

**AIR QUALITY DIVISION
CHAPTER 6, SECTION 3
OPERATING PERMIT**

**WYOMING DEPARTMENT OF
ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
122 West 25th Street
Cheyenne, Wyoming 82002**



PERMIT NO. 3-1-104-1

Issue Date: **December 3, 2012**
Expiration Date: **February 28, 2013**
Effective Date: **December 3, 2012**
Replaces Permit No.: **3-1-104**

In accordance with the provisions of W.S. §35-11-203 through W.S. §35-11-212 and Chapter 6, Section 3 of the Wyoming Air Quality Standards and Regulations,

**Georgia-Pacific Gypsum LLC
Lovell Plant
Section 28, Township 55 North, Range 94 West
Big Horn County, Wyoming**

is authorized to operate a stationary source of air contaminants consisting of emission units described in this permit. The units described are subject to the terms and conditions specified in this permit. All terms and conditions of the permit are enforceable by the State of Wyoming. All terms and conditions of the permit, except those designated as not federally enforceable, are enforceable by EPA and citizens under the Act. A copy of this permit shall be kept on-site at the above named facility.



Steven A. Dietrich, Administrator
Air Quality Division

12-3-12

Date



Todd Parfitt, Director
Department of Environmental Quality

12-5-12

Date

WAQSR CHAPTER 6, SECTION 3 OPERATING PERMIT

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

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GENERAL INFORMATION

Company Name: **Georgia-Pacific Gypsum LLC**

Mailing Address: **P.O. Box 756**

City: **Lovell** State: **WY** Zip: **82431**

Plant Name: **Lovell Plant**

Plant Location: **Section 28, Township 55 North, Range 94 West, Big Horn County, Wyoming
(2120 Lane 16-1/2 Lovell)**

Mailing Address: **P.O. Box 756**

City: **Lovell** State: **WY** Zip: **82431**

Name of Owner: **G-P Gypsum Corporation** Phone: **(404) 652-4000**

Responsible Official: **Mike Becker** Phone: **(307) 548-2283**
(Amended September 2, 2008) (amended December 22, 2011)

Plant Manager/Contact: **Mike Becker** Phone: **(307) 548-2283**
(Amended September 2, 2008) (amended December 22, 2011)

DEQ Air Quality Contact: **District 4 Engineer** Phone: **(307) 332-6755**
510 Meadowview Drive
Lander, WY 82520

SIC Code: **3275**

Description of Process: **Processing raw gypsum rock and reclaimed gypsum material into a finished gypsum wallboard for use in a variety of building product applications.**

SOURCE EMISSION POINTS

This table may not include any or all insignificant activities at this facility and is for informational purposes only. This information is not to be construed as permit limits. (modified December 3, 2012)

SOURCE ID#	SOURCE DESCRIPTION	ESTIMATED SIZE	CH. 6, SEC. 2 PERMITS
1	2 Raymond Mills/Flash Dryers, 2 Kettles (ESP) ^(a)	24, 500 ACFM	CT-217
3A	Board Dryer Zone 1 ^(b)	18,000 ACFM	Division letter 8/2/99, Waiver AP-0920
3B	Board Dryer Zone 2 ^(b)	10,000 ACFM	Division letter 8/2/99, Waiver AP-0920
3C	Board Dryer Zone 3 ^(b)	9,000 ACFM	Division letter 8/2/99, Waiver AP-0920
3D	Board Dryer Wet-End Seal	7,500 ACFM	None
3E	Board Dryer Dry-End Seal ^(b)	45,000 ACFM	Waiver AP-0920
5	Crushing Area, primary crusher and equipment (Baghouse)	12,950 ACFM	Waiver wv-10659
6	Kettle Furnace No. 1	14 MMBtu/hr	Waiver letter 12/15/97
7	Kettle Furnace No. 2	14 MMBtu/hr	Waiver AP-EQ1
8	Bundler End-Trim (Baghouse)	2,800 ACFM	Division letter 1/8/96
9	Bulk Starch Binvent (Baghouse)	900 ACFM	Division letter 1/8/96
11	Screening System, shaker screen, belts (Baghouse)	10,966 ACFM	Waiver letter 12/15/97
12	Secondary Hammermill (Baghouse)	7,500 ACFM	Waiver letter 12/15/97
13	Residuals Waste Bin, discharge from transfer point to silo (Baghouse)	2,000 ACFM	Waiver letter 12/15/97
14	Wet End, ball mills, screw conveyor (Baghouse)	3,800 ACFM	Division letters 1/8/96, 9/21/01
16	Stucco Bin (Baghouse)	2,800 ACFM	Division letter 1/8/96
F3	Material Piles Fugitives	N/A	None
F10	Secondary Hammermill Hopper	200 ton/hr	None
F16	Recycle System, hopper feeder, auger grinder, recycle hammermill	N/A	Waiver AP-B50
F17	Bulk Loadout	50 TPH	Waiver AP-4679
None	Riser (Baghouse) ^(c)	3,600 ACFM	None
None	Propane Vaporizer	1.5 MMBtu/hr	None
None	Miscellaneous Heaters (20 units)	0.025 to 0.400 MMBtu/hr	None

(a) Particulate matter emissions from the bundler cyclone, normally controlled by the bundler end trim baghouse (unit 8), may also be vented to the ESP.

(b) Dens Prime product emissions will be emitted through these points.

(c) The Riser baghouse vents inside the milling and processing building and is not considered an emission source.

TOTAL FACILITY ESTIMATED EMISSIONS

For informational purposes only. These emissions are not to be assumed as permit limits.

POLLUTANT	EMISSIONS (TPY)
CRITERIA POLLUTANT EMISSIONS	
Particulate Matter	230
PM ₁₀ Particulate Matter	230
Sulfur Dioxide (SO ₂)	54
Nitrogen Oxides (NO _x)	66
Carbon Monoxide (CO)	41
Volatile Organic Compounds (VOCs)	26
HAZARDOUS AIR POLLUTANT (HAP) EMISSIONS	
	5

SO₂ emission estimate is from the permit MD-18 analysis for fuel oil firing. Other emission estimates are from waiver AP-0920.

FACILITY-SPECIFIC PERMIT CONDITIONS

Facility-Wide Permit Conditions

- (F1) PERMIT SHIELD [WAQSR Ch 6, Sec 3(k)]
Compliance with the conditions of this permit, including the terms and conditions of the alternative operating scenario, shall be deemed compliance with any applicable requirements as of the date of permit issuance.

Source-Specific Permit Conditions

- (F2) VISIBLE EMISSIONS [WAQSR Ch 3, Sec 2; Ch 6, Sec 2 Permit CT-217, Waivers and Division letters 1/8/96, 12/15/97, 9/21/01, AP-4679 and **wv-10659**; 40 CFR 60 Subpart 000] (**modified December 3, 2012**)
- (a) Visible and particulate emissions from the units listed in Table I of this permit shall not exceed the specified limits.
- (i) **The crushing area baghouse (unit 5) shall be well maintained according to manufacturer specifications and shall operate during operation of the crusher conveyor belt.**
- (b) Visible fugitive emissions from the bulk loadout referred to under unit F17, and recycle system enclosed chutes and screw conveyors referred to under unit F16, shall not exceed 10 percent. **Visible fugitive emissions associated with the crushing equipment shall be limited to 12 percent.** Visible fugitive emissions from the recycle auger grinder and recycle hammermill referred to under unit F16, shall not exceed 15 percent.
- (c) Visible emissions of any contaminant discharged into the atmosphere from any other single emission source shall not exhibit greater than 20 percent opacity except for one period or periods aggregating not more than six minutes in any one hour of not more than 40 percent opacity.

Table I: Opacity and Particulate Emission Limits				
SOURCE ID#	SOURCE DESCRIPTION	OPACITY (%)	PARTICULATE	
			gr/dscr	lb/hr (TPY)
1	ESP	20 ^(a)		20
5	Crushing Area Baghouse, crusher conveyor belt, conveyor transfer point	7	0.010^(b)	1.6 (6.6)
8	Bundler End-Trim Baghouse	20 ^(a)		0.5
9	Bulk Starch Binvent Baghouse	20 ^(a)		0.2
11	Screening System Baghouse	7		1.9
12	Secondary Hammermill Baghouse	7		1.3
13	Residuals Bin Baghouse	7		0.3
14	Wet End Baghouse	7	0.02^(b)	0.7
16	Stucco Bin Baghouse	20 ^(a)		0.5

^(a) See condition F2(c)

^(b) **Additional limits may apply under 40 CFR 60 Subpart 000**

- (F3) FUEL BURNING EQUIPMENT [WAQSR Ch 3, Sec 3, Ch 6, Sec 2 Waivers 12/15/97 and AP-EQ1]
- (a) During natural gas firing, NO_x emissions from kettle furnaces No. 1 and No. 2 (units 6 and 7) shall each be limited to 0.20 lb/MMBtu heat input, not to exceed 2.8 lb/hr.
- (b) NO_x emissions from the propane vaporizer and miscellaneous heaters shall not exceed 0.20 lb/MMBtu heat input.
- (F4) DENS PRIME LIMIT [WAQSR Ch 6, Sec 2 Waiver AP-0920]
Production of the Dens Prime product shall not exceed 50,000 thousand square feet per calendar year (msf/year).

Testing Requirements

- (F5) EMISSIONS TESTING [W.S. 35-11-110] (**modified December 3, 2012**)
- (a) The Division reserves the right to require testing as provided under condition G1 of this permit. Should testing be required, **test methods found at 40 CFR 60, Appendix A, shall be used as follows:**

- (i) For the **primary crusher (unit 5)**, fourth ball mill (unit 14), recycle system (unit F16), and bulk loadout (unit F17), visible and/or particulate emissions shall be measured as specified by 40 CFR 60 Subpart OOO §60.675.
 - (ii) For other visible emissions, Method 9 shall be used.
 - (iii) For other particulate emissions, Methods 1-4 and 5 shall be used.
 - (iv) For NO_x emissions sources, Methods 1-4 and 7 or 7E shall be used.
 - (v) For alternative test methods, or methods used for other pollutants, the approval of the Administrator must be obtained prior to using the test method to measure emissions.
- (b) Unless otherwise specified, testing shall be conducted in accordance with WAQSR Ch 5, Sec 2(h).

Monitoring Requirements

(F6) **ESP VISIBLE AND PARTICULATE EMISSIONS MONITORING** [WAQSR Ch 6, Sec 3(h)(i)(C)(I) and Ch 7, Sec 3(c)(ii)]

- (a) For particulate emissions from the ESP controlled equipment, the permittee shall adhere to the compliance assurance monitoring (CAM) plan, attached as Appendix A of this permit, and shall conduct monitoring as follows:
 - (i) The permittee shall monitor, on a continuous basis, the secondary voltage from the electrostatic precipitator (ESP).
 - (ii) Measurement of secondary voltage of less than the indicated range in the CAM plan shall prompt the permittee to note the date and time of the measurement, and document when appropriate corrective actions occurred as required under condition F9(a).
 - (iii) The permittee shall follow all other applicable requirements under conditions CAM-1 through CAM-4 of this permit.
- (b) The permittee shall perform testing for particulate emissions from the ESP at least once during the permit term, for comparison with the emission limits specified in condition F2, and to verify the correlation between secondary voltage and particulate emissions. The methods specified in condition F5 shall be used to measure particulate emissions. Following any test, the permittee shall evaluate the data from the test, together with data from previous testing, to determine if the indicator ranges in the CAM plan should be revised.
- (c) For visible emissions from the ESP, the permittee shall conduct, at minimum, quarterly Method 9 observations (one 6-minute average) to measure the opacity.
 - (i) Compliance with opacity limits shall be determined by a qualified observer certified in accordance with Section 3.1 of Method 9 and shall follow the requirements and procedures of Method 9.
 - (ii) Observation of visible emissions exceeding the limit specified in condition F2 shall prompt the permittee to note the date and time of the observation, and document when appropriate corrective actions occurred as required under condition F9(a).

(F7) **OTHER VISIBLE AND PARTICULATE EMISSIONS MONITORING**
[WAQSR Ch 6, Sec 3(h)(i)(C)(I); Ch 6, Sec 2 Waiver wv-10659] (modified December 3, 2012)

- (a) **The permittee shall conduct daily visual observations for any emissions from the crushing area baghouse (unit 5) on any day the source is operating, and, at minimum, weekly visual observations of each other baghouse listed in Table I of this permit to determine the presence of visible emissions.**
 - (i) The visual observations shall be conducted by a person who is educated on the general procedures for determining the presence of visible emissions but not necessarily certified to perform Method 9 observations.
 - (ii) Observation of visible emissions from any baghouse shall prompt **immediate inspection and, if necessary, corrective action as described in the Preventative and Corrective Maintenance Plan attached as Appendix D of this permit.**
 - (iii) To assure reliable operation of the baghouse control systems, the permittee shall conduct preventative maintenance on each of the baghouses as described in the Preventive and Corrective Maintenance Plan, attached as Appendix D of this permit.
 - (iv) **The permittee shall monitor for any dates and duration of time during active operation of the crusher conveyor belt when the crusher baghouse is not operating.**

- (b) The permittee shall conduct, at minimum, quarterly Method 9 visible emission observations (one 6-minute average) on the recycle system (unit F16) and bulk loadout (unit F17) to measure the opacity of visible emissions, during operation, to determine compliance with allowable limits. Observations are not required if a system is totally enclosed. The unit opacity shall be determined by a qualified observer certified in accordance with Section 3.1 of Method 9 and shall follow the requirements and procedures of Method 9. Appropriate corrective action will be taken if an emission limitation is exceeded.
 - (c) Periodic monitoring for visible emissions from the board dryer sources (units 3A - 3E), kettle furnaces (units 6 and 7), propane vaporizer, and all other miscellaneous heaters, shall consist of monitoring the type of fuel used to ensure natural gas and/or propane is the sole fuel source for these units.
- (F8) ADDITIONAL EMISSIONS AND PRODUCTION MONITORING [WAQSR Ch 6, Sec 3 (h)(i)(C)(I) and Ch 6, Sec 2 Waiver AP-0920]
- (a) Periodic monitoring of NO_x emissions from the kettle furnaces No. 1 and No. 2 (units 6 and 7) shall consist of operating and maintaining each unit in accordance with manufacturer's recommendations for minimizing emissions, or if manufacturer's information is unavailable, the permittee shall operate the unit in accordance with a written operation and maintenance plan which sets forth good operating practice during natural gas and/or propane firing.
 - (b) Based on the size of the NO_x emission from the propane vaporizer and all other miscellaneous heaters, and their potential impact on ambient standards, the Division is satisfied that no additional NO_x monitoring is warranted for these sources.
 - (c) The permittee shall monitor the amount of "Dens Prime" produced to ensure the annual limit in condition F4 is not exceeded. In addition, the permittee shall monitor the amount of primer coating used each calendar year, and the corresponding VOC and HAP contents.

Recordkeeping Requirements

(F9) TESTING AND MONITORING RECORDS

[WAQSR Ch 6, Sec 3(h)(i)(C)(II); Ch 6, Sec 2 Waiver AP-0920] (modified December 3, 2012)

- (a) For any testing or monitoring required under conditions F5, F6, F7 and F8, other than Method 9 observations, the permittee shall record, as applicable, the following:
 - (i) The date, place, and time of sampling, measurements, or observations;
 - (ii) The date(s) any analyses were performed;
 - (iii) The company or entity and individual(s) that performed the analyses or observations;
 - (iv) The analytical or observation techniques, or methods used;
 - (v) The results of such analyses or observations; and
 - (vi) The operating conditions as they existed at the time of sampling or measurement.
 - (vii) For the secondary voltage monitoring required by condition F6(a), the permittee shall maintain records of any corrective actions taken upon measurement of secondary voltage of less than the indicated range in the CAM plan.
 - (viii) For the visible emission monitoring required by condition F7, the permittee shall maintain records of any corrective actions taken upon observing visible emissions from the baghouses. **The permittee shall also record any dates and duration of time during active operation of the crusher conveyor belt when the crusher baghouse is not operating.**
- (b) For any Method 9 observations required by the Division under conditions F5, F6 or F7, the permittee shall keep field records in accordance with Section 2.2 of Method 9. The permittee shall maintain records of any corrective actions taken upon detecting noncompliance with opacity limitations.
- (c) For the particulate emissions testing required by condition F6, the permittee shall record the secondary voltage of the ESP as measured during particulate sampling, as well as the evaluation of indicator ranges.
- (d) The permittee shall record the amount of "Dens Prime" produced, as well as the amount of primer coating used and the corresponding VOC and HAP contents
- (e) The permittee shall retain on-site at the facility, the records of each test, measurement, or observation and support information for a period of at least five years from the date of the test, measurement, or observation.

- (F10) ADDITIONAL CAM RECORDS [WAQSR Ch 6, Sec 3(h)(i)(C)(II) & Ch 7, Sec 3(i)(ii)]
- (a) For the CAM plan required under condition F6, the permittee shall also maintain records of corrective actions taken, any written quality improvement plan required pursuant to WAQSR Chapter 7, Section 3(h), any activities undertaken to implement a Quality Improvement Plan (QIP), and other supporting information required to be maintained under WAQSR Ch 7, Sec 3.
 - (b) The permittee shall retain on-site at the facility, the records of each test, measurement, or observation and support information for a period of at least five years from the date of the test, measurement, or observation.
- (F11) MAINTENANCE RECORDS [WAQSR Ch 6, Sec 3(h)(i)(C)(II)]
- (a) The permittee shall record all maintenance activities performed on the ESP, baghouses, reclaim crusher/hopper, recycle system, bulk loadout, and kettle furnaces No. 1 and No. 2.
 - (b) The record of maintenance activities for these sources shall include:
 - (i) The maintenance activity performed;
 - (ii) The date, place, and time the activity was performed;
 - (iii) The company and individual(s) that performed the activity;
 - (iv) The purpose of the activity;
 - (v) For the ESP, an explanation for any deviation from the manufacturers' specifications or good maintenance practices;
 - (vi) For the baghouse sources and reclaim crusher/hopper, an explanation for any deviation from the Preventative and Corrective Maintenance Plan attached as Appendix D; and
 - (vii) For the kettle furnaces, an explanation for any deviation from the manufacturer's recommendations or the kettle furnace operation and maintenance plan.
 - (c) The permittee shall retain on-site at the facility, the records of each maintenance activity for these sources for a period of at least five years from the date of the maintenance activity.

Reporting Requirements

- (F12) TEST REPORTS [WAQSR Ch 6, Sec 3(h)(i)(C)(III)]
- (a) The permittee shall report the results of the any emissions tests required under conditions F5 and F6, within 45 days of conducting the tests.
 - (b) For the particulate testing required by condition F6, the permittee shall also submit the evaluation required by that condition. If the evaluation indicates that any CAM indicator ranges for particulate emissions need to be revised, the permittee shall submit a revised CAM plan to the Division within 90 days of conducting the test.
 - (c) The reports shall include the information specified under condition F9 and shall be submitted to the Division in accordance with condition G4.
- (F13) MONITORING REPORTS [WAQSR Ch 6, Sec 3(h)(i)(C)(III); Ch 6, Sec 2 Waiver AP-0920] **(modified December 3, 2012)**
- (a) The following shall be reported to the Division by January 31 and July 31 each year and shall cover the previous six month period ending December 31 and June 30, respectively.
 - (i) The results of CAM required under condition F6 for the ESP controlled equipment, and shall include the following:
 - (A) Summary information on the number, duration, and cause of excursions, as applicable, and the corrective actions taken;
 - (B) Summary information on the number, duration, and cause for monitor downtime incidents for the ESP; and
 - (C) A description of the action taken to implement a QIP (if required) during the reporting period as specified in Chapter 7, Section 3 (h). Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has reduced the likelihood of similar excursions.
 - (ii) Summary results of the ESP, baghouses, recycle system and bulk loadout visible emissions monitoring required under conditions F6 and F7, **and the dates and duration of time during active operation of the crusher conveyor belt when the crusher baghouse is not operating.** Only monitoring during which visible emissions are observed and any corrective actions taken

upon observing visible emissions shall be included in the report. If no visible emissions are observed during the reporting period, this shall be stated in the report.

- (iii) Documentation that all emissions units are firing natural gas and/or propane as specified in condition F7.
- (b) For the previous calendar year, the following shall be reported to the Division with the annual emissions inventory required by condition G9:
 - (i) The production of "Dens Prime" product (in thousands of square feet per year, msf/yr);
 - (ii) The amount of primer coating used; and
 - (iii) The corresponding VOC and HAP contents.
- (c) All instances of deviations from the conditions of this permit must be clearly identified in each report.
- (d) The semiannual reports shall be submitted in accordance with condition G4 of this permit.

(F14) MAINTENANCE REPORTS [WAQSR Ch 6, Sec 3(h)(i)(C)(III)]

- (a) The permittee shall report to the Division by January 31 and July 31 each year, for information covering the previous six month periods ending December 31 and June 30, respectively, whether the permittee has adhered to the Preventive and Corrective Maintenance Plan described in Appendix D.
 - (i) Any deviations from the Preventive and Corrective Maintenance Plan must be clearly identified in each report.
 - (ii) If the permittee has adhered to the Preventive and Corrective Maintenance Plan during the reporting period, this shall be stated in the report.
- (b) The permittee shall report to the Division by January 31 and July 31 each year, for information covering the previous six month periods ending December 31 and June 30, respectively, whether the permittee has adhered to the manufacturer's operation and maintenancerecommendations for minimizing emissions from the Kettle Furnace No. 1 (unit 6) and the Kettle Furnace No. 2 (unit 7) or, alternatively, to the written kettle furnace operation and maintenance plan.
 - (i) Any deviations from the manufacturer's operation and maintenance recommendations for minimizing emissions from each kettle furnace or, alternatively, the written kettle furnace operation and maintenance plan must be clearly identified in each report.
- (c) The semiannual reports shall be submitted in accordance with condition G4 of this permit

(F15) REPORTING EXCESS EMISSIONS & DEVIATIONS FROM PERMIT REQUIREMENTS [WAQSR Ch 6, Sec 3(h)(i)(C)(III)]

- (a) General reporting requirements are described under the General Conditions of this permit. The Division reserves the right to require reports as provided under condition G1 of this permit.
- (b) Emissions which exceed the limits specified in this permit and which are not reported under a different condition of this permit shall be reported annually with the emission inventory unless specifically superseded by condition G17, condition G19, or other condition(s) of this permit. The probable cause of such exceedance, the duration of the exceedance, the magnitude of the exceedance, and any corrective actions or preventative measures taken shall be included in this annual report. For sources and pollutants which are not continuously monitored, if at any time emissions exceed the limits specified in this permit by 100 percent, or if a single episode of emission limit exceedance spans a period of 24 hours or more, such exceedance shall be reported to the Division within one working day of the exceedance. (Excess emissions due to an emergency shall be reported as specified in condition G17. Excess emissions due to unavoidable equipment malfunction shall be reported as specified in condition G19)
- (c) Any other deviation from the conditions of this permit shall be reported to the Division in writing within 30 days of the deviation or discovery of the deviation.

(F16) GREENHOUSE GAS REPORTS [W.S. 35-11-110] (modified December 3, 2012)

The permittee shall submit to the Division a summary of any report(s) required to be submitted to the EPA under 40 CFR Part 98.

- (a) The reports shall be submitted to the Division within 60 days of submission to EPA, in a format as specified by the Division.
- (b) The reports shall be submitted in accordance with condition G4(a)(i) of this permit, to the attention of the Division's Emission Inventory Program. A copy need not be sent to the DEQ Air Quality contact.

ALTERNATIVE OPERATING SCENARIO

(A1) FUEL BURNING EQUIPMENT OIL FIRING EMISSIONS AND REQUIREMENTS

[WAQSR Ch 3, Sec 2 and Ch 3, Sec 3]

Except as specified under conditions A1 through A4, all other conditions of this permit shall remain enforceable during operation under this alternative scenario. Visible, particulate, and NO_x emissions from kettle furnaces No. 1 and No. 2 (units 6 and 7) shall not exceed the rates shown in Table II when firing on fuel oil.

TABLE II: Visible, Particulate and NO_x Emissions Limits Under Alternate Operating Scenario				
SOURCE	FUEL TYPE	VISIBLE EMISSIONS (%)	PARTICULATE (lb/MMBtu)	NO_x (lb/MMBtu)
Kettle Furnaces No. 1 and No. 2 (units 6 and 7)	#2 Fuel Oil ^(a)	20 ^(b)	0.10	0.30

^(a) Burning on-specification used oil in the kettle furnaces for the purpose of energy recovery is excluded from regulation under 40 CFR 279, Standards for the Management of Used Oil, per Section § 279.11.

^(b) Except one period or periods aggregating not more than two minutes in any one hour of not more than 40% opacity.

(A2) FUEL BURNING EQUIPMENT OIL FIRING MONITORING

[WAQSR Ch 6, Sec 3(h)(i)(A)]

(a) For visible emissions during oil firing, the permittee shall conduct, at minimum, weekly Method 9 observations of each kettle furnace stack (units 6 and 7) to determine compliance with the allowable limit. The unit opacity shall be determined by a qualified observer certified in accordance with Section 3.1 of Method 9 and shall follow the requirements and procedures of Method 9. Appropriate corrective action will be taken if an emission limitation is exceeded.

(b) For particulate and NO_x emissions during oil firing, the permittee shall operate and maintain each kettle furnace in accordance with manufacturer's recommendations, or in accordance with a written operation and maintenance plan which sets forth good operating practice during oil firing.

(A3) FUEL BURNING EQUIPMENT RECORDKEEPING [WAQSR Ch 6, Sec 3 (h)(i)(I)(I) and (h)(i)(C)(I)]

(a) The permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the site a record of the scenario under which the facility is operating.

(b) For any Method 9 observations conducted under condition A2(a), the permittee shall keep field records in accordance with Section 2.2 of Method 9, and note any corrective actions required.

(c) The permittee shall record all maintenance activities performed on the kettle furnaces in accordance with the manufacturer's recommendations, or in accordance with the written operation and maintenance plan which sets forth good operating practice during oil firing. The record of maintenance activities for each unit shall include:

- (i) The maintenance activity performed;
- (ii) The date, place, and time period the activity was performed;
- (iii) The company and individual(s) that performed the activity;
- (iv) The purpose of the activity; and
- (v) An explanation for any deviation from the manufacturer's recommendations, or the written operation and maintenance plan for minimizing particulate and NO_x emissions from the kettle furnaces during oil firing.

(d) The permittee shall retain on-site at the facility all records kept in accordance with this condition for a period of at least five years from the date such records are generated.

(A4) SEMIANNUAL FUEL BURNING EQUIPMENT MONITORING REPORTS

[WAQSR Ch 6, Sec 3 (h)(i)(C)(III)]

(a) If either kettle furnace is fired on fuel oil during any calendar half, the following shall be reported to the Division by January 31 or July 31 following the calendar half as appropriate:

- (i) Summary results of the visible emissions monitoring required under condition A2(a) of this permit. Each opacity measurement and any corrective actions taken upon detecting noncompliance with opacity limitations shall be included in the report.

- (b) The permittee shall report to the Division by January 31 and July 31 each year, for information covering the previous six month periods ending December 31 and June 30, respectively, whether the permittee has adhered to the manufacturer's recommendations, or the written operation and maintenance plan which sets forth good operating practice during oil firing
 - (i) Any deviations from the manufacturer's recommendations for minimizing particulate and NO_x emissions from the kettle furnaces or from the kettle furnace operation and maintenance plan must be clearly identified in each report.
- (c) All instances of deviations from the conditions of this permit must be clearly identified in each report.
- (d) The reports shall be submitted to the Division in accordance with condition G4 of this permit.

WAQSR CHAPTER 7, SECTION 3

COMPLIANCE ASSURANCE MONITORING (CAM) REQUIREMENTS (modified December 3, 2012)
WAQSR Ch 7, Sec 3 is available at <http://deq.state.wy.us/aqd/standards.asp>, or from the Division upon request.

- (CAM-1) **COMPLIANCE ASSURANCE MONITORING REQUIREMENTS** [WAQSR Ch 7, Sec 3(b) and (c)]
The permittee shall follow the CAM plan attached as Appendix A of this permit and meet all CAM requirements of WAQSR Chapter 7, Section 3 as they apply to the ESP controlled equipment as identified in condition F6. Compliance with the source specific monitoring, recordkeeping, and reporting requirements of this permit meets the monitoring, recordkeeping, and reporting requirements of WAQSR Ch 7, Sec 3, except for additional requirements specified under conditions CAM-2 through CAM-4.
- (CAM-2) **OPERATION OF APPROVED MONITORING** [WAQSR Ch 7, Sec 3(g)]
- (a) At all times, the permittee shall maintain the monitoring under this section, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
 - (b) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities, the permittee shall conduct all monitoring in continuous operation (or at all required intervals) at all times that the pollutant specific emissions unit is operating.
 - (c) Upon detecting an excursion, the permittee shall restore operation of the pollutant-specific emission unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices. The response shall include minimizing the period of any start-up, shutdown or malfunction and taking any corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion.
 - (d) If the permittee identifies a failure to achieve compliance with an emission limit for which the monitoring did not provide an indication of an excursion while providing valid data, or the results of compliance or performance testing documents a need to modify the existing indicator ranges, the permittee shall promptly notify the Division and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes.
- (CAM-3) **QUALITY IMPROVEMENT PLAN (QIP) REQUIREMENTS** [WAQSR Ch 7, Sec 3(h)]
- (a) If the Division or the EPA Administrator determines, based on available information, that the permittee has used unacceptable procedures in response to an excursion or exceedance, the permittee may be required to develop and implement a Quality Improvement Plan (QIP).
 - (b) If required, the permittee shall maintain a written Quality Improvement Plan (QIP) and have it available for inspection.
 - (c) The plan shall include procedures for conducting one or more of the following:
 - (i) Improved preventative maintenance practices.
 - (ii) Process operation changes.
 - (iii) Appropriate improvements to control methods.
 - (iv) Other steps appropriate to correct control.
 - (v) More frequent or improved monitoring (in conjunction with (i)- (iv) above).
 - (d) If a QIP is required, the permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the Division if the period for completing the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
 - (e) Following implementation of a QIP, upon any subsequent determination under paragraph (a) above, the Division may require the permittee to make reasonable changes to the QIP if the QIP failed to address the cause of control device problems, or failed to provide adequate procedures for correcting control device problems as expeditiously as practicable.
 - (f) Implementation of a QIP shall not excuse the permittee from compliance with any existing emission limit(s) or any existing monitoring, testing, reporting, or recordkeeping requirements that may be applicable to the facility.
- (CAM-4) **SAVINGS PROVISIONS** [WAQSR Ch 7, Sec 3(j)]
Nothing in the CAM regulations shall excuse the permittee from compliance with any existing emission limit or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may be applicable to the facility.

**WAQSR CHAPTER 5, SECTION 2 NEW SOURCE PERFORMANCE STANDARDS (NSPS) AND
40 CFR 60 SUBPART OOO REQUIREMENTS FOR NONMETALLIC MINERAL PROCESSING PLANTS**

(modified December 3, 2012)

**SUBPART OOO REQUIREMENTS [40 CFR 60 Subparts A and OOO; WAQSR Ch 5, Sec 2; and Ch 6 Sec 2
waivers AP-B50, AP-VU1, AP-4679, and wv-10659]**

The permittee shall meet all applicable requirements of 40 CFR 60 Subparts A and OOO and WAQSR Ch 5, Sec 2 as they apply to affected facilities in fixed or portable nonmetallic mineral processing plants (each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading station that commenced construction, modification, or reconstruction after August 31, 1983), as defined under §60.670, including the crushing area primary crusher and equipment (unit 5), the fourth ball mill (unit 14), recycle system (unit F16), and bulk loadout (unit F17).

The subpart is available at <http://www.gpoaccess.gov/cfr/retrieve.html>, or from the Division upon request.

COMPLIANCE CERTIFICATION AND SCHEDULE

Compliance Certification [WAQSR Ch 6, Sec 3(h)(iii)(E)] (modified December 3, 2012)

- (C1) (a) The permittee shall submit by January 31 each year a certification addressing compliance with the requirements of this permit. The certification shall be submitted as a stand-alone document separate from any monitoring reports required under this permit.
- (b) (i) For visible and/or particulate emissions, the permittee shall assess compliance with condition F2 by conducting monitoring required by conditions F6 and F7 and by verifying natural gas and/or propane was the sole fuel source used for the units listed in condition F7.
- (ii) For NO_x emissions from the kettle furnaces during natural gas and/or propane firing, the permittee shall assess compliance with condition F3 of this permit by performing maintenance required by condition F8, and reviewing records kept in accordance with condition F11.
- (iii) For visible emissions from the kettle furnaces during oil firing, the permittee shall assess compliance with condition A1(a) of this permit by conducting monitoring required by condition A2(a).
- (iv) For particulate and NO_x emissions from the kettle furnaces during oil firing, the permittee shall assess compliance with condition A1(a) of this permit by performing maintenance required by condition A2(b), and reviewing records kept in accordance with condition A3(d).
- (v) For the Dens Prime production, the permittee shall assess compliance with condition F4 by conducting the monitoring required by condition F8. In addition for the Dens Prime product, the permittee shall assess compliance with the primer, VOC and HAP records required condition F9, by reviewing the reports required by condition F13.
- (vi) **For greenhouse gas reporting, the permittee shall assess compliance with condition F16 by verifying that reports were submitted in accordance with condition F16(b).**
- (vii) **For any unit subject to 40 CFR 60 Subpart OOO, the permittee shall assess compliance with Subpart OOO by conducting any applicable testing and monitoring required by §§60.674 and 60.675, and by reviewing the records required by §60.676.**
- (c) The compliance certification shall include:
- (i) The permit condition or applicable requirement that is the basis of the certification;
- (ii) The current compliance status;
- (iii) Whether compliance was continuous or intermittent; and
- (iv) The methods used for determining compliance.
- (d) For any permit conditions or applicable requirements for which the source is not in compliance, the permittee shall submit with the compliance certification a proposed compliance plan and schedule for Division approval.
- (e) The compliance certification shall be submitted to the Division in accordance with condition G4 of this permit and to the Assistant Regional Administrator, Office of Enforcement, Compliance, and Environmental Justice (8ENF-T), U.S. EPA - Region VIII, 1595 Wynkoop Street, Denver, CO 80202-1129.
- (f) Determinations of compliance or violations of this permit are not restricted to the monitoring requirements listed in paragraph (b) of this condition; other credible evidence may be used.

Compliance Schedule [WAQSR Ch 6, Sec 3(h)(iii)(C) and (D)]

- (C2) The permittee shall continue to comply with the applicable requirements with which the permittee has certified that it is already in compliance.
- (C3) The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit.

GENERAL PERMIT CONDITIONS

Powers of the Administrator: [W.S. 35-11-110]

- (G1) (a) The Administrator may require the owner or operator of any point source to complete plans and specifications for any application for a permit required by the Wyoming Environmental Quality Act or regulations made pursuant thereto and require the submission of such reports regarding actual or potential violations of the Wyoming Environmental Quality Act or regulations thereunder.
- (b) The Administrator may require the owner or operator of any point source to establish and maintain records; make reports; install, use and maintain monitoring equipment or methods; sample emissions, or provide such other information as may be reasonably required and specified.

Permit Renewal and Expiration: [WAQSR Ch 6, Sec 3(c)(i)(C), (d)(ii), (d)(iv)(B), and (h)(i)(B)] [W.S. 35-11-206(f)]

- (G2) This permit is issued for a fixed term of five years. Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted at least six months prior to the date of permit expiration. If the permittee submits a timely and complete application for renewal, the permittee's failure to have an operating permit is not a violation of WAQSR Chapter 6, Section 3 until the Division takes final action on the renewal application. This protection shall cease to apply after a completeness determination if the applicant fails to submit by the deadline specified in writing by the Division any additional information identified as being needed to process the application.

Duty to Supplement: [WAQSR Ch 6, Sec 3(c)(iii)]

- (G3) The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after this permit is issued.

Submissions: [WAQSR Ch 6, Sec 3(c)(iv)] [W.S. 35-11-206(c)] (modified December 3, 2012)

- (G4) Any document submitted shall be certified as being true, accurate, and complete by a responsible official.
- (a) Submissions to the Division.
- (i) Any submissions to the Division including reports, certifications, and emission inventories required under this permit shall be submitted as separate, stand-alone documents and shall be sent to:
Administrator, Air Quality Division
122 West 25th Street
Cheyenne, Wyoming 82002
- (ii) **Unless otherwise noted elsewhere in this permit**, a copy of each submission to the Administrator under paragraph (a)(i) of this condition shall be sent to the DEQ Air Quality Contact listed on page 3 of this permit.
- (b) Submissions to EPA.
- (i) Each certification required under condition C1 of this permit shall also be sent to:
Assistant Regional Administrator
Office of Enforcement, Compliance, and Environmental Justice (8ENFT)
U.S. EPA - Region VIII
1595 Wynkoop Street
Denver, CO 80202-1129.
- (ii) All other required submissions to EPA shall be sent to:
Office of Partnerships and Regulatory Assistance
Air and Radiation Program (8P-AR)
U.S. EPA - Region VIII
1595 Wynkoop Street
Denver, CO 80202-1129

Changes for Which No Permit Revision Is Required: [WAQSR Ch 6, Sec 3(d)(iii)]

- (G5) The permittee may change operations without a permit revision provided that:
- (a) The change is not a modification under any provision of title 1 of the Clean Air Act;
 - (b) The change has met the requirements of Chapter 6, Section 2 of the WAQSR and is not a modification under Chapter 5, Section 2 or Chapter 6, Section 4 of the WAQSR and the changes do not exceed the emissions allowed under the permit (whether expressed therein as a rate of emissions or in terms of total emissions); and
 - (c) The permittee provides EPA and the Division with written notification at least 14 days in advance of the proposed change. The permittee, EPA, and the Division shall attach such notice to their copy of the relevant permit. For each such change, the written notification required shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. The permit shield, if one exists for this permit, shall not apply to any such change made.

Transfer of Ownership or Operation: [WAQSR Ch 6, Sec 3(d)(v)(A)(IV)]

- (G6) A change in ownership or operational control of this facility is treated as an administrative permit amendment if no other change in this permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Division.

Reopening for Cause: [WAQSR Ch 6, Sec 3(d)(vii)] [W.S. 35-11-206(f)(ii) and (iv)]

- (G7) The Division will reopen and revise this permit as necessary to remedy deficiencies in the following circumstances:
- (a) Additional applicable requirements under the Clean Air Act or the WAQSR that become applicable to this source if the remaining permit term is three or more years. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended.
 - (b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit.
 - (c) The Division or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
 - (d) The Division or EPA determines that the permit must be revised or revoked to assure compliance with applicable requirements.

Annual Fee Payment: [WAQSR Ch 6, Sec 3(f)(i), (ii), and (vi)] [W.S. 35-11-211]

- (G8) The permittee shall, as a condition of continued operations, submit an annual fee to the Division as established in Chapter 6, Section 3 (f) of the WAQSR. The Division shall give written notice of the amount of fee to be assessed and the basis for such fee assessment annually. The assessed fee is due on receipt of the notice unless the fee assessment is appealed pursuant to W.S. 35-11-211(d). If any part of the fee assessment is not appealed it shall be paid to the Division on receipt of the written notice. Any remaining fee which may be due after completion of the appeal is immediately due and payable upon issuance of the Council's decision. Failure to pay fees owed the Division is a violation of Chapter 6, Section 3 (f) and W.S. 35-11-203 and may be cause for the revocation of this permit.

Annual Emissions Inventories: [WAQSR Ch 6, Sec 3(f)(v)(G)]

- (G9) The permittee shall submit an annual emission inventory for this facility to the Division for fee assessment and compliance determinations within 60 days following the end of the calendar year. The emissions inventory shall be in a format specified by the Division.

Severability Clause: [WAQSR Ch 6, Sec 3(h)(i)(E)]

- (G10) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

Compliance: [WAQSR Ch 6, Sec 3(h)(i)(F)(I) and (II)] [W.S. 35-11-203(b)]

- (G11) The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Air Act, Article 2 of the Wyoming Environmental Quality Act, and the WAQSR and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

Permit Actions: [WAQSR Ch 6, Sec 3(h)(i)(F)(III)] [W.S. 35-11-206(f)]

- (G12) This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Property Rights: [WAQSR Ch 6, Sec 3(h)(i)(F)(IV)]

- (G13) This permit does not convey any property rights of any sort, or any exclusive privilege.

Duty to Provide Information: [WAQSR Ch 6, Sec 3(h)(i)(F)(V)]

- (G14) The permittee shall furnish to the Division, within a reasonable time, any information that the Division may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Division copies of records required to be kept by the permit, including information claimed and shown to be confidential under W.S. 35-11-1101 (a) of the Wyoming Environmental Quality Act. Upon request by the Division, the permittee shall also furnish confidential information directly to EPA along with a claim of confidentiality.

Emissions Trading: [WAQSR Ch 6, Sec 3(h)(i)(H)]

- (G15) No permit revision is required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

Inspection and Entry: [WAQSR Ch 6, Sec 3(h)(iii)(B)] [W.S. 35-11-206(c)]

- (G16) Authorized representatives of the Division, upon presentation of credentials and other documents as may be required by law, shall be given permission to:
- (a) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - (b) have access to and copy at reasonable times any records that must be kept under the conditions of this permit;
 - (c) inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
 - (d) sample or monitor any substances or parameters at any location, during operating hours, for the purpose of assuring compliance with this permit or applicable requirements.

Excess Emissions Due to an Emergency: [WAQSR Ch 6, Sec 3(l)]

- (G17) The permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency, as defined in Ch 6, Sec 3(l)(i) of the WAQSR. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:
- (a) an emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - (b) the permitted facility was, at the time, being properly operated;
 - (c) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit;

- (d) The permittee submitted notice of the emergency to the Division within one working day of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

Diluting and Concealing Emissions: [WAQSR Ch 1, Sec 4]

- (G18) No person shall cause or permit the installation or use of any device, contrivance, or operational schedule which, without resulting in reduction of the total amount of air contaminant released to the atmosphere, shall dilute or conceal an emission from a source. This condition shall not apply to the control of odors.

Unavoidable Equipment Malfunction: [WAQSR Ch 1, Sec 5]

- (G19) (a) Any source believing that any emissions in excess of established regulation limits or standards resulted from an unavoidable equipment malfunction, shall notify the Division within 24 hours of the incident via telephone, electronic mail, fax, or other similar method. A detailed description of the circumstances of the incident as described in paragraph 5(a)(i)(A) Chapter 1, including a corrective program directed at preventing future such incidents, must be submitted within 14 days of the onset of the incident. The Administrator may extend this 14-day time period for cause.
- (b) The burden of proof is on the owner or operator of the source to provide sufficient information to demonstrate that an unavoidable equipment malfunction occurred.

Fugitive Dust: [WAQSR Ch 3, Sec 2(f)]

- (G20) The permittee shall minimize fugitive dust in compliance with standards in Ch 3, Sec 2(f) of WAQSR for construction/demolition activities, handling and transportation of materials, and agricultural practices.

Carbon Monoxide: [WAQSR Ch 3, Sec 5]

- (G21) The emission of carbon monoxide in stack gases from any stationary source shall be limited as may be necessary to prevent ambient standards from being exceeded.

Asbestos: [WAQSR Ch 3, Sec 8]

- (G22) The permittee shall comply with emission standards for asbestos during abatement, demolition, renovation, manufacturing, spraying and fabricating activities.
- (a) No owner or operator shall build, erect, install, or use any article, machine, equipment, process, or method, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous dilutants to achieve compliance with a visible emissions standard, and the piecemeal carrying out of an operation to avoid coverage by a standard that applies only to operations larger than a specified size.
- (b) All owners and operators conducting an asbestos abatement project, including an abatement project on a residential building, shall be responsible for complying with Federal requirements and State standards for packaging, transportation, and delivery to an approved waste disposal facility as provided in paragraph (m) of Ch 3, Sec 8.
- (c) The permittee shall follow State and Federal standards for any demolition and renovation activities conducted at this facility, including:
- (i) A thorough inspection of the affected facility or part of the facility where the demolition or renovation activity will occur shall be conducted to determine the presence of asbestos, including Category I and Category II non-friable asbestos containing material. The results of the inspection will determine which notification and asbestos abatement procedures are applicable to the activity.
- (ii) The owner or operator shall follow the appropriate notification requirements of Ch 3, Sec 8(i)(ii).
- (iii) The owner or operator shall follow the appropriate procedures for asbestos emissions control, as specified in Chapter 3, Section 8(i)(iii).
- (d) No owner or operator of a facility may install or reinstall on a facility component any insulating materials that contain commercial asbestos if the materials are either molded and friable or wet-applied and friable after drying. The provisions of this paragraph do not apply to spray-applied insulating materials regulated under paragraph (j) of Ch 3, Sec 8.
- (e) The permittee shall comply with all other requirements of WAQSR Ch 3, Sec 8.

Open Burning Restrictions: [WAQSR Ch 10, Sec 2]

- (G23) The permittee conducting an open burn shall comply with all rules and regulations of the Wyoming Department of Environmental Quality, Division of Air Quality, and with the Wyoming Environmental Quality Act.
- (a) No person shall burn prohibited materials using an open burning method, except as may be authorized by permit. ***“Prohibited materials”*** means substances including, but not limited to; natural or synthetic rubber products, including tires; waste petroleum products, such as oil or used oil filters; insulated wire; plastic products, including polyvinyl chloride (“PVC”) pipe, tubing and connectors; tar, asphalt, asphalt shingles, or tar paper; railroad ties; wood, wood waste, or lumber that is painted or chemically treated; explosives or ammunition; batteries; hazardous waste products; asbestos or asbestos containing materials or materials which cause dense smoke discharges, excluding refuse and flaring associated with oil and gas well testing, completions and well workovers.
 - (b) No person or organization shall conduct or cause or permit open burning for the disposal of trade wastes, for a salvage operation, for the destruction of fire hazards if so designated by a jurisdictional fire authority, or for fire fighting training, except when it can be shown by a person or organization that such open burning is absolutely necessary and in the public interest. Any person or organization intending to engage in such open burning shall file a request to do so with the Division.

Sulfur Dioxide Emission Trading and Inventory Program [WAQSR Ch 14]

- (G24) Any BART (Best Available Retrofit Technology) eligible facility, or facility which has actual emissions of SO₂ greater than 100 tpy in calendar year 2000 or any subsequent year, shall comply with the applicable requirements of WAQSR Ch 14, Sections 1 through 3, with the exceptions described in sections 2(c) and 3(a).

Stratospheric Ozone Protection Requirements: [40 CFR Part 82]

- (G25) The permittee shall comply with all applicable Stratospheric Ozone Protection Requirements, including but not limited to:
- (a) ***Standards for Appliances*** [40 CFR Part 82, Subpart F]
The permittee shall comply with the standards for recycling and emission reduction pursuant to 40 CFR Part 82, Subpart F - Recycling and Emissions Reduction, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
 - (i) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - (ii) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - (iii) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - (iv) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. (“MVAC-like appliance” is defined at §82.152).
 - (v) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.166.
 - (vi) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
 - (vii) The permittee shall comply with all other requirements of Subpart F.
 - (b) ***Standards for Motor Vehicle Air Conditioners*** [40 CFR Part 82, Subpart B]
If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term “MVAC” as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC-22 refrigerant.

STATE ONLY PERMIT CONDITIONS

(modified December 3, 2012)

The conditions listed in this section are State only requirements and are not federally enforceable.

Ambient Standards

(S1) The permittee shall operate the emission units described in this permit such that the following ambient standards are not exceeded:

POLLUTANT	STANDARD	CONDITION	WAQSR CH. 2, SEC.
PM ₁₀ particulate matter	50 micrograms per cubic meter	annual arithmetic mean	2 (a)
	150 micrograms per cubic meter	24-hr average concentration with not more than one exceedance per year	
PM _{2.5} particulate matter	15 micrograms per cubic meter	annual arithmetic mean	2 (b)
	35 micrograms per cubic meter	98 th percentile 24-hour average concentration	
Nitrogen dioxide	100 micrograms per cubic meter	annual arithmetic mean	3
Sulfur oxides	60 micrograms per cubic meter	annual arithmetic mean	4
	260 micrograms per cubic meter	max 24-hr concentration with not more than one exceedance per year	
	1300 micrograms per cubic meter	max 3-hr concentration with not more than one exceedance per year	
Carbon monoxide	10 milligrams per cubic meter	max 8-hr concentration with not more than one exceedance per year	5
	40 milligrams per cubic meter	max 1-hr concentration with not more than one exceedance per year	
Ozone	0.08 parts per million	daily maximum 8-hour average	6
Hydrogen sulfide	70 micrograms per cubic meter	½ hour average not to be exceeded more than two times per year	7
	40 micrograms per cubic meter	½ hour average not to be exceeded more than two times in any five consecutive days	
Suspended sulfate	0.25 milligrams SO ₃ per 100 square centimeters per day	maximum annual average	8
	0.50 milligrams SO ₃ per 100 square centimeters per day	maximum 30-day value	
Lead and its compounds	0.15 micrograms per cubic meter	maximum arithmetic 3-month mean concentration for a 3-year period	10

Hydrogen Sulfide: [WAQSR Ch 3, Sec 7]

- (S2) Any exit process gas stream containing hydrogen sulfide which is discharged to the atmosphere from any source shall be vented, incinerated, flared or otherwise disposed of in such a manner that ambient sulfur dioxide and hydrogen sulfide standards are not exceeded.

Odors: [WAQSR Ch 2, Sec 11]

- (S3) (a) The ambient air standard for odors from any source shall be limited to an odor emission at the property line which is undetectable at seven dilutions with odor free air as determined by a scentometer as manufactured by the Barnebey-Cheney Company or any other instrument, device, or technique designated by the Division as producing equivalent results. The occurrence of odors shall be measured so that at least two measurements can be made within a period of one hour, these determinations being separated by at least 15 minutes.
- (b) Odor producing materials shall be stored, transported, and handled in a manner that odors produced from such materials are confined and that accumulation of such materials resulting from spillage or other escape is prevented.

SUMMARY OF SOURCE EMISSION LIMITS AND REQUIREMENTS

Source ID#: 1 Source Description: ESP

Pollutant	Emissions Limit / Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Particulate	20 percent opacity, particulate 20 lb/hr [F2]	WAQSR Ch 3, Sec 2; Ch 6, Sec 2 Permit CT-217	Testing if required [F5]	CAM, test at least once during permit term, and quarterly Method 9 [F6]	Record CAM, testing, and Method 9 results [F9]	Report testing and monitoring results [F12 and F13] Report excess emissions and permit deviations [F15]

Source ID#: 3A – 3E Source Description: Board Dryers

Pollutant	Emissions Limit / Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Particulate	20 percent opacity,	WAQSR Ch 3, Sec 2	Testing if required [F5]	Verification of natural gas/propane firing [F7]	Record any test results [F9]	Report type of fuel fired [F13] Report excess emissions and permit deviations [F15]
VOCs and HAPs	Dens Prime limit: 50,000 msf/year [F4]	WAQSR Ch6, Sec 2 Waiver AP-0920	None	Monitor production, primer, VOCs and HAPs [F8]	Record production, primer, VOCs and HAPs [F9]	Report production, primer, VOCs and HAPs [F13] Report excess emissions and permit deviations [F15]

Source ID#: 5, 8, 9, 11, 12, 13, 14 and 16 Source Description: Baghouse-Controlled Sources (modified December 3, 2012)

Pollutant	Emissions Limit / Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Particulate	Visible and particulate emissions per Table I [F2]	WAQSR Ch 3, Sec 2; Ch 6, Sec 2 Waivers/letters 1/8/96, 12/15/97, 9/21/01, wv-10659	Testing if required [F5]	Unit 5: Daily observations. Other units: Weekly visual observations. Maintenance [F7]	Visible emissions monitoring records [F9] Maintenance records [F11]	Report monitoring results [F13] Report maintenance [F14] Report excess emissions and permit deviations [F15]
Particulate		Units 5, 14, and 16: WAQSR Ch 5, Sec 2; 40 CFR 60 Subparts A and OOO				

These tables are intended only to highlight and summarize applicable requirements for each source. The corresponding permit conditions, listed in brackets, contain detailed descriptions of the compliance requirements. Compliance with the summary conditions in these tables may not be sufficient to meet permit requirements. These tables may not reflect all emission sources at this facility.

Source ID#: 6 and 7 Source Description: Kettle Furnaces (natural gas firing) (modified December 3, 2012)

Pollutant	Emissions Limit / Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Particulate	20 percent opacity [F2]	WAQSR Ch 3, Sec 2	Testing if required [F5]	Verification of natural gas/propane firing [F7]	Record any test results [F9]	Report type of fuel fired [F13] Report excess emissions and permit deviations [F15]
NO _x	0.20 lb/MMBtu, 2.8 lb/hr [F3]	WAQSR Ch 6, Sec 2 Waivers 12/15/97 and AP-EQ1	Testing if required [F5]	Maintain unit to minimize emissions [F8]	Record any test results [F9] Maintenance records [F11]	Report any test results [F12] Report maintenance [F14] Report excess emissions and permit deviations [F15]

Source ID#: 6 and 7 Source Description: Kettle Furnaces (fuel oil firing)

Pollutant	Emissions Limit / Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Particulate	20 percent opacity, 0.10 lb/MMBtu [A1]	WAQSR Ch 3, Sec 2	Testing if required [F5]	Weekly visual observations [A2] Maintain to minimize emissions [A2]	Visible emissions monitoring records and maintenance records [A3]	Report monitoring results and maintenance [A4] Report excess emissions and permit deviations [F15]
NO _x	0.30 lb/MMBtu [A1]	WAQSR Ch 3, Sec 3	Testing if required [F5]	Maintain to minimize emissions [A2]	Record any test results [F9] Maintenance records [A3]	Report monitoring results and maintenance [A4] Report excess emissions and permit deviations [F15]

These tables are intended only to highlight and summarize applicable requirements for each source. The corresponding permit conditions, listed in brackets, contain detailed descriptions of the compliance requirements. Compliance with the summary conditions in these tables may not be sufficient to meet permit requirements. These tables may not reflect all emission sources at this facility.

Source ID#: F16 Source Description: Recycle System Fugitive Emissions (modified December 3, 2012)

Pollutant	Emissions Limit / Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Particulate	10 percent opacity: chutes and conveyors 15 percent opacity: auger grinder and recycle hammermill [F2]	WAQSR Ch 6, Sec 2 Waiver AP-B50	Testing if required [F5]	Quarterly visual observations [F7]	Visible emissions monitoring records [F9] Maintenance records if required [F11]	Report monitoring results [F13] Report any maintenance [F14] Report excess emissions and permit deviations [F15]
Particulate	WAQSR Ch 5, Sec 2; 40 CFR 60 Subparts A and OOO					

Source ID#: F17 Source Description: Bulk Loadout (modified December 3, 2012)

Pollutant	Emissions Limit / Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Particulate	10 percent opacity [F2]	WAQSR Ch 6, Sec 2 Waiver AP-4679	Testing if required [F5]	Quarterly visual observations [F7]	Visible emissions monitoring records [F9] Maintenance records if required [F11]	Report monitoring results [F13] Report any maintenance [F14] Report excess emissions and permit deviations [F15]
Particulate	WAQSR Ch 5, Sec 2; 40 CFR 60 Subparts A and OOO					

Source ID#: None Source Description: Propane Vaporizer and Miscellaneous Heaters

Pollutant	Emissions Limit / Work Practice Standard	Corresponding Regulation(s)	Testing Requirements	Monitoring Requirements	Recordkeeping Requirements	Reporting Requirements
Particulate	20 percent opacity [F2]	WAQSR Ch 3, Sec 2	Testing if required [F5]	Verification of natural gas/propane firing [F7]	Record any test results [F9]	Report type of fuel fired [F13] Report excess emissions and permit deviations [F15]
NO _x	0.20 lb/MMBtu [F3]	WAQSR Ch 3, Sec 3	Testing if required [F5]	None [F8]	Record any test results [F9]	Report any test results [F12] Report excess emissions and permit deviations [F15]

These tables are intended only to highlight and summarize applicable requirements for each source. The corresponding permit conditions, listed in brackets, contain detailed descriptions of the compliance requirements. Compliance with the summary conditions in these tables may not be sufficient to meet permit requirements. These tables may not reflect all emission sources at this facility.

ABBREVIATIONS

AQD	Air Quality Division
BACT	Best available control technology (see Definitions)
Btu	British Thermal Unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
C.F.R.	Code of Federal Regulations
CO	Carbon monoxide
DEQ	Wyoming Department of Environmental Quality
EPA	United States Environmental Protection Agency (see Definitions)
g	Gram(s)
g-cal/hr	Gram-calorie(s) per hour
g/hp-hr	Gram(s) per horsepower hour
gal	Gallon(s)
gr	Grain(s)
H ₂ S	Hydrogen sulfide
HAP(s)	Hazardous air pollutant(s)
hp	Horsepower
hr	Hour(s)
lb	Pound(s)
M	Thousand
MACT	Maximum available control technology (see Definitions)
mfr	Manufacturer
mg	Milligram(s)
MM	Million
msf/year	thousand square feet per year
N/A	Not applicable
NMHC(s)	Non-methane hydrocarbon(s)
MVACs	Motor vehicle air conditioners
NO _x	Oxides of nitrogen
O ₂	Oxygen
OPP	Operating Permit Program
PM	Particulate matter
PM ₁₀	Particulate matter less than or equal to a nominal diameter of 10 micrometers
ppmv	Parts per million (by volume)
ppmw	Parts per million (by weight)
QIP	Quality Improvement Plan
RVP	Reid Vapor Pressure
SCF	Standard cubic foot (feet)
SCFD	Standard cubic foot (feet) per day
SCM	Standard cubic meter(s)
SIC	Standard Industrial Classification
SO ₂	Sulfur dioxide
SO ₃	Sulfur trioxide
SO _x	Oxides of sulfur
TBD	To be determined
TPH	Tons per hour
TPY	Tons per year
U.S.C.	United States Code
µg	Microgram(s)
VOC(s)	Volatile organic compound(s)
W.S.	Wyoming Statute
WAQSR	Wyoming Air Quality Standards & Regulations (see Definitions)

DEFINITIONS

"Act" means the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq.*

"Administrator" means Administrator of the Air Quality Division, Wyoming Department of Environmental Quality.

"Applicable requirement" means all of the following as they apply to emissions units at a source subject to Chapter 6, Section 3 of the WAQSR (including requirements with future effective compliance dates that have been promulgated or approved by the EPA or the State through rulemaking at the time of issuance of the operating permit):

- (a) Any standard or other requirement provided for in the Wyoming implementation plan approved or promulgated by EPA under title I of the Act that implements the relevant requirements of the Act, including any revisions to the plan promulgated in 40 C.F.R. Part 52;
- (b) Any standards or requirements in the WAQSR which are not a part of the approved Wyoming implementation plan and are not federally enforceable;
- (c) Any term or condition of any preconstruction permits issued pursuant to regulations approved or promulgated through rulemaking under title I, including parts C or D of the Act and including Chapter 5, Section 2 and Chapter 6, Sections 2 and 4 of the WAQSR;
- (d) Any standard or other requirement promulgated under Section 111 of the Act, including Section 111(d) and Chapter 5, Section 2 of the WAQSR;
- (e) Any standard or other requirement under Section 112 of the Act, including any requirement concerning accident prevention under Section 112(r)(7) of the Act and including any regulations promulgated by EPA and the State pursuant to Section 112 of the Act;
- (f) Any standard or other requirement of the acid rain program under title IV of the Act or the regulations promulgated thereunder;
- (g) Any requirements established pursuant to Section 504(b) or Section 114(a)(3) of the Act concerning enhanced monitoring and compliance certifications;
- (h) Any standard or other requirement governing solid waste incineration, under Section 129 of the Act;
- (i) Any standard or other requirement for consumer and commercial products, under Section 183(e) of the Act (having to do with the release of volatile organic compounds under ozone control requirements);
- (j) Any standard or other requirement of the regulations promulgated to protect stratospheric ozone under title VI of the Act, unless the EPA has determined that such requirements need not be contained in a title V permit;
- (k) Any national ambient air quality standard or increment or visibility requirement under part C of title I of the Act, but only as it would apply to temporary sources permitted pursuant to Section 504(e) of the Act; and
- (l) Any state ambient air quality standard or increment or visibility requirement of the WAQSR.
- (m) Nothing under paragraphs (A) through (L) above shall be construed as affecting the allowance program and Phase II compliance schedule under the acid rain provision of Title IV of the Act.

"BACT" or "Best available control technology" means an emission limitation (including a visible emission standard) based on the maximum degree of reduction of each pollutant subject to regulation under the WAQSR or regulation under the Federal Clean Air Act, which would be emitted from or which results for any proposed major emitting facility or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application or production processes and available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. If the Administrator determines that technological or economic limitations on the application of measurement methodology to a particular class of sources would make the imposition of an emission standard infeasible, he may instead prescribe a design, equipment, work practice or operational standard or combination thereof to satisfy the requirement of Best Available Control Technology. Such standard shall, to the degree possible, set forth the emission reduction achievable by implementation of such design, equipment, work practice, or operation and shall provide for compliance by means which achieve equivalent results. Application of BACT shall not

result in emissions in excess of those allowed under Chapter 5, Section 2 of the WAQSR and any other new source performance standard or national emission standards for hazardous air pollutants promulgated by EPA but not yet adopted by the state.

"Department" means the Wyoming Department of Environmental Quality or its Director.

"Director" means the Director of the Wyoming Department of Environmental Quality.

"Division" means the Air Quality Division of the Wyoming Department of Environmental Quality or its Administrator.

"Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

"EPA" means the Administrator of the U.S. Environmental Protection Agency or the Administrator's designee.

"Fuel-burning equipment" means any furnace, boiler apparatus, stack, or appurtenances thereto used in the process of burning fuel or other combustible material for the purpose of producing heat or power by indirect heat transfer.

"Fugitive emissions" means those emissions which could not reasonably pass through a stack chimney, vent, or other functionally equivalent opening.

"Insignificant activities" means those activities which are incidental to the facility's primary business activity and which result in emissions of less than one ton per year of a regulated pollutant not included in the Section 112 (b) list of hazardous air pollutants or emissions less than 1000 pounds per year of a pollutant regulated pursuant to listing under Section 112 (b) of the Act provided, however, such emission levels of hazardous air pollutants do not exceed exemptions based on insignificant emission levels established by EPA through rulemaking for modification under Section 112 (g) of the Act.

"MACT" or "Maximum achievable control technology" means the maximum degree of reduction in emissions that is deemed achievable for new sources in a category or subcategory that shall not be less stringent than the emission control that is achieved in practice by the best controlled similar source, as determined by the Administrator. Emission standards promulgated for existing sources in a category or subcategory may be less stringent than standards for new sources in the same category or subcategory but shall not be less stringent, and may be more stringent than:

- (a) the average emission limitation achieved by the best performing 12 percent of the existing sources (for which the Administrator has emission information), excluding those sources that have, within 18 months before the emission standard is proposed or within 30 months before such standard is promulgated, whichever is later, first achieved a level of emission rate or emission reduction which complies, or would comply if the source is not subject to such standard, with the lowest achievable emission rate applicable to the source category and prevailing at the time, in the category or subcategory for categories and subcategories with 30 or more sources, or
- (b) the average emission limitation achieved by the best performing five sources (for which the Administrator has or could reasonably obtain emissions information) in the category or subcategory for categories or subcategories with fewer than 30 sources.

"Modification" means any physical change in, or change in the method of operation of, an affected facility which increases the amount of any air pollutant (to which any state standards applies) emitted by such facility or which results in the emission of any such air pollutant not previously emitted.

"Permittee" means the person or entity to whom a Chapter 6, Section 3 permit is issued.

"Potential to emit" means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation is enforceable by EPA and the Division. This term does not alter or affect the use of this term for any other purposes under the Act, or the term "capacity factor" as used in title IV of the Act or the regulations promulgated thereunder.

"Regulated air pollutant" means the following:

- (a) Nitrogen oxides (NO_x) or any volatile organic compound;
- (b) Any pollutant for which a national ambient air quality standard has been promulgated;
- (c) Any pollutant that is subject to any standard established in Chapter 5, Section 2 of the WAQSR or Section 111 of the Act;
- (d) Any Class I or II substance subject to a standard promulgated under or established by title VI of the Act; or
- (e) Any pollutant subject to a standard promulgated under Section 112 or other requirements established under Section 112 of the Act, including Sections 112(g), (j), and (r) of the Act, including the following:
 - (i) Any pollutant subject to requirements under Section 112(j) of the Act. If EPA fails to promulgate a standard by the date established pursuant to Section 112(e) of the Act, any pollutant for which a subject source would be major shall be considered to be regulated on the date 18 months after the applicable date established pursuant to Section 112(e) of the Act; and
 - (ii) Any pollutant for which the requirements of Section 112(g)(2) of the Act have been met, but only with respect to the individual source subject to Section 112(g)(2) requirement.
- (f) Pollutants regulated solely under Section 112(r) of the Act are to be regulated only with respect to the requirements of Section 112(r) for permits issued under this Chapter 6, Section 3 of the WAQSR.

"Renewal" means the process by which a permit is reissued at the end of its term.

"Responsible official" means one of the following:

- (a) For a corporation:
 - (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
 - (ii) A duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (A) the facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
 - (B) the delegation of authority to such representative is approved in advance by the Division;
- (b) For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- (c) For a municipality, State, Federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency; or
- (d) For affected sources:
 - (i) The designated representative or alternate designated representative in so far as actions, standards, requirements, or prohibitions under title IV of the Act or the regulations promulgated thereunder are concerned; and
 - (ii) The designated representative, alternate designated representative, or responsible official under Chapter 6, Section 3 (b)(xxvi) of the WAQSR for all other purposes under this section.

"WAQSR" means the Wyoming Air Quality Standards and Regulations promulgated under the Wyoming Environmental Quality Act, W.S. §35-11-101, *et seq.*



APPENDIX A
Compliance Assurance Monitoring Plan (CAM)
(amended February 6, 2012)

Compliance Assurance Monitoring Plan

Applicability

In order for the CAM Rule to apply to a specific emission unit/pollutant, the following, four criteria must be met:

- 1) The emission unit must be located at a major source for which a Part 70 or Part 71 permit is required.
- 2) The emission unit must be subject to an emission limitation or standard.
- 3) The emission unit must use a control device to achieve compliance.
- 4) The emission unit must have potential, pre-controlled emissions of the pollutant of at least 100 percent of the major source threshold.

Table 1 summarizes the potential uncontrolled emissions for each of the emission units at the Lovell Gypsum Plant that uses a control device.

Table 1. Lovell Gypsum Plant Sources with Control Equipment and an Emissions Limit - Uncontrolled Emission Levels (tons per year)

Emission Source	Emission Point Number	Control Device	Pre-control PM Emissions (tpy)
Raymond Mills, and non-combustion emissions from Kettles	1	ESP	1,760
Crushing Area	5	Baghouse	17
Bundler End-Trim	8	Baghouse	8
Bulk Starch Binvent	9	Baghouse	0.1
Screening System	11	Baghouse	37
Secondary Hammermill	12	Baghouse	8
Residuals Bin	13	Baghouse	8
Wet End	14	Baghouse	8

Stucco Bin	16	Baghouse	0.15
Major Source Threshold			100

The following paragraphs describe the methodology used to determine the uncontrolled emission rates.

ESP Pre-Control Emissions

GP estimated the pre-control emissions for the ESP based on an assumed level of control of approximately 95% as follows:

Post-control emissions = 88 tpy (per permit)

Pre-control emissions for ESP = $88 \text{ tpy} \times 1/(1-.95) = 1,760 \text{ tpy}$.

Baghouses

For the baghouses (excluding the stucco bin vent and starch bin vent), the estimated pre-control emission rates reflect the use of uncontrolled emission factors publish by the Texas Natural Resource Conservation Commission (TNRCC) in February 2002 (refer to http://www.tnrcc.state.tx.us/permitting/airperm/nsr_permits/files/rockcr.pdf). These factors are summarized in Table 2:

Table 2. Summary of Uncontrolled Emission Factors, TNRCC 2002

Emission Source	PM Emission Factor (lb/ton)
Primary Crushing (Jaw)-Dry	0.0007
Primary Crushing (Jaw)-Wet	0.00021
Secondary Crushing (All crushers)-Dry	0.00504
Secondary Crushing (All crushers)-Wet	0.0012
Tertiary Crushing (All crushers)-Dry	0.00504
Tertiary Crushing (All crushers)-Wet	0.0012
Fines Crushing-Dry	0.0315
Fines Crushing-Wet	0.0042
Screening (All)-Dry	0.0315

Screening (All)-Wet	0.001764
Fines Screening-Dry	0.149
Fines Screening-Wet	0.0044

GP applied these factors and a maximum throughput of 500,000 tons of rock per year. The following are example calculations:

For Crushing Area Baghouse:

500,000 tons rock per year x 0.0315 lb PM/ton crushed x ton PM /2,000 lb PM = 7.9 tpy

Permit Waiver AP-2133 issued 8/2/04 allowed gypsum pile belt drop off emissions to be added to the Crushing Area Baghouse. Total emissions from this source are calculated using AP42 factors for a 5.5 acre rock pile including conveyor belt drop off = 9 tpy

For Screening Area Baghouse:

500,000 tons rock per year x 0.149 lb PM/ton crushed x ton PM /2,000 lb PM = 37.3 tpy

To determine the pre-control emission rates for the stucco and starch baghouses, GP calculated the emissions associated with a batch drop of stucco and a throughput of 620,208 tons of stucco and 131,400 tons of starch per year.

Emission Factor – Batch drop

AP-42 Section 13.2.4 calculates an emission factor as follows:

$$\text{Factor (lbs. PM/ton stucco dropped)} = k * 0.0032 * (U/5)^{1.3} / (M/2)^{1.4}$$

AP-42, 13.2.4 equation 1 assumptions are:

For PM, the value of K = 1.

U, Wind Speed = 7 miles per hour

M, maximum moisture content of stucco/starch = 5%

And 90% control for complete enclosure

The emission factors are calculated as follows:

$$\text{PM: } 1 \times 0.0032 \times (7/5)^{1.3} / (5/2)^{1.4} \times 1-90\% \\ = 0.00014 \text{ lbs. PM/ton}$$

PM emissions from stucco binvent:

$$= 0.00014 \text{ lb PM/ton stucco} \times 620,208 \text{ tons stucco /yr} \times \text{ton PM/2,000 lb} \\ = 0.04 \text{ tons/yr}$$

PM emissions from starch binvent:

$$= 0.00014 \text{ lb PM/ton starch} \times 131,400 \text{ tons starch /yr} \times \text{ton PM/2,000 lb} \\ = 0.01 \text{ tons/yr}$$

As shown in Table 1, and as indicated in the pending permit application, control devices are in place for several sources. However, only the ESP (Emission Unit 1) will be subject to CAM as part of this Title V Renewal permit. All other controlled emission units have potential, pre-control emissions that are less than the major source threshold. Thus, CAM will not be applicable to these units.

Components of CAM Plan

The CAM Rule contains the following submittal requirements:

- | | |
|----------------|---|
| 40 CFR 64.4(a) | Information on indicators, including indicator ranges or a description of the process by which indicators are to be established and a discussion of performance criteria for the monitoring |
| 40 CFR 64.4(b) | Justification for the proposed elements of the monitoring |
| 40 CFR 64.4(c) | Control device operating data recorded during performance test, supplemented by engineering assessments or manufacturer's recommendations to justify the proposed indicator range |
| 40 CFR 64.4(d) | Test plan and schedule for obtaining data, if performance test data are not available |
| 40 CFR 64.4(e) | Implementation plan, if monitoring requires installation, testing, or other activities prior to implementation |

The following sections address these requirements for the ESP.

Georgia-Pacific Corporation Lovell Gypsum Plant

CAM Plan for Electrostatic Precipitator for Particulate Matter Control

I. Background

A. Emissions Unit

Description:	Gypsum Manufacturing Process
Manufacturer:	NA
Capacity:	500,000 tons rock/yr
Facility:	Lovell Gypsum Plant Lovell, WY 82431

B. Applicable Regulation, Emissions Limit, and Monitoring Requirements

Regulation:	Title V Permit 30-104-1
	Emissions limit: 20 lbs/hr PM

C. Control Technology

Description: Electrostatic Precipitator (ESP) – 2 fields
 Manufacturer: NWL and Research Cottrell
 Capacity: 25,000 standard cubic feet per minute

II. Previous Testing on July 18, 2001

Results of the Source Test = 3 lb per hour (average of 3, one-hour method 5 tests) with the ESP operating at a total secondary voltage of between 88 and 97 kV and full operating load.

Table 3 Monitoring Records of the ESP During Test

Date	Time	RC – inlet cell				NWL – outlet cell			
		AC Amps	AC Volts	DC mA	DC kV	AC Amps	AC Volts	DC mA	DC kV
7/18/01	0900	23	369	114	52.3	52	248	264	43.9
7/18/01	1000	20	367	102	52.6	59	293	245	44.1
7/18/01	1100	12	280	57	47.5	51	278	205	42.8
7/18/01	1200	18	343	88	50.3	63	302	264	45.4
7/18/01	1300	14	307	63	49.4	50	278	203	42.5
7/18/01	1400	12	285	49	48.7	38	243	134	38.8

III. Parameters to Monitor

Because the data in Table 3 is insufficient to determine suitable CAM monitoring parameters, Georgia-Pacific conducted a compliance test on November 15, 2005 and subsequent engineering studies to determine appropriate parameters for monitoring to assure compliance. This data, including emissions/monitoring data correlation graphs, are included in Appendix A.

Performance of the ESP was measured by the direct current (DC) amperage and voltage (secondary power) for each of the two fields of the ESP, (e.g., the NWL inlet field and the RC outlet field) during the compliance test and engineering study. In the ESP, secondary voltage is controlled by an automatic voltage control function which actively seeks to maintain the highest secondary voltage that can be sustained based on the condition of the collection plates and dust loading to the ESP. High dust loading to the unit, plate misalignment, and dust build-up in the ESP increase the spark rate and result in a depression of secondary voltage. Accordingly, testing conducted in the manner used for this CAM determination with maximized production (high dust loading) and manually reduced secondary voltage simulates worst case conditions that assure that maintenance of total secondary voltage above the selected level provides a strong assurance of adequate ESP performance. Although DC amperage is monitored, it provides only a measure of

power consumed which varies with dust load to the ESP and is, therefore, not a good indicator of emissions performance. Alternating current (AC) amperage and voltage (primary power) were also recorded for comparative reasons only. Use of either of the primary power parameters to determine compliance is not desirable since they do not directly reflect levels of electrical power applied to the collection fields of the ESP. Readings from each field were recorded at a minimum frequency to make a statistical determination which parameter or combination of parameters is most representative of ESP performance. Data recorded and emissions measured from the ESP are included in Appendix A.

All power readings on each field of the ESP were recorded during the engineering study. Page 1 in Appendix A contains results of the Compliance Test conducted as required by the permit. Results of this test were submitted previously to DEQ under separate cover. These tests comply with requirements of EPA Method 5 testing and are called runs #1, 2, & 3. Pages 2 – 5 contain results from the engineering test runs #4 through 11. Each pair of runs is made with a different DC secondary power voltage setting to determine the effects of changes in the secondary voltage on emissions when the operations were held steady at 100 percent of maximum throughput. Runs #1, 2, & 3 were one-hour runs each with ESP readings taken at 15-minute intervals. All remainder runs were 30 minutes each with ESP readings taken at 5-minute intervals. Page 6 in Appendix A is a summary page of the engineering data including graphs of combined ESP secondary voltage versus PM emissions. The data indicates that there is a strong relationship between ESP secondary voltage and PM emissions and that combining secondary voltage readings from the two fields is the most practical means of monitoring to determine if the ESP is operating in compliance. In addition to PM and ESP performance, opacity was monitored periodically throughout the engineering study. Opacity increases were noted during runs where PM emissions were also elevated.

The Wyoming DEQ permitted PM emission limitation for the ESP exhaust is 20 lb/hr. The compliance test on November 15 indicates that the ESP is comfortably in compliance at 2.3 lb PM/hr when the ESP is operating at a total secondary voltage of 95.1 kV and the process is operating at 27.1 tons per hour. The engineering study combined with the compliance test data indicates that the ESP approaches the compliance limit of 20 lb PM/hr at a combined secondary voltage of less than 80 kV. This is the indicator range that is proposed for the ESP's Compliance Assurance Monitoring Plan found in Table 4. A linear relationship was established from taking a

step wise decrease in the combined ESP secondary voltage and measuring PM emissions for one hour (e.g. two half-hour runs) during each ESP setting. The ESP operated within the PM emission limitation of 20 lb/hr until the combined ESP secondary voltage reached approximately 78 kV, at which time there appears to be a breakthrough in PM emissions.

Table 4 CAM Summary for Electrostatic Precipitator (ESP)

I. Indicator	Combined secondary voltage from both fields. This proved to be the most practical indicator based on the November 15 & 16, 2005 engineering study. The minimum combined secondary voltage (kilovolts) to assure compliance was determined using data generated by the engineering study. The generated data is documented in Appendix A.
Measurement Approach	The secondary voltage (kilovolts) from each field (e.g., the NWL and RC cells) will be measured, totaled, and compared to the indicator range. Frequency of the measurements will be in fifteen-minute block averages from the data recorder. These fifteen-minute recordings will then be averaged over a rolling three-hour period to determine if the ESP is operating at or above the indicator range.
II. Indicator Range	The indicator range for the combined secondary voltage readings from both ESP fields is equal to or greater than 80 kilovolts.
A. Data Representativeness	Indicator range will assure compliance with particulate standard of 20 lb/hr PM from the ESP.
III. Performance Criteria	
B. Verification of Operational Status	ESP is installed and fully operational. Each operating day, the plant will review the ESP secondary voltage readings. DC kilovolts will be summed as described in the Measurement Approach above for the two fields to verify that the total secondary voltage is 80 kilovolts or greater to assure compliance and all requirements of the CAM Plan have been met.
C. QA/QC Practices and Criteria	<ol style="list-style-type: none"> 1. Calibration of secondary voltage instrument at least annually. 2. Maintenance schedule of routine activities as recommended by

	manufacturer and/or operating experience.
D. Monitoring Frequency	Monitoring is conducted from a continuous secondary voltage meter. Each fifteen minute block is recorded from the voltage meter. All fifteen minute records for a rolling three-hour block will be averaged for compliance assurance. If the continuous secondary voltage meter or data gathering capability fails, manual recording of the combined secondary voltage will be made every fifteen minutes.
E. Data Collection Procedures	Records of each fifteen minute recordings will be maintained in a software file with backup. The three-hour rolling average compiled from the fifteen minute records will also be maintained on computer files and will be reviewed daily.
F. Averaging period	The averaging period to assure compliance will be performed on three-hour rolling averages that are compiled from fifteen-minute combined secondary voltage recordings.
IV. Response to Out of Range Reading	<ol style="list-style-type: none"> 1. A Yellow Alert Alarm will sound if any fifteen minute recording indicates the combined kilovolt of both fields is below 80. The on-duty operator will notify the lead operator and an investigation and corrective measures will be initiated. Maintenance personnel will be notified as needed. 2. A Red Alert Alarm will sound if the three-hour rolling average of combined kilovolt of both fields is below 80. In this case the Environmental Manager will notify appropriate personnel to evaluate and repair the ESP. 3. An Orange Alert Alarm will sound if the automatic data recording system fails and the on-duty operator will commence manual combined kilovolt readings at a minimum of 15 minute intervals. 4. If the evaluation reveals the ESP is not functioning properly and cannot be corrected within 24 hrs, plant management will notify DEQ and determine if additional expertise

	should be secured. 5. Final decision for shutting down the ESP for repair will be made in conjunction with DEQ.
V. By-Pass Provisions	The equipment at Lovell is not capable of bypassing the ESP; therefore this section is not applicable.

MONITORING APPROACH JUSTIFICATION FOR ESP

I. Background

The emissions unit consists of the ESP and related appurtenances in the production area. The process consists of Raymond Mills, calcining kettles (process emissions without combustion emissions), and the board bundler when its baghouse (emission unit 8) is not operating. The production area operates continuously when the Plant is in normal operation. Crushed rock is milled and landplaster is calcined before being stored in the stucco bins. Exhaust gases pass through the ESP. The ESP fan is mounted on the discharge side of the unit, which pulls the exhaust gases through the system. The ESP design does not include a bypass vent.

II. Rationale for Selection of Performance Indicators

The most reliable and practical parameters for the plant personnel to monitor for the two ESP fields were determined from evaluation of data gathered according to Section III on page 5. The ESP is equipped with instrumentation for monitoring primary and secondary voltage and amperage for each of the two fields. These instruments were used during the engineering study to establish suitable parameters for verifying when the ESP is operating and functioning normally.

III. Rationale for Selection of Indicator Ranges

The rationale for selection of indicator ranges is the same for selection of performances indicators describe in Section II above.

APPENDIX B
Reserved (modified December 3, 2012)

APPENDIX C
Reserved (modified December 3, 2012)

APPENDIX D
Preventative and Corrective Maintenance Plan

NORBA CRUSHER
Preventive and Corrective Maintenance Plan

Preventive Maintenance

The Norba Crusher discharge will be visually inspected at a frequency in accordance with the Title V Operating Permit to ensure that no visible emissions are detected. The Norba Crusher mechanical operating condition will also be inspected on a quarterly basis. In addition, plant operators make daily undocumented observation of the Norba Crusher operation and report any abnormalities to supervision so that corrective action can be taken.

Corrective Maintenance

If visible emissions from the Norba Crusher discharge are noted, corrective action is taken as soon as possible (usually within 24 hours of its discovery). If the Norba Crusher cannot be repaired within 24 hours and Method 9 opacity observations indicate possible excess emissions, the Wyoming DEQ Air Quality Division will be called by the Environmental Coordinator (or his substitute) and a suitable timetable for corrective action will be agreed to. Plant personnel are authorized to shut down any equipment for corrective action if an emission limit is exceeded. Records of computer generated Work Orders are used to document corrective maintenance activities. Records are maintained for a period of five (5) years.

BAG FILTER SOURCES
PREVENTATIVE MAINTENANCE / CORRECTIVE ACTION PLAN

PREVENTATIVE MAINTENANCE

Baghouse stack exhausts are visually inspected on a monthly basis to ensure that no visible emissions are detected. Baghouse mechanical operating condition, including Magnehelic pressure readings, are inspected on a monthly basis. Continued preventative maintenance is assured through the use of a computer generated work order and record keeping system.

(Note: This formal preventative maintenance program ensures frequent and reliable inspection and is intended maintain reliable baghouse operation. However, plant operators make daily undocumented observation of baghouse functions, and report abnormalities to supervision so that corrective action can be taken as soon as possible to maintain process reliability as well as compliance.)

CORRECTIVE MAINTENANCE

If visual emissions from the stack of any baghouse source are noted, corrective action is taken (usually within 24 hours from its discovery). If the baghouse cannot be repaired within 24 hours, the Wyoming DEQ, Air Quality Division is called by the Environmental Coordinator (or his substitute) and a suitable timetable for corrective action is agreed to. Plant personnel are authorized to shut down any baghouse, when necessary, for corrective action if an emission limit is exceeded.

Records of computer generated work orders are used to document corrective maintenance activities. Records are maintained for a period of five (5) years.

