

#AOP-14-009

DEC#RU98-0179

Operating Permit Expiration Date: November 10, 2019

State of Vermont  
Agency of Natural Resources  
Department of Environmental Conservation



Air Quality & Climate Division  
Montpelier, Vermont

**TITLE V**  
**AIR POLLUTION CONTROL PERMIT**  
**TO CONSTRUCT AND OPERATE**

Date Permit Issued: November 10, 2014

**Owner/Operator:** Agri-Mark, Inc.  
100 Milk St.  
Methuen, MA 01844

**Source:** Agri-Mark, Inc. (Middlebury)  
869 Exchange Street  
Middlebury, Vermont 05753

## FINDINGS OF FACT

### (A) FACILITY DESCRIPTION

Agri-Mark, Inc. (also referred to herein as "Permittee") owns and operates a cheese manufacturing facility located at 869 Exchange Street in the town of Middlebury, Vermont (also referred to herein as "Facility"). The operations performed at the Facility are classified within the Standard Industrial Classification Code 2022 (Production of Natural, Processed or Imitation Cheese).

Agri-Mark has proposed to install three (3) new 600 horsepower natural gas fired boilers that will utilize No.2 fuel oil as a back-up fuel. Once these new boilers are installed and operational, the two (2) existing 600 horsepower No. 6 fuel oil boilers are expected to be decommissioned. Until such time as the two existing boilers are rendered inoperable or removed from the site, no more than two (2) boilers shall be operated at the same time if one of the operable boilers is on No.6 fuel oil, except for reasonable periods for testing and for transferring of load.

Upon issuance of this Permit, the approved operations at the Facility include the following air pollution related operations, equipment and emission control devices:

<b>Equipment Specifications</b>				
<b>Equipment/Make/Model</b>	<b>Capacity/Size MMBtu/hr<sup>1</sup> (H.P.)<sup>2</sup></b>	<b>Fuel Type</b>	<b>Date of Installation</b>	<b>Control Device</b>
Two (2) Nebraska Boilers	27 (600)	No. 6 fuel oil	1974	None
Three (3) Cleaver-Brooks Boilers	23.7 (600)	Natural Gas / No. 2 fuel oil <sup>3</sup>	Proposed 2015	None
Maxon NP-1 Whey <sup>4</sup> Protein Concentrate Dryer	8	Propane / Natural Gas	2001	Cyclone pre- collectors and fabric filters
Bagging operation <sup>6</sup>	-	-		Fabric filters
Maxon NP-1 Whey Permeate Dryer <sup>4,5</sup>	12	Propane / Natural Gas	2001	Cyclone precollector with, wet scrubber system and demister; fabric filters
fluidized bed dryer (steam heated)	-			
Bagging operation <sup>6</sup>	-			Fabric filters
Evapco Cooling Tower	1,200 gpm	n/a	2001	Mist eliminator
<b>Unit/Make/Model</b>	<b>Capacity</b>	<b>Fuel Type</b>	<b>Date of</b>	<b>Control Device</b>

	Bhp <sup>7</sup> (kW) <sup>8</sup>		Installation	
John Deere Model JD 6068TF001 Emergency Generator <sup>9</sup>	170 (126)	ULSD	1994	None
Cummins 6BT-5.9 Emergency Generator	166 (100)	ULSD	1998	None
Cummins 250 DFBE Emergency Generator	390 (250)	ULSD	1995	None

<sup>1</sup> MMBtu/hr - Million British Thermal Units per hour maximum rated heat input.

<sup>2</sup> H.P. - Boiler horsepower rated output;

<sup>3</sup> New boilers will combust No. 2 fuel oil with a maximum of 0.05% sulfur only during periods of natural gas curtailment from the time of installation until July 2018, when the requirements for maximum sulfur content become 0.0015%;

<sup>4</sup> Single dryer/burner with two parallel collectors followed by identical baghouses.

<sup>5</sup> Permeate dryer consists of drying chamber heated by Maxon NP-1 burner followed by fluid bed heated with indirect steam.

<sup>6</sup> Bagging operation refers to packaging dried whey products into totes or bags. Bagging operations are equipped with dust control but vent indoors.

<sup>7</sup> bhp - brake horsepower rated output as specified by the manufacturer.

<sup>8</sup> kW - kilo Watt electrical output.

<sup>9</sup> John Deere generator serves as back up to wastewater system lift pumps in the event of a power outage.

#### (B) FACILITY CLASSIFICATION

The Facility is classified as a source of air contaminants pursuant to Title 10 of the *Vermont Statutes Annotated* ("10 VSA") §555 and §5-401 (6)(a) [Fossil fuel burning equipment with rated heat input greater than 10 MMBtu/hr] of the *Vermont Air Pollution Control Regulations* (hereinafter "*Regulations*"). In addition, §5-101 of the *Regulations* defines a *stationary source* as any structure(s), equipment, installation(s), or operation(s), or combination thereof, which emit or may emit any air contaminant, which is located on one or more contiguous or adjacent properties and which is owned or operated by the same person or persons under common control. Based on this definition, all of the equipment, operations, and structures at the Facility are grouped together by the Agency of Natural Resources, Department of Environmental Conservation, Air Quality & Climate Division (hereinafter "*Agency*") as one stationary air contaminant source for purposes of review under the *Regulations*.

#### (C) PRIOR AGENCY ACTIONS/APPROVALS

The Facility has been issued the following "Permit to Construct" approvals pursuant to 10 VSA §556 and §§5-501 and/or 5-502 of the *Regulations* and the following "Permit to Operate" approvals pursuant to 10 VSA §556a and Subchapter X of the *Regulations*.

Prior Agency Approvals and Actions	
Date of Action	Description of Agency Approval/Action
July 7, 1998	#OP-95-151 - Original Agency Permit to Operate.

January 3, 2000	#AOP-99-014 – Combined Construction and Operating Permit approving two whey dryers, a cooling tower, and increased boiler fuel usage.
June 22, 2001	#AOP-99-014a – Amendment to combined "Permit to Construct and Operate" approving increase in boiler fuel usage from 1,474,000 gallons to 2,200,000 gallons per 12 month period, and decrease in fuel sulfur content from 1.5% to 1.0%.
July 27, 2004	Notice of Alleged Violation - Permeate line wet scrubber was in violation of the time aggregate opacity limit of 20% opacity for six (6) minutes per hour as specified in the Air Pollution Control "Permit to Construct and Operate" #AOP-99-014a. A compliance plan for correction of this violation is included in the renewed "Permit to Construct and Operate" #AOP-02-024.
December 21, 2004	#AOP-02-024 - "Permit to Operate" renewal to operate two boilers, whey dryers, cooling towers, two emergency generators, and one fuel oil storage tank.
February 6, 2008	#AOP-02-024a – Administrative permit amendment approving transfer of ownership.
August 3, 2009	#AOP-08-018 – "Permit to Operate" renewal.

## (D) FACILITY PERMIT APPLICABILITY

As noted above, the Facility is classified as a source of air contaminants under §5-401 of the *Regulations*. Pursuant to 10 VSA §556 and §5-501 of the *Regulations* a Permit to Construct, or an amendment to any existing Permit to Construct, must be obtained before commencing the construction, installation, modification or operation of an air contaminant source. The proposed installation of the three new boilers is considered a modification to the Facility under the *Regulations* and consequently a Permit to Construct must be obtained.

Pursuant to 10 VSA §556a and Subchapter X of the *Regulations* a Permit to Operate is required for any air contaminant source with allowable emissions of all air contaminants combined of ten (10) tons per year ("tpy") or more or that is otherwise subject to Title 40 *Code of Federal Regulations* ("40 CFR") Part 70.

In addition, an amendment to any existing Permit to Operate is required prior to commencing any modifications to the Facility not previously allowed under the Permit to Operate. The proposed changes to the Facility are considered a modification under the *Regulations* and consequently an amendment to the Permit to Operate must be obtained consistent with the requirements of Subchapter X of the *Regulations*. Allowable emissions from the Facility are estimated to be greater than ten (10) tpy combined and emissions of sulfur dioxide (SO<sub>2</sub>) are estimated to be in excess of the one-hundred (100) tpy threshold for applicability to Title V of the Federal Clean Air Act. Therefore, pursuant to §§5-1002, 5-1003, and 5-1005 of the *Regulations* the Facility is classified as a "Title V Subject Source" and must obtain a Permit to Operate consistent with the requirements of Subchapter X of the *Regulations* and Title 40 *Code of Federal Regulations* ("40 CFR") Part 70.

The allowable emissions for the Facility are summarized below:

Future Allowable Air Contaminant Emissions (tons/year) <sup>1</sup>						
PM/PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOCs	Total Criteria	HAPs <sup>2</sup>
63.7	174 <sup>3</sup>	66	21.4	1.4	>10	<10/25

<sup>1</sup> PM/PM<sub>10</sub> - particulate matter and particulate matter of 10 micrometers in size or smaller; SO<sub>2</sub> - sulfur dioxide; NO<sub>x</sub> - oxides of nitrogen measured as NO<sub>2</sub> equivalent; CO - carbon monoxide; VOCs - volatile organic compounds; HAPs - hazardous air pollutants as defined in §112 of the federal Clean Air Act.

<sup>2</sup> Emissions of individual HAPs each < 10 tpy and emissions of total HAPs combined <25 tpy. Actual total combined HAPs estimated at <1 tpy.

<sup>3</sup> The Facility is anticipated to drop out of Title V once the No.6 oil boilers are removed, or 2018 at the latest when the 0.5% sulfur No.6 oil limits take effect.

#### (E) REVIEW FOR THE PERMIT TO CONSTRUCT

##### (a) New Source Review Designation

The Facility, prior to the construction of the proposed modification, is designated as a major stationary source of air contaminants since it has allowable emissions of a single air contaminant of fifty (50) tons per year or greater. Consequently, any *modification* of the source that would result in a significant increase in emissions of any air contaminant, as defined in §5-101 of the *Regulations*, is designated as a major modification and is subject to review under §5-501 and §5-502 of the *Regulations*. The proposed project identified in Findings of Fact (A) above, together with all previous minor modifications constructed at the Facility since July 1, 1979, and which have not been previously reviewed under §5-502 of the *Regulations*, will not result in a significant increase in emissions. Consequently, the proposed modification is designated as a non-major modification and is not subject to the requirements of §5-502 of the *Regulations*.

##### (b) Most Stringent Emission Rate

Pursuant to §5-502 of the *Regulations*, the owner/operator of each new major stationary source or major modification must apply control technology adequate to achieve the Most Stringent Emission Rate ("MSER") with respect to those air contaminants for which there would be a major or significant actual emissions increase, respectively, but only for those currently proposed physical or operational changes which would contribute to the increased emissions. The proposed modifications do not constitute a significant increase in emissions therefore not subject to MSER.

Prior MSER Evaluations: The Facility was previously reviewed under §5-502 of the *Regulations* for modifications to the Facility. The following MSER

determinations have been made at this Facility:

<b>Most Stringent Emission Rate Determinations</b>		
<b>Date of Determination/ Permit #</b>	<b>Pollutant</b>	<b>Description/Emission limit</b>
January 3, 2000 #AOP-99-014	PM <sub>10</sub>	Emission limit: 0.02 grains per dry standard cubic foot for exhaust from the wet scrubber/venturi control system on the whey permeate dryer.
	PM <sub>10</sub>	Emission limit: 0.01 grains per dry standard cubic foot for exhaust from the fabric filter control devices on the whey protein concentrate and whey permeate dryers.

(c) **Ambient Air Quality Impact Evaluation**

An ambient air quality impact evaluation is performed to demonstrate whether or not a proposed project will cause or contribute to violations of the ambient air quality standards and/or significantly deteriorate existing air quality.

Based on the level of proposed emissions increase from this Facility, it is not expected to cause or contribute to a violation of any ambient air quality standard or significantly deteriorate air quality. Therefore, an air quality impact evaluation was not required by the Agency for the proposed project.

**Prior Air Quality Impact Evaluations:** An ambient air quality impact analysis was performed in 2000 as part of a facility modification (Permit #AOP-99-014) which included the addition of two whey dryers, a cooling tower, and increases in boiler fuel usage. The pollutants SO<sub>2</sub>, NO<sub>x</sub>, and PM<sub>10</sub> were modeled and it was determined that the proposed impacts would not cause a violation of any National Ambient Air Quality Standard (NAAQS), exceed any PSD Increment or significantly contribute to an existing violation of a NAAQS. An ambient air quality analysis was performed again in 2003 for permit #AOP-99-014a, which again increased boiler fuel usage and decreased fuel sulfur content. NO<sub>x</sub> was modeled and it was again determined that the proposed impacts would not cause a violation of any NAAQS, exceed any PSD Increment or significantly contribute to an existing violation of a NAAQS. The following short term maximum emission rates were used as input for these analyses:

<b>Ambient Air Quality Impact Evaluation</b>		
<b>Date of AQIE/ Permit #</b>	<b>Pollutant(s)</b>	<b>Summary of Modeling Results<sup>1</sup></b>

<b>Ambient Air Quality Impact Evaluation</b>			
January 3, 2000 #AOP-99-014 (Main Stack)	SO <sub>2</sub>	Modeling results: annual:	28/80
		24-hr:	199/365
		3-hr:	551/1300
	PM <sub>10</sub>	Modeling results: annual:	26.5/50
		24-hr:	74/150
	NO <sub>x</sub>	Modeling results: annual:	27/100
January 31, 2003 #AOP-99-014a (Main Stack)	NO <sub>x</sub>	Modeling results: annual:	28.4/100

<sup>1</sup> Results presented as "model output result/Ambient Air Quality Standard". Each value presented in micrograms per cubic meter.

(F) REVIEW FOR THE PERMIT TO OPERATE

(a) Applicable Requirements

The operations at the Facility are subject to the following state and federal laws and regulations, the requirements of which are embodied in the conditions of this Permit.

(i) Vermont Air Pollution Control Regulations:

<b>Applicable Requirements from the Vermont Air Pollution Control Regulations</b>
Section 5-211(2) - Prohibition of Visible Air Contaminants, Installations Constructed Subsequent to April 30, 1970.  <i>This regulation applies to all installations at the Facility.</i>
Section 5-221(1) - Prohibition of Potentially Polluting Materials in Fuel, Sulfur Limitation in Fuel.  <i>This regulation applies to all stationary fuel burning equipment at the Facility.</i>
Section 5-231(1) - Prohibition of Particulate Matter; Industrial Process Emissions.  <i>This regulation applies to the whey protein concentrate dryer and the whey permeate dryer.</i>
Section 5-231(3)(a)(i) - Prohibition of Particulate Matter; Combustion Contaminants.  <i>This regulation applies to each fuel burning device with a heat input rating of 10 MMBtu/hr or less.</i>

<b>Applicable Requirements from the Vermont Air Pollution Control Regulations</b>
Section 5-231(3)(a)(ii) - Prohibition of Particulate Matter; Combustion Contaminants. This regulation applies to each fuel burning device with a heat input rating greater than 10 MMBtu/hour but equal to or less than 250 MMBtu/hour.  <i>This regulation applies to emissions from the two (2) Nebraska boilers and the three (3) Cleaver Brooks boilers.</i>
Section 5-231(4) - Prohibition of Particulate Matter; Fugitive Particulate Matter.
Section 5-241 – Prohibition of Nuisance and Odor.
Section 5-402 – Written Reports When Requested.
Section 5-403 – Circumvention.
Section 5-502(3) – Most Stringent Emission Rate.  <i>MSEER has been applied to the whey protein concentrate and the permeate dryer emission points.</i>
Section 5-1010 – Reasonably Available Control Technology for Subchapter X Major Sources.
Subchapter VIII – Registration of Air Contaminant Sources.
Subchapter X – Operating Permits.

(ii) Reasonably Available Control Technology - §5-1010 of the *Regulations*

Pursuant to 10 VSA §556a(d) and §5-1010 of the *Regulations* the Agency may establish and include within any Permit to Operate emission control requirements based on Reasonably Available Control Technology ("RACT"). Based on the Facility's existing levels of emissions and emission controls, the Agency has not imposed any further requirements on this Facility under this authority at this time.

(iii) Existing Air Pollution Control Permit to Construct and/or Operate

The Facility currently operates under the confines of a combined Permit to Construct and Operate issued on August 3, 2009 (#AOP-08-018). The conditions within that existing permit are considered applicable requirements pursuant to §5-1002 of the *Regulations*. The requirements of that permit which are not being modified herein are incorporated into this new combined Permit to Construct and Operate (#AOP-14-009).



## (iv) Federal Requirements:

**Applicable Requirements from  
Federal Regulations and the Clean Air Act**

Clean Air Act §§114(a)(3), 502(b), and 504(a)-(c); 40 *CFR* Part 70 §§70.6(a)(3)(i)(B) and 70.6(c)(1); and 40 *CFR* Part 64 - Compliance Assurance Monitoring. Upon renewal of a Title V Permit to Operate, a facility must comply with enhanced monitoring and compliance assurance monitoring requirements for any emission unit with uncontrolled emissions in excess of the Title V major source threshold and which is subject to an emission standard and which is equipped with an emission control device.

*As detailed in the Technical Support Document, the Facility is not currently subject to CAM as equipment at the Facility does not meet the three part test specified in 40 CFR Part 64. The whey dryer cyclone/fabric filter systems are not considered emission control devices since they are inherent product recovery devices and the wet scrubber does not have uncontrolled emissions in excess of the threshold.*

40 *CFR* Part 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial- Institutional Steam Generating Units. Applies to all boilers 10 MMBTU/hr or greater manufactured after June 9, 1989. Units larger than 30 MMBtu per hour installed after February 27, 2005 are subject to additional particulate matter requirements.

*The three (3) new Cleaver-Brooks boilers are subject to this regulation.*

40 *CFR* Part 63, Subpart JJJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers. Applies to new and existing fuel oil and solid fuel fired boilers located at area sources (major sources are subject to Subpart DDDDD). Natural gas or propane fired boilers are not subject. This gas exemption allows use of backup fuel during gas curtailments and up to 48 hours of elective use. Oil fired hot water boilers less than 1.6 MMBTU/hr are not subject. The rule requires a tune-up for each boiler once every two years except boilers with oxygen trim and oil boilers less than 5 MMBTU/hr must conduct tune-ups every five years. New boilers greater than 10 MMBtu/hr are subject to PM emission limits. Boilers that commenced construction on or before June 4, 2010 are considered an existing source.

*Since Vermont has taken delegation of this federal regulation for Title V facilities, the Agency is the implementing authority and is responsible for determining applicability of this regulation. Subpart JJJJJJ applies to the two (2) existing Nebraska boilers and the three (3) new Cleaver-Brooks boilers at the Facility. Since the Facility is not a major source of HAPs, the Facility is not subject to Subpart DDDDD.*

**Applicable Requirements from  
Federal Regulations and the Clean Air Act**

40 *CFR* Part 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines. Applies to new engines that commenced construction (installed) on or after June 12, 2006 at area sources of HAPs. Requires such engines to comply with NSPS Subpart IIII or JJJJ, as applicable. Also applies to existing engines that commenced construction (installed) prior to June 12, 2006 at area sources of HAPs. By May 3, 2013 requires engines equal and greater than 300 bhp to meet CO emission standards which may necessitate catalytic controls, must install crankcase ventilation system, and requires ULSD fuel. Engines <300 bhp need only meet maintenance requirements including changing oil & filter and, inspecting and replacing if necessary, air filter, hoses and belts. Does not apply to emergency units at residential/commercial/institutional facilities unless they are enrolled in demand response programs. Subject emergency units are subject to maintenance requirements, must install an elapsed hour meter and must use ULSD commencing January 1, 2015 if used for DR.

*Since Vermont has taken delegation of this federal regulation for Title V facilities, the Agency is the implementing authority and is responsible for determining applicability of this regulation. Subpart ZZZZ applies to the John Deere Model JD 6068TF001 engine, the Cummins 6BT-5.9 engine and the Cummins 250 DFBE engine at the Facility.*

Clean Air Act §112r Prevention of Accidental Release; 40 *CFR* Part 68 Chemical Accident Prevention Programs. Facilities that have more than the threshold quantity of a regulated substance in a process are subject to these provisions including the requirements to conduct a hazard assessment, establish a prevention program and develop a risk management plan.

*The Facility has filed a Risk Management Plan with the EPA as required by this Regulation for anhydrous ammonia.*

Clean Air Act §608 National recycling and emission reduction program; 40 *CFR* Part 82, Protection of Stratospheric Ozone, Subpart F – Recycling and Emissions Reductions. This requirement is applicable to any facility that owns, services, maintains, repairs, and disposes of appliances containing ozone depleting substances.

*The Facility has subject equipment or operations and is subject to this regulation.*

**Applicable Requirements from  
Federal Regulations and the Clean Air Act**

40 CFR Part 98 Mandatory Greenhouse Gas Reporting. Requires reporting of GHG emissions annually to EPA for 1) facilities in source categories listed in §98.2(a)(1) including electric utility units subject to Acid Rain, MSW landfills that generate CH<sub>4</sub> in amounts equivalent to 25,000 metric tons of CO<sub>2</sub>e or more per year and electrical transmission and distribution equipment at facilities where the total nameplate capacity of SF<sub>6</sub> and PFC containing equipment exceeds 17,820 pounds, 2) facilities in source categories listed in §98.2(a)(2) including electronics manufacturing, iron and steel production and pulp and paper manufacturing that emit 25,000 metric tons of CO<sub>2</sub>e or more per year from such source categories as well as all stationary combustion, 3) facilities with stationary combustion sources that aggregate to 30 MMBTU/hr or more and which emit 25,000 metric tons of CO<sub>2</sub>e or more per year from all stationary combustion sources combined, and 4) fuel suppliers including all local natural gas distribution companies.

*The U.S. EPA has retained the implementing authority for this regulation and is responsible for determining applicability. This regulation under Part 98 is not considered to be an applicable requirement per 40 CFR Part 70.2 and as noted in 74 FR 56260 (October 30, 2009). Part 98 is anticipated to apply to the Facility. In 2013 the Facility reported to EPA due to emissions of CO<sub>2</sub>e exceeding the annual 25,000 metric ton threshold.*

(b) Non-Applicable Requirements

Pursuant to §5-1015(a)(14) of the *Regulations*, an owner or operator of a Facility may request a permit shield from specific state or federally enforceable regulations and standards which are not applicable to the source. The applicant has not requested such a permit shield in accordance with the requirements of §5-1015(a)(14) of the *Regulations*.

(c) Enforceability

This section delineates which permit conditions are federally enforceable and which conditions are state only enforceable. All federal enforceable conditions are subject to federal citizen suit provisions. All conditions of this Permit are enforceable by both state and federal authorities.

(d) Compliance Certification

The Permittee is required by this Permit to certify compliance as part of its annual registration with the Agency pursuant to the requirements of Subchapter X of the *Regulations*. Additionally, this Permit requires the submission of semi-annual reports of monitoring records used to demonstrate compliance with the limitations contained in this Permit.

(G) HAZARDOUS MOST STRINGENT EMISSION RATE

Pursuant to §5-261 of the *Regulations*, any stationary source whose current or proposed actual emission rate of a hazardous air contaminant ("HAC") is equal to or greater than the respective Action Level (found in Appendix C of the *Regulations*) shall achieve the Hazardous Most Stringent Emission Rate ("HMSEER") for the respective HAC. The Facility is not expected to have regulated emissions of any HAC in excess of an Action Level. Therefore, the Facility is not subject to §5-261 of the *Regulations* at this time.

(H) EQUIVALENCY DETERMINATIONS

Particulate matter emissions from the whey protein concentrate and whey permeate dryers are based on MSER determinations and are more stringent than the 0.06 grains per dry standard cubic foot ("gr/dscf") limit in §5-231(1) of the *Regulations*. The Permittee is required to comply with the MSER emission limit of 0.02 gr/dscf from the wet scrubber/venturi control system on the whey permeate dryer and 0.01 gr/dscf from the fabric filter control device on the whey protein concentrate and whey permeate dryers.

Based on the Agency's review of the Facility's application and the above Findings of Fact, the Agency concludes that the Facility, subject to the following Permit conditions, complies with all applicable state and federal air pollution control laws and regulations or is subject to an acceptable schedule of compliance. Therefore, pursuant to 10 VSA §§556 and 556a, as amended, the Agency hereby issues a Permit approving the Facility, as described in the above Findings of Fact, subject to the following:

## **PERMIT CONDITIONS**

### **- Construction and Equipment Specifications -**

- (1) The Permittee shall construct and operate the Facility in accordance with the plans and specifications submitted to the Agency and in accordance with the conditions set forth herein, including the equipment specifications as listed in Findings of Fact (A) or their equivalent as approved by the Agency. [10 V.S.A. §§556(c) and 556a(d)] [§5-501(1) of the *Regulations*]
- (2) Stack heights [Boilers]: The exhaust gases from the two (2) Nebraska boilers shall be vented vertically through a stack which extends a minimum of one-hundred and fifteen (115) feet above the stack base grade elevation. The exhaust gases from the three (3) new Cleaver Brooks boilers shall be vented vertically through a stack or stacks which extend a minimum of forty-three (43) feet above the stack base grade elevation. The Permittee shall at the request of the Agency increase the stack height of any respective stack if, in the judgment of the Agency based on inspections of the actual operations at the Facility, proper or adequate dispersion cannot be maintained at the current stack height. The stack shall not be equipped with any device that may obstruct the upward discharge of the exhaust gases such as a fixed rain cap of a type that has not been approved by the Agency. [10 V.S.A. §§556(c) and 556a(d)] [§5-406 of the *Regulations*] [Application for #AOP-14-009]

- (3) Whey Dryers: The Permittee shall control emissions from the whey dryers by installing and operating the following air pollution control devices, or equivalent, if approved in writing by the Agency:

<b>Whey Protein Concentrate ("WPC") Dryer</b>	
<b>Emission Point</b>	<b>Pollution Control Device</b>
WPC Baghouse #1	Cyclone pre-collector followed by baghouse with Gore-Tex or Tetratrec Filter bags Exhaust flow rate: 13,250 acfm Exhaust temperature: 180 °F Minimum air to cloth ratio: 4.6
WPC Baghouse #2	Cyclone pre-collector followed by baghouse with Gore-Tex or Tetratrec Filter bags Exhaust flow rate: 13,250 acfm Exhaust temperature: 180 °F Minimum air to cloth ratio: 4.6
WPC Conveyor/Receiver Baghouse	Baghouse with Gore-Tex or Tetratrec Filter bags Exhaust flow rate: 2,300 acfm Exhaust temperature: 90 °F Minimum air to cloth ratio: 3.2
<b>Whey Permeate Dryer</b>	
<b>Emission Point</b>	<b>Pollution Control Device</b>
Permeate Wet Scrubber	Twin cyclones in parallel followed by single Venturi-style scrubber followed by wet cyclonic scrubber and demister Exhaust flow rate: 31,600 acfm Exhaust temperature: 115 °F
Permeate Fluidized Bed Baghouse	Baghouse with Gore-Tex or Tetratrec Filter bags Exhaust flow rate: 12,000 acfm Exhaust temperature: 135 °F Minimum air to cloth ratio: 5.5
Permeate Conveyor/Receiver Baghouse	Baghouse with Gore-Tex or Tetratrec Filter bags Exhaust flow rate: 2,300 acfm Exhaust temperature: 90 °F Minimum air to cloth ratio: 3.2

Each fabric filter shall be equipped with continuous monitoring devices designed to detect increases in particulate matter emissions and alert the operator of potential exceedances of the particulate matter emission limits specified in this Permit. Each particulate matter monitoring device shall detect fabric filter leaks and/or broken bags and shall provide either a visual or audible alert to the operator in the event of any potential failure of the air pollution control system. The fabric filter continuous monitoring devices shall be Tribosentry Model 2403 bag leak detectors or equivalent devices approved in writing by the Agency.

The permeate wet scrubber shall be equipped with a continuous monitoring flow meter device designed to detect deviations in flow and alert the operator of potential deviation from the specified flow rate of 200 gallons per minute.

All elements of these air pollution control system(s) shall be maintained in good working order at all times and operated in accordance with the manufacturer's operation and maintenance recommendations. Each air pollution control system shall be in operation whenever the respective emission source is in operation. [10 V.S.A. §§556(c) and 556a(d)] [AOP-99-014]

**- Operational Limitations -**

- (4) Facility-wide Heat Input Limit: Excluding emergency diesel engines, the total heat input to the Facility's boilers and whey driers from the use of No. 6 fuel oil, No. 2 fuel oil, propane and natural gas shall not exceed a combined 401,440 MMBtu based upon any rolling twelve (12) consecutive month period. The combined annual heat input shall be calculated according to the following methodology:

Heat Input (MMBtu per 12 months) = (total residual oil gallons per 12 months) \* (HHV residual oil) + (total distillate fuel oil gallons per 12 months) \* (HHV distillate oil) + (total propane gallons per 12 months) \* (HHV propane) + (total natural gas and compressed natural gas standard cubic feet per 12 months) \* (HHV natural gas and compressed natural gas)

Where:

HHV residual oil (No.4, 5 and 6) = 0.148 MMBtu/gallon

HHV distillate oil (No.2, diesel) = 0.14 MMBtu/gallon

HHV propane = 0.094 MMBtu/gallon

HHV natural gas and CNG = 0.00102 MMBtu/standard cubic foot

With Agency approval, the Permittee may use alternative HHVs than outlined above for the various fuels if the Permittee provides written contractual or delivery certifications to the Agency that the particular fuel used at the Facility has a different HHV than shown above. [10 V.S.A. §§556(c) and 556a(d)] [§5-501(1) of the Regulations] [Application for #AOP-14-009]

- (5) The Permittee shall at no time operate more than two (2) of the Facility's five (5) boilers concurrently if one of the operable boilers is firing No.6 fuel oil except for reasonable periods for testing and for transferring of load. For the purpose of this condition, any one (1) of the five (5) boilers at the Facility may be available in "stand-by" mode while two (2) of the five (5) boilers are operational. Stand-by mode shall be defined as a mode of operation which does not produce any steam output. [10 V.S.A. §§556(c) and 556a(d)] [#AOP-14-009]

- (6) Cleaver-Brooks Boilers: Only natural gas, propane, No.2 fuel oil, or lighter grade fuel oils, with a maximum sulfur content not to exceed 0.05 percent by weight may be used as fuel in the three (3) Cleaver Brooks boilers unless the Permittee obtains prior written approval from the Agency to use another type of fuel.

Commencing July 1, 2018 the sulfur content of No. 2 and lighter distillate oils shall not exceed 0.0015 percent by weight. Commencing on July 1, 2018, the sulfur content of No.4 residual oil and No.5/No.6 residual fuel oil shall not exceed 0.25 percent and 0.5 percent by weight, respectively. [10 V.S.A. §§556(c) and 556a(d)] [§§5-501 and 5-1015(a)(1) of the *Regulations*] [§5-221(1)(a) of the *Regulations*] [application for \*AOP-14-009]

- (7) Nebraska Boilers: Only natural gas, propane, No.6 or lighter grade fuel oils, with a maximum sulfur content not to exceed 1.0 percent by weight may be used as fuel in the Facility's two (2) Nebraska boilers unless the Permittee obtains prior written approval from the Agency to use another type of fuel.

Commencing July 1, 2018 the sulfur content of No. 2 and lighter distillate oils shall not exceed 0.0015 percent by weight. Commencing on July 1, 2018, the sulfur content of No.4 residual oil and No.5/No.6 residual fuel oil shall not exceed 0.25 percent and 0.5 percent by weight, respectively. [10 V.S.A. §§556(c) and 556a(d)] [§§5-501 and 5-1015(a)(1) of the *Regulations*] [§5-221(1)(a) of the *Regulations*] [application for \*AOP-14-009]

- (8) Emergency Generators/Engines: Only No. 2 fuel oil, off-road diesel fuel, highway-grade diesel fuel, or lighter grade fuel oils with a maximum sulfur content not to exceed 0.05 percent by weight (500 ppm) may be used as fuel in the emergency diesel engine units unless the Permittee obtains prior written approval from the Agency to use another type of fuel.

Commencing on July 1, 2014, the sulfur content of No.2 and lighter distillate oils shall not exceed 0.05 percent by weight and commencing July 1, 2018 such oils shall not exceed 0.0015 percent by weight. [10 V.S.A. §§556(c) and 556a(d)] [§§5-501 and 5-1015(a)(1) of the *Regulations*]

- (9) Emergency Generators/Engines: Stationary emergency generators/engines as listed in Findings of Fact (A) shall be used only for emergency purposes and up to 100 hours per year for routine testing and maintenance. Emergency purposes are limited to periods of time when:

- (a) The usual source of power, heat or lighting is temporarily unavailable due to reasons beyond the reasonable control of the owner/operator;
- (b) The Independent System Operator has determined a power capacity deficiency exists and has implemented a voltage reduction of five (5) percent or more of normal operating voltage; or
- (c) A fire or flood makes it necessary to pump water to minimize property damage.

In the event the Permittee must take action to restore the normal power source, the Permittee must take such action in a reasonable period of time. Emergency engines shall not be operated as part of any other ISO or utility peaking or load shedding activities without the approval of the Agency. The definition of emergency use for applicability to



federal regulations NSPS Subpart IIII and NESHAP Subpart ZZZZ may be different and the Permittee should consult those regulations directly for applicability to those respective regulations. [10 V.S.A. §§556(c) and 556a(d)] [§§5-401(6)(c) and 5-501 of the *Regulations*]

- (10) Diesel Generators/Engines: In accordance with 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants: Stationary Reciprocating Internal Combustion Engines (RICE) at area sources), the Permittee shall comply with the following requirements, as applicable, for emergency engines, as well as all other applicable requirements of this regulation.

- (a) §63.6603(a) Table 2d: Emergency Engine Periodic Maintenance:
  - (i) Change oil and filter every 500 hours of operation or annually, whichever comes first OR follow the oil analysis program in §63.6625(i).
  - (ii) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary
  - (iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- (b) §63.6625 (f): Emergency Engine Hour Meter:
  - (i) Permittee must have a functional non-resettable hour meter on the engine.
- (c) §63.6655: Record Keeping:
  - (i) Records must be kept of the maintenance conducted on the stationary RICE and air pollution control equipment in order to demonstrate that the Permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the Permittee's maintenance plan.
  - (ii) Permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner/operator must 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. If the engines are used for demand response operation, the owner/operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.
  - (iii) A copy of each notification and report that was submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status previously submitted, according to the requirement in §63.10(b)(2)(xiv).
  - (iv) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.
  - (v) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii)
  - (vi) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- (d) §63.6650(h): Reporting Requirements: Annual reports are due according to the requirements in the following paragraphs:
  - (i) The report must contain the following information:
    - Company name and address where the engine is located.
    - Date of the report and beginning and ending dates of the reporting period.

- Engine site rating and model year.
  - Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
  - Hours operated for maintenance checks and readiness testing, including the date, start time, and end time for engine operation
  - Fuel deviations; If there were deviations from the fuel requirements that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken. If no deviations, state as such.
- (ii) The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
- (iii) The first annual report must cover the calendar year 2015 and must be 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.
- (iv) The annual report must 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) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §63.13.
- (e) §63.6605 Continuous Compliance Requirements:
- (i) Permittee must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply at all times.
- (ii) At all times Permittee must operate and maintain any affected source, including associated air pollution control equipment and 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 you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator 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 source.
- (iii) Permittee must abide by the applicable compliance requirements addressed in §63.6640 including demonstration of continuous compliance with each emissions limitation, operating limitation, and other requirements as well as reporting instances of deviations from emissions and operating limitations.

[40 CFR Part 63 Subpart ZZZZ 63.6603 Table 2d], [[40 CFR Part 63 Subpart ZZZZ 63.6625 (a), (b), (e), (f), (h)], [40 CFR Part 63 Subpart ZZZZ 63.6605, 63.6640 & 63.6655 except (c)]]

- (11) **Generators/Engines:** The Permittee shall not install or operate a stationary reciprocating internal combustion engine, as defined in the *Regulations*, unless the engine complies with §5-271 of the *Regulations* as may be applicable as well as any federal regulations including NSPS Subpart IIII and NESHAP ZZZZ, as may be applicable. All engines, including emergency generators/engines, installed on or after July 1, 2007 must comply with the applicable emission standards (Tier 2) of §5-271 immediately upon installation. Installation of any size engine, even those below 450 bhp, may still require approval from the Agency in the form of an amended permit prior to installation. Stationary reciprocating internal combustion engines include those used to power electric generator sets or to provide shaft power for other equipment such as compressors but does not include engines used to power motor vehicles. [§§5-271 and 5-501 of the *Regulations*] [40 CFR Part 60 Subpart IIII and Part 63 Subpart ZZZZ]
- (12) The Permittee shall circulate the water in the wet scrubber at a minimum rate of 200 gallons per minute whenever it is in operation, unless otherwise specified in writing by the manufacturer. [10 V.S.A. §§556(c) and 556a(d)] [Compliance schedule for August 2004 NOAV]

**- Emission Limitations -**

- (13) **Particulate Matter [Combustion Equipment]:** Emissions of particulate matter from the each of the following combustion equipment shall not exceed the following limits:

<b>Particulate Matter Emission Limitations – Combustion Equipment</b>		
Unit	Emission Limitations	
	lbs/MMBTU <sup>1</sup>	lbs/hour <sup>2</sup>
Nebraska Boiler #1	0.31	8.5
Nebraska Boiler #2	0.31	8.5
Cleaver-Brooks Boiler #1	0.33	7.8
Cleaver-Brooks Boiler #2	0.33	7.8
Cleaver-Brooks Boiler #3	0.33	7.8
John Deere Model JD (126 kw)	0.5	0.6

<sup>1</sup> lbs/MMBtu equals pounds of pollutant emitted per million British Thermal Units of heat input.

<sup>2</sup> lbs/hour equals pounds of pollutant emitted per hour.

Any emission testing conducted to demonstrate compliance with the above emission limit shall be performed in accordance with 40 *CFR* Part 60, Appendix A, Reference Method 5 and 202 or equivalent methods approved in writing by the Agency or an alternative method which has been published in 40 *CFR*, provided the federally approved alternative method has been accepted in writing by the Agency before testing. [§§5-231(3)(a)(i) and 5-404 of the *Regulations*]

- (14) Particulate Matter [Whey Dryers]: Emissions of particulate matter from the whey dryers shall not exceed the following limits:

<b>Particulate Matter Emission Limitations - Whey Dryers</b>			
Emission Point	Control Device	Emission Limit (gr/dscf) <sup>1</sup>	Emission Limit (lb/hour) <sup>2</sup>
WPC Baghouse #1	Fabric Filter	0.01	0.81
WPC Baghouse #2	Fabric Filter	0.01	0.85
WPC Conveyor/Receiver Baghouse	Fabric Filter	0.01	0.22
<b>Whey Permeate Dryer</b>			
Emission Point	Control Device	Emission Limit (gr/dscf) <sup>1</sup>	Emission Limit (lb/hour) <sup>2</sup>
Permeate Wet Scrubber	Venturi-style scrubber followed by wet cyclonic scrubber and demister	0.02	4.02
Permeate Fluidized Bed Baghouse	Fabric Filter	0.01	1.05
Permeate Conveyor/Receiver Baghouse	Fabric Filter	0.01	0.21

<sup>1</sup> gr/dscf equals grains per dry standard cubic foot of exhaust gas

<sup>2</sup> lb/hour equals pounds per hour

Any emission testing conducted to demonstrate compliance with the above emission limit shall be performed in accordance with 40 *CFR* Part 60, Appendix A, Reference Method 5 and 202 or equivalent methods approved in writing by the Agency or an alternative method which has been published in 40 *CFR*, provided the federally approved alternative method has been accepted in writing by the Agency before testing. [§§5-231(3)(a)(i) and 5-404 of the *Regulations*]

- (15) Particulate Matter: Emissions of particulate matter ("PM") from any fossil fuel burning device, except motorized vehicles, with a heat input rating of less than ten (10) million British Thermal Units per hour ("MMBTU/hr") shall not exceed 0.5 pounds per MMBTU.

Any emission testing conducted to demonstrate compliance with the above emission limit shall be performed in accordance with 40 *CFR* Part 60, Appendix A, Reference Method 5 and 202 or equivalent methods approved in writing by the Agency or an alternative method which has been published in 40 *CFR*, provided the federally approved alternative method has been accepted in writing by the Agency before testing. [§§5-231(3)(a)(i) and 5-404 of the *Regulations*]

- (16) Visible Emissions [Facility Wide]: Emissions of visible air contaminants from any installation at the Facility, except where otherwise noted in this Permit, shall not exceed twenty (20) percent opacity for more than a period or periods aggregating six (6) minutes in any hour and at no time shall visible emissions exceed sixty (60) percent opacity.

Any emission testing conducted to demonstrate compliance with the above emission limits shall be performed in accordance with 40 *CFR* Part 51, Appendix M, Methods 203B and 203C, respectively, or equivalent methods approved in writing by the Agency. [§§5-211(2), 5-211(3) and 5-404 of the *Regulations*]

- (17) Hazardous Air Pollutants: Emission of federally regulated hazardous air pollutants (HAPs) from the Facility shall not equal or exceed ten (10) tons per year of any single HAP or twenty-five (25) tons per year of all HAPs combined per year based on any rolling twelve (12) consecutive calendar month period. [40 *CFR* Part 63]

- (18) Hazardous Air Contaminants: Emissions of state hazardous air contaminants (HACs) from the applicable operations at the Facility shall not equal or exceed their respective Action Level (found in Appendix C of the *Regulations*) unless the Agency has reviewed and approved such HAC emission under §5-261(3) of the *Regulations*. [§5-261 of the *Regulations*]

- (19) Nuisance and Odor: The Permittee shall not discharge, cause, suffer, allow, or permit from any source whatsoever such quantities of air contaminants or other material which will cause injury, detriment, nuisance or annoyance to any considerable number of people or to the public or which endangers the comfort, repose, health or safety of any such persons or the public or which causes or has a natural tendency to cause injury or damage to business or property. The Permittee shall not discharge, cause, suffer, allow, or permit any emissions of objectionable odors beyond the property line of the premises. [§5-241(1) and (2) of the *Regulations*]

**- Compliance Testing and Monitoring -**

- (20) Boiler Combustion Efficiency [Nebraska Boilers]: The Permittee shall perform combustion efficiency (CE) testing of the two (2) Nebraska No.6 oil-fired boilers by measuring the concentrations of carbon dioxide (CO<sub>2</sub>) and carbon monoxide (CO) in the exhaust gases.
- (a) Said testing shall be performed during each calendar quarter of operation; however a higher test frequency will be required to establish the CE trigger level as required in Condition (21);
  - (b) The Permittee shall perform said testing of the CO<sub>2</sub> and CO concentrations using methods which have been approved in writing in advance by the Agency. The CO<sub>2</sub> and CO concentrations may be on a wet or dry basis as long as they are both on the same basis;
  - (c) Any instruments and/or equipment used for said testing shall be calibrated and maintained in accordance with the manufacturer's recommendations;
  - (d) Each time testing of the boiler exhaust gas is conducted to determine the concentrations of CO<sub>2</sub> and CO, the Permittee shall calculate and record the combustion efficiency of the boiler using methods approved in writing in advance by the Agency; and
  - (e) For the purposes of this Permit combustion efficiency shall be determined using the following equation:

$$CE (\%) = \frac{CO_2}{CO_2 + CO} \times 100$$

Where;

CE = Combustion efficiency,  
 CO<sub>2</sub> = % by volume of carbon dioxide in the flue gas, and  
 CO = % by volume of carbon monoxide in the flue gas.

[§§5-404(1), 5-405(1) and 5-1015(a)(3) and (4) of the *Regulations*]

- (21) Operation and Maintenance Plan [Nebraska Boilers]: The Permittee shall maintain and update, as appropriate, an operation and maintenance plan (O&M Plan) for its two (2) Nebraska No.6 oil-fired boilers. The purpose of said O&M Plan shall be to ensure the proper operation and maintenance of the boilers in order to ensure optimum performance and continuous compliance with the respective conditions and emission limits of this Permit. Additionally the O&M Plan shall help ensure good control of carbon monoxide emissions. The O&M Plan shall include, but not be limited to:
- (a) Methods for determining a combustion efficiency trigger level for each affected boiler. The trigger level shall be based on a minimum of 12 CE tests performed during operating conditions that are representative of the typical operating range of the respective boiler. The initial CE trigger level shall be established within one-hundred eighty (180) days after the issuance of this Permit. For boilers that only operate seasonally, the testing must be completed within one-hundred eighty (180) days of the start of its operating season;
  - (b) The procedures to be followed to increase combustion efficiency whenever the combustion efficiency is determined to be less than the trigger level;
  - (c) Descriptions of routine maintenance and inspection procedures including a description of the procedure for and frequency of ash removal from the boiler and the particulate matter emission control device;
  - (d) Provisions for maintaining records of maintenance and inspection procedures, including both routine activities and actions taken in response to observations of low combustion efficiency; and
  - (e) Provisions for calibration and maintenance of any testing instruments and/or equipment used to measure the concentrations of CO<sub>2</sub> and CO in the boiler exhaust gases.

Failure to take reasonable steps in accordance with said plan to increase the combustion efficiency once it has fallen below the trigger level may be considered credible evidence of an exceedance of the opacity and particulate emission limits set forth in this Permit. Said O&M Plan shall be present at the Facility at all times and shall be made available to representatives of the Agency upon request. The Permittee shall revise said O&M Plan at the Agency's request or on its own motion based on operating experience or to reflect equipment or operational changes. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*]

- (22) Operation and Maintenance Plan [Fabric Filters]: The Permittee shall implement and maintain an O&M plan for the fabric filters, fabric filter continuous monitoring devices, and wet scrubber system. The purpose of said plan shall be to ensure that the specified equipment remains in continuous compliance with the conditions of this Permit. The operation and maintenance plan shall include, but not be limited to, a description of routine maintenance and inspection procedures, provisions for maintaining records of such maintenance and inspections as well as findings of those inspections and any corrective actions which were taken. Said operation and maintenance plan shall be present at the facility at all times and shall be made available to representatives of the Agency upon request. The Permittee shall revise this plan at the Agency's request or on its own motion to reflect equipment or operational changes. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*]

- (23) Particulate Matter and Visible Emissions Testing [Wet Scrubber]: The Facility shall perform periodic particulate matter and visible emissions testing of the permeate wet scrubber system and submit a final test report to the Agency once every three (3) calendar years after the date of the initial emission testing. Initial emission testing was conducted in April and May of 2001.

Said testing shall be performed in order to demonstrate compliance with the particulate matter and visible emission limits contained in this Permit. At least 30 days before performing the emission testing required herein, the Facility shall submit to the Agency a pretest report prepared in accordance with the Agency's "Source Emission Testing Guidelines". [§§5-402(1) and 5-404(1) of the *Regulations*] [AOP-99-014]

**- Record Keeping and Reporting -**

- (24) Records of Fuel Use: the Permittee shall maintain records of the total quantity of:
- (a) Residual oil (No. 4, 5 and 6) consumed in the two (2) Nebraska boilers, in gallons, each month. At the beginning of each month, the Permittee shall calculate the total quantity of Residual oil (No. 4, 5 and 6) consumed in the boilers, in gallons, during the previous twelve (12) consecutive month period;
  - (b) Distillate oil (No. 2, diesel) consumed in the two (2) Nebraska boilers and the three (3) Cleaver Brooks boilers, in gallons, each month. At the beginning of each month, the Permittee shall calculate the total quantity of distillate oil (No. 2, diesel) consumed in the boilers, in gallons, during the previous twelve (12) consecutive month period;
  - (c) Propane consumed in the two (2) whey dryers, in gallons, each month. At the beginning of each month, the Permittee shall calculate the total quantity of propane consumed in the whey dryers, in gallons, during the previous twelve (12) consecutive month period; and
  - (d) Natural gas consumed in the three (3) Cleaver Brooks boilers and two (2) whey dryers, in standard cubic feet, each month. At the beginning of each month, the Permittee shall calculate the total quantity of natural gas consumed in the boilers, in standard cubic feet, during the previous twelve (12) consecutive month period.

[10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*] [40 CFR Subpart Dc §§60.48c(g)] [AOP-14-009]

- (25) Records of Fuel Oil Certifications [Boilers]: The Permittee shall obtain from the fuel supplier, for each shipment of fuel oil received at the Facility for use in the boilers a certification or invoice regarding the sulfur content of the fuel oil. The certification or invoice shall include: the date of delivery, name of the fuel oil supplier, fuel type, quantity of fuel oil delivered, the sulfur content of the fuel delivered, and the location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location, and the method used to determine the sulfur content of the oil. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*] [40 CFR Part 60 Subpart Dc §§60.42c(h) and 60.48c(f)]



- (26) Records of Fuel Oil Certifications [Generators/Engines]: The Permittee shall obtain from the fuel supplier, for each shipment of fuel oil received at the Facility for use in the stationary diesel generators/engines, a certification or invoice regarding the sulfur content of the fuel oil. The certification or invoice shall include the date of delivery, name of the fuel oil supplier, fuel type, quantity of fuel oil delivered, and a statement from the fuel oil supplier that the oil complies with the specifications for Ultra Low Sulfur Diesel per 40 CFR Part 80 80.510(b) or a statement as to the sulfur content of the fuel oil in percent sulfur by weight. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*] [40 CFR Part 60 Subpart III] [40 CFR Part 63 Subpart ZZZZ]
- (27) Records of Emergency Generator/Engine Usage: The Permittee shall maintain records in a log book, or electronic record system, of all hours of operation of each stationary emergency generator/engine and shall make such records available to the Agency upon request. The records shall include: the dates on which each engine was operated; the number of hours the engine was operated on the respective date, including the starting and ending hours shown on the engine's elapsed hour meter; the purpose of the operation be it emergency, testing or maintenance; and, if the purpose of the operation was for an emergency, the records shall include a brief description of the emergency and its cause. [10 V.S.A. §§556(c) and 556a(d)] [§5-405(1) of the *Regulations*]
- (28) Records for Wet Scrubber: The Facility shall record, in a log, the circulation rate in the wet scrubber on an hourly basis. These records shall be made available for Agency inspection upon request. [10 V.S.A. §§556(c) and 556a(d)]
- (29) Records of Combustion Efficiency Testing [Nebraska Boilers]: The Permittee shall maintain records of the results of the combustion efficiency testing conducted on the respective boilers. These records shall at least include the test date, identification of boiler tested, a measurement of the load on the boiler (such as fuel feed rate or steam production rate), the concentrations of oxygen, carbon monoxide and carbon dioxide in the exhaust gas as well as the calculated combustion efficiency. [10 V.S.A. §§556(c) and 556a(d)] [§§5-405(1) and 5-1015(a)(3) and (4) of the *Regulations*]
- (30) Records: Records of all required compliance testing shall include the following:
- (a) the date, place, and time of sampling or measurements;
  - (b) the date analyses were performed;
  - (c) the company or entity that performed the analyses;
  - (d) the analytical techniques or methods used;
  - (e) the results of all such analyses; and
  - (f) the operating conditions existing at the time of sampling or measurement.

[§§5-402, 5-405(1) and 5-1015(5) of the *Regulations*]

- (31) Records: All records shall be retained for a minimum period of five (5) years from the date of record and shall be made available to the Agency upon request. [§§5-402, 5-405(1) and 5-1015(a)(7) of the *Regulations*]

- (32) **Notification:** The Permittee shall notify the Agency and the U.S. EPA in writing of the date construction of the three (3) new Cleaver-Brooks boilers are commenced, postmarked no later than thirty (30) days after such date. This notification shall include the following information:

- (a) The design heat input capacity of the boiler(s);
- (b) Identification of the fuel(s) to be burned in the boiler(s); and
- (c) The annual capacity factor at which the Permittee anticipates operating the boiler based on all fuels fired and based on each individual fuel fired.

[10 V.S.A. §556(c)] [40 CFR §60.7(a)(3)] [40 CFR Part 60 Subpart Dc §60.48c(a)]

- (33) **Notification:** The Permittee shall notify the Agency and the U.S. EPA in writing of the actual date(s) of initial start-up of three (3) new Cleaver-Brooks boilers postmarked no later than fifteen (15) days after such date(s). For the purposes of this Permit, the date of initial start-up for the boilers shall be defined as the date on which fuel is first burned in the boiler(s). Along with this notification, the Permittee shall include the following information:

- (a) Boiler manufacturer;
- (b) Boiler model;
- (c) Boiler serial number; and
- (d) Boiler maximum rated heat input in units of MMBtu/hr.

[10 V.S.A. §556(c)] [40 CFR §60.7(a)(3)] [40 CFR Part 60 Subpart Dc §60.48c(a)]

- (34) **Notification:** The Permittee shall notify the Agency in writing within ten (10) days of any violation, of which it is aware, of any requirements of this Permit. This notification shall include, at a minimum, the cause for the violation and corrective action or preventative maintenance taken to correct the violation. [§§5-402 and 5-1015(a)(6) of the *Regulations*]

- (35) **Notification:** The Permittee shall notify the Agency in writing of any proposed physical or operational change at the Facility which may increase the emission rate of any air contaminant to the ambient air regardless of any concurrent emission reductions that may be achieved. This notification requirement includes, but is not limited to, the proposed installation of any new equipment that is a source of air pollution, including the replacement of an existing permitted air pollution source. If the Agency determines that a permit amendment is required, a new application and the appropriate application fee shall be submitted. The permit amendment shall be obtained prior to commencing any such change except as may otherwise be allowed by the *Regulations*. [10 V.S.A. §556(c)] [§§5-402 and 5-501 of the *Regulations*]

- (36) Reporting: Semi-Annual Periodic Monitoring Reports: The Permittee shall submit semi-annual reports to the Agency postmarked by the 30th day following the end of each reporting period. The reporting periods shall cover operations from January 1<sup>st</sup> through June 30<sup>th</sup> and July 1<sup>st</sup> through December 31<sup>st</sup>. The semi-annual reports shall be signed by a responsible official of the Facility and contain the following information regarding the preceding six (6) month reporting period:
- (a) a summary of the fuel usage records required by this Permit;
  - (b) a summary of the periodic combustion efficiency calculations required by this Permit;
  - (c) a statement of the sulfur content of any and all fuel delivered to the Facility during the reporting period;
  - (d) a statement of hours of operation of each emergency generator;
  - (e) a summary of flow measurements from the scrubber flow monitoring device;
  - (f) For the boilers subject to NSPS Dc, the Permittee shall submit semi-annual reports to the Agency and the U.S. EPA postmarked by the 30th day following the end of each reporting period. The reporting periods shall cover operations from January 1<sup>st</sup> through June 30<sup>th</sup> and July 1<sup>st</sup> through December 31<sup>st</sup>. If no fuel oil is burned during a calendar year the minimum reporting frequency is reduced to annual. The Permittee may submit a written report to the Agency and the U.S. EPA, representing the preceding calendar year. Such semi-annual or annual reports shall include the following information:
    - (i) Calendar dates covered in the reporting period;
    - (ii) Either records of fuel supplier certifications as required by this Permit or a statement that no fuel oil was burned during the reporting period; and,
    - (iii) A certified statement signed by a responsible official of the Facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

[§§5-402, 5-405(1) and 5-1015(a)(5) of the *Regulations*][40 CFR Part 70 §70.6(a)(3)(iii)(A)]

- (37) Reporting [Three (3) Cleaver-Brooks Boilers]: The Permittee shall submit semi-annual reports to the Agency and the U.S. EPA postmarked by the 30th day following the end of each reporting period. The reporting periods shall cover operations from January 1<sup>st</sup> through June 30<sup>th</sup> and July 1<sup>st</sup> through December 31<sup>st</sup>. If no fuel oil is burned during a calendar year the minimum reporting frequency is reduced to annual. The Permittee may submit a written report to the Agency and the U.S. EPA, representing the preceding calendar year. Such semi-annual or annual reports shall include the following information:
- (a) Calendar dates covered in the reporting period;
  - (b) Either records of fuel supplier certifications as required by this Permit or a statement that no fuel oil was burned during the reporting period; and
  - (c) A certified statement signed by a responsible official of the Facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

[10 V.S.A. §§556(c) and 556a(d)] [40 CFR Subpart Dc §§60.48c(d), 60.48c(e), 60.48c(f) and 60.48c(j)]

- (38) Reporting: Annual Compliance Certification: By February 1st of each year, the Permittee shall submit to the Agency and the U.S. EPA an annual certification of compliance for the previous calendar year which ascertains and identifies the compliance status of the Facility with respect to all terms and conditions of this Permit, including but not limited to the following:

- (a) Identification of each term or condition of the permit that is the basis of the certification;
- (b) The compliance status;
- (c) Whether compliance was continuous or intermittent;
- (d) The methods used for determining the compliance status of the Facility over the reporting period;
- (e) Emissions of VOCs from the Facility are less than fifty (50) tons per year;
- (f) Emissions of federal HAPs from the Facility are less than ten (10) tons per year for each individual HAP and less than twenty-five (25) tons per year for total HAPs;
- (g) Emissions of each regulated state HAC is less than its respective Action Level (found in Appendix C of the Regulations) or the emission of the respective HAC has previously been reviewed and approved by the Agency under §5-261(3) of the *Regulations*; and
- (h) If necessary, the Permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information.

[§114(a)(3) of the CAA] [§§5-402 and 5-1015(a)(11) of the *Regulations*]

- (39) Annual Registration: The Permittee shall calculate the quantity of emissions of air contaminants from the Facility annually. If the Facility emits more than five (5) tons of any and all air contaminants per year, the Permittee shall register the source with the Secretary of the Agency (hereinafter "Secretary"), and shall renew such registration annually. Each day of operating a source which is subject to registration without a valid, current registration shall constitute a separate violation and subject the Permittee to civil penalties. The registration process shall follow the procedures set forth in Subchapter VIII of the *Regulations*, including the payment of the annual registration fee on or before May 15 of each year. [Subchapter VIII §§5-802, 5-803, 5-807, 5-808 of the *Regulations*]

- (40) All records, notifications and reports that are required to be submitted to the Agency by this Permit shall be submitted to:

Agency of Natural Resources  
 Department of Environmental Conservation  
 Air Quality & Climate Division  
 One National Life Drive, Davis Building, Second Floor  
 Montpelier, Vermont 05620-3802

[§5-402 of the *Regulations*]

- (41) All records, notifications and reports that are required to be submitted to the U.S. EPA by this Permit shall be submitted to:

Air Compliance Clerk  
U.S. EPA-New England  
5 Post Office Sq. Suite 100 (OES04-2)  
Boston, MA 02109-3912

[§5-402 of the *Regulations*]

**- Stratospheric Ozone Protection -**

- (42) Protection of Stratospheric Ozone - Recycling and Emissions Reduction. The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 *CFR* Part 82, Subpart F:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 *CFR* Part 82, Subpart F §82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment as specified in 40 *CFR* Part 82, Subpart F §82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program as specified in 40 *CFR* Part 82, Subpart F §82.161.
- (d) Commercial or industrial process refrigeration equipment must comply with the leak repair requirements specified in 40 *CFR* Part 82, Subpart F §82.156.
- (e) For each appliance normally containing fifty (50) or more pounds of refrigerant, the Permittee shall keep records of refrigerant purchased and added to such appliances as specified in 40 *CFR* Part 82, Subpart F §82.166.

[40 *CFR* Part 82, Subpart F]

**- Standard Permit Conditions -**

- (43) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Agency which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [10 V.S.A. §§556(c) and 556a(d)] [40 *CFR* Part 60.11(d) and 63.6(e)]

(44) Approval to construct or modify under this Permit shall become invalid if construction or modification is not commenced within eighteen (18) months after issuance of this Permit, if construction or modification is discontinued for a period of eighteen (18) months or more, or if construction is not substantially completed within a reasonable time. The Agency may extend any one of these periods upon a satisfactory showing that an extension is justified. The term "commence" as applied to the proposed construction or modification of a source means that the Permittee either has:

- (a) Begun, or caused to begin, a continuous program of actual on-site construction or modification of the source, to be completed within a reasonable time; or
- (b) Entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the Permittee, to undertake a continuous program of actual on-site construction or modification of the source to be completed within a reasonable time.

[10 V.S.A. §556(c)] [§5-501 of the *Regulations*]

(45) These Permit conditions may be suspended, terminated, modified, or revoked for cause and reissued upon the filing of a written request with the Secretary of the Agency (hereinafter "Secretary") or upon the Secretary's own motion. Any modification shall be granted only with the written approval of the Secretary. If the Secretary finds that modification is appropriate, only the conditions subject to modification shall be re-opened. The filing of a request for modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated non-compliance does not stay any terms or conditions of this Permit. The Secretary may provide opportunity for public comment on any proposed modification of these conditions. If public comments are solicited, the Secretary shall follow the procedures set forth in 10 V.S.A. §556 and §556a, as amended.

[10 V.S.A. §§556(d) and 556a(g)] [§§5-1008(a) and 5-1008(e) of the *Regulations*]

(46) Cause for reopening, modification, termination and revocation of this Permit includes, but is not limited to:

- (a) Inclusion of additional applicable requirements pursuant to state or federal law;
- (b) A determination that the permit contains a material mistake or that inaccurate information was used to establish emissions standards or other terms or conditions of the operating permit;
- (c) A determination that the operating permit must be modified or revoked to ensure compliance with applicable requirements;
- (d) A determination that the subject source has failed to comply with a permit condition;
- (e) For Title V subject sources, a determination by U.S. EPA that cause exists to terminate, modify, revoke or reissue an operating permit;
- (f) Those causes which are stated as grounds for refusal to issue, renew or modify an operating permit under §5-1008(a) of the *Regulations*; or
- (g) If more than three (3) years remain in the permit term and the source becomes subject to a new applicable requirement.

[§5-1008(e)(4) of the *Regulations*]

- (47) The Permittee shall furnish to the Agency, within a reasonable time, any information that the Agency may request in writing to determine whether cause exists to modify, revoke, reissue, or terminate the Permit or to determine compliance with this Permit. Upon request, the Permittee shall also furnish to the Agency copies of records required to be kept by this Permit. [10 V.S.A. §§556(c) and 556a(d)] [§5-402 of the *Regulations*] [40 CFR Part 70 §70.6(a)(6)(v)]
- (48) By acceptance of this Permit, the Permittee agrees to allow representatives of the State of Vermont access to the properties covered by the Permit, at reasonable times, to ascertain compliance with Vermont environmental and health statutes and regulations and with this Permit. The Permittee also agrees to give the Agency access to review and copy any records required to be maintained by this Permit, and to sample or monitor at reasonable times to ascertain compliance with this Permit. [10 V.S.A. §§556(c), 556a(d) and 557] [§§5-402, 5-404, and 5-1015(a)(10) of the *Regulations*]
- (49) All data, plans, specifications, analyses and other information submitted or caused to be submitted to the Agency as part of the application for this Permit or an amendment to this Permit shall be complete and truthful and, for Title V permit applications, certified by a responsible official whose designation has been approved by the Secretary. Any such submission which is false or misleading shall be sufficient grounds for denial or revocation of this Permit, and may result in a fine and/or imprisonment under the authority of Vermont statutes. [10 V.S.A. §§556(c) and 556a(d)] [§§5-505 and 5-1006(f) of the *Regulations*]
- (50) For the purpose of establishing whether or not a person has violated or is in violation of any condition of this Permit, nothing in this Permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. [10 V.S.A. §§556(c) and 556a(d)]
- (51) Any permit noncompliance could constitute a violation of the federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [10 V.S.A. §§556(c) and 556a(d)] [§§5-1008(a) and 5-1008(e) of the *Regulations*]
- (52) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this Permit. [10 V.S.A. §§556(c) and 556a(d)]
- (53) No person shall build, erect, install or use any article, machine, equipment or other contrivances, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which otherwise would constitute a violation of these *Regulations*. [§5-403 of the *Regulations*]
- (54) The provisions of this Permit are severable. If any provision of this Permit, or its application to any person or circumstances is held invalid, illegal, or unenforceable by a court of competent jurisdiction, the invalidity shall not apply to any other portion of this Permit which can be given effect without the invalid provision or application thereof. [10 V.S.A. §§556(c) and 556a(d)]

- (55) This Permit does not convey any property rights of any sort or any exclusive privilege, nor does it authorize any injury to private property or any invasion of personal rights. [10 V.S.A. §§556(c) and 556a(d)]
  
- (56) All subsequent owners and/or operators of this Facility must request an amendment and transfer of this Permit prior to commencing any operations covered by this Permit. All subsequent owners and/or operators shall submit to the Agency as part of the request for amendment all such information the Agency deems necessary to establish legal ownership and/or interest in the property and all such information the Agency deems necessary to ensure the new owners and/or operators will construct and operate the Facility in compliance with the *Regulations* and this Permit. The terms and conditions of this Permit shall remain in full force and effect after submittal of the request for amendment and until the issuance of an amended Permit or denial. Should the Secretary deny the request, the new owner and/or operator must take whatever action is necessary to comply with the denial. [10 V.S.A. §§556 and 556a] [§§5-501, 5-1004, and 5-1013(a) of the *Regulations*]
  
- (57) Renewable Energy Projects – Right to Appeal to Public Service Board. If this decision relates to a renewable energy plant for which a certificate of public good is required under 30 V.S.A. §248, any appeal of this decision must be filed with the Vermont Public Service Board pursuant to 10 V.S.A. §8506. This section does not apply to a facility that is subject to 10 V.S.A. §1004 (dams before the Federal Energy Regulatory Commission), 10 V.S.A. §1006 (certification of hydroelectric projects) or 10 V.S.A. Chapter 43 (dams). Any appeal under this section must be filed with the Clerk of the Public Service Board within 30 days of the date of this decision; the appellant must file with the Clerk an original and six copies of its appeal. The appellant shall provide notice of the filing of an appeal in accordance with 10 V.S.A. 8504(c)(2), and shall also serve a copy of the Notice of Appeal on the Vermont Department of Public Service. For further information, see the Rules and General Orders of the Public Service Board, available on line at [www.psb.vermont.gov](http://www.psb.vermont.gov). The address for the Public Service Board is 112 State Street, Montpelier, Vermont, 05620-2701 (Tel. # 802-828-2358).
  
- (58) All Other Projects – Right to Appeal to Environmental Court. Pursuant to 10 V.S.A. Chapter 220, any appeal of this decision must be filed with the clerk of the Environmental Court within 30 days of the date of the decision. The Notice of Appeal must specify the parties taking the appeal and the statutory provision under which each party claims party status; must designate the act or decision appealed from; must name the Environmental Court; and must be signed by the appellant or their attorney. In addition, the appeal must give the address or location and description of the property, project or facility with which the appeal is concerned and the name of the applicant or any permit involved in the appeal. The appellant must also serve a copy of the Notice of Appeal in accordance with Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings. For further information, see the Vermont Rules for Environmental Court Proceedings, available on line at [www.vermontjudiciary.org](http://www.vermontjudiciary.org). The address for the Environmental Court is 2418 Airport Road, Suite 1, Barre, VT 05641 (Tel. # 802-828-1660).



- (59) Conditions (1) through (6), and (12) through (15) are derived from the new source review requirements of Subchapter V of the *Regulations*. With the exception of the cited new source review conditions, this Operating Permit shall expire as indicated on the cover page to this Permit. The Permittee shall submit to the Agency a complete application for renewal of the Operating Permit at least twelve (12) months before the expiration of the Operating Permit. If a timely and administratively complete application for an operating permit renewal is submitted to the Secretary, but the Secretary has failed to issue or deny such renewal before the end of the term of this Operating Permit, then the Permittee may continue to operate the subject source and all terms and conditions of this Operating Permit shall remain in effect until the Secretary has issued or denied the operating permit renewal. However, this Operating Permit shall automatically expire if, subsequent to the renewal application being determined or deemed administratively complete pursuant to §5-1006 of the *Regulations*, the Permittee fails to submit any additional information required by the Secretary as well as information pertaining to changes to the Facility within thirty (30) days or such other period as specified in writing by the Secretary. [§§5-1011 and 5-1012(a) of the *Regulations*] [§§5-1005(c) and 5-1012 of the *Regulations*]
- (60) The conditions of this Permit as set forth above supersede all conditions contained in all prior Permits issued by the Agency to the Permittee for this Facility. [10 V.S.A. §§556(c) and 556a(d)]

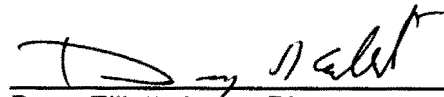
The Agency's issuance of this Air Pollution Control Permit relies upon the data, judgment, and other information supplied by the Permittee. The Agency makes no assurances that the air contaminant source approved herein will meet performance objectives or vendor guarantees supplied to the source Permittee. It is the sole responsibility of the Permittee to operate the source in accordance with the conditions herein and with all applicable state and federal standards and regulations.

Dated this 10<sup>th</sup> day of November, 2014.

Agency of Natural Resources

David K. Mears, Commissioner  
Department of Environmental Conservation

By:

  
\_\_\_\_\_  
Doug Elliott, Acting Director  
Air Quality & Climate Division

jh  
A2: Agri-Mark, Inc. - Middlebury