

Iowa Department of Natural Resources

Air Quality Construction Permit

Permit Holder

Firm: Hawkeye Renewables, LLC

Contact:

Donovan Prinsloo
VP Manufacturing & Operations

(641) 648-8914

21050 140th Street
Iowa Falls, Iowa 50126

Responsible Party:

Donovan Prinsloo
VP Manufacturing & Operations

(641) 648-8914

Permitted Equipment

Emission Unit(s): Rail Product Loadout EU SEP22B

Control Equipment: Rail Flare (5.2 MMBtu/hr) CE C22B

Emission Point: EP SEP 22B

Equipment Location: 21050 140th Street
Iowa Falls, Iowa 50126

Plant Number: 42-01-019

Permit No.	Proj. No.	Description	Date	Testing
05-A-243	05-060	Original Permit	2/28/05	No
05-A-243-S1	06-178	Amend operating limits	6/13/06	No
05-A-243-S2	08-018	Increase to 115 million gallons production	3/10/08	No

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

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.

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 thirty (30) days prior to transferring to the new location (See 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 National Ambient Air Quality Standards. In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or equipment modifications needed to meet the standards.

This permit is for the construction and operation of the 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 emission unit, control equipment or emission point without the required revisions to this permit.

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.
-

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.

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. 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.

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 thirty (30) days before equipment relocation.
- B. The owner shall furnish 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 forty-five (45) days 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 addresses:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Urbandale, IA 50322
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
Urbandale, Iowa 50322
Telephone: (515) 242-6001
FAX: (515) 242-5127

8. Notification, Reporting and Recordkeeping (continued)

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
 Urbandale, IA 50322
 Telephone: (515) 281-8448
 Fax: (515) 242-5127

DNR Field Office: 2
 2300 15th Street SW
 Mason City, Iowa 50401
 Ph: (641) 424-4073
 FAX: (641) 424-9342

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	40% ⁽³⁾	23.3(2)"d"
Sulfur Dioxide (SO ₂)	NA	NA	NA	NA
Nitrogen Oxides (NO _x)	0.35 ⁽⁴⁾	NA	NA	NA
Volatile Organic Compounds	NA	4.76 ⁽⁴⁾	NA	NA
Carbon Monoxide (CO)	1.92 ⁽⁴⁾	NA	NA	NA
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 exceedance of the indicator opacity of "No Visible Emissions" (NVE) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
- (4) PTE is limited based on operating limits (equivalent to 2800 hours operation at maximum capacity).

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Parameter	Value
Stack Height, (feet from the ground)	20'
Discharge Style	Vertical unobstructed
Stack Opening, (diameter in inches)	48"
Exhaust Temperature (°F)	1,830
Exhaust Flowrate (scfm)	347

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 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 (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
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 (state)	2 hours	Iowa Compliance Sampling Manual Method 5
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
HAPs	1 hour	According to approved IDNR 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 facility (Plant Number 42-01-019) is subject to Subparts A (General Provisions) and Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry) of the New Source Performance Standards (NSPS).

This emission unit is not subject to any of the National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time.

14. Operating Limits

Operating limits for this emission unit shall be:

- A. The owner or operator shall follow the applicable standards of Subpart VV, 40 CFR 60.480 through 60.489.
- B. The control equipment shall be inspected and maintained according to manufacturer's recommendations.
- C. Plant-wide the total amount of denatured ethanol loaded out by truck and rail shall not exceed 115 million gallons per twelve month rolling period of which no more than 21 million gallons is loaded out by truck.

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 records as required in 40 CFR 60.486, and reports as required in 40 CFR 60.487.
 - B. The owner or operator shall keep records of control equipment inspections and repairs.
 - C. Plant-wide calculate and record the total amount of denatured ethanol loaded out by truck, by rail and the total by truck and rail (in gallons) per twelve month rolling period.
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16. Continuous Emission Monitoring

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

17. Descriptions of Terms and Acronyms

Acfm	Actual cubic foot 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 ₂	Nitrogen Dioxide, a criteria pollutant measured as NO _x
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 foot per minute
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide, the measured surrogate for SO _x
SO _x	Sulfur Oxides, a criteria pollutant
VOC	Volatile Organic Compound

END OF PERMIT CONDITIONS

Iowa Department of Natural Resources

Air Quality Construction Permit

Permit Holder

Firm: Hawkeye Renewables, LLC

Contact:

Donovan Prinsloo
VP Manufacturing & Operations

(641) 648-8914

21050 140th Street
Iowa Falls, Iowa 50126

Responsible Party:

Donovan Prinsloo
VP Manufacturing & Operations

(641) 648-8914

Permitted Equipment

Emission Unit(s): Two Natural Gas Fired Dryers (42 MMBtu/hr each)
EU P10A, EU P10B; Distillation & Waste Heat Boiler EU P50

Control Equipment: Thermal Oxidizer (125 MMBtu/hr) CE C10

Emission Point: EP S10

Equipment Location: 21050 140th Street
Iowa Falls, Iowa 50126

Plant Number: 42-01-019

Permit No.	Proj. No.	Description	Date	Testing
03-A-1313	03-659	Original Permit	12/9/03	Yes
03-A-1313-S1	05-060	Amend limits to keep minor for TV/PSD	2/28/05	Yes
03-A-1313-S2	06-178	Increase plant ethanol production to 105 million gallons	6/13/06	Yes
03-A-1313-S3	08-018	Increase to 115 million gallons production	3/10/08	Yes

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

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.

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 thirty (30) days prior to transferring to the new location (See 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 National Ambient Air Quality Standards. In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or equipment modifications needed to meet the standards.

This permit is for the construction and operation of the 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 emission unit, control equipment or emission point without the required revisions to this permit.

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.
-

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.

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. 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.

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 thirty (30) days before equipment relocation.

B. The owner shall furnish 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 forty-five (45) days 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 addresses:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Urbandale, IA 50322
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
Urbandale, Iowa 50322
Telephone: (515) 242-6001
FAX: (515) 242-5127

8. Notification, Reporting and Recordkeeping (continued)

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
Urbandale, IA 50322
Telephone: (515) 281-8448
Fax: (515) 242-5127

DNR Field Office: 2
2300 15th Street SW
Mason City, Iowa 50401
Ph: (641) 424-4073
FAX: (641) 424-9342

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)	3.85 ⁽⁴⁾	NA	0.1 gr/dscf	23.4(7)
PM ₁₀	3.85 ⁽⁴⁾	NA	NA	NAAQS
Opacity	NA	NA	40% ⁽³⁾	23.3(2)"d"
Sulfur Dioxide (SO ₂)	8.99 ⁽⁴⁾	NA	500 ppm	23.3(3)
Nitrogen Oxides (NO _x)	11.12 ⁽⁴⁾	NA	0.1 LB/MMBTU ⁽⁶⁾	NAAQS
Volatile Organic Compounds	1.35 ⁽⁴⁾	NA	NA	NA
Carbon Monoxide (CO)	10.74 ⁽⁴⁾	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	2.14 ⁽⁴⁾⁽⁷⁾	9.4 ⁽⁵⁾	NA	NA
(Total HAP)	5.57 ⁽⁴⁾⁽⁷⁾	24.4 ⁽⁵⁾	NA	NA

- (1) Standard is expressed as the average of 3 runs
- (2) Standard is a 12-month rolling total.
- (3) An exceedance 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 exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
- (4) Emission limit required to keep synthetic minor for Title V and PSD. Specific HAPs are acrolein, acetaldehyde, formaldehyde and methanol.
- (5) Plant-wide limit on HAPs to keep the facility synthetic minor for Title V and any applicable NESHAPs.
- (6) This limit is a 30 day rolling average basis and applies at all times including periods of startup, shutdown and malfunction. See 40 CFR 60.44(a)(1)(i), 40 CFR 60.44b(h)(i) & 40 CFR 60.44b(l).
- (7) Specific HAPs are acrolein, acetaldehyde, formaldehyde and methanol.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Parameter	Value
Stack Height, (feet from the ground)	125'
Discharge Style	Vertical unobstructed
Stack Opening, (diameter in inches)	72"
Exhaust Temperature (°F)	350
Exhaust Flowrate (scfm)	65,312

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 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 (state)	Yes ⁽³⁾	No	NA	NA
PM ₁₀	Yes ⁽³⁾	No	NA	NA
Opacity	Yes ⁽³⁾	No	NA	NA
SO ₂	No	No	NA	NA
NO _x	Yes ⁽³⁾	No	NA	NA
VOC	Yes	No	NA	Once per year ⁽¹⁾
CO	Yes ⁽³⁾	No	NA	NA
Pb	No	No	NA	NA
HAP	Yes	No	NA	Once per year ⁽²⁾

- (1) The time between testing shall be at least 3 months.
- (2) In addition, acrolein, acetaldehyde, formaldehyde and methanol shall be tested for specifically. With the exception of acrolein, acetaldehyde, formaldehyde and methanol, any HAP whose emissions are less than the detection limit shall be assumed to be zero. Emission testing shall be completed at least once per calendar year. The time between testing shall be at least 3 months.
- (3) Testing was completed 5/4/05. Additional testing is not required at this time.

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 (state)	2 hours	Iowa Compliance Sampling Manual Method 5
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
HAPs	1 hour	According to approved IDNR 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

These emission units are subject to Subparts A (General Provisions) and Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units) of the of the New Source Performance Standards (NSPS). Additionally, the facility (Plant Number 42-01-019) is subject to NSPS Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry).

These emission units are not subject to any of the National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time.

14. Operating Limits

Operating limits for this permit shall be:

- A. The owner or operator shall follow the applicable standards of Subpart VV, 40 CFR 60.480 through 60.489.
 - B. The owner or operator shall follow the applicable standards of Subpart Db, 40 CFR 60.40b through 60.49b.
 - C. Operation of the thermal oxidizer requires that the temperature does not fall below 50 degrees Fahrenheit (using a 3-hour averaging period) of the most recent performance test which demonstrated compliance with the emission limits, and shall be operated at all times the dryers or distillation equipment is being used.
 - D. The dryers/thermal oxidizer shall combust only natural gas and/or process off-gases.
 - E. The control equipment shall be inspected and maintained according to manufacturer's recommendations.
 - F. Plant-wide, DDGS Production shall not exceed 369,643 tons per rolling twelve (12) month rolling period.
-

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 hourly records of the operating temperature of the thermal oxidizer, and record all three-hour periods (during actual operation) during which the average temperature of the thermal oxidizer is below the limit established in Section 14C. The owner or operator shall keep records as required in 40 CFR 60.486, and reports as required in 40 CFR 60.487.
 - B. The owner or operator shall keep records of control equipment inspections and repairs.
 - C. The owner or operator shall record and maintain records of the amounts of each fuel combusted during each day, and calculate the annual capacity factor on a 12 month rolling average basis with a new annual capacity factor calculated at the end of each calendar month, as required in 40 CFR 60.49b(d). The annual capacity factor is defined as the ratio between the actual heat input to a steam generating unit during a calendar year, and the potential heat input had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity.
 - D. The owner or operator shall maintain records of the following information for each steam generating unit operating day, as required in 40 CFR 60.49b(g). This information shall also be submitted in a report, as required in 40 CFR 60.49b(i)
 1. Calendar date
 2. Average hourly nitrogen oxides emission (as NO₂) rates measured or predicted.
 3. 30-day average nitrogen oxides emission rates calculated at the end of each steam generating unit operating day from the measured hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.
 4. Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the emission standard, with the reason for such excess emissions as well as a description of corrective actions taken.
 5. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.
 6. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.
 7. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
 8. Identification of the times when the pollutant concentrations exceeded the full span of the continuous monitoring system.
 9. Description of any modifications to the continuous monitoring system that could affect the ability of the CMS to comply with Performance Specification 2 or 3.
 10. Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR Appendix F, Procedure 1.
 - E. Plant-wide, for the first twelve (12) months of operation, determine the amount of DDGS for each month of operation. After the first twelve (12) months of operation, determine the cumulative amount of DDGS on a rolling-12-month basis for each month of operation.
-

16. Continuous Emission Monitoring

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 emissions discharged to the atmosphere. The CEM shall be operated and data collected as required under 40 CFR 60.48b(c),(d),(e) and (f). Alternatively, monitoring may be accomplished under the rules of 40 CFR 60.48b(g).

17. Descriptions of Terms and Acronyms

Acfm	Actual cubic foot 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 ₂	Nitrogen Dioxide, a criteria pollutant measured as NO _x
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 foot per minute
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide, the measured surrogate for SO _x
SO _x	Sulfur Oxides, a criteria pollutant
VOC	Volatile Organic Compound

END OF PERMIT CONDITIONS

Iowa Department of Natural Resources

Air Quality Construction Permit

Permit Holder

Firm: Hawkeye Renewables, LLC

Contact:

Donovan Prinsloo
VP Manufacturing & Operations

(641) 648-8914

21050 140th Street
Iowa Falls, Iowa 50126

Responsible Party:

Donovan Prinsloo
VP Manufacturing & Operations

(641) 648-8914

Permitted Equipment

Emission Unit(s): Two Natural Gas Fired Dryers (42 MMBtu/hr each)
EU P10C, EU P10D; Distillation & Waste Heat Boiler EU P50B

Control Equipment: Thermal Oxidizer (125 MMBtu/hr) CE C10B

Emission Point: EP S10B

Equipment Location: 21050 140th Street
Iowa Falls, Iowa 50126

Plant Number: 42-01-019

Permit No.	Proj. No.	Description	Date	Testing
05-A-238	05-060	Original Permit	2/28/05	Yes
05-A-238-S1	06-178	Increase plant ethanol production to 105 million gallons	6/13/06	Yes
05-A-238-S2	08-018	Increase to 115 million gallons production	3/10/08	Yes

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

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.

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 thirty (30) days prior to transferring to the new location (See 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 National Ambient Air Quality Standards. In such case, a supplemental permit shall be required prior to the initiation of construction of additional control equipment or equipment modifications needed to meet the standards.

This permit is for the construction and operation of the 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 emission unit, control equipment or emission point without the required revisions to this permit.

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.
-

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.

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. 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.

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 thirty (30) days before equipment relocation.

B. The owner shall furnish 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 forty-five (45) days 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 addresses:

Construction Permit Supervisor
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite 1
Urbandale, IA 50322
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
Urbandale, Iowa 50322
Telephone: (515) 242-6001
FAX: (515) 242-5127

8. Notification, Reporting and Recordkeeping (continued)

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
Urbandale, IA 50322
Telephone: (515) 281-8448
Fax: (515) 242-5127

DNR Field Office: 2
2300 15th Street SW
Mason City, Iowa 50401
Ph: (641) 424-4073
FAX: (641) 424-9342

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)	3.85 ⁽⁴⁾	NA	0.1 gr/dscf	23.4(7)
PM ₁₀	3.85 ⁽⁴⁾	NA	NA	NAAQS
Opacity	NA	NA	40% ⁽³⁾	23.3(2)"d"
Sulfur Dioxide (SO ₂)	8.99 ⁽⁴⁾	NA	500 ppm	23.3(3)
Nitrogen Oxides (NO _x)	11.12 ⁽⁴⁾	NA	0.1 LB/MMBTU ⁽⁶⁾	NAAQS
Volatile Organic Compounds	1.35 ⁽⁴⁾	NA	NA	NA
Carbon Monoxide (CO)	10.74 ⁽⁴⁾	NA	NA	NA
Lead (Pb)	NA	NA	NA	NA
(Single HAP)	2.14 ⁽⁴⁾⁽⁷⁾	9.4 ⁽⁵⁾	NA	NA
(Total HAP)	5.57 ⁽⁴⁾⁽⁷⁾	24.4 ⁽⁵⁾	NA	NA

- (1) Standard is expressed as the average of 3 runs
- (2) Standard is a 12-month rolling total.
- (3) An exceedance 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 exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
- (4) Emission limit required to keep synthetic minor for Title V and PSD. Specific HAPs are acrolein, acetaldehyde, formaldehyde and methanol.
- (5) Plant-wide limit on HAPs to keep the facility synthetic minor for Title V and any applicable NESHAPs.
- (6) This limit is a 30 day rolling average basis and applies at all times including periods of startup, shutdown and malfunction. See 40 CFR 60.44(a)(1)(i), 40 CFR 60.44b(h)(i) & 40 CFR 60.44b(l).
- (7) Specific HAPs are acrolein, acetaldehyde, formaldehyde and methanol.

11. Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Parameter	Value
Stack Height, (feet from the ground)	125'
Discharge Style	Vertical unobstructed
Stack Opening, (diameter in inches)	72"
Exhaust Temperature (°F)	337
Exhaust Flowrate (scfm)	68,326

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 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 (state)	Yes ⁽³⁾	No	NA	NA
PM ₁₀	Yes ⁽³⁾	No	NA	NA
Opacity	Yes ⁽³⁾	No	NA	NA
SO ₂	No	No	NA	NA
NO _x	Yes ⁽³⁾	No	NA	NA
VOC	Yes	No	NA	Once per year ⁽¹⁾
CO	Yes ⁽³⁾	No	NA	NA
Pb	No	No	NA	NA
HAP	Yes	No	NA	Once per year ⁽²⁾

- (1) The time between testing shall be at least 3 months.
- (2) In addition, acrolein, acetaldehyde, formaldehyde and methanol shall be tested for specifically. With the exception of acrolein, acetaldehyde, formaldehyde and methanol, any HAP whose emissions are less than the detection limit shall be assumed to be zero. Emission testing shall be completed at least once per calendar year. The time between testing shall be at least 3 months.
- (3) Testing was completed 5/4/05. Additional testing is not required at this time.

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 (state)	2 hours	Iowa Compliance Sampling Manual Method 5
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
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Pb	1 hour	40 CFR 60, Appendix A, Method 12
HAPs	1 hour	According to approved IDNR 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

These emission units are subject to Subparts A (General Provisions) and Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units) of the of the New Source Performance Standards (NSPS). Additionally, the facility (Plant Number 42-01-019) is subject to NSPS Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry).

These emission units are not subject to any of the National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time.

14. Operating Limits

Operating limits for this permit shall be:

- A. The owner or operator shall follow the applicable standards of Subpart VV, 40 CFR 60.480 through 60.489.
 - B. The owner or operator shall follow the applicable standards of Subpart Db, 40 CFR 60.40b through 60.49b.
 - C. Operation of the thermal oxidizer requires that the temperature does not fall below 50 degrees Fahrenheit (using a 3-hour averaging period) of the most recent performance test which demonstrated compliance with the emission limits, and shall be operated at all times the dryers or distillation equipment is being used.
 - D. The dryers/thermal oxidizer shall combust only natural gas and/or process off-gases.
 - E. The control equipment shall be inspected and maintained according to manufacturer's recommendations.
 - F. Plant-wide, DDGS Production shall not exceed 369,643 tons per rolling twelve (12) month rolling period.
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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 hourly records of the operating temperature of the thermal oxidizer, and record all three-hour periods (during actual operation) during which the average temperature of the thermal oxidizer is below the limit established in Section 14C. The owner or operator shall keep records as required in 40 CFR 60.486, and reports as required in 40 CFR 60.487.
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 - C. The owner or operator shall record and maintain records of the amounts of each fuel combusted during each day, and calculate the annual capacity factor on a 12 month rolling average basis with a new annual capacity factor calculated at the end of each calendar month, as required in 40 CFR 60.49b(d). The annual capacity factor is defined as the ratio between the actual heat input to a steam generating unit during a calendar year, and the potential heat input had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity.
 - D. The owner or operator shall maintain records of the following information for each steam generating unit operating day, as required in 40 CFR 60.49b(g). This information shall also be submitted in a report, as required in 40 CFR 60.49b(i)
 1. Calendar date
 2. Average hourly nitrogen oxides emission (as NO₂) rates measured or predicted.
 3. 30-day average nitrogen oxides emission rates calculated at the end of each steam generating unit operating day from the measured hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.
 4. Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the emission standard, with the reason for such excess emissions as well as a description of corrective actions taken.
 5. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.
 6. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.
 7. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
 8. Identification of the times when the pollutant concentrations exceeded the full span of the continuous monitoring system.
 9. Description of any modifications to the continuous monitoring system that could affect the ability of the CMS to comply with Performance Specification 2 or 3.
 10. Results of daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR Appendix F, Procedure 1.
 - E. Plant-wide, for the first twelve (12) months of operation, determine the amount of DDGS for each month of operation. After the first twelve (12) months of operation, determine the cumulative amount of DDGS on a rolling-12-month basis for each month of operation.
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16. Continuous Emission Monitoring

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 emissions discharged to the atmosphere. The CEM shall be operated and data collected as required under 40 CFR 60.48b(c),(d),(e) and (f). Alternatively, monitoring may be accomplished under the rules of 40 CFR 60.48b(g).

17. Descriptions of Terms and Acronyms

Acfm	Actual cubic foot per minute
Applicant	The owner, company official or authorized agent
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DNR	Iowa Department of Natural Resources
Gr/dscf	Grains per dry standard cubic foot
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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 foot per minute
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide, the measured surrogate for SO _x
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END OF PERMIT CONDITIONS