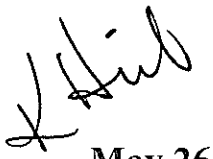
Statement of Basis

Final

Summit Seed Coatings
Caldwell, Idaho
Facility ID No. 027-00090
Permit to Construct P-2010.0034



May 26, 2010
Kathleen Hieb
Permit Writer

The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01.et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

acfm	actual cubic feet per minute
AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
Btu	British thermal unit
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EPA	Environmental Protection Agency
gr	grain (1 lb = 7,000 grains)
HAPs	Hazardous Air Pollutants
hp	horsepower
IDAPA	A numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pounds per hour
MACT	Maximum Available Control Technology
MMBtu	Million British thermal units
NAAQS	National Ambient Air Quality Standards
NESHAP	Nation Emission Standards for Hazardous Air Pollutants
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NSPS	New Source Performance Standards
O_3	ozone
PM	Particulate Matter
PM_{10}	Particulate Matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	Permit to Construct
PTC/Tier II	permit to construct and Tier II operating permit
PTE	Potential to Emit
Rules	Rules for the Control of Air Pollution in Idaho
scf	standard cubic feet
SIC	Standard Industrial Classification
SIP	State Implementation Plan
Summit	summit Seed Coatings
SM	synthetic minor
SO_2	sulfur dioxide
T/yr	Tons per year
$\mu g/m^3$	micrograms per cubic meter
UTM	Universal Transverse Mercator
VOC	volatile organic compound

FACILITY INFORMATION

Description

Summit Seed Coatings treats seeds such as grass, alfalfa, barley and legumes with mixture of limestone, fungicide, adhesives, peat inoculants, and colorants. The process includes a limestone silo, holding tanks, mixers, compaction drum, fluidized bed dryer, screeners, and three baghouses. The three baghouses control the particulate matter emissions from the process. Combustion product emissions from the dryers (CO, NO_x, SO_2, and VOC) are released to the atmosphere uncontrolled.

Raw seeds are purchased by customers and brought to the facility by truck where they are offloaded and treated with the coating material. After packaging, the newly coated seed products are then loaded back onto a truck and shipped to the customer. There is one large warehouse style building at Summit's facility that houses the office, process and storage operations.

Permitting History

The following information was derived from a review of the permit files available to DEQ. Permit status is noted as active and in effect (A) or superseded (S).

May 20, 2008	P-2008.0015, Added a new Seed Coating Line No. 2, Permit status (A, but will become S upon issuance of this permit)

Application Scope

This PTC modification converts the type of permit from T2/PTC to PTC. The applicant has proposed to include additional seed coatings in Seed Coating Line No. 2.

Application Chronology

March 2, 2010	DEQ received an application and an application fee.
March 9 – March 24, 2010	DEQ provided an opportunity to request a public comment period on the application and proposed permitting action.
March 31, 2010	DEQ determined that the application was complete.
May 17, 2010	DEQ made available the draft permit and statement of basis for peer and regional office review.
May 26, 2010	DEQ made available the draft permit and statement of basis for applicant review.
June 15, 2010	DEQ received the permit processing fee.
July 16, 2010	DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

Emissions Units and Control Devices

Table 1 EMISSIONS UNIT AND CONTROL DEVICE INFORMATION

Equipment	Capacity	Manufacturer	Model or Serial #
Limestone silo 1	50 tons	NA	NA
Limestone silo 2	50 tons; 12 inch diameter, 2178 cubic feet	Wheatland	1215-55
Limestone/gypsum receiver tank	NA	NA	NA
Seed tank	NA	NA	NA
Seed mixer	NA	NA	NA
Compaction drum	NA	NA	NA
Fluidized bed burner for Seed Coating Line No. 1	5 MMBtu/hr[a], natural gas	Chief	H400-100-NGEM PNTD-02E1
Fluidized bed dryer for Seed Coating Line No. 2	8.0 MMBtu/hr, natural gas	Oliver	G91-200
Hot water boiler – 9.5 hp	0.398 MM Btu/hr (1,000 lbs steam/hr), natural gas	Parker Industrial Boiler	Serial # 41030
North and South baghouses for Seed Coating Line No. 1 and Silo 1	--	Southern Felt Company, Inc.	North and South: Model: PE-16-SPEG-84 Efficiency 99.99% for PM
Carbotech baghouse for Seed Coating Line No.2 and Silo 2	--	Carbo-Tech with a flow rate of 75,000 cubic feet per minute	Model: 39-15-13-11945 Efficiency: 99.9% for PM_{10} Bags guaranteed by manufacturer not to exceed 0.00073 gr PM_{10}/dscf
Eight space heaters	0.2 MMBtu/hr, natural gas	Dayton Electric and Fraser Johnson	3E844; 3E845;2004HPN; 2004HPN;2004HPN; 2004HPN; 3E850;3E851
Office furnace	0.2 MMBtu/hr, natural gas	Carrier Corporation	58ST-A070-12
Final product screener for Line 1	NA	NA	NA
Super Screen for Line 2	NA	BM&M	C3-600 Universal
Bag off tank for Line 1	NA	NA	NA
Bag off tank for Line 2	NA	Fischbein 400	TE-100
One pressure washer	0.325 MMBtu/hr, No.2 fuel oil	Ramtec	Rt-AV-500-4

MMBtu/hr = million British thermal units per hour
NA = not available

Emissions Inventories

A comprehensive emission inventory was developed by the applicant for the facility (refer to Appendix A).

The following table presents the potential to emit for all criteria pollutants from all emissions units at the facility as submitted by the Applicant and verified by DEQ staff.

Table 2 POTENTIAL TO EMIT FOR CRITERIA POLLUTANTS

Emissions Unit	PM_{10}		SO_2		NO_X		CO		VOC		Lead	
	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr	T/yr
Point Sources												
8 Space Heaters – natural gas	0.0120	0.0500	0.0009	0.0040	0.1600	0.6800	0.1300	0.5700	0.0090	0.0380	7.80E-07	3.40E-06
Office Furnace	0.0010	0.0200	0.0001	0.0010	0.0195	0.0853	0.0164	0.0716	0.0011	0.0047	9.73E-08	4.26E-07
Hot Water Boiler	0.0029	0.0127	0.00023	0.00101	0.038	0.168	0.032	0.141	0.0021	0.0092	1.9 E-07	8.4 E-07
Fluidized Bed Burner – Line No. 1	0.04	0.16	0.003	0.01	0.49	2.13	0.41	1.79	0.03	0.12	2.4E-06	1.1E-05
Pressure Washer	0.10	0.10	0.09	0.09	1.43	1.43	0.31	0.31	0.117	0.12		
North Baghouse	0.023	0.10										
South Baghouse	0.023	0.10										
Carbotech Baghouse	0.469	2.06										
Fluidized Bed Burner – Line No. 2	0.0585	0.2561	0.00462	0.02022	0.769	3.369	0.646	2.830	0.0423	0.1853	3.8E-06	1.7E-05
Propane Tank									0.03	0.13		
Pre-Project Totals	0.73	2.86	0.10	0.13	2.91	7.87	1.54	5.71	0.23	0.61	7.35E-06	2.88E-05
Proposed Project[c)d)]									0.0200	0.0877		
Post-Project Totals	0.73	2.86	0.10	0.13	2.91	7.87	1.54	5.71	0.25	0.69	7.35E-06	2.88E-05

a) Controlled average emission rate in pounds per hour is a daily average, based on the proposed daily operating schedule and daily limits.
b) Controlled average emission rate in tons per year is an annual average, based on the proposed annual operating schedule and annual limits.
c) No increase in particulate emissions for this project. New coating materials will not change the overall coating throughput through Line No. 1 or Line No. 2, therefore there is no increase in particulate emissions.
d) VOC emissions from isopropanol in new ProGibb coating. Assumes 8760 hr/yr operation. In reality will use <100 oz/yr which would equal 5 lb/yr isopropanol.

Non-Carcinogenic TAP Emissions

As explained in the memo in Appendix A, Summit conservatively used a mass balance method to identify and quantify the toxic pollutants emitted from the new seed enhancement material used on Seed Coating Line No. 2. For those toxic pollutants that are solids, the controlled emission rate utilizes a 99.9% baghouse collection efficiency (0.00073 gr/dscf) for particulate TAPs and a seed coating transfer efficiency of 95%. The uncontrolled emission rates of volatile toxic pollutants was calculated based on the maximum amount of see and coating that can be processed during a given hour of operation. As indicated in the ambient air quality impact analyses provided in Appendix B, since no TAPs exceeded their respective emission screening levels, a complete ambient air modeling analysis in not required.

Ambient Air Quality Impact Analyses

As presented in the Modeling Memo in Appendix B, the estimated emission rates of TAPs from this project were below applicable screening emission levels (EL) and published DEQ modeling thresholds established in IDAPA 58.01.01.585-586 and in the State of Idaho Air Quality Modeling Guideline1. Refer to the Emissions Inventories section for additional information concerning the emission inventories.

The applicant has demonstrated pre-construction compliance to DEQ's satisfaction that emissions from this facility will not cause or significantly contribute to a violation of any ambient air quality standard. The applicant has also demonstrated pre-construction compliance to DEQ's satisfaction that the emissions increase due to this permitting action will not exceed any acceptable ambient concentration (AAC) or acceptable ambient concentration for carcinogens (AACC) for toxic air pollutants (TAP).

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The facility is located in Canyon County, which is designated as attainment or unclassifiable for $PM_{2.5}$, PM_{10}, SO_2, NO_2, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

Permit to Construct (IDAPA 58.01.01.201)

IDAPA 58.01.01.201 Permit to Construct Required

The type of permit is being changed from a T2/PTC to a PTC. The applicant proposes to include additional seed coatings in Seed Coating Line No. 2. Therefore, a permit to construct is required to be issued in accordance with IDAPA 58.01.01.220. This permitting action was processed in accordance with the procedures of IDAPA 58.01.01.200-228.

Tier II Operating Permit (IDAPA 58.01.01.401)

IDAPA 58.01.01.401 Tier II Operating Permit

The type of permit is being changed from a T2/PTC to a PTC. Therefore, the procedures of IDAPA 58.01.01.400–410 were not applicable to this permitting action.

Odors (IDAPA 58.01.01.776.01)

IDAPA 58.01.01.776.01 Rules for Control of Odors

General Restrictions. No person shall allow, suffer, cause or permit the emission of odorous gases, liquids or solids into the atmosphere in such quantities as to cause air pollutions. The facility is subject to this rule.

Visible Emissions (IDAPA 58.01.01.625)

IDAPA 58.01.01.625 Visible Emissions

The sources of particulate emissions at this facility are subject to the State of Idaho visible emissions standard of 20% opacity. This requirement is assured by the Opacity Permit Conditions in Seed Coating Line No. 1 and Seed Coating Line No. 2 permit sections.

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[1] Criteria pollutant thresholds in Table 1, State of Idaho Air Quality Modeling Guideline, Doc ID AQ-011, rev. 1, December 31, 2002.

Standards for New Sources (IDAPA 58.01.01.676)

IDAPA 58.01.01.676 Standards for New Sources

None of the fuel burning equipment located at this facility has a maximum rated input of ten (10) million BTU per hour or more. Therefore, this standard is not applicable to this permitting action.

Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)

IDAPA 58.01.01.301 Requirement to Obtain Tier I Operating Permit

Post project facility-wide emissions from this facility do not have a potential to emit greater than 100 tons per year for PM_{10}, SO_2, NO_X, CO, VOC, or HAP or 10 tons per year for any one HAP or 25 tons per year for all HAPs combined as demonstrated previously in the Emissions Inventories Section of this analysis. Therefore, the facility is not a Tier I source in accordance with IDAPA 58.01.01.006.113 and the requirements of IDAPA 58.01.01.301 do not apply.

PSD Classification (40 CFR 52.21)

40 CFR 52.21 Prevention of Significant Deterioration of Air Quality

The facility is not a major stationary source as defined in 40 CFR 52.21(b)(1), nor is it undergoing any physical change at a stationary source not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, that would constitute a major stationary source by itself as defined in 40 CFR 52. Therefore in accordance with 40 CFR 52.21(a)(2), PSD requirements are not applicable to this permitting action. The facility is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a), and does not have facility-wide emissions of any criteria pollutant that exceed 250 T/yr.

NSPS Applicability (40 CFR 60)

The facility is not subject to any NSPS requirements.

NESHAP Applicability (40 CFR 61)

The facility is not subject to any NESHAP requirements in 40 CFR 61.

MACT Applicability (40 CFR 63)

The facility is not subject to any MACT standards in 40 CFR Part 63.

Permit Conditions Review

This section describes the permit conditions for this initial permit or only those permit conditions that have been added, revised, modified or deleted as a result of this permitting action.

Corrections/clarifications to Statement of Basis:

Table 1 – Emissions Unit and Control Device Information:

- Added to Equipment column:
  - North and South baghouses for Seed Coating Line No. 1 "and Silo 1"
  - Carbotech baghouse for Seed Coating Line No. 1 "and Silo 2"
- Added to Model or Serial #:
  - North and South:
    Model: PE-16-SPEG-84
    Efficiency 99.99% for PM
  - Carbotech baghouse:
    Efficiency: 99.9% for PM_{10}
- Deleted from Model or Serial #:
  - "934-1-1, Polyester Southern Felt Pural NF" from North and South baghouses for Seed Coating Line No. 1 and Silo 1

Corrections/clarifications to Permit:

Process Description, Source Descriptions, and Emissions control Descriptions were updated to match the application.

The permit condition numbering has been simplified per current permitting practices.

Seed Coating Line No. 2 - Monitoring and Recordkeeping:

Bag Manufacturer Warranty

> *The permittee shall maintain on site and make available to DEQ representatives upon request the manufacturer guarantee stating that the Carbotech baghouse will emit no more than 0.00073 gr/dscf.*
>
> This permit condition was clarified by the addition of the term "of PM_{10}" at the end of the sentence.
>
> *The permittee shall maintain on site and make available to DEQ representatives upon request the manufacturer guarantee stating that the Carbotech baghouse will emit no more than 0.00073 gr/dscf of PM_{10}.*

Additional permit conditions:

<u>Facility-wide:</u>

> Monitoring and Recordkeeping - *All monitoring and recordkeeping required by this permit shall conform to Permit to Construct General Provision - Monitoring and Recordkeeping.*
>
> This permit condition is added to be consistent with current permitting practices.

Seed Coating Line No. 1:

Operating Requirements:

Baghouse Requirement

The permittee shall install and operate the North and South baghouses to control PM and PM_{10} emissions from Seed Coating Line No. 1.

Inclusion of a permit condition specifically requiring the installation and operation of baghouses conforms to current permitting practices.

Baghouse System Procedures

The permit condition requiring pressure drop recording has been deleted and replaced with quarterly baghouse inspections. DEQ is confident that permit conditions for monthly facility-wide visible emissions inspections, quarterly baghouse inspections, and maintenance required by the Baghouse Systems Procedures are sufficient to ensure continued compliance with ambient air standards.

This permit condition is also added for consistency between the three baghouses and with current permitting practices.

Seed Coating Line No. 2:

Operating Requirements:

Baghouse Requirement

The permittee shall install and operate the Carbotech baghouse to control PM and PM_{10} emissions from Seed Coating Line No. 2.

Inclusion of a permit condition specifically requiring the installation and operation of baghouses conforms to current permitting practices.

Baghouse System Procedures

DEQ is confident that permit conditions for daily visible emissions inspections in addition to monthly facility-wide inspections, quarterly baghouse inspections, records of manufacturer's guarantee of bag grain loading specifications, and maintenance required by the Baghouse Systems Procedures are sufficient to ensure continued compliance with ambient air standards.

This permit condition is also added for consistency between the three baghouses and with current permitting practices.

Fuel Type for the Hot Water Boiler

The hot water boiler shall use natural gas fuel exclusively.

The emissions inventory and ambient air analysis are based on the use of natural gas.

Visible Emissions:

Each day the Carbotech baghouse is operating, the permittee shall observe the stack for potential visible emissions, during daylight hours and under normal operating conditions...

DEQ is confident that permit conditions for daily visible emissions inspections in addition to monthly facility-wide inspections, quarterly baghouse inspections, records of manufacturer's guarantee of bag grain loading specifications, and maintenance required by the Baghouse Systems Procedures are sufficient to ensure continued compliance with ambient air standards.

This permit condition is also added for consistency between the three baghouses and with current permitting practices.

Monitoring and Recordkeeping:

Visible Emissions

The permittee shall monitor and record the visible emissions from the Carbotech baghouse stack as required by the Seed Coating Line No. 2 Visible Emissions Operating Requirement to demonstrate compliance with the Seed Coating Line No. 2 Opacity Limit Permit Condition.

DEQ is confident that permit conditions for daily visible emissions inspections in addition to monthly facility-wide inspections, quarterly baghouse inspections, records of manufacturer's guarantee of bag grain loading specifications, and maintenance required by the Baghouse Systems Procedures are sufficient to ensure continued compliance with ambient air standards.

This permit condition is also added for consistency between the three baghouses and with current permitting practices.

Deletions of permit conditions:

Facility-wide:

2.12 Obligation to comply

This condition is a Tier II operating permit condition and does not apply to PTC permits.

2.14 Sulfur Content – The terms "ASTM Grade 1 fuel oil – 0.3% by weight" and "ASTM Grades 4, 5, and 6 fuel oil –1.75% by weight.

This facility is only permitted to use natural gas and ASTM Grade 2 fuel oil. Therefore, no permit conditions are needed for coal.

2.15 Sulfur Content – The permittee shall not sell, distribute, use, of make available for use, any coal containing greater than 1% sulfur by weight.

This facility is only permitted to use natural gas and ASTM Grade 2 fuel oil. Therefore, no permit conditions are needed for coal.

2.16 Sulfur Content - The word "coal" has been deleted.

The facility is only permitted to use natural gas and ASTM Grade 2 fuel oil. Therefore, no permit conditions are needed for coal.

Seed Coating Line No. 1:

Emission Limits

3.3 Emission Limits

The PM_{10} emission limits are deleted from this permit for the following reasons:

The North and South baghouses account for 0.046 lb/hr (0.023 + 0.023 = 0.046 lb/hr) and 6.3% (0.046/0.729 * 100 = 6.3%) of the facility PM_{10} emissions.

Ambient air analysis for PM_{10}, combined with relatively high background concentrations, demonstrated that the 24-hour and annual PM_{10} impacts were both less than 70% of NAAQS for the facility. The contribution of the North and South baghouses would therefore account for ~ 4.4% (0.063 * 70 = 4.4%)

DEQ is confident that permit conditions for monthly facility-wide inspections, quarterly baghouse inspections, and maintenance required by the Baghouse Systems Procedures are sufficient to ensure continued compliance with ambient air standards.

3.5 Pressure Drop Monitoring Device

3.6 Baghouse Pressure Drop and maintenance

3.7 Operations and Maintenance Manual (replaced)

3.8 Monitoring and Recordkeeping Requirements (replaced)

The permit conditions requiring pressure drop recording have been deleted. DEQ is confident that permit conditions for monthly facility-wide inspections, quarterly baghouse inspections, and maintenance required by the Baghouse Systems Procedures are sufficient to ensure continued compliance with ambient air standards.

Seed Coating Line No. 2:

Emission Limits:

PM_{10} Emission Limits:

4.3 The Carbotech baghouse shall meet a minimum grain loading of 0.00073 grain per dry standard cubic feet (gr/dscf).

This permit condition was deleted because testing for this extremely low grain loading level is inherently problematic. However, because the emission inventory was based on grain loading guarantees provided in the applications, these guarantees provided by the manufacturer shall be maintained according to the monitoring and recordkeeping requirements.

DEQ is confident that permit conditions for daily visible emissions inspections in addition to monthly facility-wide inspections, quarterly baghouse inspections, records of manufacturer's guarantee of bag grain loading specifications, and maintenance required by the Baghouse Systems Procedures are sufficient to ensure continued compliance with ambient air standards.

Operating Requirements:

4.5 Baghouse Requirement: The bags in the baghouse shall be Polyester Southern Felt Pural NF or equivalent.

The intent of this permit condition was to ensure that the bags would meet the minimum grain loading of 0.00073 grains per dry standard cubic feet. Citing only one bag manufacturer does not necessarily meet this goal. Ensurance of this grain loading is of considerable importance as explained below:

- The Carbotech baghouse account for 0.469 lb/hr and 64% (0.469/0.729 * 100 = 64%) of the facility PM_{10} emissions.
- Ambient air analysis for PM_{10}, combined with relatively high background concentrations, demonstrated that the 24-hour and annual PM_{10} impacts were both less than 70% of NAAQS for the facility. The contribution of the Carbotech baghouse would therefore account for ~ 45% (0.64 * ~70 ~ 45%). A failure in the Carbotech baghouse would a higher potential to cause an ambient air impact than the North and South baghouses.

DEQ is confident that permit conditions for daily visible emissions inspections in addition to monthly facility-wide inspections, quarterly baghouse inspections, records of manufacturer's guarantee of bag grain loading specifications, and maintenance required by the Baghouse Systems Procedures are sufficient to ensure continued compliance with ambient air standards.

PUBLIC REVIEW

Public Comment Opportunity

An opportunity for public comment period on the application was provided in accordance with IDAPA 58.01.01.209.01.c or IDAPA 58.01.01.404.01.c. During this time, there were no comments on the application and there was not a request for a public comment period on DEQ's proposed action. Refer to the chronology for public comment opportunity dates.

APPENDIX A – EMISSIONS INVENTORIES

CRITERIA POLLUTANTS NEW EQUIPMENT PTE

Source Description	NOx Emissions		CO Emissions		PM-10 Emissions		SOx Emissions		VOC Emissions		Lead Emissions	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
New Hot Water Boiler (9.5 hP)	0.038	0.168	0.032	0.141	0.0029	0.0127	0.00023	0.00101	0.0021	0.0092	1.9E-07	8.4E-07
Fluidized Bed Dryer[a]	0.769	3.369	0.646	2.830	0.0585	0.2561	0.00462	0.02022	0.0423	0.1853	3.8E-06	1.7E-05
Carbo-Tech Baghouse					0.469	2.06						
EQUIPMENT	**0.81**	**3.54**	**0.68**	**2.97**	**0.53**	**2.33**	**0.00**	**0.02**	**0.04**	**0.19**	**4.0E-06**	**1.8E-05**

[a]Exhaust Through Baghouses. Dryer consists of 3 separate natural gas burners with a maximun total rating of 8 MMBtu/hr

CRITERIA POLLUTANTS EXISTING EQUIPMENT PTE

Source Description	NOx Emissions		CO Emissions		PM-10 Emissions		SOx Emissions		VOC Emissions		Lead Emissions	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
8 Space Heaters	0.16	0.68	0.13	0.57	0.012	0.05	0.0009	0.004	0.009	0.038	7.8E-07	3.4E-06
Office Furnace	0.02	0.09	0.02	0.07	0.001	0.01	0.0001	0.001	0.001	0.005	9.7E-08	4.3E-07
Hot Water Boiler[b]	0.002	0.008	0.002	0.007	0.0001	0.0006	0.00001	0.00005	0.0001	0.0005	9.7E-09	4.2E-08
Propane Tank									0.03	0.13		
Fluidized Bed Burner[a]	0.49	2.13	0.41	1.79	0.04	0.16	0.003	0.01	0.03	0.12	2.4E-06	1.1E-05
Pressure Washer	1.43	1.43	0.31	0.31	0.10	0.10	0.09	0.09	0.117	0.12	0.0E+00	0.0E+00
Baghouse North[a]					0.023	0.10						
Baghouse South					0.023	0.10						
TOTAL EMISSIONS FROM EXISTING FACILITY	**2.10**	**4.34**	**0.87**	**2.75**	**0.197**	**0.52**	**0.10**	**0.11**	**0.18**	**0.41**	**3.32E-06**	**1.45E-05**

[a]Exhaust Through Baghouses. Baghouse control efficiency 99.99% for PM_{10}

[b]To be replaced by new 9.5 hP hot water boiler. Not included in facility wide total emissions

FACILITY-WIDE TOTAL EMISSIONS	**2.90**	**7.87**	**1.54**	**5.72**	**0.73**	**2.85**	**0.10**	**0.13**	**0.23**	**0.60**	**0.00**	**0.00**

CRITERIA EMISSIONS - NATURAL GAS COMBUSTION - SUMMIT SEED COATING

Emission Factors

NOx	100	lb/10^6 scf	AP-42, Table 1.4-1, 1998
CO	84	lb/10^6 scf	AP-42, Table 1.4-1, 1998
PM-10	7.6	lb/10^6 scf	AP-42, Table 1.4-2, 1998
SOx	0.6	lb/10^6 scf	AP-42, Table 1.4-2, 1998
VOC	5.5	lb/10^6 scf	AP-42, Table 1.4-2, 1998
Lead	0.0005	lb/10^6 scf	AP-42, Table 1.4-2, 1998

			Pounds per Hour					
Description	Capacity (Btu/hr)	Throughput (scf/hr)	NOx Emissions (lb/hr)	CO Emissions (lb/hr)	PM-10 Emissions (lb/hr)	SOx Emissions (lb/hr)	VOC Emissions (lb/hr)	Lead Emissions (lb/hr)
Hot Water Boiler	398,000	382.69	0.038	0.032	0.003	0.000	0.002	1.91E-07
Fluidized Bed Dryer[a]	8,000,000	7,692.31	0.769	0.646	0.058	0.005	0.042	3.85E-06
		TOTAL=	**0.808**	**0.678**	**0.061**	**0.005**	**0.044**	**4.04E-06**

			Ton per Year					
Description	Capacity (Btu/hr)	Hours of Operation (hr/yr)	NOx Emissions (tpy)	CO Emissions (tpy)	PM-10 Emissions (tpy)	SOx Emissions (tpy)	VOC Emissions (tpy)	Lead Emissions (tpy)
Hot Water Boiler	398,000	8,760.00	0.17	0.14	0.01	0.00	0.01	8.38E-07
Fluidized Bed Dryer	8,000,000	8,760.00	3.37	2.83	0.26	0.02	0.19	1.68E-05
		TOTAL=	**3.54**	**2.97**	**0.27**	**0.02**	**0.19**	**1.77E-05**

[a] Dryer consists of 4 separate natural gas burners with a maximum total rating of 8 MMBtu/hr.

PARTICULATE EMISSIONS - NEW BAGHOUSE- SUMMIT SEED COATING

Method One- Mass Balance

Description	Byproduct Captured (lb/hr)[a]	Control Factor (%)	Control Factor Reference	PM-10 Emissions (lb/hr)	PM-10 Emissions (T/yr)
Carbo-Tech Baghouse	469.5	99.9	Manf. Guarantee - Carbotech, 12/24/07 email	0.469	2.06
			TOTAL =	0.469	2.06

[a]From mass balance- maximum rate of material processed is 9390 lb/hr limestone and assuming conservative 95% coating transfer efficiency.

Method Two- Grainloading

Description	Air Flow Rate (cfm)	Emission Guarantee (gr/dscf)[b]	Control Factor Reference	PM-10 Emissions (lb/hr)	PM-10 Emissions (T/yr)
Carbo-Tech Baghouse- Southern Felt Filters	75,000	0.00073	Southern Felt Company filter bag guarantee	0.469	2.06
			TOTAL =	0.469	2.06

[b]Southern Felt Company documentation provides a guarantee of 0.0001 gr/dscf however as a conservative estimate 99.9% control with a max of 0.0007 gr/dscf was used for emission calculations.

FUGITIVE PARTICULATE EMISSIONS - PAVED ROADS- SUMMIT SEED COATING

Description	Particle Size Multiplier k1 (lb/VMT)	Silt Loading (g/m^2)[b]	Average Vehicle Weight (tons)	Number of Day in Avg. Period (N)	Number of Days with 0.01in Precip (P)	Emission Factor (lb/VMT)	VMT/yr	Emissions (tpy)	Emissions (lb/hr)
Trucks	0.016	12	10	365	90	0.293	206	0.030	0.007
							TOTAL =	0.030	0.007

[a] EF PM10= $[k1(sL/2)^{0.65} * (W/3)^{1.5}] * (1-P/4N)$

[b]Table 13.2.1-4, AP-42 Recommended silt loading for concrete batching.

TOXIC AIR POLLUTANTS (TAPs) COMBUSTION CALCULATIONS
SUMMIT SEED COATINGS

New Emission Unit	Fuel Usage
Hot Water Boiler	382.69 scf/hr
Fluidized Bed Dryer	7,692.31 scf/hr

NON-CARCINOGENS (POUNDS PER HOUR)

Pollutant	CAS #	EF for Natural Gas Combustion (lb/10^6 scf)[a]	TAP Emissions (lb/hr)
Antimony	7440-36-0	0.0E+00	0.00E+00
Barium	7440-39-3	4.4E-03	3.55E-05
Chromium	7440-47-3	1.4E-03	1.13E-05
Cobalt	7440-48-4	8.4E-05	6.78E-07
Copper	7440-50-8	8.5E-04	6.86E-06
Ethylbenzene	100-41-4	0.0E+00	0.00E+00
Fluoride (as F)	16984-48-8	0.0E+00	0.00E+00
Hexane	110-54-3	1.8E+00	1.45E-02
Manganese	7439-96-5	3.8E-04	3.07E-06
Mercury	7439-97-6	2.6E-04	2.10E-06
Molybdenum	7439-98-7	1.1E-03	8.88E-06
Naphthalene	91-20-3	6.1E-04	4.93E-06
Pentane	109-66-0	2.6E+00	2.10E-02
Phosphorous	7723-14-0	0.0E+00	0.00E+00
Selenium	7782-49-2	2.4E-05	1.94E-07
1,1,1-Trichloroethane	71-55-6	0.0E+00	0.00E+00
Toluene	108-88-3	3.4E-03	2.75E-05
o-Xylene	1330-20-7	0.0E+00	0.00E+00
Zinc	7440-66-6	2.9E-02	2.34E-04

CARCINOGENS (POUNDS PER HOUR)

Pollutant	CAS #	EF for Natural Gas Combustion (lb/10^6 scf)[a]	TAP Emissions (lb/hr)
Arsenic	7440-38-2	2.0E-04	1.62E-06
Benzene	71-43-2	2.1E-03	1.70E-05
Beryllium	7440-41-7	1.2E-05	9.69E-08
Cadmium	7440-43-9	1.1E-03	8.88E-06
Chromium VI	7440-47-3	0.0E+00	0.00E+00
Formaldehyde	50-00-0	7.5E-02	6.06E-04
Nickel	7440-02-0	2.1E-03	1.70E-05
Benzo(a)pyrene	50-32-8	1.2E-06	9.69E-09
Benz(a)anthracene	56-55-3	1.8E-06	1.45E-08
Benzo(b)fluoranthene	205-82-3	1.8E-06	1.45E-08
Benzo(k)fluoranthene	205-99-2	1.8E-06	1.45E-08
Chrysene	218-01-9	1.8E-06	1.45E-08
Dibenzo(a,h)anthracene	53-70-3	1.2E-06	9.69E-09
Indeno(1,2,3-cd)pyrene	193-39-5	1.8E-06	1.45E-08
Total PAHs		1.1E-05	9.21E-08

[a]EFs from AP-42, Tables 1.4-3 and 1.4-4, 7/98

[b]EFs from AP-42, Table 1.3-10, 9/98

Processed Material Parameters - Summit Seed Coatings

Name of Material	Manufacturer	MSDS Sheet Date	TAPs or HAPs?	Max Application Rate (lb/hr)
Calcium Carbonate White (Limestone)[a]	Columbia River Carbonates	2004	Yes	9390
Calcium Carbonate Grey (Limestone)	J.A. Jack & Sons, Inc.	2004	Yes	9390
Calcium Sulfate (Gypsum)[b]	Diamond K, Inc.	2007	Yes	5850
Peat Based Inoculant[c]	EMD/ Nitragen Co.	2003	Yes	156
Polyvinyl Alcohol[d]	Kell Chemical	2007	Yes	189
Mica (Gimsheen 40)[e]	Georgia Industrial Minerals, Inc	2005	Yes	120
Maxim 4FS Fungicide[f]	Syngenta	2001	Yes	0.41
Sodium Molybdate[g]	North Metal & Chemical	2005	Yes	19.5
42-S Thiram Fungicide[h]	Bayer CropScience	2007	Yes	57.9
Apron XL LS	Syngenta	2004	No	-
Potassium Sulfate (Sulfate of Potash)	Diamond K, Inc.	2007	No	-
RCD9000 Red Colorant	Sun Chemical	2007	No	-
Bolster Plant Growth Supplement	Natural Fertilizer of America, Inc.	2003	No	-
Horta-Sorb	Horticultural Alliance, Inc.	2006	No	-
Borrechel FE 853 Powder	LignoTech USA, Inc.	2006	No	-
Optimize Gold	EMD Crop BioScience	2007	No	-
Zeba	Absorbent Technologies, Inc.	2006	No	-
Color Coat Yellow	Becker Underwood, Inc.	2003	No	-
Color Coat Blue	Becker Underwood, Inc.	2007	No	-
Color Coat Green	Becker Underwood, Inc.	2007	No	-

[a]Calcium carbonate grey and calcium carbonate white are never run simultaneously. White limestone contains < 1% crystalline silica.

Max limestone process rate based on 6 batches centipede per hour @ 1565 lb/batch

[b]Max gypsum process rate based on 6.5 batches alfalfa per hour @ 900 lb/batch

[c]Max peat based inoculant process rate based on 6.5 batches alfalfa per hour @ 24 lb/batch

[d]Max polyvinyl alcohol process rate based on 6 batches centipede per hour @ 350 lb/batch and 9%

[e]Max mica process rate based on 6 batches centipede per hour @ 20 lb/batch

[f]Max Maxim 4FS Fungicide process rate based on 6.5 batches riviera per hr @ 0.8 liq oz per batch = 5.2 liq oz per hr SG= 1.22

[g]Max Sodium Molybdate process rate based on based on 6.5 batches alfalfa per hour @ 3 lb/batch

[h]Max 42-S Thiram process rate based on 6.5 batches alfalfa per hr @ 120 liq oz per batch = 780 liq oz per hr SG= 0 73

TAP Emission Calculations of Process Byproduct - Summit Seed Coatings

Name of Material/ TAPs	Max Material Process Rate (lb/hr)	Transfer Efficiency (%)[a]	Wt. Fraction TAP	Baghouse Collection Efficiency (%)[b]	TAP Emissions (lb/hr)	TAP Emissions (ton/yr)
Calcium Carbonate (Limestone)	9390.0	95%	0.99	99.9%	0.46	2.04
Silica Quartz (Limestone)	9390.0	95%	0.01	99.9%	0.0047	0.02
Calcium Sulfate (Gypsum)	5850.0	95%	1.0	99.9%	0.29	1.28
Crystalline Silica (Peat Based Inoculant)	156.0	95%	0.01	99.9%	0.0001	0.0003
Methyl Acetate (Polyvinyl Alcohol)	189.0	95%	0.01	-	0.0945	0.4139
Methanol (Polyvinyl Alcohol)	189.0	95%	0.03	-	0.2835	1.2417
Mica (Mica)	120.0	95%	1.0	99.9%	0.01	0.03
Ethylene Glycol (Maxim 4FS Fungicide)	0.41	95%	0.11	-	0.0023	0.0099
Molybdenum Soluble Compounds (Sodium Molybdate)	19.5	95%	1.00	99.9%	0.001	0.004
Thiram (42-S Thiram Fungicide)	57.9	95%	0.42	-	1.22	5.3256

[a]Estimated seed coating transfer efficiency provided by Summit

[b]Collection efficiency only for power coatings, potential vapors from liquid coatings are not controlled by the baghouse

PARTICULATE TAPS - BAGHOUSE EMISSIONS FROM SILO LOADING

Pollutant	Throughput (T/hr)	Mass Fraction (lb/lb)	Emission Factor (lb/T)[b]	Emission Control (%)	TAP Emissions (lb/hr)	TAP Emissions (T/yr)
Calcium Carbonate (Limestone)	50	0.99	0.46	99.9	0.023	0.100
Crystalline Silica (Limestone)[a]	50	0.01	0.46	99.9	0.00023	0.001

[a]Crystalline silica is <1% in calcium carbonate

[b]From AP-42, Table 11.12-2 Cement Unloading to Elevated Storage Silo

TOXIC AIR POLLUTANT EMISSION INVENTORY - SUMMIT SEED COATINGS

NON-CARCINOGENS

Pollutant	Hourly Emissions[a] (lb/hr)	Screening Level (lb/hr)	Modeling? (Y/N)	Emissions (tons/yr)
Antimony	0.00E+00	3.3E-02	No	0.0E+00
Barium	3.55E-05	3.3E-02	No	1.6E-04
Calcium Carbonate	4.88E-01	6.7E-01	No	2.1E+00
Calcium Sulfate	2.93E-01	6.7E-01	No	1.3E+00
Chromium	1.13E-05	3.3E-02	No	5.0E-05
Cobalt	6.78E-07	3.3E-03	No	3.0E-06
Crystalline Silica	5.00E-03	6.7E-03	No	2.2E-02
Copper	6.86E-06	6.7E-02	No	3.0E-05
Ethylbenzene	0.00E+00	2.9E+01	No	0.0E+00
Ethylene Glycol	2.26E-03	8.5E-01	No	9.9E-03
Fluoride	0.00E+00	1.67E-01	No	0.0E+00
Hexane	1.45E-02	1.2E+01	No	6.4E-02
Manganese	3.07E-06	3.33E-01	No	1.3E-05
Mercury	2.10E-06	3.E-03	No	9.2E-06
Methanol	2.84E-01	17.3	No	1.24
Methyl Acetate	9.45E-02	40.7	No	4.1E-01
Mica	6.00E-03	0.2	No	2.6E-02
Molybdenum (insoluble)	8.88E-06	6.67E-01	No	3.9E-05
Molybdenum (soluble)	9.75E-04	3.33E-01	No	4.3E-03
Naphthalene	4.93E-06	3.33E+00	No	2.2E-05
Pentane	2.10E-02	1.18E+02	No	9.2E-02
Phosphorous	0.00E+00	7.E-03	No	0.0E+00
Selenium	1.94E-07	1.3E-02	No	8.5E-07
1,1,1 - Trichlorethane (Methyl Chloroform)	0.00E+00	1.27E+02	No	0.0E+00
Thiram	1.22	3.33E-01	Yes	5.33
Toluene	2.75E-05	2.5E+01	No	1.2E-04
o-Xylene	0.00E+00	2.9E+01	No	0.0E+00
Zinc	2.34E-04	6.67E-01	No	1.0E-03

CARCINOGENS

Pollutant	Max. Hourly Emissions (lb/hr)	Screening Level (lb/hr)	Modeling? (Y/N)	Emissions (tons/yr)
Arsenic	1.62E-06	1.5E-06	Yes	1.31E-09
Benzene	1.70E-05	8.0E-04	No	6.97E-09
Beryllium	9.69E-08	2.8E-05	No	5.27E-10
Cadmium	8.88E-06	3.7E-06	Yes	4.14E-09
Chromium VI	0.00E+00	5.6E-07	No	4.88E-10
Formaldehyde	6.06E-04	5.1E-04	Yes	2.49E-07
Nickel	1.70E-05	2.7E-05	No	7.46E-09
Benzo(a)pyrene	9.69E-09	2.0E-06	No	3.98E-12
Benz(a)anthracene	1.45E-08	NA	NA	5.98E-12
Benzo(b)fluoranthene	1.45E-08	NA	NA	5.98E-12
Benzo(K)fluoranthene	1.45E-08	NA	NA	5.98E-12
Chrysene	1.45E-08	NA	NA	5.98E-12
Dibenzo(a,h)anthracene	9.69E-09	NA	NA	3.98E-12
Indeno(1,2,3-cd)pyrene	1.45E-08	NA	NA	5.98E-12
Total PAHs	9.21E-08	2.00E-06	No	3.79E-11

[a] Hourly TAP emissions are the sum of natural gas combustion and process byproduct emission rates.

HAPs Inventory

Pollutant	Emissions (tons/yr)
Arsenic	1.31E-09
Benzene	6.97E-09
Beryllium	5.27E-10
Cadmium	4.14E-09
Ethylbenzene	0.0E+00
Formaldehyde	2.49E-07
Chromium	4.88E-10
Lead	1.77E-05
Mercury	9.2E-06
Methanol	1.2E+00
Naphthalene	2.2E-05
Nickel	7.46E-09
Selenium	8.5E-07
Toluene	1.2E-04
Xylene	0.0E+00
Phosphorus	0.0E+00
POM	3.12E-06
Dichlorobenzene	4.24E-05
Hexane	6.37E-02
Total	**1.31E+00**

Note: Emission Factors for lead, POM, dichlorobenzene and hexane are as		
Lead	5.00E-04	lb/MMscf
POM	8.82E-05	lb/MMscf
Dichlorobenzene	1.20E-03	lb/MMscf
Hexane	1.8	lb/MMscf

RECEIVED

MAR 2 1 2008

Department of Environmental Quality
State Air Program

MEMORANDUM

TO: HARBI ELSHAFEI

FROM: MELISSA ARMER, JBR ENVIRONMENTAL CONSULTANTS, INC.

SUBJECT: SUMMIT SEED COATINGS- BAGHOUSE GRAINLOADING CALCULATIONS

DATE: 3/19/2008

Particulate emissions from the new Carbotech® pulse baghouse were calculated utilizing two separate methods which resulted in similar overall emissions. The higher of the two emission calculation methods was conservatively used to demonstrate compliance with ambient air quality standard for PM_{10} and particulate TAPs.

The first calculation method is based on a mass balance and utilizes a 99.9% baghouse collection efficiency and seed coating transfer efficiency of 95%. Modeling was originally conducted utilizing the results of this calculation method and demonstrated compliance with ambient air quality standards. Based on process knowledge Summit was confident that this calculation method conservatively estimated maximum emissions from the new coating line. After meeting with IDEQ it was recommended that the filter bag grainloading be utilized to calculate emissions from the new baghouse rather than process knowledge.

A second calculation method was utilized to conservatively estimate the maximum potential emissions from the new baghouse. The second calculation method is based on the maximum air flow rate through the baghouse and the grainloading of the filter bags. The maximum actual air flow rate through the baghouse is 75,000 cfm. The calculated dry standard air flow rate is 63,052 DSCFM.

The filter bag manufacturer, Southern Felt Company provided documentation which shows the actual grainloading for the polyester filter bags have a grainloading of 0.0001153 gr/dscf. The grainloading documentation is located in Appendix A and is based on emission test results utilizing ASTM D6830-02 Standard Test Method for Characterizing the Pressure Drop and Filtration Performance of Cleanable Filter Media. This test method determines the performance of filter media and the results can be used for design and selection of filter media. Although the results obtained by this test method may not predict absolute performance, Southern Felt Company believes the results are representative for Summit's operation.

Utilizing the dry standard air flow rate of 63,052 DSCFM and the grainloading of 0.0001153 gr/dscf results in a PM_{10} emission rate equal to 0.062 lb/hr. This value is an order of magnitude lower than the emission rate calculated utilizing the first calculation method (PM_{10}= 0.469 lb/hr).

As a conservative effort to calculate the maximum potential emissions from the baghouse Summit utilized the actual maximum air flow rate of 75,000 cfm to calculate maximum emissions rather than the lower dry standard air flow rate (63,052 DSCFM) which would result in lower emissions.

In addition, since the filter bag grainloading is based on ASTM D6830-02 test results and does not predict absolute performance, Summit conservatively assumed a higher grain loading to account for actual operating conditions that may differ from the test conditions. Also, Summit would like the flexibility to

utilize filter bags provided by a different manufacturer which may not be able to provide a grainloading guarantee as low as the 0.0001153 gr/dscf

Since modeling was conducted at the higher emission rate and demonstrated compliance with ambient air quality standards Summit elected to request permit limits that demonstrated compliance with ambient air quality standards and also allowed for operational flexibility. Total PM_{10} emissions modeled from the new baghouse consist of both process particulate and combustion emissions from the FBD. PM_{10}= 0.469 lb/hr from process + 0.0585 lb/hr FBD combustion = 0.528 lb/hr PM_{10}. The requested grainloading permit limit of 0.00073 gr/dscf was conservatively selected to allow for flexibility to utilize filter bags provided by different manufacturers while still demonstrating compliance with ambient air quality standards. The 75,000 cfm air flow rate is the maximum design air flow rate provided by the manufacturer.

new Bag
$ 13.45

ATTN
Stu Barclay
208-455-8090

ETS CONTRACT NUMBER: 02-934 DATE 10/28/02

RUN ID.	934-1-1	934-2-1	934-3-1	934-4-1	934-10-1
FABRIC DESIGNATION	Polyester	Polyester / P84	MicroFelt / PE	CAC / Polyester	CTF / Polyester
MANUFACTURER	Southern Felt	Southern Felt	Southern Felt	Southern Felt	Southern Felt
DUST FEED	Pural NF	Pural NF	Pural NF	Pural NF	Pural NF
VERIFICATION TEST RESULTS	ASTM D6830-02				
Mean Outlet Particle Conc. PM 2.5 (gr/dscf)	0.0001146	0.0000800	0.0000376	0.0000745	0.0002105
Mean Outlet Particle Conc. Total mass (gr/dscf)	0.0001153	0.0000800	0.0000376	0.0000759	0.0002187
Initial Residual Pressure Drop (in. w.g.)	1.48	1.44	1.76	3.11	2.16
Change in Residual Pressure Drop (in. w.g.)	0.42	0.50	0.23	1.91	1.48
Average Residual Pressure Drop (in. w.g.)	1.74	1.75	1.90	4.34	3.08
Mass Gain of Filter Sample (g)	1.43	2.08	0.74	0.68	1.37
Average Filtration Cycle Time (s)	48	49	88	6	7
Number of Pulses	448	445	241	3559	3157
RESIDUAL PRESSURE DROP					
At Start of Conditioning Period (in. w.g.)	0.05	0.06	0.12	0.08	0.05
Recovery Period (in. w.g.)	1.39	1.30	1.72	3.13	2.09
Performance Test Period (in. w.g.)	1.48	1.44	1.76	3.11	2.16
REMOVAL EFFICIENCY (%)					
Dust Conc (gr/dscf)	8.17	7.73	7.39	7.43	6.99
PM 2.5 **	99.99819	99.99866	99.99934	99.99870	99.99811
Total Mass **	99.99859	99.99897	99.99949	99.99898	99.99890

** (Dust Concentration * 0.7735) - PM 2.5 Outlet Concentration * 100
Dust Concentration * 0.7735

PARTICULATE EMISSIONS - NEW BAGHOUSE- SUMMIT SEED COATING

Table 1: Method One- Mass Balance

Description	Byproduct Captured (lb/hr)[a]	Control Factor (%)	Control Factor Reference	PM-10 Emissions (lb/hr)	PM-10 Emissions (T/yr)
Carbo-Tech Baghouse	469.5	99.9	Manf. Guarantee - Carbotech, 12/24/07 email	0.469	2.06
			TOTAL =	**0.469**	**2.06**

[a]From mass balance- maximum rate of material processed is 9390 lb/hr limestone and assuming conservative 95% coating transfer efficiency.

Table 2: Method Two- Grainloading

Description	Air Flow Rate (acfm)	Air Flow Rate (dscfm)	Emission Guarantee (gr/dscf)[b]	Control Factor Reference	PM-10 Emissions (lb/hr)	PM-10 Emissions (T/yr)
Carbo-Tech Baghouse- Southern Felt Filters	75,000	63,052	0.00073	Southern Felt Company filter bag guarantee	0.469	2.06
				TOTAL =	**0.469**	**2.06**

[b] DSCFM = ACFM x $\frac{(460\ ^\circ R + 70\ ^\circ F)}{(460\ ^\circ R + \text{temp}\ (120\ ^\circ F))}$ x $\frac{\text{actual P (assume 14.7 psi)}}{14.7\ \text{psi}}$ x (1- 8% moisture)

[c]Southern Felt Company documentation provides a guarantee of 0.0001153 gr/dscf however as a conservative estimate 99.9% control with a max of 0.00073 gr/dscf was used for emission calculations along with max actual air flow rate of 75,000 acfm.
(75,000 cfm) x (0.00073 gr/cf) x (60 min/hr) x (1÷7000 gr/lb) = 0.469 lb/hr

Table 3: FUGITIVE PARTICULATE EMISSIONS - PAVED ROADS- SUMMIT SEED COATING

Description	Particle Size Multiplier k1 (lb/VMT)	Silt Loading (g/m^2)[b]	Average Vehicle Weight (tons)	Number of Day in Avg. Period (N)	Number of Days with 0.01 in Precip. (P)	Emission Factor (lb/VMT)	VMT/yr	Emissions (tpy)	Emissions (lb/hr)
Trucks	0.016	12	10	365	90	0.293	206	0.030	0.007
							TOTAL =	**0.030**	**0.007**

[a] EF PM10= $[k1(sL/2)^{0.65} * (W/3)^{1.5}] * (1-P/4N)$

[b] Table 13.2.1-4, AP-42 Recommended silt loading for concrete batching.

CRITERIA POLLUTANTS EXISTING EQUIPMENT PTE[a]

	PM10 Emissions		SO2 Emissions		NOx Emissions		CO Emissions		VOC Emissions		Lead Emissions	
Source Description	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
8 Space Heaters- natural gas	0.0120	0.0500	0.0009	0.0040	0.1600	0.6800	0.1300	0.5700	0.0090	0.0380	7.80E-07	3.40E-06
Office Furnace	0.0010	0.0200	0.0001	0.0010	0.0195	0.0853	0.0164	0.0716	0.0011	0.0047	9.73E-08	4.26E-07
New Hot Water Boiler	0.0029	0.0127	0.00023	0.00101	0.038	0.168	0.032	0.141	0.0021	0.0092	1.9E-07	8.4E-07
Fluidized Bed Burner- Line No. 1	0.04	0.16	0.003	0.01	0.49	2.13	0.41	1.79	0.03	0.12	2.4E-06	1.1E-05
Pressure Washer	0.10	0.10	0.09	0.09	1.43	1.43	0.31	0.31	0.117	0.12		
Baghouse 1	0.023	0.10										
Baghouse 2	0.023	0.10										
Baghouse 3	0.469	2.06										
Fluidized Bed Burner- Line No. 2	0.0585	0.2561	0.00462	0.02022	0.769	3.369	0.646	2.830	0.0423	0.1853	3.8E-06	1.7E-05
Propane Tank									0.03	0.13		

CRITERIA POLLUTANTS NEW COATING MATERIAL PTE[a]

	PM10 Emissions		SO2 Emissions		NOx Emissions		CO Emissions		VOC Emissions		Lead Emissions	
Source Description	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Line #1 or Line #2 (Baghouse #1, #2, or #3) [b]									0.0200	0.0877		
FACILITY-WIDE TOTAL EMISSIONS	**0.73**	**2.86**	**0.10**	**0.13**	**2.91**	**7.87**	**1.54**	**5.71**	**0.25**	**0.69**	**7.35E-06**	**2.88E-05**

[a]No increase in particulate emissions in this PTC application. New coating materials will not change the overall coating throughput through line #1 or line #2 therefore there is no increase in particulate emissions.

[b]VOC emissions from isopropanol in new ProGibb coating. Assumes 8760 hr/yr operation. In reality will use <100 oz/yr which would equal 5 lb/yr isopropanol

TAP Emission Calculations of EXISTING Coating Material- Summit Seed Coatings

Name of Material/ TAPs	Max Material Process Rate (lb/hr)	Transfer Efficiency (%)[a]	Wt. Fraction TAP	Baghouse Collection Efficiency (%)[b]	TAP Emissions (lb/hr)	TAP Emissions (ton/yr)
Calcium Carbonate (Limestone)	9390.0	95%	0.99	99.9%	0.46	2.04
Silica Quartz (Limestone)	9390.0	95%	0.01	99.9%	0.0047	0.02
Calcium Sulfate (Gypsum)	5850.0	95%	1.0	99.9%	0.29	1.28
Crystalline Silica (Peat Based Inoculant)	156.0	95%	0.01	99.9%	0.0001	0.0003
Methyl Acetate (Polyvinyl Alcohol)	189.0	95%	0.01	-	0.0945	0.4139
Methanol (Polyvinyl Alcohol)	189.0	95%	0.03	-	0.2835	1.2417
Mica (Mica)	120.0	95%	1.0	99.9%	0.01	0.03
Ethylene Glycol (Maxim 4FS Fungicide)	0.41	95%	0.11	-	0.0023	0.0099
Molybdenum Soluble Compounds (Sodium Molybdate)	19.5	95%	1.00	99.9%	0.001	0.004
Thiram (42-S Thiram Fungicide)	57.9	95%	0.42	-	1.22	5.3256

[a]Estimated seed coating transfer efficiency provided by Summit

[b]Collection efficiency only for power coatings, potential vapors from liquid coatings are not controlled by the baghouse

PARTICULATE TAPS - BAGHOUSE EMISSIONS FROM SILO LOADING

Pollutant	Throughput (T/hr)	Mass Fraction (lb/lb)	Emission Factor (lb/T)[d]	Emission Control (%)	TAP Emissions (lb/hr)	TAP Emissions (T/yr)
Calcium Carbonate (Limestone)	50	0.99	0.46	99.9	0.023	0.100
Crystalline Silica (Limestone)[c]	50	0.01	0.46	99.9	0.00023	0.001

[c]Crystalline silica is <1% in limestone

[d]From AP-42, Table 11.12-2 Cement Unloading to Elevated Storage Silo

TAP Emission Calculations of NEW Process Coating Materials - Summit Seed Coatings

Name of Material/ TAPs	Max Material Process Rate (lb/hr)	Transfer Efficiency (%)	Wt. Fraction TAP	Baghouse Collection Efficiency (%)	TAP Emissions (lb/hr)	TAP Emissions (ton/yr)
(Silica Quartz) PRE-VAIL Pre-Inoculant [e]	88	95%	0.01	99.9%	0.00004	0.00
(Silica Quartz) Nitragin Gold Inoculant [e]	88	95%	0.01	99.9%	0.00004	0.00
(Silica Quartz) Nitragin Inoculant [e]	88	95%	0.01	99.9%	0.00004	0.00
(Silica Quartz) PRIMO GX2, N-Dure Peat Inoculant [e,f]	168	95%	0.01	99.9%	0.00008	0.00
(Isopropanol) ProGibb 4.0%	0.42	95%	0.96		0.02002	0.09

[e]Never run simultaniously or with an existing permitted peat based inoculant.

[f]If run with limestone max limestone would be 9390 lb/hr minus 168 lb/hr minus any other enhancement materials.

APPENDIX B – AMBIENT AIR QUALITY IMPACT ANALYSES

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 NORTH HILTON, BOISE, ID 83706 · (208) 373-0502

C. L. "BUTCH" OTTER, GOVERNOR
TONI HARDESTY, DIRECTOR

January 21, 2010

VIA EMAIL

Mr. Stuart Barkley, President
Seed Enhancements, LLC, dba Summit Seed Coatings
P.O. Box E
Caldwell, Idaho 83606

RE: Facility ID No. 027-00090, Summit Seed Coatings, Caldwell
Modeling Not Required for Tier II/PTC Renewal and Additional Coating Materials

Dear Mr. Barkley:

Based on DEQ's review of the information provided in the attached pre-application agenda, modeling conducted in 2004 and 2008 (T2-030054 and P-2008.0015) for your Caldwell facility, and supplemental information obtained by DEQ regarding typical quartz content for clay and peat materials, DEQ has determined that modeling is not required for this project.

Key considerations for this determination were as follows:

1. Renewal of a Tier II permit typically requires facility-wide modeling for all criteria pollutants with ambient impacts that exceed the significant contribution levels (SCLs) defined in the Rules for the Control of Air Pollution in Idaho (Rules), IDAPA 58.01.01.105 (2009). Emissions from the facility include combustion products (CO, NO_x, PM_{10}, SO_x, VOCs, and state-regulated toxic air pollutants [TAPs]) from burning natural gas and PM_{10} and TAPs from process operations.
2. Facility-wide PM_{10} and NO_x impacts were most recently evaluated in the modeling analysis supporting the addition of the second seed coating line (P-2008.0015), which:
    a. Used AERMOD version 07026. AERMOD version 09292 became available on October 23, 2009. Other than changes to precision levels for UTM coordinates, which may result in slightly different output results when using the newer version, re-running the facility-wide modeling using AERMOD 09292 would not be expected to produce substantially different impact results for this facility.
    b. Used DEQ-processed Boise meteorological data for the years 1988-1992. This met data set, which was processed prior to the availability of AERSURFACE, is still considered to be one of the better readily-available representative data sets for facilities located in Caldwell.
    c. Demonstrated that facility-wide ambient impacts for PM_{10}, combined with relatively high background concentrations (94 $\mu g/m^3$ for 24-hour PM_{10} and 30 $\mu g/m^3$ for annual PM_{10}), were 68.7% and 66.4% of the 24-hour and annual PM_{10} standards, respectively. Facility-wide ambient impacts for NO_x, combined with background concentrations, were 59.2% of the annual standard. PM_{10} and NO_x emissions were based on:
        i. Burning natural gas in eight 0.2 MMBtu/hr space heaters and in a 0.398 MMBtu/hr hot water boiler, all presumed to be operated 8,760 hours per year.

ii. Burning natural gas in two fluidized bed dryers rated at 5 MMBtu/hr and 8 MMBtu/hr, operated 8,760 hours per year.

iii. Burning #2 diesel fuel in a 0.325 MMBtu/hr pressure washer, operated 24 hours per day and 2,190 hours per year.

iv. Using 9,390 lb/hr of limestone in the Line #2 seed coating process, presuming 95% transfer efficiency (i.e., 95% of the limestone adheres to the seeds), based on 6 batches centipede per hour at 1,565 lb/batch. Emissions were modeled for operating 24 hours per day and 8,760 hours per year. Limestone Storage Silo 2 is located inside the building. PM_{10} emissions from silo filling and the seed coating process are routed through Carbotech Pulse Baghouse No. 3.

v. Emissions of PM_{10} of 0.185 lb/hr from Line #1 silo filling and seed coating. Emissions were modeled for operating 19.3 hours per day (calculated using the modeled 24-hr emission rate of 0.0185 lb/hr compared to maximum 1-hour emission rate of 0.023 lb/hr), and 8,760 hours per year. Limestone Storage Silo 1 is located inside the building. PM_{10} emissions from silo filling and the seed coating process are routed through the North and South baghouses.

vi. No PM_{10} emissions from seed unloading. Seed received at Summit Seed Coatings is untreated and has been cleaned by the seed suppliers. The dust on the seed has been described by Summit as minimal. Seed arrives in one of three ways: 1) bagged in 2,000-pound bulk bags, bagged in 50-pound bags on pallets, or in covered steel bins with net weight of about 2,500 pounds. There is no bulk unloading from hopper bottom trucks.

vii. Negligible PM_{10} emissions when the rollup doors into the buildings are open during processing operations. The buildings are maintained at a slightly negative pressure.

3. CO and SO_2 ambient impacts from the space heaters, office furnace, and Line #1's 5 MMBtu/hr dryer were modeled in 2004 using ISCST3 in support of the initial permit for this facility (T2-030054, issued July 12, 2004). Emissions from the 0.325 MMBtu/hr diesel-fired pressure washer were excluded.

Table 1. CO and SO_2 Ambient Impacts – Initial Permit, 2004

Pollutant	Averaging Period	Emissions (T/yr)	Predicted Ambient Impact ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$)	Total Ambient Impact ($\mu g/m^3$)	NAAQS[a] ($\mu g/m^3$)	Percent of NAAQS
CO	1-hour	2.7	0.56	19,100[b,c]	19,101	40,000	48%
	8-hour		105.97	7,300[b,c]	7,406	10,000	74%
SO_2	3-hour	0.1	0.91	42[b,d]	43	1,300	3.3%
	24-hour		0.4	26[b,d]	26.4	365	7.2%
	Annual		0.77	8[b,d]	8.8	80	11%

[a] National Ambient Air Quality Standard

[a] Hardy, Rick and Schilling, Kevin. *Background Concentrations for Use in New Source Review Dispersion Modeling*. Memorandum to Mary Anderson, March 14, 2003.

[b] Nampa background values.

[c] Small town/suburban background values.

The increase in CO emissions associated with adding Line #2 in 2008 was 0.678 lb/hr, well below the 14 lb/hr modeling threshold. Annual CO emissions increased by 2.97 T/yr. The increase in SO_2 emissions associated with adding Line #2 in 2008 was 0.005 lb/hr and 0.02 T/yr, well below the 0.2 lb/hr and 1 T/yr modeling thresholds. A comparison of these emission rates with the

emission rates and predicted ambient impacts for Line #1 operations makes clear that the additional CO and SO_2 impacts associated with adding Line #2 will not cause or significantly contribute to a violation of the applicable NAAQS.

4. As described in the pre-application meeting information provided by JBR, the addition of alternative seed coatings containing isopropanol does not appear to trigger modeling. The 4.4 pounds per year controlled emissions of isopropanol associated with the use of these coatings is well below the IDAPA 58.01.01.585 screening emission level (EL) of 65 lb/hr (24-hour average).

5. As described in the pre-application meeting information provided by JBR, the addition of alternative seed coatings containing small amounts of quartz does not appear to trigger modeling. Based on a maximum use rate of 156 lb/hr of PRE-VAIL, Nitragin, or PRIMO GX2 and N-Dure Peat inoculants; a transfer efficiency of 95%, baghouse efficiency of 99.9%, and a maximum 1% weight fraction of quartz in any of the inoculants, the emission rates of 8×10^{-5} lb/hr is well below the 6.7×10^{-3} lb/hr 24-hour average EL for crystalline silica.

   Using supplemental information obtained by DEQ through an internet search, it appears that the quartz content of peat is typically less than 50%, but that quartz content of Idaho clays may be as high as 70%. The "worst-case" controlled emission rates of crystalline silica (quartz) can be estimated as follows:

Table 2. "Worst-Case" Controlled Quartz Emissions

Coating Material	Max Material Process Rate (lb/hr)	Transfer Efficiency (%)	Wt Percent Quartz (%)	Baghouse Efficiency (%)	Quartz Emissions (lb/hr)	Screening EL (lb/hr)	Percent of EL
PRE-VAIL Pre-Inoculant	156	95%	70%	99.9%	0.0055	0.0067	81%
Nitragin Gold Inoculant	156	95%	70%	99.9%	0.0055	0.0067	81%
PRIMO GX2, N-Dure Peat Inoculant	156	95%	50%	99.9%	0.0039	0.0067	58%

If you have any questions or comments regarding this determination, please contact me at (208) 373-0220 or cheryl.robinson@deq.idaho.gov.

Sincerely,

Cheryl A. Robinson

Cheryl A. Robinson, P.E.
Modeling Analyst, Air Quality Division

ec: Stuart Barkley, stu_summit@qwestoffice.net
Matthew Ineck, matt_summit@qwestoffice.net
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Carole Zundel, DEQ Permit Writer, carole.zundel@deq.idaho.gov

Attachments

ATTACHMENT 1. Typical Quartz Content of Clays and Peat

Hosterman, John W., Geology of the Clay Deposits in Parts of Washington and Idaho, U.S. Geological Survey, Agricultural Research Center, Beltsville, Maryland, article from the Seventh National Conference on Clays and Clay Minerals, accessed 01-19-10 at http://www.clays.org/journal/archive/volume%207/7-1-285.pdf

CHEMICAL COMPOSITION

The average chemical properties of the residual clay derived from basalt, residual clay derived from granodiorite and related rocks, and transported clay are given in Table 1. The residual clays derived from basalt have the

TABLE 1.—AVERAGE CHEMICAL PROPERTIES OF THE THREE TYPES OF CLAY
(Analyses from Hosterman *et al.*, in press, Table 5)

	(1)	(2)	(3)
Ignition loss (700°C)	10.6	6.1	8.5
Al_2O_3	30.1	21.3	24.8
SiO_2	42.4	68.7	58.5
Fe_2O_3	9.4	4.0	4.9
TiO_2	6.4	0.4	1.0

(1) Residual clay derived from basalt.
(2) Residual clay derived from granodiorite and related rocks.
(3) Transported clay.

highest alumina content. The silica content, which is present in part as quartz grains, is higher in the residual clay derived from granodiorite and transported clay. The high content of titania in the residual clays derived from basalt is quite understandable because the parent rock of this clay is the only one containing ilmenite. The weathered ilmenite also is responsible for the higher iron oxide content in the clay.

Bell, Fred G., Engineering Properties of Soils and Rocks, 4th Edition, Blackwell Science, Ltd, 2000 (page 212), accessed 01-19-10 at http://books.google.com.

"The organic content of peat varies appreciably, with the mineral content, from over 95% to as low as 50%. For example, Nichol and Farmer (1998) quoted values of 61-86% for bog peat from North Wales. The organic content provides some indication of how the peat was formed. As far as engineering is concerned, the organic content is important in that it influences the water-holding capacity of organic soils. The mineral content of organic solids varies from some peat deposits which are more or less completely free of mineral matter (dry ash contents as low as 2%) to organic muds which may contain some 10% of organic detritus. Bell (1978) mentioned contents as high as 50% in some peats found on moors in South Yorkshire, England. The mineral material is usually quartz sand and silt. In many peats the mineral content increases with depth."

ATTACHMENT 2. Pre-Application Meeting Agenda

JBR
creating solutions for today's environment

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Boise, Idaho 83714
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Pre-Application Meeting Agenda

Attendees: IDEQ, Summit Seed, JBR

Date: 1/19/10

Time: 10am MST

Project Description

Summit Seed Coatings (Summit) recently became aware of the expiration of their Permit to Construct and Tier II operating permit No. P-2008.0015. The permit expired on July 12, 2009. Summit would like to renew their current air permit and also add some additional coatings to their seed coating process.

Summit has two seed coating lines which treat seeds with a mixture of coating materials such as limestone, gypsum, adhesives and colorants. Summit would like to continue to operate its' seed coating lines in the same manner outlined in the current PTC and Tier II operating permit, with the addition of several new coating materials. Below is a list of the new coating materials proposed and whether those coating materials contain any HAPs or TAPs.

Name of Material	Manufacturer	TAPs or HAPs?	TAP/HAP	Liquid/ Solid
ProGibb 4.0% [a]	Valent BioSciences Corp.	Yes	Isopropanol (96%)	Liquid
PRE-VAIL Pre-Inoculant [b]	INTX Microbials, LLC	Yes	Quartz (small amounts)	Solid
Nitragin Gold Inoculant [b]	EMD Crop BioScience	Yes	Quartz (small amounts)	Solid
PRIMO GX2, N-Dure Peat Inoculant [b]	INTX Microbials, LLC	Yes	Quartz (small amounts)	Solid
SOL 053	Incotec Holding B.V	No		Liquid
Myco Seed Treat	AgriEnergy Resources	No		Solid
Dicalcium Phosphate		No		Solid
Diammonium Phosphate		No		Solid

Emission Inventory

Summit has evaluated the maximum hourly usage for several of the new coatings to determine a lb/hr emission rate for each TAP. The ProGibb 4.0% usage would be approximately 4.4 lbs per year which would be well below the isopropanol screening level of 66.5 lb/hr.

The three new inoculants are alternatives to existing coatings used at Summit. Quartz is listed as a naturally occurring component of the clay and/or peat innoculant base. Below is the estimated quartz emission rate. Summit utilized the same calculation method as in the 2008 PTC application for the new seed coating line.

Name of Material/ TAPs	Max Material Process Rate (lb/hr)	Transfer Efficiency (%)	Wt. Fraction TAP (Quartz)	Baghouse Collection Efficiency (%)	TAP (Quartz) Emissions (lb/hr)	TAP (Quartz) EL (lb/hr)
FRE-VAL Pre-Inoculant [b]	156	95%	0.01	99.9%	0.00008	0.0067
Nitragin Gold Inoculant [b]	156	95%	0.01	99.9%	0.00008	0.0067
PRIMO GX2, N-Dure Peat Inoculant [b]	156	95%	0.01	99.9%	0.00008	0.0067

Summit determined the maximum amount of the innoculant coatings used in an hour; assume 1% quartz, a 95% coating to seed transfer efficiency, and 99.9% control from the baghouse to determine the maximum hourly quartz emission rate. The maximum hourly emission rate is well below the quartz screening level of 0.0067 lb/hr.

Particulate emissions are controlled by three baghouses. Particulate emissions are based on the control efficiency of each baghouse- particulate emissions are not expected to increase since the overall coating throughput will remain unchanged.

APPENDIX C – FACILITY DRAFT COMMENTS

The following comments were received from the facility on June 4, 2010:

Facility Comment: I did notice on page 4 there was a typo in the first sentence it should be gypsum instead of bypsum.

DEQ Response: This typo has been corrected.

APPENDIX D – PROCESSING FEE

PTC Fee Calculation

Instructions:
Fill in the following information and answer the following questions with a Y or N. Enter the emissions increases and decreases for each pollutant in the table.

Company: Summit Seed Coatings
Address: P.O. Box E
City: Caldwell
State: Idaho
Zip Code: 83605
Facility Contact: Stuart Barclay
Title: President
AIRS No.: 027-00092

N Does this facility qualify for a general permit (i.e. concrete batch plant, hot-mix asphalt plant)? Y/N

Y Did this permit require engineering analysis? Y/N

N Is this a PSD permit Y/N (IDAPA 58.01.01.205.04)

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO_X	0.0	0	0.0
SO_2	0.0	0	0.0
CO	0.0	0	0.0
PM10	0.0	0	0.0
VOC	0.0	0	0.0
TAPS/HAPS	0.0	0	0.0
Total:	0.0	0	**0.0**
Fee Due	$ 1,000.00		

Comments:

AIRS/AFS Facility-wide Classification – Data Form

Facility Name: Summit Seed Coatings

Facility Location: Caldwell

Facility ID: 027-00090 **Date:** May 12, 2010

Project/Permit No.: 2010.0034 **Completed By:** Kathleen Hieb

☒ Check if there are no changes to the facility-wide classification resulting from this action. (compare to form with last permit)
Comments:

☐ Yes, this facility is an SM80 source.

Identify the facility's area classification as A (attainment), N (nonattainment), or U (unclassified) for the following pollutants:

	SO2	PM10	VOC
Area Classification:	U	U	U

DO NOT LEAVE ANY BLANK

Check one of the following:

☒ **SIP** [0] - Yes, this facility is subject to SIP requirements. (do not use if facility is Title V)

OR

☐ **Title V** [V] - Yes, this facility is subject to Title V requirements. (If yes, do not also use SIP listed above.)

For SIP or TV, identify the classification (A, SM, B, C, or ND) for the pollutants listed below. Leave box blank if pollutant is not applicable to facility.

	SO2	NOx	CO	PM10	PT (PM)	VOC	THAP
Classification:	B	B	B	SM	SM	B	B

☐ **PSD** [6] - Yes, this facility has a PSD permit.

If yes, identify the pollutant(s) listed below that apply to PSD. Leave box blank if pollutant does not apply to PSD.

	SO2	NOx	CO	PM10	PT (PM)	VOC	THAP
Classification:	☐	☐	☐	☐	☐	☐	☐

☐ **NSR - NAA** [7] - Yes, this facility is subject to NSR nonattainment area (IDAPA 58.01.01.204) requirements.

Note: As of 9/12/08, Idaho has no facility in this category.

If yes, identify the pollutant(s) listed below that apply to NSR-NAA. Leave box blank if pollutant does not apply to NSR - NAA.

	SO2	NOx	CO	PM10	PT (PM)	VOC	THAP
Classification:	☐	☐	☐	☐	☐	☐	☐

☐ **NESHAP** [8] - Yes, this facility is subject to NESHAP (Part 61) requirements. (THAP only)

If yes, what CFR Subpart(s) is applicable?

☐ **NSPS** [9] - Yes, this facility is subject to NSPS (Part 60) requirements.

If yes, what CFR Subpart(s) is applicable?

If yes, identify the pollutant(s) regulated by the subpart(s) listed above. Leave box blank if pollutant does not apply to the NSPS.

	SO2	NOx	CO	PM10	PT (PM)	VOC	THAP
Classification:	☐	☐	☐	☐	☐	☐	☐

☐ **MACT** [M] - Yes, this facility is subject to MACT (Part 63) requirements. (THAP only)

If yes, what CFR Subpart(s) is applicable?