

Permit #: 28.0501-06

Effective Date: August 1, 2016

Expiration Date: August 1, 2021



**SOUTH DAKOTA DEPARTMENT OF  
ENVIRONMENT AND NATURAL RESOURCES  
TITLE V AIR QUALITY OPERATING PERMIT**

A handwritten signature in black ink, appearing to read "S. M. Pirner", is written over a horizontal line.

**Steven M. Pirner, P.E., Secretary  
Department of Environment and Natural Resources**

**Under the South Dakota Air Pollution  
Control Regulations**

Pursuant to Chapter 34A-1-21 of the South Dakota Codified Laws and the Air Pollution Control Regulations of the State of South Dakota and in reliance on statements made by the owner designated below, a permit to operate is hereby issued by the Secretary of the Department of Environment and Natural Resources. This permit authorizes such owner to operate the unit(s) at the location designated below and under the listed conditions:

A. Owner

1. Company Name and Address

South Dakota Soybean Processors  
PO Box 500  
Volga, South Dakota 57071

2. Actual Source Location and Mailing Address

100 Caspian Avenue  
Volga, South Dakota 57071

3. Permit Contact

Jason Converse, Safety/Environmental Coordinator  
605-627-6396

4. Facility Contact

Jason Converse, Safety/Environmental Coordinator  
605-627-6396

5. Responsible Official

Thomas Kersting, CEO  
605-627-9240

B. Permit Revisions or Modifications

Not Applicable

C. Type of Operation

South Dakota Soybean Processors operates a soybean oil production facility.

# TABLE OF CONTENTS

---

	Page
<b>1.0 Standard Conditions.....</b>	<b>1</b>
1.1 Operation of source.....	1
1.2 Duty to comply .....	3
1.3 Property rights or exclusive privileges.....	4
1.4 Penalty for violating a permit condition .....	4
1.5 Inspection and entry .....	4
1.6 Severability .....	4
1.7 Permit termination, modification, or revocation .....	4
1.8 Credible evidence .....	4
<b>2.0 Permit Fees .....</b>	<b>5</b>
2.1 Annual air fee required .....	5
2.2 Annual operational report .....	5
2.3 Annual air fee .....	5
<b>3.0 Permit Amendments and Modifications.....</b>	<b>5</b>
3.1 Permit flexibility.....	5
3.2 Administrative permit amendment.....	6
3.3 Minor permit amendment.....	6
3.4 Permit modification .....	7
3.5 Permit revision .....	7
3.6 Testing new fuels or raw materials.....	7
<b>4.0 Permit Renewal .....</b>	<b>8</b>
4.1 Permit effective.....	8
4.2 Permit renewal .....	8
4.3 Permit expiration .....	8
<b>5.0 Recordkeeping and Reporting.....</b>	<b>8</b>
5.1 Recordkeeping and reporting .....	8
5.2 Signatory requirements .....	9
5.3 Certification statement .....	9
5.4 Monitoring log.....	9
5.5 Annual records.....	10
5.6 Annual compliance certification.....	11
5.7 Reporting permit violations .....	11
<b>6.0 Compliance Assurance Monitoring .....</b>	<b>11</b>
6.1 Compliance assurance monitoring for opacity limits.....	11
6.2 Certified personnel – visible emission tests .....	13
6.3 Compliance assurance monitoring log.....	13
<b>7.0 Control of Regulated Air Pollutants .....</b>	<b>14</b>

# TABLE OF CONTENTS

---

	Page
7.1	Visibility limit .....14
7.2	Visibility exceedances .....14
7.3	Total suspended particulate matter limits .....14
7.4	Sulfur dioxide limits.....15
7.5	Air emission exceedances – emergency conditions .....15
7.6	Circumvention not allowed .....15
7.7	Minimizing emissions.....15
<b>8.0</b>	<b>PSD, BACT Requirements, and Case-by-Case MACT Exemption .....16</b>
8.1	Sulfur content limit for Unit #15 .....16
8.2	Fuel limit .....16
8.3	Unit #22 particulate matter limit.....17
8.4	Monitoring sulfur content of distillate oil and biodiesel .....17
8.5	Monthly production records for PSD exemptions .....18
8.6	Semiannual PSD exemption report .....18
8.7	Exempt from PSD review .....18
8.8	Unit #22 exempt from PSD review .....18
8.9	BACT limit for hexane solvent loss .....19
8.10	BACT limits for particulate matter.....19
8.11	BACT limits for volatile organic compounds.....20
8.12	Monthly production records for BACT limits .....20
8.13	Hexane solvent leak detection plan .....20
8.14	Semiannual production report.....21
<b>9.0</b>	<b>Performance Tests .....21</b>
9.1	Performance test may be required .....21
9.2	Test methods and procedures .....21
9.3	Representative performance test .....21
9.4	Submittal of test plan.....22
9.5	Notification of test .....22
9.6	Performance test report .....22
<b>10.0</b>	<b>Boiler NSPS – Subpart Dc: Unit #15 .....22</b>
10.1	Sulfur limit for diesel .....22
10.2	Date of initial startup notification .....23
10.3	Initial fuel oil sulfur performance test .....23
10.4	Diesel supplier certification.....23
10.5	Natural gas supplier certification .....23
10.6	Recordkeeping requirements for boiler .....23
10.7	Semiannual reporting for boiler .....24
10.8	Changing boiler fuel .....24
<b>11.0</b>	<b>Grain Elevator NSPS- Subpart DD .....24</b>
11.1	Visibility limit for dryer .....24

# TABLE OF CONTENTS

	Page
11.2	Particulate limit for grain elevator operations.....25
11.3	Visibility limit for grain elevator operations .....25
11.4	Visibility limit for fugitive sources .....25
11.5	Test methods and procedures for particulate limit .....25
11.6	Test methods and procedures for visibility limit .....25
<b>12.0</b>	<b>MACT Requirements for Emergency Engines – Subpart ZZZZ.....26</b>
12.1	Date to comply with emergency engine requirements.....26
12.2	Maintenance requirements for emergency engine.....26
12.3	Minimizing emissions from emergency engine.....26
12.4	Operate emergency engine according to manufacturer’s instructions.....26
12.5	Installation and operation of a non-resettable hour meter .....27
12.6	Minimizing startup time.....27
12.7	Alternative maintenance schedule.....27
12.8	Operation of emergency engine .....27
12.9	Recordkeeping for emergency engine .....29
12.10	Annual report for engines greater than or equal to 100 horsepower.....29
12.11	Circumvention not allowed .....30
<b>13.0</b>	<b>Solvent Extraction for Vegetable Oil Production- MACT Subpart GGGG .....30</b>
13.1	Solvent extraction for vegetable oil production - Compliance demonstration plan .....30
13.2	Solvent extraction for vegetable oil production – Startup, shutdown, and malfunction plan.....31
13.3	Solvent extraction for vegetable oil production – Operation and maintenance requirements .....32
13.4	Solvent extraction for vegetable oil production – Startup, shutdown, and malfunction records.....32
13.5	Solvent extraction for vegetable oil production – Exceedance reporting .....33
13.6	Solvent extraction for vegetable oil production – Monthly reporting .....33
13.7	Solvent extraction for vegetable oil production – Emission requirements.....34
13.8	Solvent extraction for vegetable oil production – Actual solvent lost .....35
13.9	Solvent extraction for vegetable oil production – Weighted average HAP fraction in solvent .....35
13.10	Solvent extraction for vegetable oil production – Quantity of oilseed processed.....37
13.11	Solvent extraction for vegetable oil production – Other records .....37
13.12	Solvent extraction for vegetable oil production – Annual report.....38
13.13	Solvent extraction for vegetable oil production – Monthly deviation report.....38
<b>14.0</b>	<b>MACT Requirements – Subpart DDDDD .....39</b>
14.1	Date to comply.....39

## TABLE OF CONTENTS

---

	Page
14.2 Notification of compliance status.....	39
14.3 One-time energy assessment .....	39
14.4 Biennial tune-up.....	40
14.5 Biennial report .....	40
14.6 Recordkeeping for Unit #50.....	41
<b>15.0 MACT Requirements – Subpart DDDDD .....</b>	<b>41</b>
15.1 Date to comply.....	41
15.2 Unit design .....	41
15.3 One-time energy assessment .....	41
15.4 Initial tune-up.....	42
15.5 Annual tune-up .....	43
15.6 Record maintenance .....	43
15.7 Hourly records .....	43
15.8 Notification of compliance status.....	43

## 1.0 Standard Conditions

### 1.1 Operation of source

In accordance with Administrative Rules of South Dakota (ARSD) 74:36:05:16.01(8), the owner or operator shall operate the units, controls, and processes as described in Table 1-1 in accordance with the statements, representations, and supporting data contained in the complete permit application received June 2, 2014, unless modified by the conditions of this permit. Except as otherwise provided herein, the control equipment shall be operated at all times in accordance with the manufacturer's specification and in a manner that achieves compliance with the conditions of this permit. The application consists of the application forms, supporting data, and supplementary correspondence. If the owner or operator becomes aware it failed to submit any relevant facts in a permit application or submitted incorrect information in an application, such information shall be promptly submitted.

**Table 1-1 – Description of Permitted Units, Operations, and Processes**

<b>Unit</b>	<b>Description</b>	<b>Maximum Operating Rate</b>	<b>Control Device</b>
<b>#1</b>	EP-#1 – Truck and railcar soybean receiving system consists of two truck receiving pits, a rail car receiving pit, and an underground belt conveyor system.	2,700 tons per hour	Baghouse (R10)
<b>#2</b>	EP-#2 – Soybean handling, storage, and cleaning process consists of a scalper, de-stoner, hammer mill, and the transfer of soybeans to storage bins. The transfer system consists of the transfer of soybeans from the pre-cleaning building to storage bins, storage bins to dryer, and dryer to day tanks.	150 tons per hour or 5,000 bushels per hour	Baghouse (R11)
<b>#3</b>	EP-#3 – 1995 Berico soybean dryer system fired with natural gas.	Process rate = 126 tons per hour and heat input = 20.4 million Btus per hour	Cyclone – emits indoors
<b>#4</b>	EP-#4 – Soybean screened and cleaned with aspiration, each with a separate process cyclone.	2,662 tons per day 111 tons per hour	Baghouse (P4: Bean Cleaning Aspirator), (P7: Screens Aspirator), (P31&P32: Drags)
<b>#5</b>	EP-#5 – Soybean cracking process consists of four Roskamp cracking mills, transportation system, and a process cyclone.	2,636 tons per day 110 tons per hour	Baghouse (P42), (P12A & P12B: Cracked Bean Conveyors), (P2: Whole Beans Leg), (P3: Rotex Screener), (P6: Screening Sifter), (P9: Whole Bean

<b>Unit</b>	<b>Description</b>	<b>Maximum Operating Rate</b>	<b>Control Device</b>
			Surge Hopper)
<b>#6</b>	EP-#6 – Primary soybean de-huller operation with aspirators and a process cyclone.	2,535 tons per day 105 tons per hour	Baghouse (P17)
<b>#18</b>	EP-#7 – Coarse soybean de-huller operation with aspiration and a process cyclone.	270 tons per day 11 tons per hour	Baghouse (P20)
<b>#47</b>	EP-#8 – Fines soybean de-huller operation with aspiration.	149 tons per day 6 tons per hour	Baghouse (P21)
<b>#8</b>	EP-#9 –Six 1995 Roskamp and two 1999 Roskamp flakers.	2,511 tons per day 105 tons per hour	Cyclone (P36)
<b>#21</b>	EP-#10 – Flake expanding process. The process consists of flakes and fines exposed to steam and pressure to form a collet and transportation to the extraction process. A Cyclone (P65) collects the product.	1,399 tons per day 58 tons per hour	Not applicable
<b>#14a</b>	EP-#12 – Desolventizer, toaster, dryer, and cooler system.	2,551 tons per day 106 tons per hour	Kice single cyclone (E14A)
<b>#14b</b>			Kice single cyclone (E14B)
<b>#14c</b>			Kice single cyclone (E14C)
<b>#14d</b>			Kice single cyclone (E14D)
<b>#9</b>	EP-#13 – Roskamp Champion meal sizing process. The meal sizing process involves two grinders and two sifters.	2,000 tons per day 83 tons per hour	Baghouse (M9)
<b>#12</b>	EP-#14 – Meal handling and storage consisting of conveyors, blenders, and storage tanks.	2,295 tons per day 96 tons per hour	Baghouse (L7)
<b>#10</b>	EP-#15 – Two 1995 Champion hull grinders and a process cyclone used to convey hull to storage tanks.	147 tons per day 6 tons per hour	Baghouse (HP1)
<b>#20</b>	EP-#16 – Hull pelletizer and cooler	180 tons per day 8 tons per hour	Cyclone (HP5).
<b>#13a</b>	EP-#17 – Pneumatic transfer of ground hulls from receiving and hull grinding to two hull storage bins.	205 tons per day 9 tons per hour	Baghouse (P300 & P301)
<b>#13b</b>	EP-#17 – Pneumatic transfer of ground hulls from receiving and hull grinding to two hull storage bins.	9 tons per hour	Baghouse (P34 – D2)
<b>#11</b>	EP-#18 – Meal and hull load out using one truck load out and one railcar load out. Both loadout areas have a cover.	2,146 tons per day 89 tons per hour	Baghouse (L26)
<b>#22</b>	EP-#19 – Refining additive system.	1.5 tons per hour	Baghouse (DC 487)



<b>Unit</b>	<b>Description</b>	<b>Maximum Operating Rate</b>	<b>Control Device</b>
	Clay, trycil and diatomaceous earth delivered in bulk material bags and is gravimetrically feed to the feed bins.		
<b>#15</b>	EP-#20a – Boiler A, 1996 Nebraska boiler fueled with natural gas, distillate oil, and biodiesel.	70 million Btus per hour heat input or 50,000 pounds of steam per hour heat output	Not applicable
	EP-#20b – Boiler B, 1996 Nebraska boiler fueled with natural gas, distillate oil, and biodiesel.	70 million Btus per hour heat input or 50,000 pounds of steam per hour heat output	
<b>#17</b>	EP-#21 – Cooling tower.	Not applicable	Not applicable
<b>#48</b>	Mineral oil and miscella exchanger system; waste water extractor system; and a second stage evaporator, oil stripper, and evaporator and stripper condensers.	Not applicable	Mineral oil scrubber
<b>#49</b>	Cooling tower for deodorizing process	2,500 gallons per minute	Not applicable
<b>#50</b>	High pressure steam generator	5.17 million Btus per hour heat input	Not applicable
<b>#51</b>	1996 Cummins, Model number 4BT3.9-G2, diesel fired, emergency generator.	102 horsepower	Not applicable
<b>#52</b>	1996 Detroit Diesel, Model Number: DDFP06FA, diesel fired, emergency fire pump.	368 horsepower	Not applicable

## **1.2 Duty to comply**

In accordance with ARSD 74:36:05:16.01(12), the owner or operator shall comply with the conditions of this permit. An owner or operator who knowingly makes a false statement in any record or report or who falsifies, tampers with, or renders inaccurate, any monitoring device or method is in violation of this permit. A violation of any condition in this permit is grounds for enforcement, reopening this permit, permit termination, or denial of a permit renewal application. The owner or operator, in an enforcement action, cannot use the defense that it would have been necessary to cease or reduce the permitted activity to maintain compliance. The owner or operator shall provide any information requested by the Secretary to determine compliance or whether cause exists for reopening or terminating this permit.

### **1.3 Property rights or exclusive privileges**

In accordance with ARSD 74:36:05:16.01(12), the State's issuance of this permit, adoption of design criteria, and approval of plans and specifications does not convey any property rights of any sort, any exclusive privileges, any authorization to damage, injure or use any private property, any authority to invade personal rights, any authority to violate federal, state or local laws or regulations, or any taking, condemnation or use of eminent domain against any property owned by third parties. The State does not warrant the owner's or operator's compliance with this permit, design criteria, approved plans and specifications, and operation under this permit, will not cause damage, injury or use of private property, an invasion of personal rights, or violation of federal, state or local laws or regulations. The owner or operator is solely and severally liable for all damage, injury or use of private property, invasion of personal rights, infringement of federal, state or local laws and regulations, or taking or condemnation of property owned by third parties, which may result from actions taken under the permit.

### **1.4 Penalty for violating a permit condition**

In accordance with South Dakota Codified Laws (SDCL) 34A-1-39 and 34A-1-47, a violation of a permit condition may subject the owner or operator to civil or criminal prosecution, a state penalty of not more than \$10,000 per day per violation, injunctive action, administrative permit action, and other remedies as provided by law.

### **1.5 Inspection and entry**

In accordance with SDCL 34A-1-41, the owner or operator shall allow the Secretary, upon presentation of credentials, to:

1. Enter the premises where a regulated activity is located or where pertinent records are stored;
2. Have access to and copy any records required under this permit;
3. Inspect operations regulated under this permit; and/or
4. Sample or monitor any substances or parameters for the purpose of assuring compliance.

### **1.6 Severability**

In accordance with ARSD 74:36:05:16.01(11), any portion of this permit that is void or challenged shall not affect the validity of the remaining permit requirements.

### **1.7 Permit termination, modification, or revocation**

In accordance with ARSD 74:36:05:46, the Secretary may recommend the Board of Minerals and Environment terminate, modify, or revoke this permit for violations of SDCL 34A-1 or the federal Clean Air Act or for nonpayment of any outstanding fee or enforcement penalty.

### **1.8 Credible evidence**

In accordance with ARSD 74:36:13:07, credible evidence may be used for the purpose of establishing whether the owner or operator has violated or is in violation of this permit. Credible evidence may consist of the following:

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred:
  - a. A monitoring method approved pursuant to 40 CFR § 70.6(a)(3) and incorporated in this permit; or
  - b. Compliance methods specified in an applicable plan;
2. The following testing, monitoring, or information gathering methods are presumptively credible testing, monitoring, or information-gathering methods:
  - a. Any monitoring or testing methods approved in this permit, including those in 40 CFR Parts 51, 60, 61, and 75; or
  - b. Other testing, monitoring, or information-gathering methods that produce information comparable to that produced by any method in paragraph (1) or (2)(a).

## **2.0 Permit Fees**

### **2.1 Annual air fee required**

In accordance with ARSD 74:36:05:06.01, the owner or operator shall submit an annual administrative fee and an annual fee. The fee is based on actual emissions in accordance with ARSD 74:37.

### **2.2 Annual operational report**

In accordance with ARSD 74:37:01:06, the Secretary will supply the owner or operator with an annual operational report in January of each year. The owner or operator shall complete and submit the operational report to the Secretary by March 1 of each year. The responsible official shall sign the operational report in the presence of a notary public.

### **2.3 Annual air fee**

In accordance with ARSD 74:37:01:08, the Secretary will notify the owner or operator of the required annual air emission fee and administrative fee by June 1 of each year. The fees shall accrue on July 1 and are payable to the Department of Revenue by July 31 of each year.

## **3.0 Permit Amendments and Modifications**

### **3.1 Permit flexibility**

In accordance with ARSD 74:36:05:30, the owner or operator shall have the flexibility to make changes to the source during the term of this permit. The owner or operator shall provide the Secretary written notice at least seven days in advance of the proposed change (NOTE: The Secretary will forward a copy of the written notice to EPA). The written notice shall include a brief description of the change, the date on which the change is to occur, any change in emissions, the proposed changes to the permit, and whether the requested revisions are for an administrative permit amendment, minor permit amendment, or permit modification.

The Secretary will notify the owner or operator whether the change is an administrative permit amendment, a minor permit amendment, or a permit modification. A proposed change that is considered an administrative permit amendment or a minor permit amendment can be completed immediately after the Secretary receives the written notification. The owner or operator must comply with both the applicable requirements governing the change and the proposed permit terms and conditions until the Secretary takes final action on the proposed change.

A proposed change that is considered a modification cannot be implemented until the Secretary takes final action on the proposed change or the owner or operator was issued an air quality construction permit. Permit modifications are subject to the same procedural requirements, including public comment, as the original permit issuance except that the required review shall cover only the proposed changes.

### **3.2 Administrative permit amendment**

In accordance with ARSD 74:36:05:33, the Secretary has 60 days from receipt of a written notice to verify the proposed change is an administrative permit amendment. As provided in ARSD 74:36:01:03, the Secretary considers a proposed change an administrative permit amendment if the proposed change accomplishes one of the following:

1. Corrects typographical errors;
2. Changes the name, address, or phone number of any person identified in this permit or provides a similar minor administrative change;
3. Requires more frequent monitoring or reporting;
4. The ownership or operational control changes and the Secretary determines no other change in this permit is necessary. However, the new owner must submit a certification of applicant form and a written statement specifying the date for transfer of operating permit responsibility, coverage, and liability; or
5. Any other changes the Secretary and the administrator of EPA determines to be similar to those requirements in this condition.

### **3.3 Minor permit amendment**

In accordance with ARSD 74:36:05:38, the Secretary has 90 days from receipt of a written notice or 15 days after the end of EPA's 45-day review period, whichever is later, to take final action on a minor permit amendment. Final action consists of issuing or denying a minor permit amendment or determining the proposed change is a permit modification. As provided in ARSD 74:36:05:35, the Secretary considers a proposed change to be a minor permit amendment if the proposed change:

1. Does not violate any applicable requirements;
2. Does not involve significant changes to existing monitoring, reporting, or recordkeeping requirements;
3. Does not require or change a case-by-case determination of an emission limit or other standard, a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis; or

4. Does not seek to establish or change a permit term or condition for which the source has assumed to avoid an applicable requirement, a federally enforceable emission cap, or an alternative emission limit. An alternative emission limit is approved pursuant to regulations promulgated under section 112(i)(5) of the federal Clean Air Act.

### **3.4 Permit modification**

In accordance with ARSD 74:36:05:39, an owner or operator may apply for a permit modification. A permit modification is defined in ARSD 74:36:01:10 as a physical change in or change in the operation of a source that results in at least one of the following:

1. An increase in the amount of an air pollutant emitted by the source or results in the emission of an air pollutant not previously emitted;
2. A significant change to existing monitoring, reporting, or recordkeeping requirements in the permit;
3. The change requires or changes a case-by-case determination of an emission limit or other standard, a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis; or
4. The change seeks to establish or change a permit term or condition for which there is a corresponding underlying applicable requirement that the source has assumed to avoid an applicable requirement, a federally enforceable emissions cap assumed to avoid classification as a modification under a provision of the Title I of the Clean Air Act, or an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Clean Air Act.

Permit modifications are subject to the same procedural requirements, including public comment, as the original permit issuance except the required review shall cover only the proposed changes.

### **3.5 Permit revision**

In accordance with ARSD 74:36:05:40, the Secretary may reopen and revise this permit to meet requirements of SDCL 34A-1 or the federal Clean Air Act. In accordance with ARSD 74:36:05:41, the Secretary shall notify the owner or operator at least 30 days before reopening this permit. The 30-day period may be less in the case of an emergency.

### **3.6 Testing new fuels or raw materials**

In accordance with ARSD 74:36:11:04, an owner or operator may request permission to test a new fuel or raw material to determine if it is compatible with existing equipment before requesting a permit amendment or modification. A complete test proposal shall consist of the following:

1. A written proposal describing the new fuel or raw material, operating parameters, and parameters that will be monitored and any testing associated with air pollutant emissions during the test;
2. An estimate of the type and amount of regulated air pollutant emissions resulting from the proposed change; and

3. The proposed schedule for conducting the test. In most cases the owner or operator will be allowed to test for a maximum of one week. A request for a test period longer than one week will need additional justification. A test period shall not exceed 180 days.

The Secretary shall approve, conditionally approve, or deny in writing the test proposal within 45 days after receiving a complete proposal. Approval conditions may include changing the test schedule or pollutant sampling and analysis methods. Pollutant sampling and analysis methods may include, but are not limited to performance testing, visible emission evaluation, fuel analysis, dispersion modeling, and monitoring of raw material or fuel rates.

If the Secretary determines the proposed change will result in an increase in the emission of a regulated air pollutant or result in the emission of an additional regulated air pollutant, the Secretary shall give public notice of the proposed test for 30 days. The Secretary shall consider all comments received during the 30-day public comment period before making a final decision on the test.

The Secretary will not approve a test if the test would cause or contribute to a violation of a national ambient air quality standard.

## **4.0 Permit Renewal**

### **4.1 Permit effective**

In accordance with ARSD 74:36:05:07, this permit shall expire five years from date of issuance unless reopened or terminated for cause. The current permit shall not expire and shall remain in effect until the Secretary takes final action on the renewal application.

### **4.2 Permit renewal**

In accordance with ARSD 74:36:05:08, the owner or operator shall submit an application for a permit renewal at least 180 days before the date of permit expiration if the owner or operator wishes to continue to operate an activity regulated by this permit. The current permit shall not expire and shall remain in effect until the Secretary takes final action on the timely permit renewal application.

### **4.3 Permit expiration**

In accordance with ARSD 74:36:05:28, permit expiration terminates the owner's or operator's right to operate any unit covered by this permit.

## **5.0 Recordkeeping and Reporting**

### **5.1 Recordkeeping and reporting**

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall maintain all monitoring data, records, reports, and pertinent information specified by this permit for five years from the date of sample, measurement, report, or application unless otherwise specified in this permit.

The records shall be maintained on site for the first two years and may be maintained off site for the last three years. All records must be made available to the Secretary for inspection. All notifications and reports shall be submitted to the following address:

South Dakota Department of Environment and Natural Resources  
PMB 2020, Air Quality Program  
523 E. Capitol, Joe Foss Building  
Pierre, SD 57501-3182

## **5.2 Signatory requirements**

In accordance with ARSD 74:36:05:12 and 74:36:05:16.01, all applications, reports, or other information submitted to the Secretary shall be signed and certified by a responsible official or a duly authorized representative. A responsible official for a corporation is a responsible corporate officer and for a partnership or sole proprietorship is a general partner or the proprietor, respectively. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above and submitted to the Secretary; and
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

The duly authorized representative must be designated prior to or together with any reports or information to be signed by a duly authorized representative. The responsible official shall notify the Secretary if an authorization is no longer accurate.

## **5.3 Certification statement**

In accordance with ARSD 74:36:05:16.01(14)(a), all documents required by this permit, including application forms, reports, and compliance certification, must be certified by a responsible official or a duly authorized representative. The certification shall include the following statement:

“I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document and all attachments are true, accurate, and complete.”

## **5.4 Monitoring log**

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall maintain a monitoring log. The monitoring log shall contain the following information.

1. Maintenance schedule for each piece of control equipment listed in Table 1-1. At a minimum, the maintenance schedule shall meet the manufacturer’s recommended schedule for maintenance. The following information shall be recorded for maintenance:
  - a. Identify the unit;

- b. The date and time maintenance was performed;
  - c. Description of the type of maintenance;
  - d. Reason for performing maintenance; and
  - e. Signature of person performing maintenance;
2. The following information shall be recorded for each visible emission reading required in permit condition 10.1 and 10.2:
    - a. Identify the unit and if it operates on a monthly, quarterly, semiannual, or annual basis;
    - b. The date and time the visible emission reading was performed;
    - c. If visible emissions were observed;
    - d. Description of maintenance performed to eliminate visible emissions;
    - e. Visible emission evaluation if visible emissions are not eliminated; and
    - f. Signature of person performing visible emission reading and/or visible emission evaluation; and
  3. The following information shall be recorded within two days of each emergency exceedance:
    - a. The date of the emergency exceedance and the date the emergency exceedance was reported to the Secretary;
    - b. The cause(s) of the emergency;
    - c. The reasonable steps taken to minimize the emissions during the emergency; and
    - d. A statement the permitted equipment was at the time being properly operated.

### **5.5 Annual records**

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall calculate and record the following amounts from January 1 to December 31 of each year:

1. Amount of soybeans received (hull and beans);
2. Amount of hulls processed;
3. Amount of dehulled soybeans processed;
4. Amount of meal produced from the meal sizing process;
5. Amount of pellets produced;
6. Amount of material processed through the flake expander system;
7. Amount of hexane solvent lost;
8. Sulfur content of distillate oil;
9. Heat content of distillate oil;
10. Soybean weight;
11. Amount of natural gas burned;
12. Hours of operation from Units #14a, #14b, #14c, and #14d;
13. Amount of natural gas, distillate oil, and/or biodiesel burned in Unit #15 – Boiler A;
14. Hours of operation while burning natural gas, distillate oil, or biodiesel in Unit #15 – Boiler A;
15. Amount of natural gas, distillate oil, and/or biodiesel burned in Unit #15 – Boiler B;
16. Hours of operation while burning natural gas, distillate oil, or biodiesel in Unit #15 – Boiler B;
17. Facility operational hours;



18. Operational hours and amount of natural gas burned in Unit #50;
19. Operational hours and amount of distillate oil burned in Unit #51; and
20. Operational hours and amount of distillate oil burned in Unit #52.

## **5.6 Annual compliance certification**

In accordance with ARSD 74:36:05:16.01(14), the owner or operator shall submit an annual compliance certification letter to the Secretary by March 1 of each year this permit is in effect (NOTE: The Secretary will forward a copy of the certification letter to EPA). The certification shall contain the following information:

1. Methods used to determine compliance, including: monitoring, recordkeeping, performance testing and reporting requirements;
2. The source is in compliance and will continue to demonstrate compliance with all applicable requirements;
3. In the event the source is in noncompliance, a compliance plan that indicates how the source has or will be brought into compliance; and
4. Certification statement required in permit condition 5.3.

## **5.7 Reporting permit violations**

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall report all permit violations. A permit violation should be reported as soon as possible, but no later than the first business day following the day the violation was discovered. The permit violation may be reported by telephone to the South Dakota Department of Environment and Natural Resources at (605) 773-3151 or by FAX at (605) 773-4068.

A written report shall be submitted within five days of discovering the permit violation. Upon prior approval from the Secretary, the submittal deadline for the written report may be extended up to 30 days. The written report shall contain:

1. A description of the permit violation and its cause(s);
2. The duration of the permit violation, including exact dates and times; and
3. The steps taken or planned to reduce, eliminate, and prevent reoccurrence of the permit violation.

## **6.0 Compliance Assurance Monitoring**

### **6.1 Compliance assurance monitoring for opacity limits**

In accordance with ARSD 74:36:13:08, the owner or operator shall demonstrate compliance with the particulate matter and opacity limits in Chapter 5.0 and 8.0, for Unit #5, #6, #9, #11, and #12 on a periodic basis. Periodic monitoring shall be based on the amount of visible emissions from each unit and evaluated according to the following steps:

**Step 1:** Periodic monitoring shall consist of a visible emission reading. A visible emission reading shall consist of a visual survey of each unit over a two-minute period to identify if

there are visible emissions. The visible emission reading must be conducted while the unit is in operation; but not during periods of startup, shutdown, or malfunctions. Visible emission readings shall be based on the following frequency:

- a. The owner or operator shall conduct a visible emission reading once per calendar month;
- b. If no visible emissions are observed from a unit in six consecutive monthly visible emission readings, the owner or operator may decrease the frequency of readings from monthly to semiannually for that unit; or
- c. If no visible emissions are observed from a unit in two consecutive semiannual visible emission readings, the owner or operator may decrease the frequency of testing of readings from semiannually to annually for that unit.

**Step 2:** If visible emissions are observed during a visible emission reading required in Step 1 from a unit at any time other than periods of startup, shutdown, or malfunction, the owner or operator shall conduct a visible emission test to determine if the unit is in compliance with its applicable opacity limit. The visible emission test shall be for at least six minutes and conducted in accordance with 40 CFR Part 60, Appendix A, Method 9. The visible emission test must be conducted while the unit is in operation; but not during periods of startup, shutdown, or malfunctions. Visible emission tests shall be based on the following frequency:

- a. The visible emission test must be conducted within one hour of witnessing a visible emission from a unit;
- b. If the visible emission test required in Step 2(a) results in an opacity value less than or equal to 50 percent of the opacity limit for the unit, the owner or operator shall perform a visible emission test once per month;
- c. If the opacity value of a visible emission test in Step 2(b) is less than five percent for three straight monthly tests, the owner or operator may revert back to monthly visible emission readings as required in Step 1(a);
- d. If the visible emission test required in Step 2(a) results in an opacity value greater than 50 percent of the opacity limit but less than the opacity limit, the owner or operator shall perform a visible emission test once per week; or
- e. If the visible emission test in Step 2(d) results in an opacity value less than or equal to 50 percent of the opacity limit for four straight weekly readings, the owner or operator may revert back to a monthly visible emission test as required in Step 2(b).

Periodic monitoring for units that operate on a quarterly shall be based on Step 3.

**Step 3:** For units that operate on a quarterly basis, monitoring shall consist of the following:

- a. Monitoring shall consist of a visible emission reading once per quarter. A visible emission reading shall consist of a visual survey of the unit over a two-minute period to identify if there are visible emissions. The visible emission reading must be conducted while the unit is in operation; but not during periods of startup, shutdown, or malfunctions;

- b. If visible emissions are observed from a unit at any time other than periods of startup, shutdown, or malfunction, the owner or operator shall conduct a visible emission test on that unit to determine if the unit is in compliance with its opacity limit. The visible emission test must be conducted within one hour of witnessing visible emissions from the unit during a visible emission reading. The visible emission test shall be for at least six minutes and conducted in accordance with 40 CFR Part 60, Appendix A, Method 9. The visible emission test must be conducted while the unit is in operation; but not during periods of startup, shutdown, or malfunctions.

Periodic monitoring for units that operate on a semiannual or annual basis shall be based on Step 4.

**Step 4:** For units that operate on a semiannual or annual basis, monitoring shall consist of the following:

- a. Monitoring shall consist of a visible emission reading once per year. A visible emission reading shall consist of a visual survey of the unit over a two-minute period to identify if there are visible emissions. The visible emission reading must be conducted while the unit is in operation; but not during periods of startup, shutdown, or malfunctions;
- b. If visible emissions are observed from a unit at any time other than periods of startup, shutdown, or malfunction, the owner or operator shall conduct a visible emission test on that unit to determine if the unit is in compliance with its opacity limit. The visible emission test must be conducted within one hour of witnessing visible emissions from the unit during a visible emission reading. The visible emission test shall be for at least six minutes and conducted in accordance with 40 CFR Part 60, Appendix A, Method 9. The visible emission test must be conducted while the unit is in operation; but not during periods of startup, shutdown, or malfunctions.

The person conducting the visible emission test must be certified in accordance with 40 CFR Part 60, Appendix A, Method 9. If a visible emission test is required before a person is certified in accordance with permit condition 10.3, the owner or operator shall notify the Secretary within 24 hours of observing the visible emissions to schedule a visible emission test performed by a state inspector.

## **6.2 Certified personnel – visible emission tests**

In accordance with ARSD 74:36:13:07, within 180 days after permit issuance the owner or operator shall retain a person that is certified to perform a visible emission test in accordance with 40 CFR Part 60, Appendix A, Method 9. The owner or operator shall retain a certified person throughout the remaining term of this permit.

## **6.3 Compliance assurance monitoring log**

In accordance with ARSD 74:36:13:08, the owner or operator shall maintain a monitoring log for Units #5, #6, #9, #11, and #12. The monitoring log shall contain the following information.

- 1. Maintenance schedule for each piece of control equipment listed in Table 1-1 for Units #5, #6, #9, #11, and #12. At a minimum, the maintenance schedule shall meet the

manufacturer's recommended schedule for maintenance. The following information shall be recorded for maintenance:

- a. Identify the unit;
  - b. The date and time maintenance was performed;
  - c. Description of the type of maintenance;
  - d. Reason for performing maintenance;
  - e. Signature of person performing maintenance;
2. The following information shall be recorded for each visible emission reading required in permit condition 6.1:
- a. Identify the unit;
  - b. The date and time the visible emission reading was performed;
  - c. If visible emissions were observed;
  - d. Description of maintenance performed to eliminate visible emissions;
  - e. Visible emission evaluation if visible emissions are not eliminated; and
  - f. Signature of person performing visible emission reading and/or visible emission evaluation; and
3. The owner or operator shall maintain relevant records of the occurrence and duration of each startup, shutdown, or malfunction of process equipment and/or air pollution control equipment.

## **7.0 Control of Regulated Air Pollutants**

### **7.1 Visibility limit**

In accordance with ARSD 74:36:12:01, the owner or operator may not discharge into the ambient air an air contaminant of a density equal to or greater than that designated as 20 percent opacity from any permitted unit, operation, or process listed in Table 1-1, unless otherwise specified in this permit. The visibility limit is not applicable to Unit # #1, #2, #3, and #4. This provision does not apply when the presence of uncombined water is the only reason for failure to meet the requirement.

### **7.2 Visibility exceedances**

In accordance with ARSD 74:36:12:02, an exceedance of the opacity limit in permit condition 7.1 is not considered a violation during brief periods of soot blowing, start-up, shutdown, or malfunctions. Malfunction means any sudden and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. A failure caused entirely or in part by poor maintenance, careless operation, preventable equipment breakdown, or any other cause within the control of the owner or operator is not a malfunction and is considered a violation.

### **7.3 Total suspended particulate matter limits**

In accordance with ARSD 74:36:06:02(1) and/or ARSD 74:36:06:03(1), the owner or operator shall not allow the emission of total suspended particulate matter in excess of the emission limit specified in Table 7-1 for the appropriate permitted unit, operation, and process.

**Table 7-1 – Total Suspended Particulate Matter Emission Limit**

<b>Unit</b>	<b>Description</b>	<b>Emission Limit</b>
<b>#50</b>	High pressure steam generator	0.6 pounds per million Btu heat input

**7.4 Sulfur dioxide limits**

In accordance with ARSD 74:36:06:02(2) and/or ARSD 74:36:06:03(2), the owner or operator shall not allow the emission of sulfur dioxide in excess of the emission limit specified in Table 7-2 for the appropriate permitted unit, operations, and process.

**Table 7-2 – Sulfur Dioxide Emission Limit**

<b>Unit</b>	<b>Description</b>	<b>Emission Limit</b>
<b>#50</b>	High pressure steam generator	3.0 pounds per million Btu heat input

Compliance with the sulfur dioxide emission limit is based on a three-hour rolling average, which is the arithmetic average of three contiguous one-hour periods.

**7.5 Air emission exceedances – emergency conditions**

In accordance with ARSD 74:36:05:16.01(18), the Secretary will allow for an unavoidable emission exceedance of a technology-based emission limit if the exceedance is caused by an emergency condition and immediate action is taken by the owner or operator to restore the operations back to normal. An emergency condition is a situation arising from a sudden and reasonably unforeseeable event beyond the control of the owner or operator, including acts of God. An emergency shall not include an emission exceedance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. The owner or operator shall notify the Secretary within two working days of the incident and take all steps possible to eliminate the excess emissions. The notification must provide a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. If the notification is submitted orally, a written report summarizing the information required by the notification shall be submitted and postmarked within 30 days of the oral notification

**7.6 Circumvention not allowed**

In accordance with ARSD 74:36:08:03, as referenced to 40 CFR § 63.4(b), no owner or operator shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to the use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere.

**7.7 Minimizing emissions**

In accordance with ARSD 74:36:08:03, as referenced to 40 CFR § 63.6(e)(1)(i), the owner or operator shall at all times, including periods of startup, shutdown, and malfunction, operate and maintain any permitted unit, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to

minimize emissions requires the owner or operator to reduce emissions from the permitted unit to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Secretary which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including a startup, shutdown, and malfunction plan, if required), review of operation and maintenance records, and inspection of the operation.

## **8.0 PSD, BACT Requirements, and Case-by-Case MACT Exemption**

### **8.1 Sulfur content limit for Unit #15**

In accordance with ARSD 74:36:05:16.01(8), the owner or operator shall not burn distillate oil or biodiesel oil with a sulfur content greater than 0.05 percent sulfur by weight in the two boilers associated with Unit #15.

### **8.2 Fuel limit**

In accordance with ARSD 74:36:05:16.01(8), the amount of natural gas, distillate oil and biodiesel shall be limited based on use that maintains the owner or operator's nitrogen oxide emissions less than 38 tons per 12-month period from Unit #3 and #15. The monthly nitrogen oxide emissions shall be calculated using Equation 8-1.

#### ***Equation 8-1 – Monthly nitrogen oxide emissions***

$$E_m = E_b + E_d$$

Where:

- $E_m$  = Monthly nitrogen oxide emissions, in tons;
- $E_b$  = Monthly nitrogen oxide emissions from the boilers, in tons; and
- $E_d$  = Monthly nitrogen oxide emissions from the dryer, in tons.

The monthly nitrogen oxide emissions from the boiler shall be calculated using Equation 8-2.

#### ***Equation 8-2 – Monthly boiler nitrogen oxide emissions***

$$E_b = \frac{[NG_u \times NG_{ef}] + [DO_u \times DO_{ef}] + [BD_u \times BD_{ef}]}{2000}$$

Where:

- $E_b$  = Monthly nitrogen oxide emissions, in tons;
- $NG_u$  = Monthly natural gas usage, in million cubic feet;
- $NG_{ef}$  = Natural gas emission factor, in pounds per million cubic feet;
- $DO_u$  = Monthly distillate oil usage, in gallons;

- $DO_{ef}$  = Distillate oil emission factor, in pounds per gallon;
- $BD_u$  = Monthly biodiesel usage, in gallons; and
- $BD_{ef}$  = Biodiesel emission factor, in pounds per gallon.

The monthly nitrogen oxide emissions from the dryer shall be calculated using Equation 8-3.

***Equation 8-3 – Monthly dryer nitrogen oxide emissions***

$$E_d = \frac{NG_u \times NG_{ef}}{2000}$$

Where:

- $E_d$  = Monthly nitrogen oxide emissions, in tons;
- $NG_u$  = Monthly natural gas usage, in million cubic feet; and
- $NG_{ef}$  = Natural gas emission factor, in pounds per million cubic feet.

Compliance with the limit shall be determined on a 12-month rolling total. The nitrogen oxide emission factors shall be based on the most recent performance test conducted in accordance with Chapter 9.0 of this permit.

**8.3 Unit #22 particulate matter limit**

In accordance with ARSD 74:36:05:16.01(8), the owner or operator shall not allow the emissions of particulate matter 10 microns in diameter or less ( $PM_{10}$ ) from Unit #22 in excess of 0.01 grains per dry standard cubic foot. Compliance with the emission limit shall be based on the average of three one hour test runs.

**8.4 Monitoring sulfur content of distillate oil and biodiesel**

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall obtain a fuel supplier certification for each load of distillate oil and biodiesel purchased or received. The fuel supplier certification shall include the following information:

1. The name of the fuel supplier;
2. A statement from the fuel supplier that the distillate oil complies with the specifications under the definition of distillate oil. Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2. Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6. Specifications for fuel oils are defined in the American Society for Testing and Materials in ASTM D396-78, "Standards Specifications for Fuel Oils"; and
3. A statement that the sulfur content of the distillate oil and/or biodiesel does not exceed 0.05 weight percent sulfur.

In the case where a fuel supplier certification is not obtained, the owner or operator shall collect a grab sample from the distillate oil and/or biodiesel storage tank within 30 days of receiving the shipment of distillate oil and/or biodiesel but before another load of distillate oil and/or biodiesel is transferred into the storage tank. The grab sample shall be analyzed to determine the sulfur content of the distillate oil and/or biodiesel in the storage tank. A copy of the results of the

distillate oil and/or biodiesel analysis shall be submitted with the report required in permit condition 8.7.

### **8.5 Monthly production records for PSD exemptions**

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall calculate the following each month:

1. Total amount of natural gas, in million cubic feet; distillate oil, in gallons; and biodiesel, in gallons fired in Unit #3, the two boilers associated with Unit #15, the emergency generator, Unit #51, and the emergency fire pump, Unit #52; and
2. A 12-month rolling total of the nitrogen oxide emissions using that month's value and the previous 11 months' values from Unit #3, the two boilers associated with Unit #15, the emergency generator, Unit #51, and the emergency fire pump, Unit #52.

### **8.6 Semiannual PSD exemption report**

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall submit a semiannual report to the Secretary by the end of each calendar half. The semiannual report shall contain the following information:

1. Name of the facility, permit number, reference to this permit condition, identify the submittal as a semiannual PSD exemption report, and calendar dates covered in the reporting period;
2. The amount of nitrogen oxide emitted during each month and each 12-month rolling total in the reporting period for Unit #3, the two boilers associated with Unit #15, the emergency generator, Unit #51, and the emergency fire pump, Unit #52; and
3. A copy of the results of any distillate oil and/or biodiesel analysis required in permit condition 8.5 and conducted during the reporting period.

The semiannual reports must be postmarked no later than 30 days after the end of the reporting period (i.e. January 30<sup>th</sup> and July 30<sup>th</sup>).

### **8.7 Exempt from PSD review**

In accordance with ARSD 74:36:05:16.01(8), the owner or operator is exempt from a prevention of significant deterioration review for sulfur dioxide and nitrogen oxide emissions. The exemption is due to operational limits in Chapter 8.0 of this permit. Any relaxation in the operational limits that increases the sulfur dioxide or nitrogen oxide emissions equal to or greater than 38 tons per 12-month period will require a full prevention of significant deterioration review for that pollutant as though construction had not commenced.

### **8.8 Unit #22 exempt from PSD review**

In accordance with ARSD 74:36:05:16.01(8), the owner or operator is exempt from a prevention of significant deterioration review for Unit #22. The exemption is due to operational limits in Chapter 8.0 of this permit. Any relaxation in the operational limits that increases particulate matter (10 microns in diameter or less) emissions from Unit #22 equal to or greater than 14.3



tons per 12-month period will require a full prevention of significant deterioration review as though construction had not commenced.

**8.9 BACT limit for hexane solvent loss**

In accordance with ARSD 74:36:09:02, as referenced to 40 CFR §52.21, the total amount of hexane solvent lost to the ambient air shall not exceed 0.30 gallons of solvent per ton of soybeans processed. Compliance with this limit shall be determined on a 12-month rolling average.

**8.10 BACT limits for particulate matter**

In accordance with ARSD 74:36:09:02, as referenced to 40 CFR § 52.21(j)(3), the owner or operator shall not allow the emissions of particulate matter 10 microns in diameter or less (PM<sub>10</sub>) in excess of the emission limits specified in Table 8-1 for the appropriate permitted unit, operation, and process.

*Table 8-1 – PM<sub>10</sub> BACT emission limits*

<b>Unit</b>	<b>Description</b>	<b>PM<sub>10</sub> Emission Limit</b>
#1	EP-#1 – Truck and railcar soybean receiving system.	0.01 grains per dry standard cubic foot (filterable) <sup>1</sup>
#2	EP-#2 – Soybean handling, storage, and cleaning process.	0.01 grains per dry standard cubic foot (filterable) <sup>1</sup>
#4	EP-#4 – Soybean screened and cleaned with aspiration.	0.01 grains per dry standard cubic foot (filterable) <sup>1</sup>
#5	EP-#5 – Soybean cracking process.	0.01 grains per dry standard cubic foot (filterable) <sup>1</sup>
#6	EP-#6 – Primary soybean de-huller operation.	0.01 grains per dry standard cubic foot (filterable) <sup>1</sup>
#18	EP-#7 – Coarse soybean de-huller operation.	0.01 grains per dry standard cubic foot (filterable) <sup>1</sup>
#47	EP-#8 – Fines soybean de-huller operation.	0.01 grains per dry standard cubic foot (filterable) <sup>1</sup>
#8	EP-#9 – Eight 1995 Roskamp Champion flakers.	2.3 pounds per hour (filterable) <sup>1</sup>
#14a	EP-#12 – Desolventizer, toaster, dryer, and cooler system.	1.4 pounds per hour (filterable) <sup>1</sup>
#14b		2.3 pounds per hour (filterable) <sup>1</sup>
#14c		2.3 pounds per hour (filterable) <sup>1</sup>
#14d		2.3 pounds per hour (filterable) <sup>1</sup>
#9	EP-#13 – Roskamp Champion meal sizing process.	0.01 grains per dry standard cubic foot (filterable) <sup>1</sup>
#12	EP-#14 – Meal handling and storage.	0.01 grains per dry standard cubic foot (filterable) <sup>1</sup>
#10	EP-#15 – Two hull grinders.	0.01 grains per dry standard cubic foot (filterable) <sup>1</sup>
#13a	EP-#17 – Pneumatic transfer.	0.01 grains per dry standard cubic foot (filterable) <sup>1</sup>
#13b	EP-#17 – Pneumatic transfer.	0.01 grains per dry standard cubic foot (filterable) <sup>1</sup>

Unit	Description	PM <sub>10</sub> Emission Limit
#11	EP-#18 – Meal and hull load out.	0.01 grains per dry standard cubic foot (filterable) <sup>1</sup>
#15	EP-#20a – Boiler A, 1996 Nebraska boiler fueled with natural gas and distillate oil.	Good design <sup>2</sup>
	EP-#20b – Boiler B, 1996 Nebraska boiler fueled with natural gas and distillate oil.	
#17	EP-#21 – Cooling tower.	Good design <sup>2</sup>

<sup>1</sup> – Compliance with the emission limit is based on the average of three test runs; and

<sup>2</sup> – Compliance with the emission limit is based on a review of the design criteria in the permit application.

### **8.11 BACT limits for volatile organic compounds**

In accordance with ARSD 74:36:09:02, as referenced to 40 CFR § 52.21(j)(3), the owner or operator shall not allow the emissions of volatile organic compounds in excess of the emission specified limits in Table 8-2 for the appropriate permitted units, operations, and processes.

***Table 8-2 – Volatile organic compound BACT emission limits***

Unit	Description	VOC Emission Limit
#15	EP-#20a – Boiler A, 1996 Nebraska boiler fueled with natural gas and distillate oil.	Good Design <sup>1</sup>
	EP-#20b – Boiler B, 1996 Nebraska boiler fueled with natural gas and distillate oil.	

<sup>1</sup> – Compliance with the emission limit is based on a review of the design criteria in the permit application.

### **8.12 Monthly production records for BACT limits**

In accordance with ARSD 74:36:09:02, as referenced to ARSD 74:36:05:16.01(9), the owner or operator shall calculate the following each month:

1. Total amount of hexane solvent that is released into the ambient air, in gallons;
2. Total amount of soybeans processed through the plant, in tons; and
3. A 12-month rolling total of the amount of hexane solvent lost, in gallons, per soybeans processed, in tons.

### **8.13 Hexane solvent leak detection plan**

In accordance with ARSD 74:36:09:02, as referenced to 40 CFR §52.21, the owner or operator shall develop, implement, and maintain a hexane solvent leak detection plan. The hexane solvent leak detection plan shall contain an overall description of the hexane solvent leak detection plan, a time frame for conducting periodic leak checks, timeline for repairing leaks, and other pertinent information that demonstrates hexane solvent emissions caused by leaks will be minimized.

#### **8.14 Semiannual production report**

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall submit a semiannual production report to the Secretary by the end of each calendar half. The semiannual report shall contain the following information:

1. Name of the facility, permit number, reference to this permit condition, identify the submittal as a semiannual production report, and calendar dates covered in the reporting period; and
2. The 12-month rolling average of the amount of hexane solvent lost, in gallons, per soybeans processed, in tons, for each month in the reporting period using that month's value and the previous 11 months' values.

The semiannual reports must be postmarked no later than 30 days after the end of the reporting period (i.e. January 30<sup>th</sup> and July 30<sup>th</sup>).

### **9.0 Performance Tests**

#### **9.1 Performance test may be required**

In accordance with ARSD 74:36:11:02, the Secretary may request a performance test during the term of this permit. A performance test shall be conducted while operating the unit at or greater than 90 percent of its maximum design capacity, unless otherwise specified by the Secretary. A performance test conducted while operating less than 90 percent of its maximum design capacity will result in the operation being limited to the percent achieved during the performance test. The Secretary has the discretion to extend the deadline for completion of performance test required by the Secretary if circumstances reasonably warrant but will not extend the deadline past a federally required performance test deadline.

#### **9.2 Test methods and procedures**

In accordance with ARSD 74:36:11:01, the owner or operator shall conduct the performance test in accordance with 40 CFR Part 60, Appendix A, 40 CFR Part 63, Appendix A, and 40 CFR Part 51, Appendix M. The Secretary may approve an alternative method if a performance test specified in 40 CFR Part 60, Appendix A, 40 CFR Part 63, Appendix A, and 40 CFR Part 51, Appendix M is not federally applicable or federally required.

#### **9.3 Representative performance test**

In accordance with ARSD 74:36:07:01, as referenced to 40 CFR § 60.8(c), performance tests shall be conducted under such conditions as the Secretary shall specify to the owner or operator based on the representative performance of the unit being tested. The owner or operator shall make available to the Secretary such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in this permit.

#### **9.4 Submittal of test plan**

In accordance with ARSD 74:36:11:01, the owner or operator shall submit the proposed testing procedures to the Secretary at least 30 days prior to any performance test. The Secretary will notify the owner or operator if the proposed test procedures are approved or denied. If the proposed test procedures are denied, the Secretary will provide written notification outlining what needs to be completed for approval.

#### **9.5 Notification of test**

In accordance with ARSD 74:36:07:01, as referenced to 40 CFR § 60.8(d), the owner or operator shall notify the Secretary at least 30 days prior to the start of a performance test to afford the Secretary the opportunity to have an observer present. If there is a delay in conducting the scheduled performance test, the owner or operator shall notify the Secretary as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Secretary by mutual agreement.

#### **9.6 Performance test report**

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall submit a performance test report to the Secretary within 60 days after completing the performance test or by a date designated by the Secretary. The performance test report shall contain the following information:

1. A brief description of the process and the air pollution control system being tested;
2. Sampling location description(s);
3. A description of sampling and analytical procedures and any modifications to standard procedures;
4. Test results represented in the same terminology as the permit limits;
5. Quality assurance procedures and results;
6. Records of operating conditions during the test necessary for demonstrating compliance with the permit limits, preparation of standards, and calibration procedures;
7. Raw data sheets for field sampling and field and laboratory analyses;
8. Documentation of calculations;
9. All data recorded and used to establish parameters for compliance monitoring; and
10. Any other information required by the test method.

### **10.0 Boiler NSPS – Subpart Dc: Unit #15**

#### **10.1 Sulfur limit for diesel**

In accordance with ARSD 74:36:07:05, as referenced to 40 CFR § 60.42c(d), (h)(1), and (i), on or after the date on which the initial performance test in permit condition 10.3 is completed, the owner or operator shall not combust diesel in Unit #15 that contains greater than 0.5 weight percent sulfur. Compliance with the diesel sulfur limit shall be determined based on a certification from the fuel supplier that includes the information identified in permit condition

10.4. The diesel sulfur limit applies at all times, including periods of startup, shutdown, and malfunctions.

### **10.2 Date of initial startup notification**

In accordance with ARSD 74:36:07:01 and 74:36:07:05, as referenced to 40 CFR §§ 60.7(a) and 60.48c(a), the owner or operator shall submit a notification of the date of initial startup of Unit #15. The notification shall include:

1. Name of facility, permit number, and reference to this permit condition;
2. Identify the date of initial startup. Initial startup is defined as the first time fuel is combusted in Unit #15; and
3. The design heat input capacity of the boiler and identification of fuels to be combusted in the unit.

The initial startup notification must be postmarked within 15 days after the date of actual startup.

### **10.3 Initial fuel oil sulfur performance test**

In accordance with ARSD 74:36:07:05, as referenced to 40 CFR § 60.44c(h), the initial performance test for demonstrating compliance with the diesel sulfur limit shall consist of a certification from the fuel supplier, as described in permit condition 10.4. The certification shall be for the first load of diesel that will be combusted in Unit #15.

### **10.4 Diesel supplier certification**

In accordance with ARSD 74:36:07:05, as referenced to 40 CFR § 60.48c(f)(1), the owner or operator shall obtain a fuel supplier certification for each load of diesel purchased or received. The fuel supplier certification shall include the following information:

1. The name of the fuel supplier;
2. A statement from the fuel supplier the diesel complies with the specifications under the definition of distillate oil given in permit condition 10.8; and
3. A statement that the sulfur content of the diesel does not exceed 0.5 weight percent sulfur.

### **10.5 Natural gas supplier certification**

In accordance with ARSD 74:36:07:05, as referenced to 40 CFR § 60.48c(f)(4), the owner or operator shall maintain the following natural gas fuel supplier information:

1. The name of the fuel supplier;
2. The potential sulfur emissions rate or maximum potential sulfur emissions rate of the natural gas in nanogram per Joules heat input; and
3. The method used to determine the potential sulfur emissions rate of the natural gas.

### **10.6 Recordkeeping requirements for boiler**

In accordance with ARSD 74:36:07:05, as referenced to 40 CFR § 60.48c(g) and (i), the owner or operator shall maintain the following records:

1. Each fuel supplier certification;
2. A copy of the initial startup notification;
3. A copy of each semiannual report; and
4. Records of the amount of each fuel combusted during each calendar month; or
5. Records of the total amount of each fuel delivered to the property during each calendar month.

All records shall be maintained for a period of two years following the date of such record.

### **10.7 Semiannual reporting for boiler**

In accordance with ARSD 74:36:07:05, as referenced to 40 CFR § 60.48c(d), (e), and (j), the owner or operator shall submit a semiannual report to the Secretary. The semiannual reports shall contain the following information:

1. Name of facility, permit number, reference to this permit condition, identifying the submittal as a semiannual report, and the calendar dates covered in the reporting period;
2. Copies of the fuel supplier certification for each load of diesel purchased or received during the reporting period. If no diesel is purchased or received during the reporting period, a statement that no diesel was purchased or received shall be included;
3. A certified statement signed by the owner or operator that the records of fuel supplier certifications submitted represent all of the diesel combusted during the reporting period.

The semiannual reports must be postmarked no later than 30 days after the end of the reporting period (e.g., July 30<sup>th</sup> and January 30<sup>th</sup>).

### **10.8 Changing boiler fuel**

In accordance with ARSD 74:36:07:05, as referenced to 40 CFR § 60.40c, Unit #15 shall be fired with natural gas or diesel. If Unit #15 is fueled with other fuels such as coal, other oil, or wood, additional standards and requirements in 40 CFR Part 60, Subpart Dc may apply. The owner or operator shall apply for and obtain approval from the Secretary before other fuels can be used as a fuel in Unit #15.

Distillate oil means diesel that complies with the specifications for fuel oil numbers 1 or 2. Residual oil means crude oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6. Specifications for fuel oils are defined in the American Society for Testing and Materials in ASTM D396-78, "Standards Specifications for Fuel Oils".

## **11.0 Grain Elevator NSPS- Subpart DD**

### **11.1 Visibility limit for dryer**

In accordance with ARSD 74:36:07:17, as referenced to 40 CFR §§ 60.11(c) and 60.302(a), the owner or operator shall not discharge into the ambient air any gases which exhibit greater than 0 percent opacity from Units #1, #2, #3, and #4.

### **11.2 Particulate limit for grain elevator operations**

In accordance with 74:36:07:17, as referenced to 40 CFR § 60.302(b)(1), the owner or operator shall not cause to be discharged into the ambient air from Units #1, #2, #3, and #4 the emissions of total suspended particulate matter in excess of 0.01 grains per dry standard cubic foot.

### **11.3 Visibility limit for grain elevator operations**

In accordance with ARSD 74:36:07:17, as referenced to 40 CFR §§ 60.11(c) and 60.302(b)(2), the owner or operator may not discharge into the ambient air an air contaminant of a density greater than that designated as 0 percent opacity from Units #1, #2, #3, and #4. The opacity limit shall apply at all times except during periods of startup, shutdown, and malfunctions.

### **11.4 Visibility limit for fugitive sources**

In accordance with 74:36:07:17, as referenced to §§ 60.11(c) and 60.302(c)(2), the owner or operator shall not cause to be discharged into the atmosphere fugitive emissions from the following sources in excess of the following visibility limit:

1. The truck unloading stations, railcar unloading station, or railcar loading station that exhibits greater than 5 percent opacity;
2. Any grain handling operation that exhibits greater than 0 percent opacity; and
3. Any individual truck loading station that exhibits greater than 10 percent opacity.

The opacity limit shall apply at all times except during periods of startup, shutdown, and malfunctions.

### **11.5 Test methods and procedures for particulate limit**

In accordance with ARSD 74:36:07:17, as referenced to 40 CFR § 60.303(b)(1) and (2) and (c), the owner or operator shall determine compliance with permit condition 11.2 as follows:

1. 40 CFR Part 60, Appendix A, Method 5 shall be used to determine the particulate matter concentration and volumetric flow rate of the effluent gas. The sampling time and sampling volume for each run shall be at least 60 minutes and 1.70 dry standard cubic meters (60 dry standard cubic feet), respectively. The probe and filter holder shall be operated without heaters;
2. 40 CFR Part 60, Appendix A, Method 2 shall be used to determine the ventilation volumetric flow rate; and
3. The owner or operator may use 40 CFR Part 60, Appendix A, Method 17 instead of Method 5.

### **11.6 Test methods and procedures for visibility limit**

In accordance with ARSD 74:36:07:17, as referenced to 40 CFR § 60.303(b)(3), the owner or operator shall determine compliance with permit condition 11.1, 11.3, and 11.4 using 40 CFR Part 60, Appendix A, Method 9. The minimum total time of observations for the opacity performance test shall be 3 hours (30 6-minute averages).

## **12.0 MACT Requirements for Emergency Engines – Subpart ZZZZ**

### **12.1 Date to comply with emergency engine requirements**

In accordance with ARSD 74:36:08:40, as referenced to 40 CFR § 63.6595(a)(1), the owner or operator shall comply with the applicable requirements specified in this chapter on and after June 15, 2007.

### **12.2 Maintenance requirements for emergency engine**

In accordance with ARSD 74:36:08:40, as referenced to 40 CFR § 63.6603(a), the owner or operator shall:

1. Change oil and oil filter every 500 hours of operation or annually, whichever comes first;
2. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and
3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

If the emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. The owner or operator shall report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

### **12.3 Minimizing emissions from emergency engine**

In accordance with ARSD 74:36:08:40, as referenced to 40 CFR § 63.6605, the owner or operator shall be in compliance with the requirements in this chapter at all times. The owner or operator shall at all times operate and maintain the emergency engine, including associated monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the owner or operator to make any further efforts to reduce emissions if the requirements in this chapter have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on available information which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the emergency engine.

### **12.4 Operate emergency engine according to manufacturer's instructions**

In accordance with ARSD 74:36:08:40, as referenced to 40 CFR §§ 63.6625(e) and 63.6640(a), the owner or operator shall operate and maintain the emergency engine according to the manufacturer's emission-related written instructions or develop a maintenance plan which provides to the extent practicable for the maintenance and operation of the emergency engine in a manner consistent with good air pollution control practice for minimizing emissions.



### **12.5 Installation and operation of a non-resettable hour meter**

In accordance with ARSD 74:36:08:40, as referenced to 40 CFR §§ 63.6625(f) and 63.6635(a) and (b), the owner or operator shall install, operate, and maintain a non-resettable hour meter on the emergency engine. Except for a non-resettable hour meter malfunction and associated repairs, the non-resettable hour meter must monitor the operation of the emergency engine continuously at all times the engine is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the non-resettable hour meter. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

### **12.6 Minimizing startup time**

In accordance with ARSD 74:36:08:40, as referenced to 40 CFR § 63.6625(h), the owner or operator shall minimize the emergency engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

### **12.7 Alternative maintenance schedule**

In accordance with ARSD 74:36:08:40, as referenced to 40 CFR § 63.6625(i), the owner or operator may utilize an oil analysis program in order to extend the specified oil change requirement in permit condition 12.2. The oil analysis must be performed at the same frequency specified for changing the oil in permit condition 12.2. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows:

1. Total Base Number is less than 30 percent of the Total Base Number of the oil when new;
2. Viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or
3. Percent water content (by volume) is greater than 0.5.

If any of the condemning limits are exceeded, the owner or operator shall change the engine oil within 2 days of receiving the results of the analysis. If the engine is not in operation when the results of the analysis are received, the owner or operator shall change the oil within 2 days or before commencing operation, whichever is later. The owner or operator shall keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program shall be part of the maintenance plan for the engine.

### **12.8 Operation of emergency engine**

In accordance with ARSD 74:36:08:40, as referenced to 40 CFR § 63.6640(f), the owner or operator shall operate the emergency engine according to the following:

1. There is no time limit on the use of the emergency engine during emergency situations;
2. The owner or operator may operate the emergency engine for any combination of the following purposes for a maximum of 100 hours per calendar year. Any operation for

non-emergency situations as allowed by paragraph (3) of this permit condition counts as part of the 100 hours per calendar year allowed by this paragraph:

- a. The emergency engine may be operated for maintenance checks and readiness testing, provided the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Secretary 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 federal, state, or local standards require maintenance and testing of an emergency engine beyond 100 hours per calendar year;
  - b. The emergency engine may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3; and
  - c. The emergency engine may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency; and
3. The emergency engine may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response or to generate income for the owner or operator to an electric grid or otherwise supply power as part of a financial arrangement with another entity, except as provided below:
- a. Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for the owner or operator or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the owner or operator itself or to support the local distribution system; and
  - b. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
    - i. The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
    - ii. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region;
    - iii. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines;
    - iv. The power is provided only to the owner or operator itself or to support the local transmission and distribution system; and

- v. The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the owner or operator.

### **12.9 Recordkeeping for emergency engine**

In accordance with ARSD 74:36:08:40, as referenced to 40 CFR §§ 63.6655 and 63.6660, the owner or operator shall maintain the following records:

1. A copy of each annual report;
2. Records of all required maintenance performed on the engine and non-resettable hour meter;
3. Records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator shall document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. The owner or operator shall keep records of the notification of any emergency situation and the date, start time, and end time of engine operation for these purposes; and
4. Records of how the owner or operator complied with operating the emergency engine according to the manufacturer's emission-related instruction or the owner or operator's maintenance plan required in permit condition 12.4.

All records shall be maintained in a form suitable and readily available for expeditious review for 5 years following the date of each occurrence, measurement, maintenance, report or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site.

### **12.10 Annual report for engines greater than or equal to 100 horsepower**

In accordance with ARSD 74:36:08:40, as referenced to 40 CFR § 63.6650(h), the owner or operator operates shall submit an annual report that contains the following information for each emergency engine greater than or equal to 100 horsepower:

1. Company name and address where the engine is located;
2. Date of the report and beginning and ending dates of the reporting period;
3. Engine site rating and model year;
4. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place;
5. Hours operated for the purposes specified in paragraph (2)(b) and (2)(c) of permit condition 12.8, including the date, start time, and end time for engine;
6. Number of hours the engine is contractually obligated to be available for the purposes specified in paragraph (2)(b) and (2)(c) of permit condition 12.8; and
7. Hours spent for operation for the purpose specified in paragraph (3)(b), including the date, start time, and end time for engine. The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

The first annual report shall cover the calendar year 2015 and submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

If available, the annual report shall be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) at the following website: <http://www.epa.gov/cdx>. However, if the reporting form specific to this subpart or the database is not available at the time the report is due or the owner or operator does not have access to the database, the written report shall be submitted to the Secretary.

#### **12.11 Circumvention not allowed**

In accordance with ARSD 74:36:08:03, as referenced to 40 CFR § 63.4(b), no owner or operator shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to the use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere.

### **13.0 Solvent Extraction for Vegetable Oil Production- MACT Subpart GGGG**

#### **13.1 Solvent extraction for vegetable oil production - Compliance demonstration plan**

In accordance with ARSD 74:36:08:28, as referenced to 40 CFR §63.2851(a) and (b), the owner or operator shall develop a written plan for demonstrating compliance that provides the detailed procedures the owner or operator will follow to monitor and record data necessary for demonstrating compliance with this Chapter. The plan shall include the following:

1. The name and address of the owner or operator;
2. The physical address of the solvent extraction for vegetable oil production process;
3. A detailed description of all methods of measurement used to determine the solvent losses, hazardous air pollutant content of solvent, and the tons of each type of oilseed processed. The detailed description shall include, but is not limited to:
  - a. The operating status of the facility (i.e. normal operating period, non-operating period, and malfunction period);
  - b. The dates that define each operating status during a calendar month;
  - c. Record the beginning and ending inventory of solvent and oilseeds during a normal operating period;
  - d. Record the gallons of solvent and tons of oilseeds received;
  - e. Adjustments to the solvent and oil seed records as long as a reasonable justification is provided such as changes in solvent working capacity, sold prior to being used, spoiled or moldy oilseeds, etc.; and

- f. The date and time each measurement will be made;
4. Examples of each calculation used to determine compliance. The examples must include how data measured with one parameter will be converted to other terms used in the compliance determination;
5. Example logs of how data will be recorded; and
6. A plan to ensure that the data continue to meet compliance demonstration needs.

The owner or operator shall make revisions to the compliance demonstration plan, if it is determined that the plan's procedures lack detail and/or those areas that are inconsistent or do not accurately determine the solvent loss, hazardous air pollutant content of the solvent, or the tons of oilseed processed. If the plan is revised, the previous versions must be maintained for at least five years.

### **13.2 Solvent extraction for vegetable oil production – Startup, shutdown, and malfunction plan**

In accordance with ARSD 74:36:08:03, as referenced to 40 CFR §63.6(e)(3)(i), (vi), (vii), (viii), and (ix) and ARSD 74:36:08:28, as referenced to 40 CFR §63.2852, the owner or operator shall develop a written solvent extraction for vegetable oil production Startup, Shutdown, and Malfunction plan that describes in detail the procedures for operating and maintaining the solvent extraction for vegetable oil production facility during periods of startup, shutdown, and malfunctions. In addition, the plan shall identify a program of corrective action for a malfunction of the process, air pollution control, and monitoring equipment used to comply with the relevant standard. The solvent extraction for vegetable oil production Startup, Shutdown, and Malfunction plan does not need to address any scenario that would not cause an exceedance of an applicable emission limit. The solvent extraction for vegetable oil production Startup, Shutdown, and Malfunction plan shall:

1. Ensure that at all times the owner or operator operates and maintains the solvent extraction for vegetable oil production facility, including associated air pollution control and monitoring equipment, in a manner which satisfies the general duty to minimize emissions in permit condition 11.3;
2. Ensure that the owner or operator is prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and
3. Reduce the reporting burden associated with periods of startup, shutdown, and malfunction, including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation.

To satisfy this requirement, the owner or operator may use its standard operating procedures manual, an Occupational Safety and Health Administration (OSHA) plan, or another plan, provided the alternative plans meet all the requirements of this permit condition and are made available for inspection or submitted when requested by the Secretary.

The owner or operator shall make revisions within 45 days to the solvent extraction for vegetable oil production Startup, Shutdown, and Malfunction plan, if it is determined that the plan does not

address a startup, shutdown, or malfunction event that has occurred; fails to provide for the operation of a unit (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions; or does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable. Revisions to the solvent extraction for vegetable oil production Startup, Shutdown, and Malfunction plan are not considered a permit revision.

### **13.3 Solvent extraction for vegetable oil production – Operation and maintenance requirements**

In accordance with ARSD 74:36:08:03, as referenced to 40 CFR §63.6(e)(1)(i) and ARSD 74:36:08:28, as referenced to 40 CFR §63.2870, the owner or operator shall operate and maintain the solvent extraction for vegetable oil production facility, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions at all time, including periods of startup, shutdown, and malfunction. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the owner or operator to reduce emissions to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Secretary which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan), review of operation and maintenance records, and inspection of the source.

### **13.4 Solvent extraction for vegetable oil production – Startup, shutdown, and malfunction records**

In accordance with ARSD 74:36:08:03, as referenced to 40 CFR §63.6(e)(3)(iii) and (v) and ARSD 74:36:08:28, as referenced to 40 CFR §63.2852, the owner or operator must maintain a copy of the current solvent extraction for vegetable oil production Startup, Shutdown, and Malfunction plan at the site and must make the plan available upon request for inspection and copying by the Secretary. In addition, if the solvent extraction for vegetable oil production Startup, Shutdown, and Malfunction plan is subsequently revised, the owner or operator must maintain at the site each previous (i.e., superseded) version of the solvent extraction for vegetable oil production Startup, Shutdown, and Malfunction plan, and must make each previous version available for inspection and copying by the Secretary for a period of five years after revision of the plan. If at any time after adoption of a solvent extraction for vegetable oil production Startup, Shutdown, and Malfunction plan the owner or operator ceases operation or is otherwise no longer subject to this permit condition, the owner or operator must retain a copy of the most recent plan for five years from the date the owner or operator ceases operation or is no longer subject to this permit condition and must make the plan available upon request for inspection and copying by the Secretary.

The owner or operator must keep the following records when an exceedance of an emission limit in Chapter 13.0 occurs during startup, shutdown, or malfunction:

1. The occurrence and duration of each startup or shutdown;
2. The occurrence and duration of each malfunction of operation (e.g., process equipment), the required air pollution control, or the monitoring equipment;
3. Actions taken during periods of startup or shutdown when the actions taken are different from the procedures specified in the Startup, Shutdown, and Malfunction plan;
4. Actions taken during periods of a malfunction when the actions taken are different from the procedures specified in the Startup, Shutdown, and Malfunction plan; and
5. All information necessary, including actions taken, to demonstrate conformance with the Startup, Shutdown, and Malfunction plan.

### **13.5 Solvent extraction for vegetable oil production – Exceedance reporting**

In accordance with ARSD 74:36:08:03, as referenced to 40 CFR §63.6(e)(3)(iv) and ARSD 74:36:08:28, as referenced to 40 CFR §§63.2852 and 63.2861(d), if an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the startup, shutdown, and malfunction plan, and the owner or operator exceed any applicable emission limit in Chapter 13.0, the owner or operator must report such actions by telephone call or facsimile within two working days after commencing actions inconsistent with the plan, followed by a letter, delivered or postmarked, within seven working days after the end of the event. The startup, shutdown and malfunction report shall include:

1. The name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy;
2. An explanation of the circumstances of the event;
3. The reasons for not following the Startup, Shutdown, and Malfunction plan;
4. A description and date of the startup, shutdown, or malfunction event, its duration, and the reason its qualifies as a startup, shutdown, or malfunction event; and
5. An estimate of the solvent loss for the duration of the startup, shutdown, or malfunction event with supporting documentation.

### **13.6 Solvent extraction for vegetable oil production – Monthly reporting**

In accordance with ARSD 74:36:08:28, as referenced to 40 CFR §63.2861(c), if an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is consistent with the procedures specified in the startup, shutdown, and malfunction plan, and the owner or operator exceed any applicable emission limit in Chapter 13.0, the owner or operator must report the startup, shutdown, malfunction by the end of the following month after the month in which the startup, shutdown, malfunction event occurred. The startup, shutdown and malfunction report shall include:

1. The name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy;

2. A statement that the actions taken were consistent with the startup, shutdown, or malfunction event;
3. A description and date of the startup, shutdown, or malfunction event, its duration, and the reason its qualifies as a startup, shutdown, or malfunction event; and
4. An estimate of the solvent loss for the duration of the startup, shutdown, or malfunction event with supporting documentation

### **13.7 Solvent extraction for vegetable oil production – Emission requirements**

In accordance with ARSD 74:36:08:28, as referenced to 40 CFR §63.28540, the owner or operator shall limit the number of gallons of hazardous air pollutants lost per ton of listed oilseeds as follows:

1. Maintain the compliance ratio to less than or equal to 1.00;
2. For each operating month, calculate a compliance ratio which compares the actual hazardous air pollutant loss to the allowed hazardous air pollutant loss for the previous 12 operating months. Equation 13-1 shall be used to determine the compliance ratio;

#### ***Equation 13-1 – Calculating compliance ratio***

$$\text{Compliance Ratio} = \frac{(f) \times (\text{actual solvent loss})}{(0.64) \times \left( \sum_{i=1}^n (\text{oilseed}_i) \times \text{SLF}_i \right)}$$

Where:

- f = the weighted average volume fraction determined from Equation 13-5;
  - 0.64 = the average volume fraction in the baseline data;
  - Actual solvent loss = gallons of actual solvent loss determined from Equation 13-3;
  - Oilseed = tons of each oilseed type determined from Equation 13-7; and
  - SLF = solvent loss factor (gallons per ton) for the oil seed. For an existing soybean plant, “SLF” = 0.2 gallons per ton.
3. When using Equation 13-7, the following conditions and exclusions may apply:
    - a. If the source is not operating under a malfunction period, the month shall be considered a operating month;
    - b. The 12-month compliance ratio may include months prior to and after a shutdown period;
    - c. If the sources does not operate during the month, the month is considered a non-operating month. Exclude all non-operating months from the compliance ratio determination; and
    - d. Exclude from the compliance ratio determinations any solvent and/or oilseed information recorded during a malfunction period.
  4. The owner or operator may change the compliance option noted above to a Low hazardous air pollutant solvent option by submitting a notice to the Secretary at least 60 days prior to changing the compliance option.



### **13.8 Solvent extraction for vegetable oil production – Actual solvent lost**

In accordance with ARSD 74:36:08:28, as referenced to 40 CFR §63.2853, the owner or operator shall determine the total gallons of solvent lost for a previous month by the end of the subsequent calendar month. The 12-operating month rolling sum of gallons of solvent lost shall be determined as follows:

1. Determine the total gallons of solvent lost as described in your compliance demonstration plan in permit condition 13.1;
2. Determine the total gallons of solvent lost at your affected source during normal operating periods recorded within a calendar month. Equation 13-2 shall be used to determine the quantity of oilseeds processed;

#### ***Equation 13-2 – Calculating quantity of oilseeds processed***

$$\text{Monthly Solvent} = \sum_{n=1}^n (\text{SOLV}_B) - (\text{SOLV}_E) + (\text{SOLV}_R) \pm (\text{SOLV}_A)$$

Where:

- $\text{SOLV}_B$  = Gallons of solvent in the inventory at the beginning of normal operating period;
- $\text{SOLV}_E$  = Gallons of solvent in the inventory at the end of normal operating period;
- $\text{SOLV}_R$  = Gallons of solvent received during normal operating period;
- $\text{SOLV}_A$  = Gallons of solvent added or removed from the extraction solvent inventory during normal operating period; and
- $n$  = Number of normal operating periods in the calendar month during which this solvent was processed.

3. Determine the total gallons of solvent lost during normal operating periods in the previous 12 operating months. The total gallons of solvent does not include the solvent used during a non-operating period or a malfunction. If the non-operating period or malfunction lasts the entire calendar month, the calendar month is considered a non-operating month. Equation 13-3 shall be used to determine the 12 operating month total gallons of solvent.

#### ***Equation 13-3 – Determining 12 operating month total gallons of solvent***

$$12 \text{ month solvent} = (\text{solvent month1}) + (\text{solvent month2}) + \dots (\text{solvent month12})$$

Where:

- solvent month1 = Total gallons of solvent used during month 1;
- solvent month2 = Total gallons of solvent used during month 2; and
- ...solvent month12 = Total gallons of solvent used during months 3 through 12 summed together.

### **13.9 Solvent extraction for vegetable oil production – Weighted average HAP fraction in solvent**

In accordance with ARSD 74:36:08:28, as referenced to 40 CFR §63.2854, the owner or operator shall determine a weighted average fraction of hazardous air pollutants in the solvent used for a

previous month by the end of the subsequent calendar month. The 12-operating month weighted average fraction shall be determined as follows:

1. Record the volume fraction of each hazardous air pollutant comprising more than 1 percent by volume of the solvent in each delivery of solvent, including solvent recovered from off-site oil. To determine the hazardous air pollutant content of the material in each delivery of solvent, the owner or operator may use 40 CFR Part 63, Appendix A, Method 311, an approved alternative method, or any other reasonable means, which includes but is not limited to, a material safety data sheet or a manufacturer's certificate of analysis;
2. Determine the weighted average volume fraction of hazardous air pollutant in the extraction solvent each operating month. The weighted average volume fraction of hazardous air pollutant for an operating month includes all solvent received since the end of the last operating month, regardless of the operating status at the time of the delivery. Equation 13-4 shall be used to determine the monthly weighted average volume fraction of hazardous air pollutants

**Equation 13-4 – Calculating monthly weighted average**

$$\text{Monthly Weighted Average} = \frac{\sum_{i=1}^n (\text{received}_i) \times (\text{content}_i)}{\text{total received}}$$

Where:

- n = the number of different solvents received with different characteristics;
- received<sub>i</sub> = gallons of solvent received;
- content<sub>i</sub> = volume fraction of hazardous air pollutant in solvent received; and
- total received = total gallons of solvent received in the month.

0. Determine the weighted average volume fraction of hazardous air pollutants in the extraction solvent over the last 12 operating months. Equation 13-5 shall be used to determine the 12 operating month weighted average volume fraction of hazardous air pollutants

**Equation 13-5 – Calculating 12 month weighted average**

$$12 \text{ Month Weighted Average} = \frac{\sum_{i=1}^{12} (\text{received}_i) \times (\text{content}_i)}{\text{total received}}$$

Where:

- 12 = the last 12 operating months, which includes the month the compliance ratio is being calculated;
- received<sub>i</sub> = the gallons of solvent received in the operating month;
- content<sub>i</sub> = the average monthly weighted fraction of hazardous air pollutants determined in Equation 13-4; and
- total received = total gallons of solvent received in the last 12 operating months.

### **13.10 Solvent extraction for vegetable oil production – Quantity of oilseed processed**

In accordance with ARSD 74:36:08:28, as referenced to 40 CFR §63.2855, the owner or operator shall determine the tons of oilseeds received for a previous month by the end of the subsequent calendar month. The 12-operating month rolling sum of tons of oilseeds shall be determined as follows:

1. Determine the tons of oilseeds received as described in your compliance demonstration plan in permit condition 13.1;
2. Determine the quantity of each oilseed type processed at your affected source during normal operating periods recorded within a calendar month. Equation 13-6 shall be used to determine the quantity of oilseeds processed; and

#### ***Equation 13-6 – Calculating quantity of oilseeds processed***

$$\text{Monthly oil seed} = \sum_{n=1}^n (\text{Seed}_B) - (\text{Seed}_E) + (\text{Seed}_R) \pm (\text{Seed}_A)$$

Where:

- Seed<sub>B</sub> = Tons of oilseed in the inventory at the beginning of normal operating period;
  - Seed<sub>E</sub> = Tons of oilseed in the inventory at the end of normal operating period;
  - Seed<sub>R</sub> = Tons of oilseed received during normal operating period;
  - Seed<sub>A</sub> = Tons of oilseed added or removed from the oilseed inventory during normal operating period; and
  - n = Number of normal operating periods in the calendar month during which this type oilseed was processed.
3. Determine the quantity of each oilseed processed during normal operating periods in the previous 12 operating months. The quantity of oil seed does not include oil seeds processed during a non-operating period or a malfunction. If the non-operating period or malfunction lasts the entire calendar month, the calendar month is considered a non-operating month. Equation 13-7 shall be used to determine the 12 operating month oilseed total

#### ***Equation 13-7 – Calculating 12 operating month oilseed total***

$$12 \text{ month oilseed} = (\text{Oilseed month1}) + (\text{Oilseed month2}) + \dots (\text{Oilseed month12})$$

Where:

- Oilseed month1 = Tons of oilseed processed during month 1;
- Oilseed month2 = Tons of oilseed processed during month 2; and
- ...Oilseed month12 = Tons of oilseed processed during months 3 through 12 summed together.

### **13.11 Solvent extraction for vegetable oil production – Other records**

In accordance with ARSD 74:36:08:28, as referenced to 40 CFR §63.2862, the owner or operator shall maintain the following records:

1. A copy of the compliance demonstration plan in permit condition 13.1
2. A copy of the startup, shutdown, and malfunction plan in permit condition 13.2
3. A copy of the data used to develop the amount of solvent lost as described in permit condition 13.8;
4. A copy of the data used to develop the weighted average volume fraction of hazardous air pollutants as described in permit condition 13.9;
5. A copy of the data used to develop the amount of oilseeds processed as described in permit condition 13.10;
6. A copy of the compliance ratio calculations as described in permit condition 13.7;
7. A copy of the reports as described in permit conditions 13.5, 13.6, 13.12, and 13.13; and
8. A copy of the data for each startup, shutdown, and malfunction as described in permit condition 13.4

### **13.12 Solvent extraction for vegetable oil production – Annual report**

In accordance with ARSD 74:36:08:28, as referenced to 40 CFR §63.2861(a), the owner or operator shall submit an annual report with the following information:

1. Name and address of the owner or operator;
2. The physical address of the facility
3. The types of oilseed processed during the calendar year
4. Each hazardous air pollutant identified in permit condition 13.9;
5. A statement designating the facility is still a major source or a demonstration that the facility qualifies as an area source;
6. A statement certifying that the procedures in the compliance demonstration plan in permit condition 13.1 was followed;
7. A statement certifying that the compliance ratio determined in accordance with permit condition 13.7

The annual report shall cover the calendar prior to year the report is submitted. This report may be submitted with the annual compliance certification in permit condition 5.5, which is due March 1 of each year.

### **13.13 Solvent extraction for vegetable oil production – Monthly deviation report**

In accordance with ARSD 74:36:08:28, as referenced to 40 CFR §63.2861(b), the owner or operator shall submit a monthly deviation report if the compliance ratio of 1.00 is exceeded during a month while operating in normal operations. The monthly deviation report shall contain the following:

1. Name and address of the owner or operator;
2. The physical address of the facility
3. The types of oilseed processed during the calendar year
4. The compliance ratio identifying the deviation

The monthly report shall be submitted by the end of the subsequent month after the month in which the deviation occurred.

## **14.0 MACT Requirements – Subpart DDDDD**

### **14.1 Date to comply**

In accordance with ARSD 74:36:08:41, as referenced in 40 CFR §63.7495(b), the owner or operator shall comply with the requirements in this chapter by no later than January 31, 2016.

### **14.2 Notification of compliance status**

In accordance with ARSD 74:36:08:41, as referenced in 40 CFR §§63.7530(d) and 63.9(h), the owner or operator shall submit a notification of compliance status no later than March 31, 2016. The notification of compliance status report shall contain the following:

1. Name of the facility;
2. A signed statement that indicates the owner or operator conducted a tune-up of Unit #50;
3. A signed certification that the energy assessment was completed and is an accurate depiction of Unit #50 at the time of the assessment.

### **14.3 One-time energy assessment**

In accordance with ARSD 74:36:08:41, as referenced in 40 CFR §§63.7500 and 63.7575, the owner or operator shall conduct a one-time energy assessment on Unit #50. The one-time energy assessment shall be performed by a qualified energy assessor and include the following:

1. A visual inspection of Unit #50;
2. An evaluation of operating characteristics of Unit #50, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints;
3. An inventory of major energy use systems consuming energy from Unit #50 and which are under the control of the owner or operator of Unit #50;
4. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage;
5. A review of the owner's or operator's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified;
6. A list of cost-effective energy conservation measures that are within the owner's or operator's control;
7. A list of the energy savings potential of the energy conservation measures identified; and
8. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

If Unit #50 is operated under an energy management program compatible with ISO 50001 satisfies the one-time energy assessment requirement. The one-time energy assessment shall consist of 8 on-site technical labor hours in length maximum, unless otherwise determined by the Secretary. Unit #50 and any on-site energy use system(s) accounting for at least 50 percent of Unit #50 energy shall be evaluated to identify energy savings opportunities during the one-time energy assessment.

#### **14.4 Biennial tune-up**

In accordance with ARSD 74:36:08:41, as referenced in 40 CFR §§63.7500 and 63.7540, the owner or operator shall conduct a biennial tune-up of Unit #50. The biennial tune-up shall meet the following specifications:

1. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The owner or operator may delay the burner inspection until the next scheduled shutdown. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;
2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly. The owner or operator may delay the inspection until the next scheduled unit shutdown;
4. Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject;
5. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made. Measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made. Measurements may be taken using a portable carbon monoxide analyzer; and
6. Maintain on-site and submit, if requested by the Secretary, an annual report containing the following information:
  - a. The concentrations of carbon monoxide in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater; and
  - b. A description of any corrective actions taken as a part of the tune-up.

If Unit #50 is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. Each biennial tune-up shall be conducted no more than 25 months after the previous tune-up.

#### **14.5 Biennial report**

In accordance with ARSD 74:36:08:41, as referenced to 40 CFR §7550, the owner or operator shall submit a biennial tune-up compliance report. The biennial tune-up compliance report should contain the following information:

1. Company name and address;
2. Process unit information, emissions limitations, and operating parameter limitations;
3. Date of report and beginning and ending dates of the reporting period;
4. The total operating time during the reporting period; and
5. The date of the most recent Unit #50 tune-up.

The first tune-up compliance report shall cover the period beginning on the compliance date and ending December 31. The report shall be postmarked no later than January 31. Each subsequent report and postmark date shall be biennially after the dates noted above.

#### **14.6 Recordkeeping for Unit #50**

In accordance with ARSD 74:36:08:41, as referenced to 40 CFR §§63.7555(a)(1) and 63.7560, the owner or operator shall maintain records of each notification, report, and supporting documentation required by this chapter. All records shall be in a form suitable and readily available for expeditious review and maintained for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Each record shall be maintained on site, or accessible from on site, for at least 2 years. Records may be maintained off site for the remaining 3 years.

### **15.0 MACT Requirements – Subpart DDDDD**

#### **15.1 Date to comply**

In accordance with ARSD 74:36:08:41, as referenced in 40 CFR §63.7495(b), the owner or operator shall comply with the requirements in this chapter by no later than January 31, 2016.

#### **15.2 Unit design**

In accordance with ARSD 74:36:08:41, as referenced in 40 CFR §63.7575, Unit #15 is defined as a unit designed to burn gas 1 subcategory. The owner or operator may burn liquid fuels in Unit #15 for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year. The owner or operator may also burn liquid fuel during periods of gas curtailment or gas supply interruptions of any duration.

#### **15.3 One-time energy assessment**

In accordance with ARSD 74:36:08:41, as referenced in 40 CFR §§ 63.7500(a)(1), 63.7510(e), and 63.7575, the owner or operator shall conduct a one-time energy assessment on Unit #15. The one-time energy assessment shall be performed by a qualified energy assessor and include the following:

1. A visual inspection of Unit #15;
2. An evaluation of operating characteristics of Unit #15, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints;
3. An inventory of major energy use systems consuming energy from Unit #15 and which are under the control of the owner or operator of Unit #15;
4. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage;
5. A review of the owner's or operator's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified;

6. A list of cost-effective energy conservation measures that are within the owner's or operator's control;
7. A list of the energy savings potential of the energy conservation measures identified; and
8. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

The one-time energy assessment shall be conducted by January 31, 2016. If the unit is operated under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least one year between January 1, 2008 and January 31, 2016, the one-time energy assessment requirement is satisfied. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this permit condition satisfies the energy assessment requirement.

The one-time energy assessment shall consist of 24 on-site technical labor hours in length but may be longer at the discretion of the owner or operator. Unit #15 and any on-site energy use system(s) accounting for at least 20 percent of Unit #15 energy production, as applicable, shall be evaluated to identify energy savings opportunities during the one-time energy assessment.

#### **15.4 Initial tune-up**

In accordance with ARSD 74:36:08:41, as referenced in 40 CFR §§ 63.7510(e) and 63.7540(a)(10)(i) through (vi), the owner or operator shall conduct an initial tune-up on Unit #15 no later than January 31, 2016. The initial tune-up shall meet the following specifications:

1. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The owner or operator may delay the burner inspection until the next scheduled shutdown. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;
2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly. The owner or operator may delay the inspection until the next scheduled unit shutdown;
4. Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject;
5. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made. Measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made. Measurements may be taken using a portable carbon monoxide analyzer; and
6. Maintain on-site and submit, if requested by the Secretary, an annual report containing the following information:



- a. The concentrations of carbon monoxide in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
- b. A description of any corrective actions taken as a part of the tune-up; and
- c. The type and amount of fuel used over the 12 months prior to the tune-up. Units sharing a fuel meter may estimate the fuel used by each unit.

### **15.5 Annual tune-up**

In accordance with ARSD 74:36:08:41, as referenced in 40 CFR §§ 63.7515(d) and 63.7540(a)(10)(i) through (vi) and (13), the owner or operator shall conduct an annual tune-up on Unit #15 following the procedures specified in paragraph (1) through (6) in permit condition 15.4. The annual tune-up shall be conducted while burning the type of fuel or fuels in case of units that routinely burn a mixture that provided the majority of the heat input to Unit #15 over the 12 months prior to the tune-up. If Unit #15 is not operating on the required date for a tune-up, the tune-up shall be conducted within 30 calendar days of startup. Each annual tune-up shall be conducted no more than 13 months after the previous tune-up.

### **15.6 Record maintenance**

In accordance with ARSD 74:36:08:41, as referenced to 40 CFR §§63.7555(a)(1) and 63.7560, the owner or operator shall maintain records of each notification, report, and supporting documentation required by this chapter. All records shall be in a form suitable and readily available for expeditious review and maintained for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. Each record shall be maintained on site, or accessible from on site, for at least 2 years. Records may be maintained off site for the remaining 3 years.

### **15.7 Hourly records**

In accordance with ARSD 74:36:08:41, as referenced to 40 CFR § 63.7555(h), the owner or operator shall maintain records of the total hours per calendar year that liquid fuel is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies.

### **15.8 Notification of compliance status**

In accordance with ARSD 74:36:08:41, as referenced in 40 CFR §§ 63.7530(e) and (f), and 63.7545(e), the owner or operator shall submit a notification of compliance status by close of business on March 31, 2016. The notification of compliance status report shall contain the following:

1. Name of the facility;
2. A description of Unit #15 including certifying that Unit #15 is a unit designed to burn gas 1 subcategory, the design heat input capacity of the unit, and a description of the fuel(s) burned;
3. The following certification(s) of compliance, as applicable, and signed by a responsible official:

- a. “The owner or operator completed the required initial tune-up for Unit #15 according to the procedures in permit condition 15.4; and
- b. “The owner or operator has had an energy assessment performed according to permit condition 15.3.