

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

August 19, 2011

**PERMIT TO INSTALL**  
88-09A

**ISSUED TO**  
Michigan Milk Producers Association

**LOCATED AT**  
431 West Williams Street  
Ovid, Michigan

**IN THE COUNTY OF**  
Clinton

**STATE REGISTRATION NUMBER**  
B7090

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203:

**August 16, 2011**

DATE PERMIT TO INSTALL APPROVED:

**August 19, 2011**

SIGNATURE:

DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

**PERMIT TO INSTALL**

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**Common Abbreviations / Acronyms**

<b>Common Acronyms</b>		<b>Pollutant/Measurement Abbreviations</b>	
AQD	Air Quality Division	BTU	British Thermal Unit
ANSI	American National Standards Institute	°C	Degrees Celsius
BACT	Best Available Control Technology	CO	Carbon Monoxide
CAA	Clean Air Act	dscf	Dry standard cubic foot
CEM	Continuous Emission Monitoring	dscm	Dry standard cubic meter
CFR	Code of Federal Regulations	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H <sub>2</sub> S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO <sub>x</sub>	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality	PM	Particulate Matter
MIOSHA	Michigan Occupational Safety & Health Administration	PM10	PM less than 10 microns diameter
MSDS	Material Safety Data Sheet	PM2.5	PM less than 2.5 microns diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pound per hour
NSPS	New Source Performance Standards	ppm	Parts per million
NSR	New Source Review	ppmv	Parts per million by volume
PS	Performance Specification	ppmw	Parts per million by weight
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonably Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO <sub>2</sub>	Sulfur Dioxide
SC	Special Condition	THC	Total Hydrocarbons
SCR	Selective Catalytic Reduction	tpy	Tons per year
SRN	State Registration Number	µg	Microgram
TAC	Toxic Air Contaminant	VOC	Volatile Organic Compounds
TEQ	Toxicity Equivalence Quotient	yr	Year
VE	Visible Emissions		

\* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

### GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The AQD District Supervisor shall be notified, in writing, of a change in ownership or operational control of the stationary source or emission unit(s) authorized by this Permit to Install pursuant to R 336.1219. The notification shall include all of the information required by R 336.1219(1)(a) and (b). In addition, a new owner or operator must submit a written statement pursuant to R 336.1219(1)(c), agreeing to and accepting the terms and conditions of this Permit to Install, and shall notify the AQD District Supervisor of any change in the contact person for this Permit to Install. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
  - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
  - b) A visible emission limit specified by an applicable federal new source performance standard.
  - c) A visible emission limit specified as a condition of this Permit to Install.
  
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**
  
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

**SPECIAL CONDITIONS**

**EMISSION UNIT SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

<b>Emission Unit ID</b>	<b>Emission Unit Description (Process Equipment &amp; Control Devices)</b>	<b>Installation Date / Modification Date</b>	<b>Flexible Group ID</b>
EUBOILER1	Johnson Boiler Company Model No. S-4301 40.18 MM Btu/hr Natural Gas Fired Boiler No Add-on Controls	May 1978	FGBOILERS
EUBOILER2	Johnson Boiler Company Model No. PFTA 1000-4G-50- #D.P. 45 MM Btu/hr Natural Gas Fired Boiler No Add-on Controls	August 1988	FGBOILERS
EUBOILER4	46.28 MM Btu/hr Natural Gas Fired Boiler Low-NOx Burner No Add-on Controls	September 2, 2009	N/A
EUMILKDRYER1	The Milk Dryer with integral 20 MM Btu/hr Natural Gas Fired Dryer Heater exhausts dried milk particulate to a baghouse.	May 1972	FGMILKDRYERS
EUMILKDRYER2	The Milk Dryer with integral 21 MM Btu/hr Natural Gas Fired Dryer Heater exhausts dried milk particulate to a baghouse.	April 1981	FGMILKDRYERS
EUMILKDRYER3	The Milk Dryer exhausts dried milk particulate to two cyclone collectors followed by two baghouses.	September 2, 2009	N/A
EUDRYERHEATER	28.4 MM Btu/hr Natural Gas Fired Dryer Heater	September 2, 2009	N/A
EUGENERATOR1	MTU Detroit Diesel 2 MW Emergency Generator	March 12, 2009	FGGENERATORS
EUGENERATOR2	MTU Detroit Diesel 2 MW Emergency Generator	March 12, 2009	FGGENERATORS
EUGENERATOR3	MTU Detroit Diesel 2 MW Emergency Generator	March 12, 2009	FGGENERATORS

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.

**The following conditions apply to: EUBOILER4**

**DESCRIPTION:** 46.28 MM Btu/hr Natural Gas Fired Boiler with Low-NOx Burner

**Flexible Group ID:** N/A

**POLLUTION CONTROL EQUIPMENT:** N/A

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx	1.6 pph	Test Protocol	EUBOILER4	GC 13	R 336.1205(1)(a), R 336.2803, R 336.2804, 40CFR52.21(c) &(d)

**II. MATERIAL LIMITS**

1. The permittee shall fire only natural gas in EUBOILER4. (R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), 40 CFR Part 60 Subpart Dc)

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUBOILER4 unless a malfunction abatement plan (MAP) as described in Rule 911(2), for EUBOILER4, is implemented and maintained. The MAP shall, at a minimum, specify the following:
  - a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
  - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
  - c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. (R 336.1301(1)(c), R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))

**IV. DESIGN/EQUIPMENT PARAMETERS**

N/A

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

N/A

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor, in a satisfactory manner, the natural gas usage rate for EUBOILER4 on a monthly basis. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), 40 CFR 52.21(c) and (d))**
2. The permittee shall keep, in a satisfactory manner, all monthly fuel use for EUBOILER4, as required by SC VI.1., on file at the facility and make them available to the Department upon request. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702(a), 40 CFR Part 60.48c(g), 40CFR52.21)**
3. The permittee shall monitor emissions, operating information, and keep records for EUBOILER4 in accordance with the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and Dc. The permittee shall make all records available to the Department upon request. **(40 CFR Part 60 Subparts A and Dc)**

**VII. REPORTING**

N/A

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. EUBOILER4	29.4	47	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

**IX. OTHER REQUIREMENTS**

N/A

**The following conditions apply to: EUMILKDRYER3**

**DESCRIPTION:** The Milk Dryer exhausts dried milk particulate to two cyclone collectors followed by two baghouses.

**Flexible Group ID:** N/A

**POLLUTION CONTROL EQUIPMENT:** Two cyclone collectors and two baghouses.

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.0156#/1000# gas <sup>1</sup>	Test Protocol	EUMILKDRYER3	GC 13	R 336.1331
2. PM10	5.6 pph	Test Protocol	EUMILKDRYER3	GC 13	R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

<sup>1</sup> Calculated on a dry gas basis.

3. Visible emissions from EUMILKDRYER3 shall not exceed a six-minute average of 10 percent opacity. (R 336.1301, R 336.1331)

**II. MATERIAL LIMITS**

N/A

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate EUMILKDRYER3 unless a malfunction abatement plan (MAP) as described in Rule 911(2), for EUMILKDRYER3, is implemented and maintained. The MAP shall, at a minimum, specify the following:
  - a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
  - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
  - c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. (R 336.1301(1)(c), R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate EUMILKDRYER3 unless the two cyclones and two baghouses are installed, maintained, and operated in a satisfactory manner. (R 336.1205, R 336.1301, R 336.1331, R 336.1702, RR 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1201(3))

N/A

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1201(3))

1. The permittee shall continuously monitor and record daily, in a satisfactory manner, the pressure drop for the two baghouses on EUMILKDRYER3. The daily records shall be kept in a format acceptable to the AQD District Supervisor. (R 336.1205, R 336.1301, R 336.1331, 40 CFR 52.21)

**VII. REPORTING**

N/A

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. EUMILKDRYER3	86.5	102.83	R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

**IX. OTHER REQUIREMENTS**

N/A

**The following conditions apply to: EUDRYERHEATER**

**DESCRIPTION:** 28.4 MM Btu/hr Natural Gas Fired Dryer Heater

**Flexible Group ID:** N/A

**POLLUTION CONTROL EQUIPMENT:** N/A

**I. EMISSION LIMITS**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. NOx	2.1 pph	Test Protocol	EUDRYERHEATER	GC 13	R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

**II. MATERIAL LIMITS**

1. The permittee shall burn only natural gas in EUDRYERHEATER. (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

**III. PROCESS/OPERATIONAL RESTRICTIONS**

N/A

**IV. DESIGN/EQUIPMENT PARAMETERS**

N/A

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1201(3))

N/A

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1201(3))

N/A

**VII. REPORTING**

N/A

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. EUDRYERHEATER	39.5	102.8	R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

**IX. OTHER REQUIREMENTS**

N/A

**FLEXIBLE GROUP SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

<b>Flexible Group ID</b>	<b>Flexible Group Description</b>	<b>Associated Emission Unit IDs</b>
FGBOILERS	Two existing natural gas fired boilers.	EUBOILER1, EUBOILER2
FGMILKDRYERS	Two existing milk dryers with integral natural gas fired dryer heaters.	EUMILKDRYER1, EUMILKDRYER2
FGGENERATORS	Three Detroit Diesel 2 MW emergency generators.	EUGENERATOR1, EUGENERATOR2, EUGENERATOR3
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	

**The following conditions apply to: FGBOILERS**

**DESCRIPTION:** Natural gas fired boilers.

**Emission Units:** EUBOILER1 and EUBOILER2

**POLLUTION CONTROL EQUIPMENT:** N/A

**I. EMISSION LIMITS**

N/A

**II. MATERIAL LIMITS**

1. The permittee shall burn only natural gas in FGBOILERS. (R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))

**III. PROCESS/OPERATIONAL RESTRICTIONS**

N/A

**IV. DESIGN/EQUIPMENT PARAMETERS**

N/A

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1201(3))

N/A

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1201(3))

N/A

**VII. REPORTING**

N/A

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. EUBOILER1	35	65.6	R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
2. EUBOILER2	32	43	<b>R 336.2803, R 336.2804, 40 CFR 52.21 (c) &amp; (d)</b>

**IX. OTHER REQUIREMENTS**

N/A

**The following conditions apply to: FG MILK DRYERS**

**DESCRIPTION:** Each milk dryer exhausts dried milk particulate to a fabric filter.

**Emission Units:** EUMILKDRYER1 and EUMILKDRYER2

**POLLUTION CONTROL EQUIPMENT:** Fabric Filters

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.02#/1,000# gas <sup>1</sup>	Test Method	EUMILKDRYER1	GC 13	R 336.1331
2. PM	0.02#/1,000# gas <sup>1</sup>	Test Method	EUMILKDRYER2	GC 13	R 336.1331

<sup>1</sup> Calculated on a dry gas basis.

3. Visible emissions from FG MILK DRYERS shall not exceed a six-minute average of 10 percent opacity.  
**(R 336.1301, R 336.1331)**

**II. MATERIAL LIMITS**

N/A

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate FG MILK DRYERS unless a malfunction abatement plan (MAP) as described in Rule 911(2), for FG MILK DRYERS, is implemented and maintained. The MAP shall, at a minimum, specify the following:
  - a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
  - b) An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
  - c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1301(1)(c), R 336.1331, R 336.1910, R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate FG MILK DRYERS unless the fabric filters are installed, maintained, and operated in a satisfactory manner. **(R 336.1205, R 336.1301, R 336.1331, R 336.1901)**

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. (R 336.1201(3))

N/A

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. (R 336.1201(3))

N/A

**VII. REPORTING**

N/A

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVMILKDRYER1	48 x 72	40	R 336.1331, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
2. SVMILKDRYER1	48 x 120	47.5	R 336.1331, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
3. SVMILKDRYER2	48 x 60	43	R 336.1331, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
4. SVMILKDRYER2	60 x 120	47.5	R 336.1331, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

**IX. OTHER REQUIREMENTS**

N/A

**The following conditions apply to: FGGENERATORS**

**DESCRIPTION:** Diesel fired emergency generators.

**Emission Units:** EUGENERATOR1, EUGENERATOR2 and EUGENERATOR3

**POLLUTION CONTROL EQUIPMENT:** N/A

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NOx	6.9 g/bhp-hr	Test Method	FGGENERATORS	GC 13	<b>40 CFR 60.4205(a)</b>
2. CO	8.5 g/bhp-hr	Test Method	FGGENERATORS	GC 13	<b>40 CFR 60.4205(a)</b>
3. PM	0.4 g/bhp-hr	Test Method	FGGENERATORS	GC 13	<b>40 CFR 60.4205(a)</b>
4. HC	1.0 g/bhp-hr	Test Method	FGGENERATORS	GC 13	<b>40 CFR 60.4205(a)</b>

**II. MATERIAL LIMITS**

1. The permittee shall burn only diesel fuel in FGGENERATORS. **(R 336.1224, R 336.1225)**
2. The permittee shall not burn diesel fuel with sulfur content greater than 0.0015 percent by weight in FGGENERATORS. **(40 CFR 60.4207(b))**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall operate and maintain FGGENERATORS in accordance with manufacturer's written instructions or procedures developed by the permittee and approved by the manufacturer. **(40 CFR 60.4211(a))**
2. The total capacity from FGGENERATORS shall not exceed 2 megawatts per generator. **(R 336.1205(1)(a))**
3. The permittee shall only operate the generators in FGGENERATORS as emergency stationary internal combustion engines, as defined in 40 CFR 60.4219. **(40 CFR 60.4219)**
4. The maximum operating time for each generator in FGGENERATORS shall not exceed 500 hours per 12-month rolling time period per generator. **(R 336.1205(1)(a), R 336.1225, R 336.1702(a))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall equip each generator in FGGENERATORS with a non-resettable hour meter to track the number of operating hours. **(40 CFR 60.4209(a))**

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

N/A

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor and record the total hours of operation for FGGENERATORS, expressed as a rolling 12-month time period and compiled on a monthly basis, in a manner that is acceptable to the District Supervisor, Air Quality Division. **(R 336.1205(1)(a))**
2. The permittee shall monitor and record, in a satisfactory manner, monthly and 12-month rolling time period fuel use records for FGGENERATORS. The records must indicate the total amount of fuel used in FGGENERATORS. **(R 336.1205(1)(a), R 336.1224, R 336.1225, R 336.1702(a))**
3. The permittee shall keep records of the fuel oil sulfur content, in percent by weight. **(R 336.1205, R 336.1401)**
4. The permittee shall demonstrate compliance under 40 CFR Part 60, Subpart IIII, Section 60.4211 according to one of the following methods: **(40 CFR 60.4211(b))**
  - a. Purchasing an engine certified according to 40 CFR Part 89 or Part 94, as applicable, for the same engine model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.
  - b. Keeping records of performance test results for each pollutant for a test conducted on FGGENERATORS. The test must have been conducted correctly and using the same methods specified in 40 CFR Part 60, Subpart IIII.
  - c. Keeping records of engine manufacturer data indicating compliance with these standards.
  - d. Keeping records of control device vendor data indicating compliance with these standards.

**VII. REPORTING**

N/A

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. EUGENERATOR1	18	14	R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
2. EUGENERATOR2	18	14	R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
3. EUGENERATOR3	18	14	R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

**IX. OTHER REQUIREMENTS**

N/A

**The following conditions apply Source-Wide to: FGFACILITY**

**DESCRIPTION:** All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.

**I. EMISSION LIMITS**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. PM	89 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI. 1	<b>R 336.1205</b>
2. NO <sub>x</sub>	89 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.2 & 3	<b>R 336.1205</b>
3. Greenhouse Gas Emissions (GHG)	89,900 tpy CO <sub>2e</sub>	12-month rolling time period as determined at the end of each calendar month	FG-FACILITY	SC VI.5	<b>R336.1205(3), 40 CFR 52.21, 40 CFR 70.3</b>

**II. MATERIAL LIMITS**

1. The permittee shall burn no more than 1,423 million cubic feet of natural gas per 12-month rolling time period in FGFACILITY. **(R336.1205(3), 40 CFR 52.21, 40 CFR 70.3)**

**III. PROCESS/OPERATIONAL RESTRICTIONS**

N/A

**IV. DESIGN/EQUIPMENT PARAMETERS**

N/A

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

N/A

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall calculate the PM emission rates from FGFACILITY for each calendar month using the emission factors in Appendix A. **(R 336.1205, R 336.2802, 40 CFR 52.21)**
2. The permittee shall monitor and record, in a satisfactory manner, the natural gas usage rates for each emission unit or flexible group in FGFACILITY using fuel flow meters on a monthly basis. **(R 336.1205, R 336.1224, R 336.1225, R 336.1702, R 336.2802, 40 CFR 52.21(c) & (d))**

3. The permittee shall calculate the NO<sub>x</sub> emission rates from all NO<sub>x</sub> emission sources in FGFACILITY for each calendar month using a method acceptable to the AQD District Supervisor. **(R 336.1205, R 336.2802, 40 CFR 52.21)**
4. The permittee shall keep the following information for FGFACILITY:
  - a) A current listing from the manufacturer of the chemical composition of each cleaning solution used, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor.
  - b) The amount (in gallons or pounds) of each cleaning solution used.
  - c) Where applicable, gallons or pounds of each cleaning solution reclaimed.
  - d) Particulate emission calculations determining the monthly emission rate in tons per calendar month and the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1201(3), R 336.1205)**
5. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period GHG emission calculation records for FGFACILITY, as required by SC I.3. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(3), 40 CFR 52.21, 40 CFR 70.3)**

#### **VII. REPORTING**

N/A

#### **VIII. STACK/VENT RESTRICTIONS**

N/A

#### **IX. OTHER REQUIREMENTS**

N/A

**APPENDIX A  
 PM Emissions Factors**

FGFACILITY emission calculations shall be performed based on the flow rates, temperatures, concentrations, control efficiencies, and emission factors (AP-42) used during the modeling for the permit review. If testing is performed on any equipment, updated emission factors shall be substituted for the current factors.

**EMISSION FACTOR TABLE**

<b>Equipment</b>	<b>Emission Factor</b>
EUBOILER1	7.6 #/MMCF <sup>1</sup>
EUBOILER2	7.6 #/MMCF <sup>1</sup>
EUBOILER3	7.6 #/MMCF <sup>1</sup>
EUBOILER4	7.6 #/MMCF <sup>1</sup>
EUGENERATOR1	0.074 g/kW-hr
EUGENERATOR2	0.074 g/kW-hr
EUGENERATOR3	0.074 g/kW-hr
EUMILKDRYER1	0.02#/1,000# gas <sup>2</sup>
EUMILKDRYER1	0.02#/1,000# gas <sup>2</sup>
EUMILKDRYER2	0.02#/1,000# gas <sup>2</sup>
EUMILKDRYER2	0.02#/1,000# gas <sup>2</sup>
EUMILKDRYER3	0.0156#/1000# gas <sup>2</sup>
EUDRYERHEATER	7.6 #/MMCF <sup>1</sup>

<sup>1</sup> Assumed a minimum Btu value for natural gas of 1,050 Btu/ft<sup>3</sup>.

<sup>2</sup> Calculated on a dry gas basis.