October 1, 2010, diesel fuel fired in this generator shall be limited to a maximum sulfur content of 15 ppm and a minimum cetane index of 40 or a maximum aromatic content of 30 percent by volume per 40 CFR§80.510(b).

D. As per 40 CFR Part 63 Subpart ZZZZ, the owner or operator shall maintain the control equipment (catalyst) so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test.

E. As per 40 CFR Part 63 Subpart ZZZZ, the owner or operator shall maintain the temperature of the stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.

F. Any other operating limits not listed here but are part of 40 CFR Part 63 Subpart ZZZZ shall also be maintained.

15. Operating Condition Monitoring and Recordkeeping

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. These records shall show the following:

A. The owner or operator of this generator shall install a non-resettable hour meter prior to start-up.

B. Record each month the total hours of operation for this generator and the reason the generator was operated. Calculate and record rolling twelve-month totals.

C. Maintain records of the sulfur content of the fuel oil utilized in this generator.

D. The owner or operator of this generator shall install a continuous parameter monitoring system (CPMS) to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b).

E. The owner or operator of this generator shall record the catalyst pressure drop and catalyst inlet temperature during the initial performance test.

F. The owner or operator of this generator shall follow the monitoring requirements of 40 CFR§63.6625.

G. The owner or operator of this generator shall follow the notification, reporting and recordkeeping requirements of 40 CFR§63.6645, 40 CFR§63.6650 and 40 CFR§63.6655, respectively.

16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

17. Permit History

Permit No.	Proj. No.	Description	Date	Stack Testing
13-A-136	12-424	Original Permit	04/03/13	No

18. Description of Terms and Acronyms

The descriptions below are meant only as a brief explanation of terms contained within the permit and may not be the exact definition of the term or acronym as contained within the regulations.

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
Btu	British thermal unit
°C	Degrees Celsius
Condensable PM	Material that condenses and/or reacts upon cooling and dilution in the ambient air to form particulate matter immediately after discharge from the stack
CO_2e	Carbon dioxide equivalent which is the aggregate emissions of greenhouse gas (GHG) emissions based on global warming potentials
Department	Iowa Department of Natural Resources
dia.	Diameter
°F	Degrees Fahrenheit
ft	Foot
GHG	Greenhouse Gas which is defined as being the group of carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulfur hexafluoride (SF_6)
g	grams
g/dscm	Grams per dry standard cubic meter
gr	Grains
gr/dscf	Grains per dry standard cubic foot
gr/scf	Grains per standard cubic foot
HAP	Hazardous Air Pollutant(s)
hp	horsepower
hr	Hour
lb	Pound
lb/hr	Pounds per hour
m	Meter
mg	Milligram
MM	Million
MW	Megawatt
NA	Not Applicable
$PM_{2.5}$	Particulate Matter with an aerodynamic diameter equal to or less than 2.5 microns
PM_{10}	Particulate Matter with an aerodynamic diameter equal to or less than 10 microns
PM – Federal	Particulate Matter that does not include the condensable PM
PM – State	Particulate Matter that includes condensable PM
ppm	parts per million
ppm_v	parts per million by volume
ppm_w	parts per million by weight
scfm	Standard cubic feet per minute
SHAP	Single hazardous air pollutant
THAP	Total hazardous air pollutants
tons/yr	Tons per year
yr	Year

END OF PERMIT

Iowa Department of Natural Resources
Air Quality Construction Permit

Permit Holder

Firm: Voyager Ethanol, LLC d/b/a POET Biorefining – Emmetsburg
(POET – DSM Advanced Biofuels Project LIBERTY)

Contact:

Ben Gustafson
Technical Manager

(712) 852-8700

4724 380th Street
P.O. Box 318
Emmetsburg Iowa 50536

Responsible Party:

Daron Wilson
General Manager

Permitted Equipment

Emission Unit(s): Diesel Fire Pump (EU071), Maximum Capacity = 575 bhp
John Deere JX6H-UFADP0 (Displacement of 2.25 liters/cylinder)

Control Equipment: None

Emission Point: SV060

Equipment Location: 4724 380th Street
Emmetsburg, Iowa 50536

Plant Number: **74-01-022**

Permit No.	Proj. No.	Description	Date	Testing
13-A-137	12-424	Original Permit	04/03/13	No

Under the Direction of the Director of
the Department of Natural Resources

|CPFP|7401022|04032013|12424|13A137|

PERMIT CONDITIONS

The permit holder, owner and operator of the facility shall assure that the installation, operation, and maintenance of this equipment is in compliance with all of the conditions of this permit and all other applicable requirements. This permit and its provisions are subject to the appeal rights set forth in Iowa Administrative Code (IAC), rule 561—7.5.

1. Departmental Review

This permit is issued based on information submitted by the applicant. Any misinformation, false statements or misrepresentations by the applicant shall cause this permit to be void. In addition, the applicant may be subject to criminal penalties according to Iowa Code Section 455B.146A.

This permit is issued under the authority of 567 Iowa Administrative Code (IAC) 22.3. The proposed equipment has been evaluated for conformance with Iowa Code Chapter 455B; 567 IAC Chapters 20 – 34; and 40 CFR Parts 51, 52, 60, 61, and 63 and has the potential to comply.

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. The DNR assumes no liability, directly or indirectly, for any loss due to damage to persons or property caused by, resulting from, or arising out of the design, installation, maintenance or operation of the proposed equipment.

2. Transferability

As limited by 567 IAC 22.3(3)"f", this permit is not transferable from one location to another or from one piece of equipment to another, unless the equipment is portable. When portable equipment for which a permit has been issued is to be transferred from one location to another, the DNR shall be notified in writing at least fourteen (14) days prior to transferring to the new location unless the equipment will be located in an area which is classified as nonattainment for the National Ambient Air Quality Standards (NAAQS) or is a maintenance area for the NAAQS in which case notification shall be given thirty (30) days prior to the relocation of equipment[1] (See Permit Condition 8.A.6). The owner will be notified at least ten (10) days prior to the scheduled relocation if the relocation will cause a violation of the (NAAQS). In such case, a supplements permit shall be required prior to the initiation of construction of additional control equipment or equipments modifications needed to meet the standards.

The permit is for the construction and operation of specific emission unit(s), control equipment, and emission point as described in this permit and in the application for this permit. Any owner or operator of the specified emission unit(s), control equipment, or emission point, including any person who becomes an owner or operator subsequent to the date on which this permit is issued, is responsible for compliance with the provisions of this permit. No person shall construct, install, reconstruct or alter this emissions unit, control equipment or emission point without the required revisions to this permit.

[1] A list of nonattainment areas and maintenance areas for the NAAQS can be obtained from the Department.

3. Construction

It is the owner's responsibility to ensure that construction conforms to the final plans and specifications as submitted, and that adequate operation and maintenance is provided to ensure that no condition of air pollution is created.

This permit shall become void if any one of the following conditions occur:

(1) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not initiated within eighteen (18) months after the permit issuance date; or
(2) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not completed within thirty-six (36) months after the permit issuance date; or
(3) the construction or modification of the proposed project, as it affects the emission point(s) permitted herein, is not completed within a time period specified elsewhere in this permit.

3. Construction (Continued)

3.a. Original Permits

The owner or operator shall obtain a new permit if any changes are made to the final plans and specifications submitted for the proposed project.

3.b. Modified or Supplemental Permits

This permit supersedes any and all previous permits issued for the emission point(s) or emission unit(s) permitted herein.

However, the permittee may continue to act under the provisions of the previous permit for the emission point(s) or emission unit(s) until one of the following conditions occurs:

(1) The proposed project authorized by this permit is completed as it affects the emission point(s) permitted herein; or
(2) The permit becomes void.

The owner or operator shall obtain a new permit if:

(1) Any changes are made to the final plans and specifications submitted for the proposed project; or
(2) This permit becomes void.

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4. Credible Evidence

As stated in 567 IAC 21.5 and also in 40 CFR Part 60.11(g), where applicable, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions specified in this permit or any provisions of 567 IAC Chapters 20 through 34.

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5. Owner Responsibility

Issuance of this permit shall not relieve the owner or operator of the responsibility to comply fully with applicable provisions of the State Implementation Plan (SIP), and any other requirements of local, state, and federal law.

The owner or operator of any emission unit or control equipment shall maintain and operate the equipment and control equipment at all times in a manner consistent with good practice for minimizing emissions, as required by paragraph 567 IAC 24.2(1) *"Maintenance and Repair"*.

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6. Excess Emissions

Excess emissions during a period of startup, shutdown, or cleaning of control equipment are not a violation of the emission standard if it is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions except when another regulation applicable to the unit or process provides otherwise. Cleaning of control equipment, which does not require the shutdown of process equipment, shall be limited to one six-minute period per one-hour period. An incident of excess emissions other than the above is a violation and may be subject to criminal penalties according to Iowa Code 455B.146A. If excess emissions are occurring, either the control equipment causing the excess shall be repaired in an expeditious manner, or the process generating the emissions shall be shutdown within a reasonable period of time, as specified in 567 IAC 24.1.

An incident of excess emissions shall be orally reported to the appropriate DNR field office within eight (8) hours of, or at the start of, the first working day following the onset of the incident (See section 8.B.1). A written report of an incident of excess emissions shall be submitted as a follow-up to all required oral reports within seven (7) days of the onset of the upset condition.

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7. Disposal of Contaminants

The disposal of materials collected by the control equipment shall meet all applicable rules.

8. Notification, Reporting, and Recordkeeping

A. The owner shall furnish the DNR the following written notifications:
   1. The date construction, installation, or alteration is initiated postmarked within thirty (30) days following initiation of construction, installation, or alteration;
   2. The actual date of startup, postmarked within fifteen (15) days following the start of operation;
   3. The date of each compliance test required by Permit Condition 12, at least thirty (30) days before the anticipated compliance test date;
   4. The date of each pretest meeting, at least fifteen (15) days before the proposed meeting date. The owner shall request a proposed test plan protocol questionnaire at least sixty (60) days prior to each compliance test date. The completed questionnaire shall be received by the DNR at least fifteen (15) days before the pretest meeting date;
   5. Transfer of equipment ownership, within 30 days of the occurrence;
   6. Portable equipment relocation, at least fourteen (14) days before equipment relocation or at least thirty (30) days before equipment relocation to an area currently classified as nonattainment for ambient air quality standards or to an area under a maintenance plan for ambient air quality standards.

B. The owner shall furnish the DNR with the following reports:
   1. Oral excess emissions reports, in accordance with 567 IAC 24.1;
   2. A written compliance demonstration report for each compliance testing event, whether successful or not, postmarked not later than six (6) weeks after the completion of the test period unless other regulations provide for other notification requirements. In that case, the more stringent reporting requirement shall be met;
   3. Operation of this emission unit(s) or control equipment outside of those limits specified in Permit Conditions 10 and 14 and according to the schedule set forth in 567 IAC 24.1.

C. The owner shall send correspondence regarding this permit to the following address:

   Construction Permit Supervisor
   Air Quality Bureau
   Iowa Department of Natural Resources
   7900 Hickman Road, Suite 1
   Windsor Heights, IA 50324
   Telephone: (515) 281-8189
   Fax: (515) 242-5094

D. The owner shall send correspondence concerning stack testing to:

   Stack Testing Coordinator
   Air Quality Bureau
   Iowa Department of Natural Resources
   7900 Hickman Road, Suite 1
   Windsor Heights, IA 50324
   Telephone: (515) 242-6001
   FAX: (515) 242-5127

E. The owner shall send reports and notifications to:

Compliance Unit Supervisor Air Quality Bureau Iowa Department of Natural Resources 7900 Hickman Road, Suite 1 Windsor Heights, IA 50324 Telephone: (515) 281-8448 Fax: (515) 242-5127	Field Office 3 1900 North Grand Avenue Gateway North Mall Spencer, IA 51301 Telephone: (712) 262-4177 Fax: (712) 262-2901

F. All data, records, reports, documentation, construction plans, and calculations required under this permit shall be available at the plant during normal business hours for inspection and copying by federal, state, or local air pollution regulatory agencies and their authorized representatives, for a minimum of two (2) years from the date of recording.

9. Permit Violations

Knowingly committing a violation of this permit may carry a criminal penalty of up to $10,000 per day fine and 2 years in jail according to Iowa Code Section 455B.146A.

10. Emission Limits

Pollutant	lb/hr[1]	tons/yr[2]	Additional Limits	Reference (567 IAC)
Particulate Matter (PM) for NSPS 40 CFR Part 60 Subpart IIII	NA	NA	0.20 g/kW-hr	23.1(2)"yyy" [4]
PM_{10}	NA	NA	NA	NA
Opacity	NA	NA	40%[3]	23.3(2)"d"
Sulfur Dioxide (SO_2)	NA	NA	2.5 lb/MMBtu	23.3(3)"b"
Nitrogen Oxides (NO_X)	NA	NA	NA	NA
NMHC + NO_x for NSPS 40 CFR Part 60 Subpart IIII[5]	NA	NA	4.0 g/kW-hr	23.1(2)"yyy" [4]
Carbon Monoxide (CO)	NA	NA	3.5 g/kW-hr	23.1(2)"yyy" [4]
Lead (Pb)	NA	NA	NA	NA
Single HAP	NA	NA	NA	NA
Total HAP	NA	NA	NA	NA

[1] Standard is expressed as the average of 3 runs.
[2] Standard is a 12-month rolling total.
[3] An exceedence of the indicator opacity of "10%" will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing)..
[4] IDNR reference to New Source Performance Standards (NSPS) Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR §60.4200 through 40 CFR §60.4219).
[5] NMHC is defined as Non-methane Hydrocarbons; NO_x is for Oxides of Nitrogen.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below:

Parameter	Value
Stack Height, (ft, from the ground)	8
Discharge Style	Vertical Unobstructed
Stack Opening, (inches, diameter)	3
Exhaust Temperature (°F)	865
Exhaust Flowrate (scfm)	2800

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

12. Compliance Demonstration(s) and Performance Testing

Pollutant	Initial	Subsequent	Methodology	Frequency
PM (federal)	Yes	No	Certified Engine	NA
PM (state)	No	No	NA	NA
PM_{10}	No	No	NA	NA
Opacity	No	No	NA	NA
SO_2	No	No	NA	NA
NMHC + NO_X	Yes	No	Certified Engine	NA
CO	Yes	No	Certified Engine	NA
Pb	No	No	NA	NA
Individual HAP	No	No	NA	NA
Total HAP	No	No	NA	NA

If an initial compliance demonstration specified above is testing, the owner shall verify compliance with the emission limitations contained in Permit Condition 10 within sixty (60) days after achieving maximum production rate and no later than one hundred eighty (180) days after the initial startup date of the proposed equipment.

If subsequent testing is specified above, the owner shall verify compliance with the emission limitations contained in Permit Condition 10 according to the frequency noted above.

If testing is required, the owner shall use the test method and run time listed in the table below unless another testing methodology is approved by the Department prior to testing.

Pollutant	Test Run Time	Test Method
PM (federal)	1 hour	40 CFR 60, Appendix A, Method 5
PM (state)	1 hour	40 CFR 60, Appendix A, Method 5 40 CFR 51 Appendix M Method 202
PM_{10}	1 hour	40 CFR 51, Appendix M, 201A with 202
Opacity	1 hour	40 CFR 60, Appendix A, Method 9
SO_2	1 hour	40 CFR 60, Appendix A, Method 6C
NO_X	1 hour	40 CFR 60, Appendix A, Method 7E
VOC	1 hour	40 CFR 60, Appendix A, Method 25A
CO	1 hour	40 CFR 60, Appendix A, Method 10
Pb	1 hour	40 CFR 60, Appendix A, Method 12
Individual HAP	1 hour	According to IDNR approved method
Total HAP	1 hour	According to IDNR approved method

The unit(s) being sampled should be operated in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which this unit(s) will be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the Department that this unit(s) has been physically altered so that capacity cannot be exceeded, or the Department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the Department to determine whether this unit(s) is in compliance.

Each emissions compliance test must be approved by the Department. Unless otherwise specified by the Department, each test shall consist of three (3) separate runs. The arithmetic mean of three (3) acceptable test runs shall apply for compliance, unless otherwise indicated by the Department.

A pretest meeting shall be held at a mutually agreeable site no less than fifteen (15) days prior to the date of each test. Representatives from the Department shall attend this meeting, along with the owner and the testing firm, if any. It shall be the responsibility of the owner to coordinate and schedule the pretest meeting. The owner shall be responsible for the installation and maintenance of test ports. The Department shall reserve the right to impose additional, different, or more detailed testing requirements.

13. NSPS and NESHAP Applicability

This emission unit is subject to the New Source Performance Standards (NSPS) Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR §60.4200 through 40 CFR §60.4219) and to NSPS Subpart A - General Provisions (40 CFR §60.1 through 40 CFR §60.19) and is also subject to the requirements of 567 IAC 23.1(2)"yyy".

This equipment is of the source category affected by the following federal regulation: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE NESHAP) [40 CFR Part 63 Subpart ZZZZ].

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

14. Operating Limits

A. This generator shall not operate more than 300 hours per rolling twelve-month period.

B. Per 40 CFR§60.4211(f), emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine for a maximum of 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year.

C. Beginning October 1, 2010, diesel fuel fired in this generator shall be limited to a maximum sulfur content of 15 ppm and a minimum cetane index of 40 or a maximum aromatic content of 30 percent by volume per 40 CFR§80.510(b).

D. Any other operating limits not listed here but are part of 40 CFR Part 60 Subpart IIII shall also be maintained.

15. Operating Condition Monitoring

All records as required by this permit shall be kept on-site for a minimum of two (2) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

A. The owner or operator of this generator shall follow the monitoring requirements of 40 CFR§60.4209 (i.e., installation of a non-resettable hour meter prior to start-up or meet the standards applicable to non-emergency engines).

B. Record each month the total hours of operation for this generator and the reason the generator was operated. Calculate and record rolling twelve-month totals.

C. Maintain records of the sulfur content of the fuel oil utilized in this generator.

D. The owner or operator of this generator shall follow the compliance requirements of 40 CFR§60.4211.

E. The owner or operator of this generator shall follow the notification, reporting, and recordkeeping requirements of 40 CFR§60.4214(b).

16. Continuous Emission Monitoring

Continuous emission monitoring is not required by this permit at this time.

17. Description of Terms and Acronyms

acfm	Actual cubic feet per minute
Applicant	The owner, company official or authorized agent
CFR	Code of Federal Regulations
Department	Iowa Department of Natural Resources
DNR	Iowa Department of Natural Resources
gr/dscf	Grains per dry standard cubic foot
HAP	Hazardous Air Pollutant(s)
IAC	Iowa Administrative Code
MMBtu	One million British thermal units
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NO_X	Nitrogen Oxides
Owner	The owner or authorized representative
Permit	This document including permit conditions and all submitted application materials
PM_{10}	Particulate Matter equal to or less than 10 microns in aerodynamic diameter
scfm	Standard cubic feet per minute
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
VOC	Volatile Organic Compound

END OF PERMIT CONDITIONS