J.R. SIMPLOT COMPANY / P.O. BOX 1270 / AFTON, WYOMING 83110 / (208) 873-3700

AgriBusiness
Smoky Canyon Mine

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JUN 05 2013
DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE AQ PROGRAM

June 5, 2013

Mike Simon
Stationary Source Program Manager
IDEQ – Air Quality Division
1410 N. Hilton
Boise, Idaho 83706

Re: Permit to Construct Application for Pilot Plant Calciner

Dear Mr. Simon,

I am pleased to submit the attached application for a "Permit to Construct" for a calciner pilot plant. In summary, this project involves installing a small-scale calciner on Simplot's Conda Pumping Station property in Caribou County. The calciner will be operated as a pilot project and on a temporary basis to determine whether the concept of calcining certain phosphate rock from the Smoky Canyon Mine is a feasible means of beneficiation. Simplot anticipates that the pilot project will operate for one year or less with a maximum annual processing rate of approximately 2,800 tons.

This application includes the necessary forms and electronic copies of the modeling inputs and emissions calculations. Please feel free to contact Chelly Reesman of our Corporate Environmental Staff (208-389-7558) regarding any questions pertaining to this application.

Sincerely,

Scott Lusty
Mine Manager
J.R. Simplot Company – Smoky Canyon Mine

.cc/without attachments

Jack Burke, RTP Environmental Associates, Inc.
Chelly Reesman, J.R. Simplot Company
John Cunningham, Smoky Canyon Mine

Permit to Construct Application for Pilot Plant Calciner

P.O. Box 1270
Afton, WY 83110

Submitted to:

Air Quality Program Office – Application Processing
Idaho Department of Environmental Quality
1410 N. Hilton
Boise, ID 83706

Prepared by:

RTP Environmental Associates, Inc.
304A West Millbrook Road
Raleigh, NC 27609

June 2013

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1.0 INTRODUCTION AND OVERVIEW

1.1 Existing Facility

J.R. Simplot Company (Simplot) owns and operates a phosphate rock slurry pumping station in Caribou County on property near Conda, Idaho (about 7 miles Northeast of Soda Springs). This pumping station is part of a system that is used for transporting phosphate rock from the Smoky Canyon mine in Southeastern Idaho to Simplot's fertilizer manufacturing operation at the Don Plant located near Pocatello, Idaho. The pumping station is an exempt source of air emissions and currently it does not have an air permit.[1] Caribou County is currently designated as attainment or unclassifiable for $PM_{2.5}$, PM_{10}, SO_2, NO_2, CO, lead, and Ozone (40 CFR 81.313).

1.2 Project Description

Simplot is planning a project to install a small-scale calciner on its Conda Pumping Station property. This calciner will be operated as a pilot project and on a temporary basis to determine whether the concept of calcining certain phosphate rock from the Smoky Canyon mine is a feasible means of beneficiation. Simplot anticipates that the pilot project will operate for one year or less. The maximum design capacity of the pilot calciner system is approximately one ton per hour. Simplot anticipates that the unit could operate 24 hours per day, 7 days per week with a maximum annual processing rate of approximately 2,800 tons. The approximate location of the calciner project is shown in Figure 1-1.

The equipment to be installed and operated at Simplot's Conda site to support the pilot beneficiation project is illustrated in Figure 1-2 and it includes:

- An open receiving/raw rock storage pile;
- A raw rock feed hopper and feed screw conveyor;
- A small-scale calciner that will be equipped with a cyclone for product recovery and a wet scrubber for emissions control. The calciner will be fitted with a 2 MMBtu (maximum heat input) natural gas-fired burner to provide supplemental heat during operation (if needed) as well as to pre-heat the unit at startup; and
- An open product storage bin and/or an open product storage pile.

[1] The only emission sources at the facility are diesel-fueled internal combustion engines that power emergency generators that are used infrequently. This equipment is exempt from permitting pursuant to IDAPA 58.01.01.222.

Figure 1-1. Planned Location of the Conda Pilot Calciner

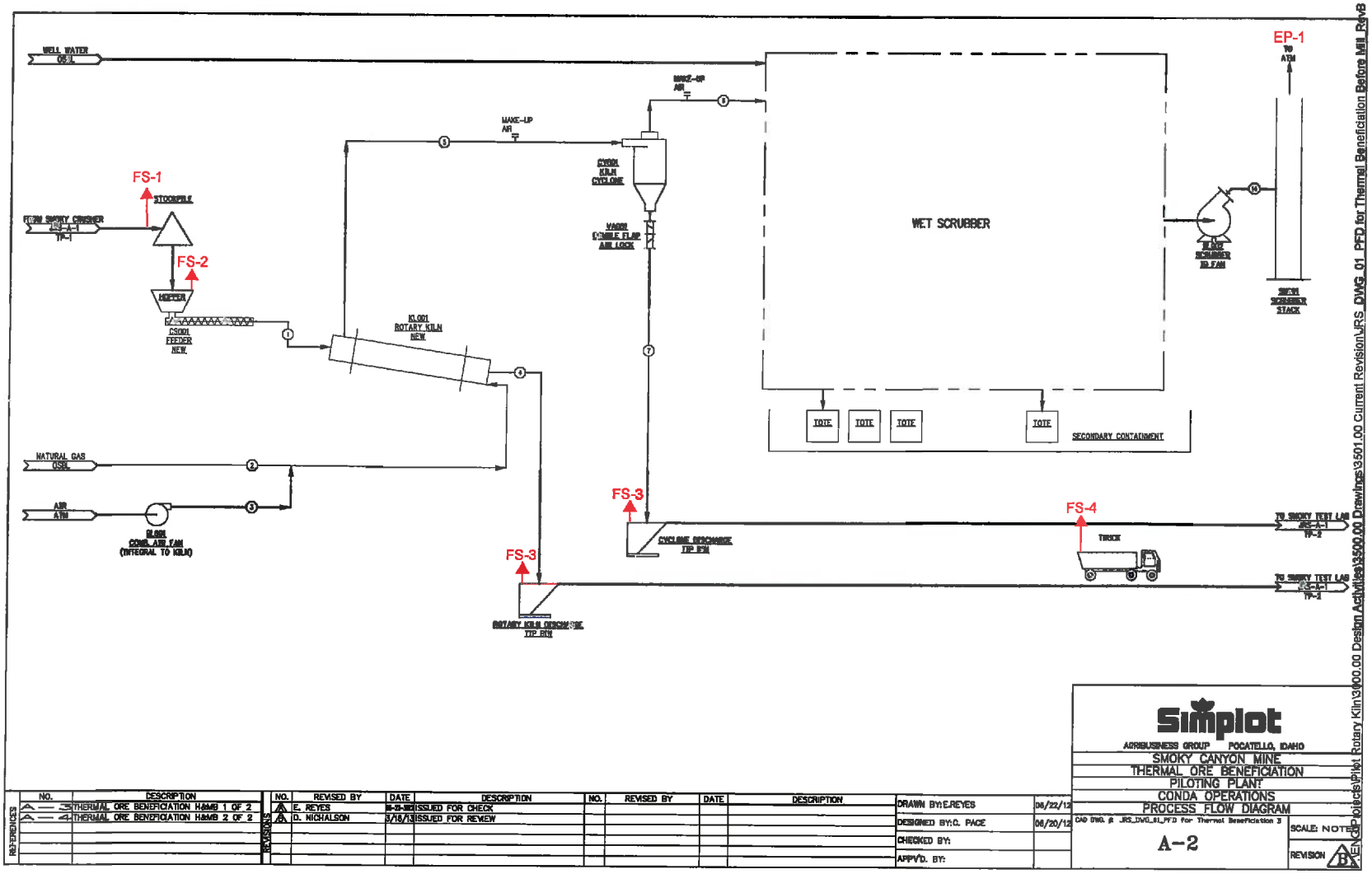

Figure 1-2. Pilot Calciner Process Flow Diagram

Crushed phosphate rock will be transported by truck to the site and unloaded onto a storage pile. A front-end loader will be used to move this crushed rock from the storage pile into a feed hopper. From the hopper, an enclosed screw conveyor will feed the raw phosphate rock into the calciner. The calciner feed system will have a maximum capacity of 1,500 pounds per hour. The maximum quantity of rock processed in a 12-month period will be limited to 2,800 tons.

The rock fed to the calciner will be heated from ambient temperature to temperatures up to about 1,500 °F. Heating volatilizes and oxidizes organic impurities in the rock, thereby increasing the phosphate content. Natural gas will be used to preheat the calciner and provide supplemental heat (if needed).[2] The phosphate rock product will discharge from the kiln into a collection bin. From the bin, the processed rock will either be loaded directly into transport trucks, or it will be dumped on to a concrete pad, allowed to cool, and then loaded into trucks. Product rock will be loaded using a small front-end loader. During the cooling process, the product may be turned over using the front-end loader to facilitate the cooling process.

Exhaust gases from the kiln will first pass through a cyclone collector which serves to recover product and it also acts the first in a series of emissions control devices by collecting particulate entrained in the calciner off-gases. The gases leaving the cyclone will then be scrubbed to reduce particulate, fluoride and SO_2 emissions before being discharged through a 40' tall stack.

Operation of the calciner system will result in emissions of regulated NSR pollutants ,Toxic Air Pollutants (TAPs) regulated under Idaho Air Rules Section 585 and 586, and Hazardous Air Pollutants (HAPs) regulated under §112 of the Clean Air Act. Most of these emissions will discharge through the calciner stack. Some fugitive particulate emissions will also result for transportation, storage, and handling of the raw and calcined phosphate rock. Because the calciner system is considered a phosphate rock processing plant, these fugitive emissions are included in the assessment of the potential emissions from the pilot facility.

1.3 Project Schedule

Simplot anticipates construction on this will commence in June 2013 with operations scheduled to begin in the fall of 2013.

[2] Organic material in the rock will be oxidized in the calciner. Based on preliminary test work, this organic material is expected to provide most, if not all of the heat needed to operate the calciner.

1.4 Permitting History

This is the initial PTC application for the Conda facility. Simplot's current operations are an exempt source of air emissions and do not require an air permit.

1.5 Application Purpose and Content

With this PTC application, Simplot is requesting pre-permit construction approval as well as a permit to construct. The specific requirements for obtaining pre-permit construction approval as described in IDAPA 58.01.01, Section 213 are listed below along with the location of the required information in this PTC application:

- A letter requesting the ability to construct before obtaining the required permit to construct (Attachment A);
- A copy of the notice referenced in Subsection 213.02 (Attachment A);
- Proof of eligibility for pre-permit construction (Section 3);
- A process description(Section 1);
- An equipment list (Section 1);
- Proposed emission limits (Section 3); and
- Modeled ambient concentrations for all regulated air pollutants and toxic air pollutants, such that they demonstrate compliance with all applicable air quality rules and regulations. (Section 4).

The remainder of this permit application is organized as follows:

- Section 2.0 – Technical Analysis
- Section 3.0 – Regulatory Analysis and Proposed Permit Limits
- Section 4.0 – Ambient Air Quality Analysis
- Appendix A – Application Forms and Related Material
- Appendix B – Plot Plan
- Appendix C – Emissions Calculations Documentation
- Appendix D – Air Quality Impacts Related Documentation

2.0 TECHNICAL ANALYSIS

2.1 Emissions Units and Control Equipment

Table 2-1 summarizes the emissions units that will be constructed or operated as part of the pilot calciner project.

Table 2-1. Emissions Unit and Control Equipment Information

Emissions Unit ID No.	Sources	Control Equipment	Emission Point ID No.
PC01	Pilot calciner	Cyclone and Wet Scrubber	EP-01
PC02	Truck unloading	None	FS-01a
PC03	Wind erosion from raw rock storage pile	None	FS-01b
PC04	Feed hopper loading	None	FS-02
PC05	Product rock transfer to storage bin or pile	None	FS-03a
PC06	Wind erosion from product rock storage pile	None	FS-03b
PC07	Truck Loading	None	FS-04
PC07	Haul roads	None	FS-05

2.2 Regulated NSR Pollutant Emissions

Construction and operation of the Conda pilot calciner project will result in emissions of regulated NSR pollutants. Table 2-2 summarizes the potential annual emissions from the calciner as well as emissions from fugitive sources. The emissions estimates shown in Table 2-2 account for limitations on the mass of raw rock that may be processed in a 12-month period as well as the design control efficiencies of the emissions control equipment. Complete details of how these emissions are estimated are found in Appendix C.

Table 2-3 presents estimated short-term emissions of criteria pollutants from the Conda facility. These estimates are based on short-term maximum expected hourly production rates.

2.3 TAP Emissions

Construction and operation of the Conda pilot calciner project will result in emissions of TAPs regulated at IDAPA 58.01.01, §§ 585 and 586. The potential emission rates of these pollutants are summarized below.

2.3.1 § 585 TAP Emissions

A summary of the estimated pilot calciner facility's controlled PTE for emissions of §585 TAP is provided in Table 2-4.[3] As shown, none of the project's PTEs for §585 TAPs exceed the 24-hour average screening ELs identified in IDAPA 58.01.01.585. Therefore, modeling is not required for any §585 TAPs.

2.3.2 § 586 TAP Emissions

A summary of the estimated pilot calciner facility's controlled PTE for emissions of §586 TAPs is provided in Table 2-5.[3] As shown, the project's PTE of two §586 TAPs exceed the annual average screening ELs identified in IDAPA 58.01.01.586. Therefore, ambient impact modeling is required for these §586 TAPs. The required ambient impact modeling is provided in Section 4 of this PTC application.

2.3.3 § 112 HAP Emissions

A summary of the estimated pilot calciner facility's controlled PTE for emissions of §112 HAP is provided in Table 2-6.[3] As shown, the project's PTE of all §112 HAP are below the major source / case-by-case MACT applicability thresholds.

[3] Details of how emissions of TAP/HAP are estimated are provided in Appendix C along with estimates of the uncontrolled PTE of these compounds.

Table 2-2. Simplot Conda Pilot Calciner System Regulated NSR Pollutant Potential Annual Emissions

Source	EU ID	PM_{10} (T/yr)	$PM_{2.5}$ (T/yr)	SO_2 (T/yr)	NOx (T/yr)	CO (T/yr)	VOC (T/yr)	Lead (T/yr)	F (T/yr)	CO_2e (T/yr)	H_2SO_4 (T/yr)
Point Sources											
Calciner Stack	PC01	2.11	1.06	2.27	1.96	0.57	0.09	0.00	0.31	1,717	0.02
Total, Point Sources =		**2.11**	**1.06**	**2.27**	**1.96**	**0.57**	**0.09**	**0.00**	**0.31**	**1,717**	**0.02**
Fugitive Sources											
Truck Unloading	PC02	3.2E-04	4.9E-05	0	0	0	0	0	0	0	0
Raw Rock Storage Pile	PC03	2.0E-02	8.0E-03	0	0	0	0	0	0	0	0
Feed Hopper Loading	PC04	3.2E-04	4.9E-05	0	0	0	0	0	0	0	0
Product Transfer to Storage	PC05	3.1E-03	4.7E-04	0	0	0	0	0	0	0	0
Product Storage Pile	PC06	8.4E-02	3.4E-02	0	0	0	0	0	0	0	0
Truck Loading	PC07	3.1E-03	4.7E-04	0	0	0	0	0	0	0	0
Haul Roads	PC08	2.0E-01	2.0E-02	0	0	0	0	0	0	0	0
Total, Fugitive Sources =		**0.51**	**0.31**	**0.06**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Facility Totals											
Total, Facility PTE =		**2.42**	**1.12**	**2.27**	**1.96**	**0.57**	**0.09**	**0.00**	**0.31**	**1,717**	**0.02**
PSD Major Source Thresholds =		**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100,000**	**100**
PTE >- PSD Thresholds =		**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

* Only short-term modeling thresholds are established for these pollutants; see Table 2-3 for short-term rates. N/A = not applicable modeling thresholds.

Table 2-3. Simplot Conda Pilot Calciner System Regulated NSR Pollutant Short-Term Emission Rates

Source	EU ID	PM_{10} (lb/hr)	$PM_{2.5}$ (lb/hr)	SO_2 (lb/hr)	NOx (lb/hr)	CO (lb/hr)	VOC (lb/hr)	Lead (lb/hr)	F (lb/hr)	CO_2e (lb/hr)	H_2SO_4 (lb/hr)
Point Sources											
Calciner Stack	PC01	1.13	0.57	1.2	1.05	0.3075	0.05	4.8E-06	0.16	920	0.01
Total, Point Sources =		1.13	0.57	1.2	1.05	0.3075	0.05	4.8E-06	0.16	920	0.01
Fugitive Sources											
Truck Unloading	PC02	5.8E-03	8.7E-04	0	0	0	0	0	0	0	0
Raw Rock Storage Pile	PC03	7.2E-03	2.9E-03	0	0	0	0	0	0	0	0
Feed Hopper Loading	PC04	5.8E-03	8.7E-04	0	0	0	0	0	0	0	0
Product Transfer to Storage	PC05	5.5E-02	8.3E-03	0	0	0	0	0	0	0	0
Product Storage Pile	PC06	3.0E-02	1.2E-02	0	0	0	0	0	0	0	0
Truck Loading	PC07	5.5E-02	8.3E-03	0	0	0	0	0	0	0	0
Haul Roads	PC08	1.47E-01	1.47E-02	0	0	0	0	0	0	0	0
Total, Fugitive Sources =		**0.31**	**0.05**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Facility Totals											
Total, Facility PTE =		**1.4**	**0.6**	**1.2**	**1.1**	**0.31**	**0.05**	**4.8E-06**	**0.16**	**920**	**0.01**
Level I Thresholds* =		**3.4**	**0.9**	**0.21**	**0.20**	**15**					
PTE >= Level I =		**NO**	**NO**	**YES**	**YES**	**NO**					
Level II Thresholds* =		**40**	**10.5**	**2.5**	**2.4**	**175**					
PTE >= Level II =		**NO**	**NO**	**NO**	**NO**	**NO**					

* PM10 and PM2.5 Level I and Level II thresholds adjusted per May 20, 2013 letter from Kevin Schilling (IDNR) to John Cunningham (Simplot) providing conditional approval of Simplot's Dispersion Modeling Protocol.

Table 2-4. Simplot Conda Pilot Calciner System §585 TAP Potential Emissions

Pollutant	PTE (T/yr)	Short-Term PTE (lb/hr)	§585 EL (lb/hr)	Above §585 EL?
Dichlorobenzene	4.4E-06	2.4E-06	2.0E+01	NO
Hexane	2.9E-03	1.6E-03	1.2E+01	NO
N_2O	7.3E-04	3.9E-04	6.0E+00	NO
Naphthalene	2.2E-06	1.2E-06	3.3E+00	NO
Toluene	1.2E-05	6.7E-06	2.5E+01	NO
Barium	8.1E-08	4.3E-08	3.3E-02	NO
Cobalt	5.0E-06	2.7E-06	3.3E-03	NO
Copper	1.6E-08	8.3E-09	1.3E-02	NO
Fluorides	3.1E-01	1.6E-01	1.7E-01	NO
Manganese	1.3E-04	6.8E-05	6.7E-02	NO
Molybdenum	2.0E-08	1.1E-08	3.3E-01	NO
Sulfuric Acid	1.7E-07	9.0E-08	6.7E-02	NO
Selenium	5.5E-05	3.0E-05	1.3E-02	NO
Vanadium	4.2E-08	2.3E-08	3.0E-03	NO
Zinc	3.6E-03	1.9E-03	6.7E-01	NO

Table 2-5. Simplot Conda Pilot Calciner System §586 TAP Potential Emissions

Pollutant	PTE (T/yr)	Annual Avg. PTE (lb/hr)	§586 EL (lb/hr)	Above §586 EL?
2-Methylnaphthalene	8.8E-08	2.0E-08	9.1E-05	NO
3-Methylchloranthrene	6.6E-09	1.5E-09	9.1E-05	NO
7,12-Dimethylbenz(a)anthracene	5.9E-08	1.3E-08	9.1E-05	NO
Acenaphthene	6.6E-09	1.5E-09	9.1E-05	NO
Anthracene	8.8E-09	2.0E-09	9.1E-05	NO
Benzene	7.7E-06	1.8E-06	8.0E-04	NO
Benzo(a)pyrene	4.4E-09	1.0E-09	2.0E-06	NO
Benzo(g,h,i)perylene	4.4E-09	1.0E-09	9.1E-05	NO
Fluoranthene	1.1E-08	2.5E-09	9.1E-05	NO
Formaldehyde	2.7E-04	6.3E-05	5.1E-04	NO
Phenanthrene	6.2E-08	1.4E-08	9.1E-05	NO
Pyrene	1.8E-08	4.2E-09	9.1E-05	NO
TOTAL PAH	2.9E-08	6.5E-09	2.0E-06	NO
Arsenic	5.9E-05	1.3E-05	1.5E-06	NO
Beryllium	3.3E-06	7.5E-07	2.8E-05	NO
Cadmium	1.1E-03	2.4E-04	3.7E-06	YES
Chromium (VI)	2.0E-04	4.6E-05	5.6E-07	YES
Nickel	9.4E-05	2.1E-05	2.7E-05	NO

Table 2-6. Simplot Conda Pilot Calciner System §112 HAP Potential Emissions

Pollutant	PTE (T/yr)
2-Methylnaphthalene	8.8E-08
3-Methylchloranthrene	6.6E-09
7,12-Dimethylbenz(a)anthracene	5.9E-08
Acenaphthene	6.6E-09
Anthracene	8.8E-09
Benzo(a)anthracene	6.6E-09
Benzene	7.7E-06
Benzo(a)pyrene	4.4E-09
Benzo(b)fluoranthene	6.6E-09
Benzo(k)fluoranthene	6.6E-09
Chrysene	6.6E-09
Dibenzo(a,h)anthracene	4.4E-09
Dichlorobenzene	4.4E-06
Fluoranthene	1.1E-08
Fluorene	1.0E-08
Formaldehyde	2.7E-04
Hexane	2.9E-03
Indeno(1,2,3-cd)pyrene	6.6E-09
Naphthalene	2.2E-06
Phenanthrene	6.2E-08
Pyrene	1.8E-08
TOTAL PAH	2.9E-08
Toluene	1.2E-05
Arsenic	5.9E-05
Beryllium	3.3E-06
Cadmium	1.1E-03
Chromium (VI)	2.0E-04
Cobalt	5.0E-06
Manganese	1.3E-04
Mercury	1.4E-06
Nickel	9.4E-05
Selenium	5.5E-05
Total §112 HAP =	4.8E-03
Max Single §112 HAP =	2.9E-03

3.0 REGULATORY ANALYSIS

3.1 Attainment Designation (40 CFR 81.313)

Simplot's Conda site is located in Caribou County, which is designated as attainment or unclassifiable for $PM_{2.5}$, PM_{10}, SO_2, NO_2, CO, and Ozone (40 CFR 81.313).

3.2 Facility PSD Classification

Simplot's Conda facility is not a PSD major source because the annual facility-wide potential emissions of all regulated NSR pollutant emissions are below the PSD major source thresholds found at 40 CFR 52.21(b)(1). Construction and operation of the pilot calciner project will not change this classification.

3.3 Permit to Construct (IDAPA 58.01.01.201)

With this PTC application, Simplot is requesting that the Department issue a PTC providing for the construction of the proposed emissions source as described herein. A permit to construct is required in accordance with IDAPA 58.01.01.200 and should be processed in accordance with the procedures of IDAPA 58.01.01.200 through 228. Simplot is also requesting that the Department authorize pre-permit construction in accordance with the provisions of IDAPA 58.01.01.213.

This permit application addresses the requirements of Rule 202 – "Application Procedures" and Rule 203 – "Permit Requirements for New and Modified Stationary Sources" as well as Rule 213 – "Pre-Permit Construction." Ambient air quality standards (i.e., NAAQS and toxic air pollutants) are addressed in Section 4.

All applicable PTC requirements are addressed in Table 3-2. Table 3-2 also addresses application fees. IDAPA 58.01.01.224 and 225 specify PTC application and processing fees. In accordance with Section 224, Simplot has paid the $1,000 PTC application fee on line (see receipt in Appendix A). According to Rule 225, an additional PTC processing fee may be assessed by the Department.

Table 3-2. PTC Requirements Summary and Application Cross-Reference

Section	Description	Applicable?	Application Cross-Reference and/or Discussion
200	Procedures and Requirements for Permits to Construct	Yes	This section contains no specific applicable requirements.
201	Permit to Construct Required	Yes	This PTC application is intended to fulfill the requirements of Section 201. With this PTC, Simplot is requesting Department approval for pre-permit construction in accordance with the requirements of Section 213.
202	Application Procedures	Yes	See 202.01 – 202.03 below:
202.01.a	Required Information	Yes	Sections 1 – 4 and Appendices A – D.
202.02	Estimates of Ambient Concentrations	Yes	Section 4 and Appendix D.
202.03	Additional Information	Yes	No specific requirements at this time.
203	Permit Requirements for New and Modified Stationary Sources	Yes	See 203.01 – 203.03 below:
203.01	Emission Standards	Yes	Section 3 and Appendix A.
203.02	NAAQS	Yes	Section 4.
203.03	Toxic Air Pollutants	Yes	Section 4.
204	Permit Requirements for New Major Facilities or Major Modifications in Nonattainment Areas	No	The Conda site is located in an area classified as attainment or unclassifiable for all criteria pollutants. Additionally, the planned project is not a major source.
205	Permit Requirements for New Major Facilities or Major Modifications in Attainment or Unclassifiable Areas	No	As described in Section 2.2, the Conda pilot calciner project does not constitute construction of a major source.
206	Optional Offsets for Permits to Construct	No	No offsets are needed.
207	Requirements for Emission Reduction Credit	No	No emission reduction credits are needed.
208	Demonstration of Net Air Quality Benefit	No	No emissions trades are needed.
209	Procedures for Issuing Permits	Yes	See 209.01 – 209.05 below:
209.01	General Procedures	Yes	IDEQ responsibility.
209.02a	Provisions for Public Notice	Yes	IDEQ responsibility.
209.02b	Class I Area Visibility Impacts	No	No pollutants that affect visibility are subject to PSD review as part of this project.
209.03	Establishing a Good Engineering Stack Height	No	IDEQ responsibility; see Section 4 for a Simplot's GEP stack height analysis.
209.04	Revisions of Permits to Construct	No	Simplot is requesting a new PTC for the planned changes and not a revision.

Table 3-2. PTC Requirements Summary and Application Cross-Reference

Section	Description	Applicable?	Application Cross-Reference and/or Discussion
209.05	Permit to Construct Procedures for Tier I Sources	No	The Conda site is not currently and it will not be a Tier I source following completion of the planned project.
210	Demonstration of Preconstruction Compliance with Toxic Standards	Yes	Several TAP will be emitted at rates in excess of the ELs established in §§ 585 and/or 586. The ambient air quality modeling results provided in Section 4 of this PTC application demonstrate that the impacts will be less than the relevant AAC values found in §§ 585 and/or 586. Note that since the pilot facility will be operated for less than 5 years, the §586 EL and AAC values are adjusted upward by a factor of 10 as provided for in §210.15.
211	Conditions for Permits to Construct	Yes	See 211.01 – 211.04 below:
211.01	Reasonable Conditions	Yes	IDEQ responsibility; see Section 3.11 for proposed permit conditions. Simplot will ensure the pilot unit has appropriate stack testing facilities and monitoring equipment in place.
211.02	Cancellation	Yes	IDEQ responsibility. Note that Simplot anticipates pre-permit construction approval.
211.03	Notification to the Department	Yes	Simplot will notify the Department in a timely manner consistent with the requirements of this Subsection.
211.04	Performance Test	Yes	Simplot will conduct any required performance tests in a timely manner consistent with the requirements of this Subsection.
212	Obligation to Comply	Yes	See 212.01 – 212.02 below:
212.01	Responsibility to Comply with All Requirements	Yes	Simplot will comply with all applicable requirements as required by this section.
212.02	Relaxation of Standards or Restriction	No	The planned changes do not involve relaxation of any synthetic minor restriction and thus, this section is not applicable.
213	Pre-Permit Construction	Yes	See 213.01 – 213.02 below:
213.01	Pre-Permit Construction Eligibility	Yes	Simplot has complied with the eligibility requirements as outlined in Section 213 – see below for additional details.

Table 3-2. PTC Requirements Summary and Application Cross-Reference

Section	Description	Applicable?	Application Cross-Reference and/or Discussion
213.01a	Apply for a PTC	Yes	This permit application includes all of the required elements to meet this eligibility criterion.
213.01b	Consult with Department Representatives	Yes	A pre-application meeting with the Department was held on March 28, 2013 and Department representatives were consulted regarding the eligibility of the Conda pilot calciner project for pre-permit construction.
213.01c	Pre-permit Construction Approval Application	Yes	The required elements of the pre-permit construction approval application are found in the following places in this PTC application: • Request Letter – Appendix A • Copy of Notice – Appendix A • Proof of Eligibility – Entire Application • Process Description – Section 1.2 • Equipment List – Section 1.2 • Proposed Limits – Section 3.11 • Modeled Impacts – Section 4 • Approved Protocol – Appendix D
213.01d	Proposed Restrictions	Yes	Simplot's proposed permit limits and certification of thereof are found in Section 3.11 of this PTC application.
213.02	Permit to Construct Procedures	Yes	See 213.02a – 213.02d below:
213.02a	Informational Meeting	Yes	Simplot has scheduled an informational meeting in accordance with the requirements of Subsection 213.02a. This meeting will be held at the following location: **Place:** Soda Springs City Hall 9 West 2nd South Soda Springs, ID 83276 **Date:** June 6, 2013 **Time:** 5:00 – 7:00 pm
213.02b	Pre-permit Construction Approval	Yes	Department Responsibility.
213.02c	At-risk Construction	Yes	Simplot intends to begin at-risk construction of this project upon receipt of Department pre-permit construction approval.
213.02d	Incompleteness Determination or Denial	Yes	Department Responsibility.

Table 3-2. PTC Requirements Summary and Application Cross-Reference

Section	Description	Applicable?	Application Cross-Reference and/or Discussion
214	Demonstration of Preconstruction Compliance for New and Reconstructed Sources of Hazardous Air Pollutants	No	The Conda pilot calciner project does not involve construction or reconstruction of a major source of HAPs.
215	Mercury Emission Standard for New or Modified Sources	No	The Conda pilot calciner PTE of mercury is estimated to be less than 0.01 lb/year which is below the 25 lb/year applicability threshold for this rule.
220 - 223	Exemptions	No	The planned changes when taken as a whole constitute a non-exempt modification.
224	Permit to Construct Application Fee	Yes	Section 3.3; Simplot has paid the application fee of $1,000 on-line.
225	Permit to Construct Processing Fee	Yes	Section 3.3; Simplot will pay the applicable fee upon assessment by the Department.
226	Payment of Fees for Permits to Construct	Yes	Section 3.3; Simplot has paid the application fee of $1,000 on-line.
227	Receipt and Usage of Fees	Yes	IDEQ Responsibility
228	Appeals	Yes	Generally applicable to all applications including this one.

3.4 Tier II Operating Permit Procedures and Requirements (IDAPA 58.01.01.400)

Per discussion with IDEQ, the procedures of IDAPA 58.01.01.400 – 410 are not applicable to this permitting action.

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

Both pre- and post-project potential emissions from this facility are below the major facility thresholds as defined at IDAPA 58.01.01.008.10.

3.6 PSD Classification (40 CFR 52.21)

The Conda facility is not a major stationary source as defined in 40 CFR 52.21(b)(1). This section defines a major stationary source as:

> *Any of the following stationary sources of air pollutants which emits, or has the potential to emit, 100 tons per year or more of any regulated NSR pollutant: Fossil fuel-fired steam*

electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), kraft pulp mills, Portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants (with thermal dryers), primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants (which does not include ethanol production facilities that produce ethanol by natural fermentation included in NAICS codes 325193 or 312140), fossil-fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants, and charcoal production plants, or

Notwithstanding the stationary source size specified in paragraph (b)(1)(i) of this section, any stationary source which emits, or has the potential to emit, 250 tons per year or more of a regulated NSR pollutant; or

Any physical change that would occur at a stationary source not otherwise qualifying under paragraph (b)(1) of this section, as a major stationary source, if the changes would constitute a major stationary source by itself.

The Conda pilot calciner project constitutes construction of one of the facilities designated (i.e., a phosphate rock processing plant) but the project does not have facility-wide potential emissions of any regulated NSR pollutant that exceeds 100 T/yr.[4] As a consequence, the construction of this facility is not subject to any requirements under the PSD regulation.

3.7 State Emissions Standards

Certain general and specific emissions standards found at IDAPA 58.01.01 are potentially applicable to the Conda pilot calciner project. The applicability of such standards is reviewed in this subsection.

[4] GHGs are not a regulated NSR pollutant because the facility PTE of GHGs (CO_2e) is less than100,000 T/yr.

3.7.1 Standards for Fuel Burning Equipment

IDAPA 58.01.01 contains certain standards for fuel burning equipment. Fuel burning equipment is defined at §006.45 as "any furnace, boiler, apparatus, stack and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer." The Conda pilot calciner will burn natural gas when needed to supplement the energy input to the calciner, but the heat transfer will be through direct contact between the combustion gases and the phosphate rock. Therefore, the pilot calciner is not fuel burning equipment and any standards applicable to fuel burning equipment are not applicable to the pilot calciner.

3.7.2 Visible Emissions

Section 625 establishes general visible emissions standards for point sources. For non-exempt sources, these standards limit visible emission to 20% opacity except for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period. This standard is applicable to emissions from the Conda pilot calciner stack.

3.7.3 Fugitive Dust

Sections 650 – 651 establish general rules for control of fugitive dust emissions and these rules are applicable to the Conda facility. In particular, §651 requires that sources take all reasonable precautions shall be taken to prevent particulate matter from becoming airborne. The determination of what are considered "reasonable precautions" is dependent on the site and situation. Simplot intends to comply with the requirements of this rule in managing fugitive dust emissions at the Conda facility.

3.7.4 Particulate Matter Emissions

Section 703 contains a general limitation on process particulate emissions (process weight rate rule) and this rule is applicable to the Conda pilot calciner. For the planned calciner, this limit is 3.38 lb/hr (at the maximum processing rate of 1,500 lb/hr). The maximum rate of controlled emissions from the calciner will be about 15% of this value. Please see Section 3.11 for Simplot's proposed particulate matter emission limits.

3.7.5 Fluoride Emissions

Sections 750 – 751 establish rules for control of fluoride emissions from certain operations. These requirements are limited to operations at phosphate fertilizer plants. Simplot's Conda facility is not currently a phosphate fertilizer plant nor will it be following construction of the pilot calciner system. Accordingly the requirements of Sections 750 – 751 are not applicable to

the Conda facility. Fluoride emissions are also regulated as a §585 TAP. The potential controlled emissions of fluoride from the pilot calciner are below the screening emissions levels (ELs) established in §585.

3.7.6 Non-Metallic Mineral Processing Plant Emissions

Section 790 establishes rules to limit emissions from non-metallic mineral processing plants. A non-metallic mineral processing plant is defined in Section 011 as any combination of equipment that is used to crush or grind any nonmetallic mineral or rock. The current Conda facility does not include such equipment and the Conda pilot calciner system will not include any such equipment. Therefore, the requirements of this rule are not applicable to the Conda facility.

3.8 NSPS Applicability (40 CFR 60)

The pilot calciner system meets the definition of a phosphate rock plant and a calciner is one of the affected facilities as designated in 40 CFR 60, Subpart NN - Standards of Performance for Phosphate Rock Plants. However provisions of this standard apply only to affected facilities in phosphate rock plants that have a maximum plant production capacity greater 4 tons per hour. Thus, the requirements of Subpart NN do not apply to the planned calciner system because its maximum design capacity is physically limited to less than ton per hour. This finding is consistent with the intent of the provisions of the NSPS applicability criteria which was specifically established to avoid its applicability to pilot-scale operations.[5]

3.9 National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

The federal NESHAP regulations are codified at 40 CFR Part 61 (area source standards) and 40 CFR 63 (NESHAP for source categories or MACT standards). Idaho has been delegated the authority to administer the federal NESHAP program.

3.9.1 Area Source NESHAPs (40 CFR 61)

Part 61 NESHAPs apply to certain pollutants and/or area source types in accordance with the applicability criteria in individual subparts. Following construction of the pilot calciner system, the Conda facility will not subject to any requirements pursuant to 40 CFR 61 since it does not include any of the pollutants or area source types regulated under the part 61 NESHAPs.

[5] See, for example, *Phosphate Rock Plants – Background Information for Promulgated Standards (EPA-450/3-79-01 7b)*, U.S. EPA, OAQPS, Research Triangle Park, NC, , April 1982, p. 1-2.

One area source NESHAP, Subpart K, applies to calciners at elemental phosphorus plants (*i.e.*, any facility that processes phosphate rock to produce elemental phosphorus). The Conda pilot calciner is not subject to this rule since the intended product of the calciner and the facility is beneficiated phosphate rock, not elemental phosphorus.

Another area source NESHAP, Subpart R, applies to radon Emissions from phosphogypsum stacks. No phosphogypsum will be produced, stored, or managed at the Conda site. Thus, this regulation is not applicable to the Conda pilot calciner project.

3.9.2 MACT Applicability (40 CFR 63)

Part 63 NESHAPs apply to existing, new or reconstructed affected sources at major sources of HAP emissions in accordance with the applicability criteria specified in individual subparts. The Conda site is not a major source of HAP emissions and it is not subject to any of the source-specific MACT standards in 40 CFR Part 63.

One source category NESHAP, Subpart AA, applies to calciners at phosphoric acid manufacturing plants that are located at major sources of hazardous air pollutants. The Conda pilot calciner is not subject to this rule since the facility is neither a phosphoric acid manufacturing plant nor a major source of hazardous air pollutants.

3.10 Compliance Assurance Monitoring (CAM) Applicability (40 CFR 64)

The federal CAM requirements codified in 40 CFR Part 64 are incorporated by reference at IDAPA 58.01.01.107.03.j. CAM requirements only apply to certain emissions sources at Tier I facilities. There are no CAM requirements applicable to the Conda facility because the facility is not, nor will it be, a Tier I source.

3.11 Requested Permit Limits

Simplot is requesting certain specific operating parameter limits for the Conda pilot calciner system. The purpose of these limits is to make the emissions rates on which the regulatory applicability analysis presented in Sections 3.2 through 3.10 enforceable. In particular, limits are being proposed to ensure that emissions of regulated NSR pollutants are below the major source thresholds.

3.11.1 Proposed Limits

The specific limits along with proposed monitoring requirements to demonstrate compliance with these limits, is provided in Table 3-4.

Table 3-4. Proposed Pilot Calciner System Operating Limits

Source Description	EU ID	Pollutant(s)	Requested Limit(s)	Compliance Monitoring
Pilot Calciner	PC01	PM/PM10/PM2.5	Scrubber operational at all times the calciner is in operation. Scrubber operated in accordance with good air pollution control practice.	Scrubber operations log.
		SO_2		
		Fluorides		
Pilot Facility	-	All	2,800 T/yr maximum processing rate. 12-month rolling total.	Daily records of material processed.
			1,500 lb/hr maximum processing rate. Daily average.	

3.11.2 Certification of Compliance

In order to obtain the Department's approval for pre-permit construction, IDAPA 58.01.01.213.d requires that Simplot certify, certify in accordance with Section 123, that it will comply with the restrictions listed in Table 3-4, including any applicable monitoring and reporting requirements. Section 123 requires a certification by a responsible official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

In regards to the proposed limits in Table 3-4, I hereby certify that through the design and operation of the pilot calciner system, I expect to comply with these limits and with any applicable monitoring and reporting requirements.

NAME _____ TITLE _____ DATE _____

4.0 Ambient Air Quality Modeling

4.1 Introduction

J. R. Simplot Company (Simplot) is planning a project to install a small-scale calciner on Simplot property near the town of Conda in Caribou County, Idaho. This calciner will be operated as a pilot project and on a temporary basis to determine whether the concept of calcining certain phosphate rock from the Smoky Canyon mine is a feasible means of beneficiation. Simplot anticipates that the pilot project will operate for one year or less.

The construction will result in emissions of regulated NSR pollutants as well as Toxic Air Pollutants (TAP) regulated under Idaho Air Rules Section 585 and 586. An air quality dispersion modeling analysis was conducted to determine the potential impacts due to emissions from the proposed facility.

The analysis conformed with the modeling procedures outlined in the IDEQ's Guideline for Performing Air Quality Impact Analysis[6], the Environmental Protection Agency's Guideline on Air Quality Models[7] and associated EPA modeling policy and guidance including by not limited to the New Source Review Workshop Manual (Draft)[8]. The procedures employed in the analysis were reviewed and approved by the Idaho Department of Environmental Quality (DEQ) prior to completion.

4.2 Site Description

The Simplot facility facility will occupy approximately 30 acres and is located approximately 7 km northeast of Soda Springs in Caribou County. The approximate Universal Transmercator (UTM) coordinates of the facility are 456,777 meters east and 4,730,954 meters north (UTM Zone 12, NAD 83). Figure 4-1 shows the general location of the facility. Figure 4-2 shows the specific facility location on a 7.5 minute USGS topographic map.

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[6] State of Idaho Guideline for Performing Air Quality Impact Analyses, Department of Environmental Quality, July 2011.

[7] Guidelines on Air Quality Models, (Revised). EPA-450/2-78-027R, Appendix W of 40 CFR Part 51, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina. November 2005.

[8] New Source Review Workshop Manual (Draft), U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina, October 1990.

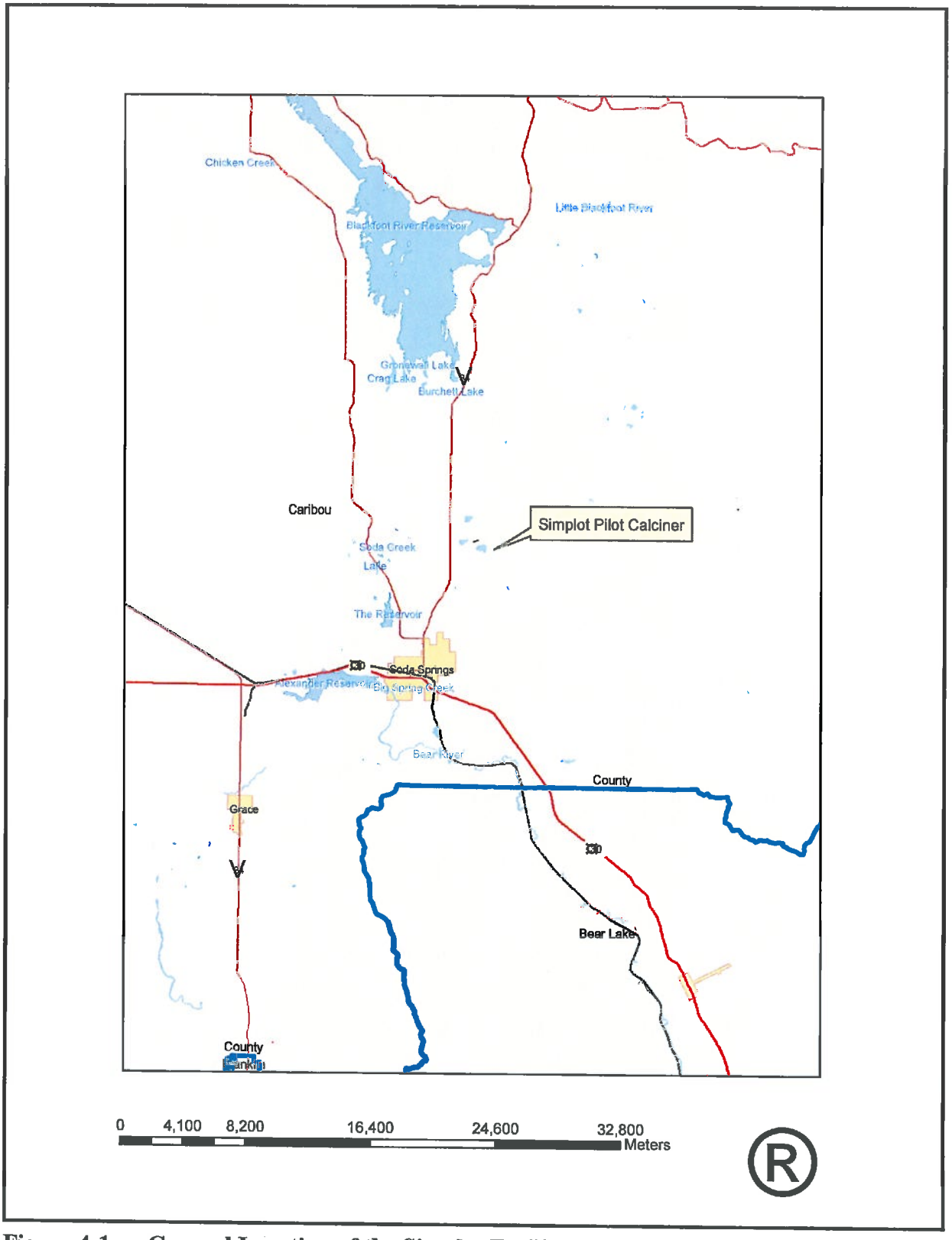


Figure 4-1. General Location of the Simplot Facility

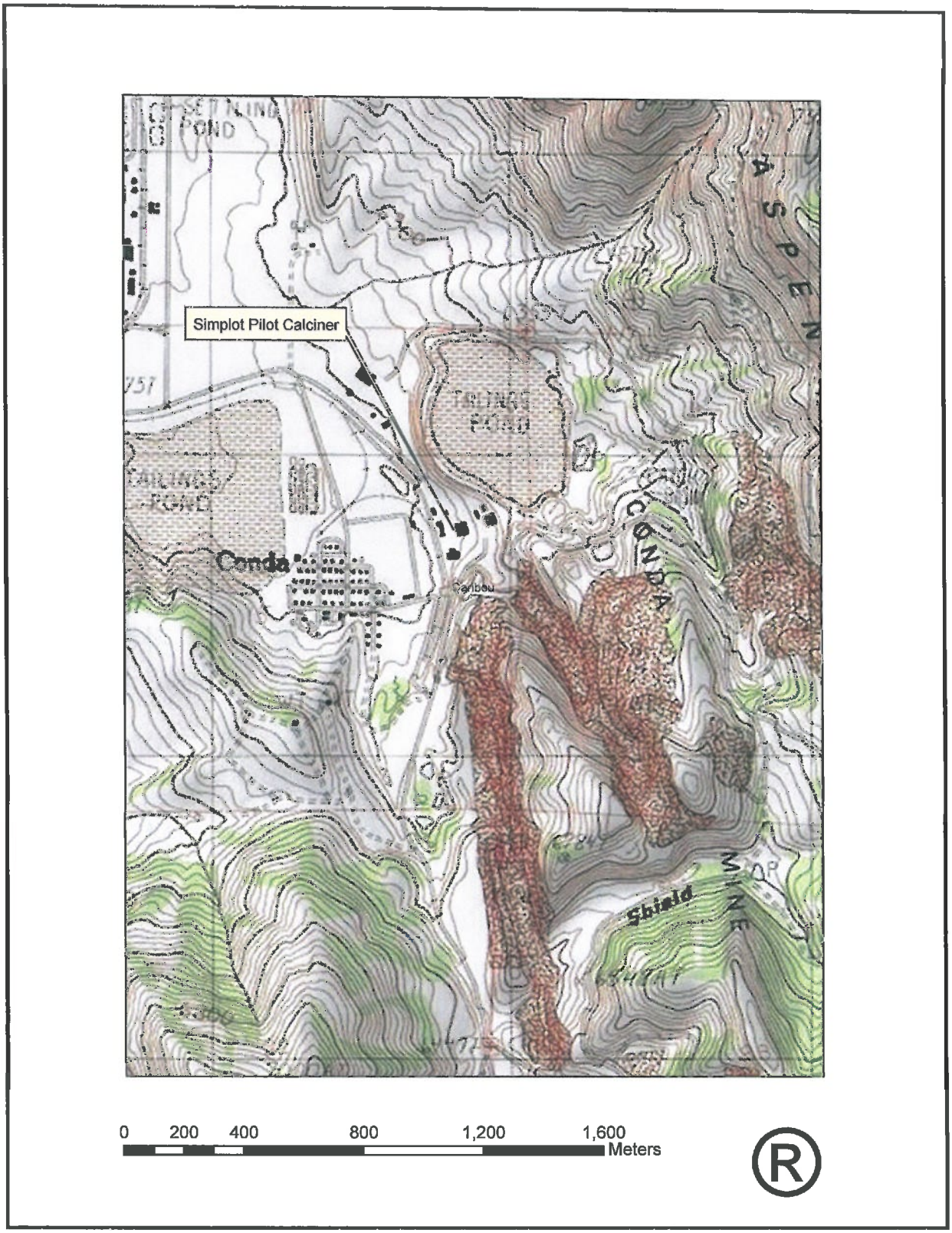


Figure 4-2. Specific Location of the Simplot Facility

The facility will be classified under the regulations governing Prevention of Significant Deterioration (40 CFR 52.21) and Title V (40 CFR 70.2) as a minor source of air pollution. Caribou County is designated as attainment or unclassifiable for PM2.5, PM10, SO_2, NO_2, CO, lead, and ozone (40 CFR 81.313).

4.3 Model Selection

The latest version of the AMS/EPA Regulatory Model (AERMOD, Version 12345) was used to conduct the analysis. AERMOD is a Gaussian plume dispersion model that is based on planetary boundary layer principals for characterizing atmospheric stability. The model evaluates the non-Gaussian vertical behavior of plumes during convective conditions with the probability density function and the superposition of several Gaussian plumes. AERMOD is a modeling system with three components: AERMAP is the terrain preprocessor program, AERMET is the meteorological data preprocessor, and AERMOD includes the dispersion modeling algorithms.

AERMOD is the most appropriate model for calculating ambient concentrations near the Simplot facility based on the model's ability to incorporate multiple sources and source types. The model accounts for convective updrafts and downdrafts and meteorological data throughout the plume depth. The model also provides parameters required for use with up to date planetary boundary layer parameterization. Finally, the model has the ability to incorporate building wake effects and to calculate concentrations within the cavity recirculation zone. It is also the model recommended for such studies by the DEQ. All model options will be selected as recommended in the EPA Guidelines on Air Quality Models.

Oris Solution's BEEST graphical user interface (GUI) was used to run AERMOD. The GUI does not alter the AERMOD code or the dispersion calculations of the AERMOD program. The GUI therefore does not affect the regulatory status of AERMOD.

4.4 Model Control Options and Land Use

AERMOD was run in the regulatory default mode with rural dispersion coefficients. The selection of the appropriate dispersion coefficients in the model is dependent on the land use within three kilometers of the facility. The land use typing scheme of Auer was used to determine the proper land use classification near the Simplot site.[9] It was determined that the

[9] Auer, Jr., A.H. "Correlation of Land Use and Cover with Meteorological Anomalies." Journal of Applied Meteorology, 17:636-643, 1978.

land use in the vicinity of Simplot is predominantly rural. Therefore, AERMOD will not be run in the urban mode.

4.5 Model Input Data

4.5.1 Source Characterization

Only one emission source was evaluated, the proposed new calciner. The calciner was modeled as a point source in AERMOD. The release parameters are shown in Table 4-1. A unitized (*i.e.*, 1 lb/hr) emission rate was modeled for the calciner and TAP ambient impacts were scaled based upon the individual TAP potential controlled emission rates. The source location was based upon a NAD83, UTM Zone 12 projection.

Table 4-1. Simplot Calciner Model Input Data

Source ID	Source Description	Easting (X) (m)	Northing (Y) (m)	Base Elevation (ft)	Stack Height (ft)	Temp. (°F)	Exit Velocity (ft/sec)	Stack Diameter (ft)
PC01	Pilot Calciner	456,787.82	4,730,955.79	6227	40	120	59.4	0.5

4.5.2 Good Engineering Practice Stack Height Analysis

A Good Engineering Practice (GEP) stack height evaluation was conducted. Procedures used were in accordance with those described in the EPA Guidelines for Determination of Good Engineering Practice Stack Height (Technical Support Document for the Stack Height Regulations-Revised)[10]. GEP formula stack height, as defined in 40 CFR 51, is expressed as GEP = H_b + 1.5L, where H_b is the building height and L is the lesser of the building height or maximum projected width. Building/structure locations were determined from facility site plans. The structure locations and heights were input to the EPA's Building Profile Input Program (BPIP-PRIME) computer program to calculate the direction-specific building dimensions needed for AERMOD. The preliminary Simplot facility site plan is shown in Figure 4-3.

[10] *Guideline for Determination of Good Engineering Practice Stack Height (Technical Support Document for Stack Height Regulations (Revised).* EPA-450/4-80-023R, U.S. Environmental Protection Agency, June 1985.

4.5.3 Receptors

Modeled receptors were placed in all areas considered as "ambient air" pursuant to 40 CFR 50.1(e). Ambient air is defined as that portion of the atmosphere, external to buildings, to which the general public has access.

Approximately 6,800 receptors were used in the AERMOD analysis. The receptor grid consisted of three Cartesian grids. Since there is no fence to preclude public access, receptors were placed within the Simplot facility confines.[11] The first Cartesian grid extended to approximately 500 meters in all directions. Receptors in this region are spaced at 50 meter intervals. The second grid extended to 2.5 km. Receptor spacing in this region is 100 meters. The third grid extended to 7.5 km with a receptor spacing of 250 meters. The receptor grid was designed such that maximum facility impacts fall within the 50 meter spacing of receptors. The receptor grid spacing is presented in Table 4-2. Once the locations of the maximum impacts were identified, a very dense grid of receptors (10 meters) was placed around the location of maximum impact to ensure that the maximum concentration was identified.

Table 4-2. Proposed Receptor Grid Spacing

Receptor Spacing (m)	Distance from Facility (m)
50	500
100	2,500
250	7,500

The Simplot facility will be located in southeastern Idaho. Terrain within 5km of the site is mountainous with terrain elevations exceeding 7,000 feet (nearly 800 feet above the Simplot calciner stack base elevation). Receptor elevations and hill height scale factors were calculated with AERMAP (11103) for each receptor location. The elevation data were obtained from the USGS 1 arc second National Elevation Data (NED) obtained from the USGS. Locations were based upon a NAD83, UTM Zone 12 projection. The near-field receptor grid is presented in Figure 4-4.

[11] This approach is highly conservative because the general public does not have ready access to the Simplot property.

Figure 4-3. Preliminary Simplot Facility Plot Plan

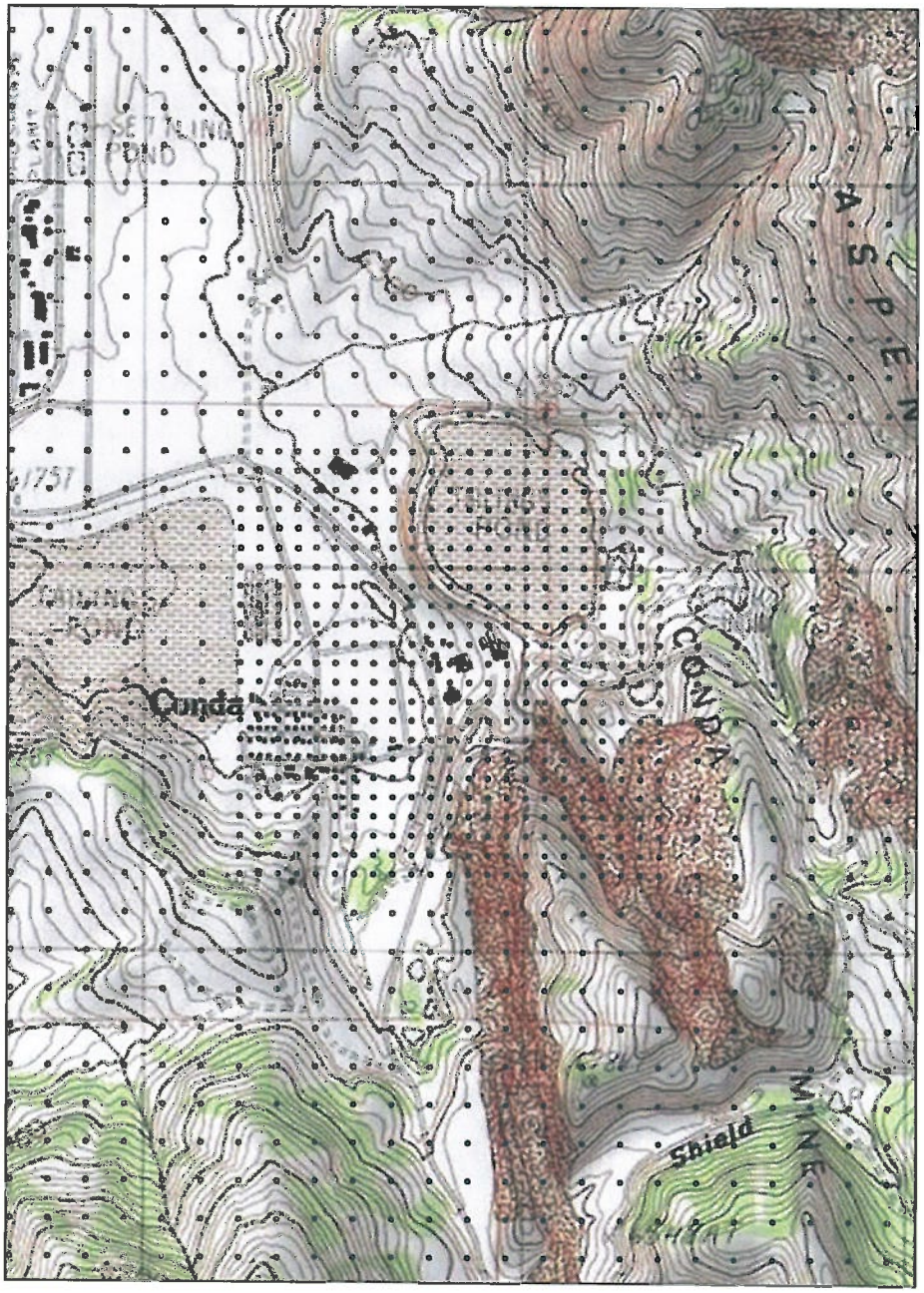


Figure 4-4. Simplot Near-field Receptor Grid

4.5.4 Meteorological Data

The DEQ provided a five year, model-ready meteorological dataset (2004-2008) with surface data from Soda Springs and upper air data from Boise. These data are reasonably representative of the Simplot site. The data provided by the DEQ were processed using AERMET version 06341. The AERMET surface headers were changed to version 12345 to allow AERMOD to execute. The five-year windrose is presented in Figure 4-5.

4.6 Model Results

Potential annual and hourly emissions of NOx and SO_2 are above the Level I modeling thresholds but below the Level II modeling thresholds. The Department has determined that the specific circumstances of the Conda pilot calciner system and its location are such that ambient impact modeling is not required for these pollutants.[12] Potential hourly and annual emissions of other criteria pollutants (i.e., PM10, PM2.5, CO and lead) are below the Level I modeling thresholds, and as such, impact modeling is not required for these pollutants.

Potential hourly emissions of all Section 585 TAPs are below the screening levels, and therefore ambient impacts were not determined. Several Section 586 TAPs will be emitted at rates exceeding the screening levels. Therefore, compliance with the applicable TAP ambient impacts of IDAPA 58.01.01, Section 586 (AACCs) was assessed for these pollutants. The results of the analysis are presented in Table 4-3. As shown, the modeled ambient impacts from the pilot calciner are below the applicable TAP increments. Computer generated modeling results files as well as all model and BPIP input files can be found on the attached CD.

Table 4-3. Predicted §586 TAP Ambient Impacts vs. AACC Levels

Pollutant	Calciner Average PTE (lb/hr)	Ambient Impact[a] ($\mu g/m^3$)	AACC[b] ($\mu g/m^3$)	Impact ÷ AACC
Cadmium	2.41E-04	3.72E-03	5.60E-03	66%
Chromium (VI)	4.61E-05	7.10E-04	8.30E-04	86%

a. Calcualted value = [Annual Average PTE (lb/hr)] x [Unit Impact of 15.4067 ($\mu g/m^3$)/(lb/hr)]

b. §586 AACC adjusted by the short term source factor of 10 pursuant to the provisions of §210.15.

[12] See June 3rd, 2013 email from Mr. Kevin Schilling, IDEQ, to Jack Burke, RTP Environmental Associates in Appendix D.

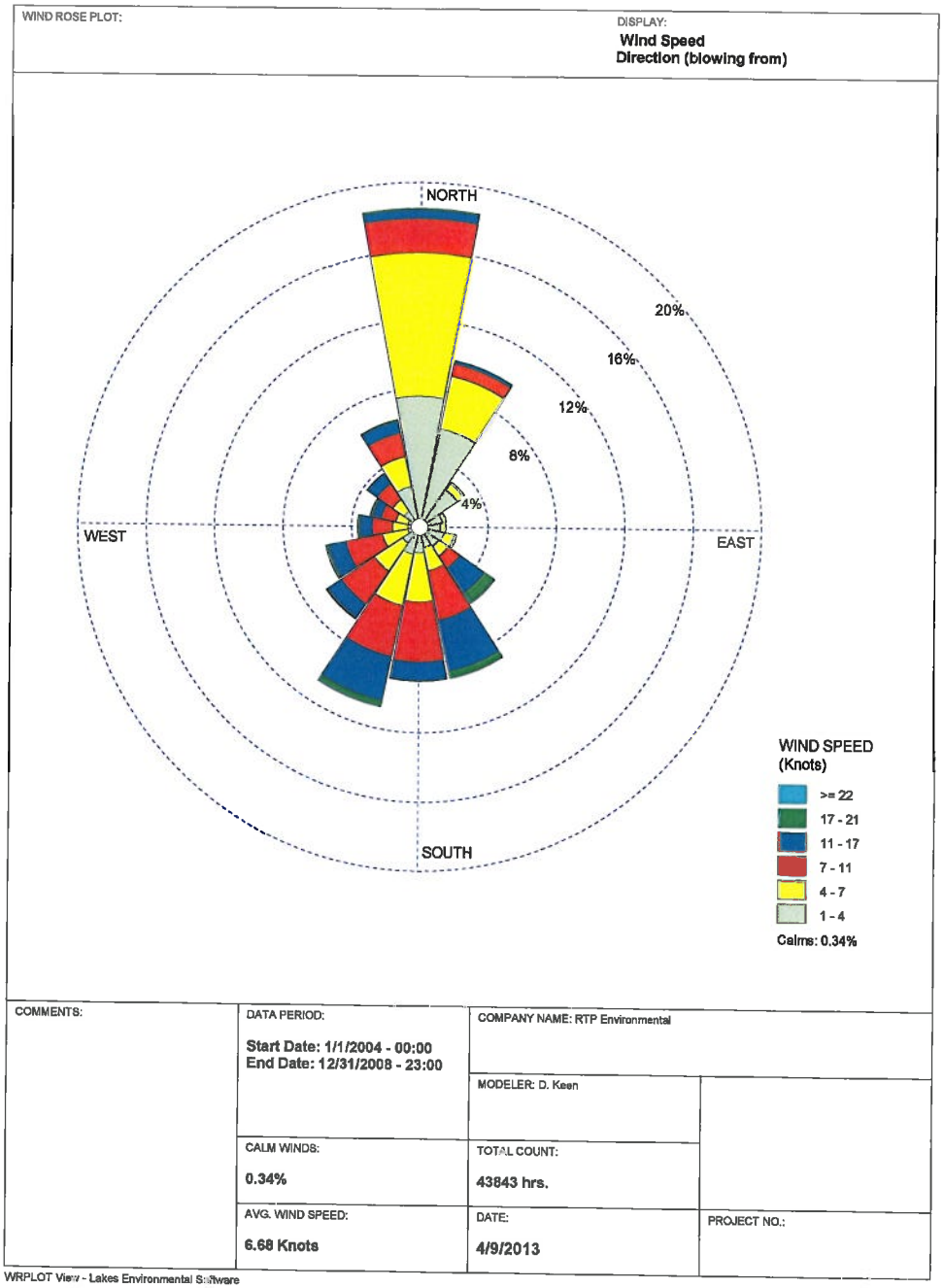


Figure 4-5. Soda Springs 2004-2008 Windrose

APPENDIX A

Application Forms
Required Certifications
Request for Pre-Permit Construction Approval
Proof of Fee Payment
Copy of Public Notice

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

Cover Sheet for Air Permit Application – Permit to Construct **Form CSPTC**

Please see instructions on page 2 before filling out the form.

COMPANY NAME, FACILITY NAME, AND FACILITY ID NUMBER		
1. Company Name	J. R. Simplot Company	
2. Facility Name	Conda Pump Station	3. Facility ID No.
4. Brief Project Description - One sentence or less	Install and operate pilot-scale phosphate rock calciner.	

PERMIT APPLICATION TYPE

5. ☒ New Source ☐ New Source at Existing Facility ☐ PTC for a Tier I Source Processed Pursuant to IDAPA 58.01.01.209.05.c
☐ Unpermitted Existing Source ☐ Facility Emissions Cap ☐ Modify Existing Source: Permit No.:____ Date Issued:____
☐ Required by Enforcement Action: Case No.:____

6. ☒ Minor PTC ☐ Major PTC

FORMS INCLUDED

Included	N/A	Forms		DEQ Verify
☒	☐	Form CSPTC – Cover Sheet		☐
☒	☐	Form GI – Facility Information		☐
☒	☐	Form EU0 – Emissions Units General		☐
☐	☒	Form EU1– Industrial Engine Information	Please specify number of EU1s attached: ____	☐
☐	☒	Form EU2– Nonmetallic Mineral Processing Plants	Please specify number of EU2s attached: ____	☐
☐	☒	Form EU3– Spray Paint Booth Information	Please specify number of EU3s attached: ____	☐
☐	☒	Form EU4– Cooling Tower Information	Please specify number of EU3s attached: ____	☐
☐	☒	Form EU5 – Boiler Information	Please specify number of EU4s attached: ____	☐
☐	☒	Form CBP– Concrete Batch Plant	Please specify number of CBPs attached: ____	☐
☐	☒	Form HMAP – Hot Mix Asphalt Plant	Please specify number of HMAPs attached: ____	☐
☐	☒	PERF – Portable Equipment Relocation Form		☐
☐	☒	Form AO – Afterburner/Oxidizer		☐
☐	☒	Form CA – Carbon Adsorber		☐
☒	☐	Form CYS – Cyclone Separator		☐
☐	☒	Form ESP – Electrostatic Precipitator		☐
☐	☒	Form BCE– Baghouses Control Equipment		☐
☒	☐	Form SCE– Scrubbers Control Equipment		☐
☐	☒	Form VSCE – Venturi Scrubber Control Equipment		☐
☐	☒	Form CAM – Compliance Assurance Monitoring		☐
☒	☐	Forms EI— Emissions Inventory ***(See Section 2 and Appendix C of PTC Application)***		☐
☒	☐	PP – Plot Plan ***(See Appendix B of PTC Application)***		☐
☒	☐	Forms MI1 – MI4 – Modeling ***(See Section 4 and Appendix D of PTC Application)***		☐
☒	☐	Form FRA – Federal Regulation Applicability ***(See Section 3 of PTC Application)***		☐

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline: 1-877-5PERMIT

General Information Form GI
Revision 7
6/29/12

Please see instructions on back page before filling out the form. All information is required. If information is missing, the application will not be processed.

Identification

1. Facility name: J.R. Simplot Company Conda Pump Station

2. Existing facility identification number:

☒ **Check if new facility (not yet operating)**

3. Brief project description: Install temporary pilot calciner at existing facility (which is not now a permitted source).

Facility Information

4. Primary facility permitting contact name: Scott C. Lusty
Contact type: Responsible official
Telephone number: (208) 873-3700 x3713
E-mail: Scott.lusty@simplot.com

5. Alternate facility permitting contact name: John Cunningham
Alternate contact type: Facility permitting contact
Telephone number: 208-873-3720
E-mail: john.cunninghame@simplot.com

6. Mailing address where permit will be sent (street/city/county/state/zip code): PO Box 1270, Afton, WY 83110

7. Physical address of permitted facility (if different than mailing address) (street/city/county/state/zip code): 3064 Conda Rd, Soda Springs, Idaho 83276-5301

8. Is the equipment portable? ☐ **Yes*** ☒ **No** ***If yes, complete and attach PERF; see instructions.**

9. NAICS codes: Primary NAICS: 21239 **Secondary NAICS**:

10. Brief business description and principal product produced: Pilot plant will be used to beneficiate phosphate rock.

11. Identify any adjacent or contiguous facility this company owns and/or operates: None.

12. Specify type of application

☒ **Permit to construct (PTC); application fee of $1,000 required. See instructions.**

☐ **Tier I permit** ☐ **Tier II permit** ☒ **Tier II/Permit to construct**

For Tier I permitted facilities only: If you are applying for a PTC then you must also specify how the PTC will be incorporated into the Tier I permit.

☐ **Co-process Tier I modification and PTC** ☐ **Incorporate PTC at the time of Tier I renewal** ☐ **Administratively amend the Tier I permit to incorporate the PTC upon applicant's request (IDAPA 58.01.01.209.05.a, b, or c)**

Certification

In accordance with IDAPA 58.01.01.123 (Rules for the Control of Air Pollution in Idaho), I certify based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

13. Responsible official's name: Scott C. Lusty **Official's title**: Mill Manager
Official's address: PO Box 1270, Afton, WY 83110
Telephone number: (208) 873-3700 x3713 **E-mail**: Scott.lusty@simplot.com
Official's signature: Scott C Lusty **Date**: 6/5/2013

☒ **14. Check here to indicate that you want to review the draft permit before final issuance.**

Department of Environmental Quality
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline - 1-877-5PERMIT

15- Day Pre-Permit Construction Approval Application Completeness Checklist

This checklist is designed to aid the applicant in submitting a complete pre-permit construction approval application. This checklist should be completed and submitted with the pre-permit construction approval application.

I. Actions Needed Before Submitting Application

☒ Refer to the Rule. Read the Pre-Permit Construction requirements contained in IDAPA 58.01.01.213, Rules for the Control of Air Pollution in Idaho.

☒ Refer to DEQ's Pre-Permit Construction Approval Guidance Document. DEQ has developed a guidance document to aid applicants in submitting a complete pre-permit construction approval application. The guidance document is located on DEQ's website (go to http://www.deq.idaho.gov/air/permits_forms/permitting/ptc_prepermit_guidance.pdf

☒ Consult with DEQ Representatives. Schedule a pre-application meeting with DEQ to discuss application requirements before submitting the pre-permit construction approval application. Schedule the meeting by contacting the DEQ Air Permit Hotline at **877-5PERMIT**. The meeting can be in person or on the phone. Refer to IDAPA 58.01.01.213.01b.

☒ Schedule Informational Meeting. Schedule an informational meeting before submitting the pre-permit construction approval application for the purposes of satisfying IDAPA 58.01.01.213.02.a. The purpose for the informational meeting is to provide information about the proposed project to the general public. Refer to IDAPA 58.01.01.213.01.c.

☒ Submit Ambient Air Quality Modeling Protocol. It is required that an ambient air quality modeling protocol be submitted to DEQ at least two (2) weeks before the pre-permit construction approval application is submitted. Contact DEQ's Air Quality Hotline at **877-5PERMIT** for information about the protocol.

☒ Written DEQ Approved Protocol. Written DEQ approval of the modeling protocol must be received before the pre-permit construction approval application is submitted. Refer to IDAPA 58.01.01.213.01.c.

II. Application Content

Application content should be prepared using the checklist below. The checklist is based on the requirements contained in IDAPA 58.01.01.213 and DEQ's Pre-Permit Construction Approval Guidance Document.

☒ Pre-Permit Construction Eligibility and Proof of Eligibility. Pre-permit construction approval is not available for any new Prevention of Significant Deterioration (PSD) major source, any proposed PSD major modification, or any proposed major NSR project in a non-attainment area. Emissions netting and emissions offsets are not allowed to be used. A certified proof of pre-permit construction eligibility must be submitted with the pre-permit construction approval application. Refer to IDAPA 58.01.01.213.01.

☒ Request to Construct Before Obtaining a Permit to Construct. A letter requesting the ability to construct before obtaining the required permit to construct must be submitted with the pre-permit construction approval application. Refer to IDAPA 58.01.01.213.01.c.

☒ Apply for a Permit to Construct. Submit a Permit to Construct application using forms available on DEQ's website at http://www.deq.idaho.gov. Refer to IDAPA 58.01.01.213.01.a.

☒ Permit to Construct Application Fee. The permit to construct application fee of $1000 must be submitted at the time the original pre-permit construction approval application is submitted. Refer to IDAPA 58.01.01.224. If the pre-permit construction approval is denied and a new application is submitted, a new $1,000 application fee will be required to be submitted. The application fee is not transferable or refundable. The application fee can be paid by check, credit card or Electronic Funds Transfer (EFT). If you choose to pay by credit card or EFT, please refer to the following Access Idaho link:
https://www.accessidaho.org/secure/deq/payport/item.html?id=511
If you choose to pay by check, enclose the check with your pre-permit construction approval application.

☐ Notice of Informational Meeting. Within 10 days after the submittal of the pre-permit construction approval application, an informational meeting must be held in at least one location in the region where the stationary source will be located. The information meeting must be made known by notice published at least 10 days before the informational meeting in a newspaper of general circulation in the county in which the stationary source will be located. A copy of this notice, as published, must be submitted with the pre-permit construction approval application. Refer to IDAPA 58.01.01.213.02.a. Additional information regarding the informational meeting is included in DEQ's Pre-Permit Construction Approval Guidance Document. (go to http://www.deq.idaho.gov/air/permits_forms/permitting/ptc_prepermit_guidance.pdf)

☒ Process Description(s). The process or processes for which pre-permit construction approval is requested must be described in sufficient detail and clarity such that a member of the general public not familiar with air quality can clearly understand the proposed project. A process flow diagram is required for each process for which pre-permit construction approval is requested. Refer to IDAPA 58.01.01.213.01.c.

☒ Equipment List. All equipment that will be used for which pre-permit construction approval is requested must be described in detail. Such description includes, but is not limited to, manufacturer, model number or other descriptor, serial number, maximum process rate, proposed process rate, maximum heat input capacity, stack height, stack diameter, stack gas flowrate, stack gas temperature, etc. All equipment that will be used for which pre-permit construction approval is requested must be clearly labeled on the process flow diagram. Refer to IDAPA 58.01.01.213.01.c.

☐ Scaled Plot Plan. It is required a scaled plot plan be included in the permit to construct application and it must clearly label the location of each proposed process and the equipment that will be used in the process.

☒ Proposed Emissions Limits and Modeled Ambient Concentration for All Regulated Air Pollutants. All proposed emission limits and modeled ambient concentrations for all regulated air pollutants must demonstrate compliance with all applicable air quality rules and regulations. Regulated air pollutants include criteria air pollutants (PM_{10}, SO_x, NO_2, O_3, CO, lead), toxic air pollutants listed pursuant to IDAPA 58.01.01.585 and 586, and hazardous air pollutants listed pursuant to Section 112 of the 1990 Clean Air Act Amendments (go to http://www.epa.gov/ttn/atw/188polls.html). Describe in detail how the proposed emissions limits and modeled ambient concentrations demonstrate compliance with each applicable air quality rule and regulation. It is requested that emissions calculations, assumptions, and documentation be submitted with sufficient detail so DEQ can verify the validity of the emissions estimates. Refer to IDAPA 58.01.01.213.01.c.

☒ Restrictions on a Source's Potential to Emit. Any proposed restriction on a source's potential to emit such that permitted emissions will be either below major source levels or below a significant increase must be described in detail in the pre-permit construction approval application. Refer to IDAPA 58.01.01.213.01.d.

☒ List all Applicable Air Quality Rules and Regulations. All applicable rules and regulations must be cited by the rule or regulation section/subpart that applies for each emissions unit. Refer to IDAPA 58.01.01.213.01.c.

☒ Certification of Pre-Permit Construction Approval Application. The pre-permit construction approval application must be signed by the Responsible Official and must contain a certification signed by the Responsible Official. The certification must state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Refer to IDAPA 58.01.01.213.01.d and IDAPA 58.01.01.123.

☒ Submit the Pre-Construction Approval Application. Submit the pre-permit construction approval application and application fee to the following address:

Department of Environmental Quality
Air Quality Division
Stationary Source Program
1410 North Hilton
Boise, ID 83706-1255

Department of Environmental Quality - Air Quality Division
Toxic Air Pollutant (TAP) Preconstruction Compliance Application Completeness Checklist

This checklist is designed to aid the applicant in submitting a complete preconstruction compliance demonstration for toxic air pollutants (TAPs) in permit to construct applications. The applicant must place a check mark in the box for each section below that applies.

I. Actions Needed Before Submitting Application

☒ Refer to the Rule. Read the Demonstration of Preconstruction Compliance with Toxic Standards contained in IDAPA 58.01.01.210 (Rules Section 210) Rules for the Control of Air Pollution in Idaho (Rules). Toxic air pollutants (TAPs) are regulated in accordance with Rules Section 210 only from emission units constructed or modified on or after July 1, 1995.

Determine if a new (constructed after June 30, 1995) emission unit has the potential to emit a TAP listed in IDAPA 58.01.01.585 (Rules Section 585) or IDAPA 58.0101.586 (Rules Section 586). Potential toxic air pollutants can be determined by reviewing commonly available emission factors, such as EPA's AP-42, or calculating emissions using a mass balance. For TAPs that are emitted but not listed in Rules Section 585 and 586, contact the Air Permit Hotline at 877-5PERMIT.

Determine if the proposed construction or modification is exempt from the need to obtain a permit to construct in accordance with IDAPA 58.01.01.220-223. Use the Exemption Criteria and Reporting Requirements for TAPs IDAPA 58.01.01.223 checklist to assist you in the exemption determination. If the source does not qualify for an exemption in accordance with IDAPA 58.01.01.220-223 complete the following checklist and submit it with the permit application. Please note that fugitive TAP emissions are not included in the IDAPA 58.01.01.223 exemption determination, but fugitive TAP emissions are included in the analysis if a permit is required. Stated another way: if a source is required to obtain a Permit to Construct because it does not meet the exemption criteria for any reason all TAP emissions, including fugitive TAPs, are included in the compliance demonstration in the application for the permit to construct. Should you have any questions regarding the fact that all TAPs, including fugitive TAPs, are included in the TAP preconstruction compliance demonstration submitted with a permit to construct application you may call the Air Permit Hotline at 877-5PERMIT.

Will the new or modified source result in new or increased potential emissions of TAPs?

☒ Yes. If yes, continue to section II.

☐ No. If no, no further action is required.

II. Application Content

If a new source has the potential to emit a TAP, or if a modification to an existing source increases the potential to emit of a TAP, then one of the following methods (A-J) of demonstrating TAP preconstruction compliance must be documented for each TAP. Standard methods are one of A-C. The applicant may also use one of the specialized methods in D-J. Fugitive TAP emissions shall be included in the analysis. The compliance methods are based on the requirements of Rules Section 210. Applicants are often able to demonstrate preconstruction TAP compliance using a combination of methods A and B.

Emission Calculations

Emissions calculation methodologies used are dependent on whether a specific TAP is a non-carcinogen or a carcinogen and whether the compliance method chosen from the list below calls

for controlled or uncontrolled emissions. Non-carcinogens are regulated based on a 24-hour averaging period and emission rates used for comparison to the non-carcinogen screening emissions level (EL) should be the maximum controlled or uncontrolled emissions quantity during any 24-hour period divided by 24. Carcinogens are regulated as a long term increment and emission rates used for comparison to the carcinogen EL should be the maximum controlled or uncontrolled emissions quantity during any 1 year period divided by 8760.

Modeling Analyses

Atmospheric dispersion modeling is required when controlled TAP emissions rates exceed ELs. Modeling analyses should be conducted in accordance with IDAPA 58.01.01.210.03. Quantification of Ambient Concentrations and the State of Idaho Air Quality Modeling Guideline (http;//www.deq.idaho.gov/air/data_reports/publications.cfm#model). For non-carcinogen 24-hour increments, compliance is demonstrated using the maximum modeled 24-hour-averaged concentration from available meteorological data (typically a five-year data set). For carcinogen long-term increments, compliance is demonstrated using the maximum modeled average concentration for the duration of the data set (one-year to five-year data set).

A submitted modeling report should clearly specify modeled emissions rates and results. All electronic model input files should be submitted, including BPIP input files.

Poly aromatic Hydrocarbons

Questions often arise regarding polyaromatic hydrocarbons as they are listed in Rules Section 586 of the Rules. The following two points are provided for clarification.

1) The following group of 7 PAH's (i.e. named POM), shall be combined and considered as one TAP equivalent in potency to benzo(a)pyrene:

   Benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a, h) anthrancene, chrysene, indeno(1,2,3,-cd) pyrene, benzo (a) pyrene

2) All other PAH's are considered as a single pollutant and the emission of each is compared the PAH increment listed in Rules Section 586.

Compliance Methods

Fill in letter(s) (A-J) from the list below for TAP compliance demonstration method(s) used: _____.

A. TAPs Compliance Using Uncontrolled Emissions (Rules Section 210.05)

☒ Calculate the uncontrolled emissions (Rules Section 210.05) of each TAP from new emissions units. Uncontrolled emission rates are emissions at maximum capacity without the effect of physical or operational limitations. See Quantification of Emission Rates (Rules Section 210.02). Show calculations and state all assumptions.

☐ Calculate the increase of TAP emissions from modified emissions units. Show calculations and state all assumptions. The increase in emissions for a modified emission unit is determined by subtracting the potential to emit the TAP before the modification from the uncontrolled potential to emit after the modification. In conducting this analysis please note the following for TAP emission rate increase determinations:

Uncontrolled emission rates after the modification are emissions at maximum capacity without the effect of physical or operational limitations.

When determining the emissions increase from existing permitted emissions units the emission rate before the modification is equivalent to the emission limits contained in the permit for the

TAPs or, if there no emission limits in the permit, by determining what the emission rate is under the physical or operational limitations contained in the permit.

☒ Aggregate the uncontrolled emissions for each TAP from all new emissions units with the increase in emissions from all modified emissions units.

☐ If the aggregated emissions increase for each TAP from the new and modified units, as determined above, are less than or equal to the respective TAP screening emissions level (EL) then preconstruction compliance with toxic standards has been demonstrated and no further analysis is required. Submit a table comparing the uncontrolled emissions rate to the applicable EL.

If aggregated emissions are greater than the respective screening emissions level (EL) for any pollutants, use another compliance demonstration method for those pollutants, such as methods B, C, or D.

B. TAP Compliance Using Uncontrolled Ambient Concentration (Rules Section 210.06)

☐ Determine the uncontrolled emissions of each TAP from new emission units and the increase in emissions from all modified emissions units as described above in compliance Method A. Show calculations and state all assumptions.

☐ Model the uncontrolled emissions of each TAP from new emissions units and the increase in emissions from all modified emissions units.

☐ If the uncontrolled ambient concentration is less than or equal to the acceptable ambient concentration increment listed in Rules Section 585 and 586 no further procedures for demonstrating preconstruction compliance will be required for that TAP as part of the application process. Submit a table comparing uncontrolled ambient concentrations to the applicable acceptable ambient concentration.

C. TAP Compliance Using Controlled Ambient Concentrations (Rules Section 210.08)

☒ Determine the controlled emissions from new emissions units and the controlled emission increase from modified emissions units. Show all calculations and state all assumptions, including the control methods.

☒ Model the controlled emissions of each TAP from new emissions units and the increase in controlled emissions from all modified emissions units.

TAP emissions levels (EL) included in Rules Section 585 and 586 are derived based on generic modeling. If the sum the of emissions from new and modified sources is below the EL compliance is demonstrated without the need to conduct site-specific dispersion modeling.

☒ If the controlled ambient concentration from emission increases from new emissions units and modified emissions units is less than the applicable acceptable ambient concentration no further procedures for demonstrating preconstruction compliance are required.

☒ The Department shall include an emission limit for the TAP in the permit to construct that is equal to or, if requested by the applicant, less than the emission rate that was used in the modeling (Rules Section 210.08.c).

In some instances the Department may consider a throughput limit or other inherently-limiting operational restriction in a permit as an effective emission limit for the TAP, rather than including a specific emission rate limit.. Note that the applicant may model uncontrolled emissions as described in compliance Method B in an attempt to avoid TAPs emissions limitations.

D. TAPs Compliance for NSPS and NESHAP Sources (Rules Section 210.20)

☐ If the owner or operator demonstrates that the TAP emissions from the source or modification is regulated by 40 CFR Part 60, 40 CFR Part 61 or 40 CFR Part 63, no further procedures for demonstrating preconstruction compliance will be required for that TAP.

☐ Provide a demonstration that the TAP is regulated under 40 CFR Part 60, 40 CFR Part 61 or 40 CFR Part 63. This demonstration must be specific for each TAP emitted.

E. TAP Compliance Using Net Emissions (Rules Section 210.09)

An applicant may use TAP net emissions to show preconstruction compliance; however this analysis may require more work than some of the others procedures available to demonstrate preconstruction compliance. When netting, all emissions increases and decreases of the TAP that have occurred within five years must be included in the analysis as described below.

☐ Determine the net emission increase for a TAP. A net emissions increase shall be an emission increase from a particular modification plus any other increase and decreases in actual emissions at the facility that are creditable and contemporaneous with particular modification (Rules Section 210.09). Show all calculations and state all assumptions.

☐ A creditable increase or decrease in actual emissions is contemporaneous with a particular modification if it occurs within five (5) years of the commencement of the construction or modification (Rules Section 210.09.a).

Actual emissions are (Rules Section 006.03):

- ☐ In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a two year period which precedes the particular date and which is representative of normal source operation. The Department shall allow the use of a different time period upon a determination that it is more representative of normal source operation. Actual emissions shall be calculated using the unit's actual operating hours, productions rates, and types of materials processed, stored, or combusted during the selected time period.

- ☐ The Department may presume that the source-specific allowable emissions for the unit are equivalent to actual emissions of the unit.

- ☐ For any emission unit (except electric utility steam generating units) that has not begun normal operations on the particular date, actual emissions shall equal the potential to emit of the unit on that date.

☐ Do not include emissions increases from emission units that have an uncontrolled emission rate that is 10% or less than the applicable screening emission level (EL) in Rules Section 585 and 586 (Rules Section 007.09.c.ii) and do not include emission increases from environmental remediation sources (Rules Section 007.09.c.iii). Show all calculations and state all assumptions.

☐ If the net emission increase is less than or equal to the applicable screening emissions level (EL) listed in Rules Section 585 and 586, no further procedures for demonstrating preconstruction compliance will be required (Rules Section 210.09.c).

☐ The Department shall include emission limits and other permit terms for the TAP in the permit to construct that will assure that the facility will be operated in the manner described in the preconstruction compliance demonstration (Rules Section 210.09.d).

In some instances the Department may consider a throughput limit or other inherently-limiting operational restriction in a permit as an effective emission limit for the TAP. rather than including a specific emission rate limit..

F. TAP Compliance Using Net Ambient Concentration (Rules Section 210.10)

☐ Determine the emission increase from the new source or modification, and all other creditable emission increases and decrease using the methods described above in compliance Method E.

☐ Model the emissions increases and decreases for each TAP. Modeling TAP decreases is accomplished by using negative valued emissions rates in the model input.

☐ If the net ambient concentration is less than or equal to the applicable ambient concentration increment listed in Rules Section 585 and 586, no further procedures for demonstrating preconstruction compliance are required.

☐ The Department shall include emission limits and other permit terms for the TAP in the permit to construct that will assure that the facility will be operated in the manner described in the preconstruction compliance demonstration (Rules Section 210.10.d).

In some instances the Department may consider a throughput limit or other inherently-limiting operational restriction in a permit as an effective emission limit for the TAP, rather than including a specific emission rate limit..

G. TAP Compliance Using T-RACT Ambient Concentration for Carcinogens (Rules Section 210.12)

The applicant may use T-RACT to demonstrate preconstruction compliance for TAPs listed in Rules Section 586 only.

T-RACT is an emissions standard based on the lowest emission of TAPs that a particular source is capable of meeting by application of control technology that is reasonably available, as determined by the Department, considering technological and economic feasibility. If control technology is not feasible, the emission standard may be based on the application of a design, equipment, work practice or operational requirement, or combination thereof (Rules Section 007.16).

T-RACT Submittal Requirements

☐ The applicant shall submit the following information to the Department identifying and documenting which control technologies or other requirements the applicant believes to be T-RACT (Rules Section 210.14).

The technical feasibility of a control technology or other requirements for a particular source shall be determined considering several factors including but not limited to:

☐ Process and operating procedures, raw materials and physical plant layout.

☐ The environmental impacts caused by the control technology that can not be mitigated, including but not limited to, water pollution and the production of solid wastes.

☐ The energy requirements of the control technology.

The economic feasibility of a control technology or other requirement, including the costs of necessary mitigation measures, for a particular source shall be determined considering several factors including, but not limited to:

☐ Capital costs.

☐ Cost effectiveness, which is the annualized cost of the control technology divided by the amount of emission reduction.

☐ The difference in costs between the particular source and other similar sources, if any, that have implemented emissions reductions.

☐ Compare the source's or modification's approved T-RACT ambient concentration to the applicable acceptable ambient concentration increment listed in Rules Section 586 multiplied by a factor of 10. If the sources approved T-RACT concentration is less than or equal to 10 times the applicable acceptable ambient concentration increment listed in Rules Section 586, no further procedures for demonstrating preconstruction compliance will be required.

☐ If an application is submitted to the Department without T-RACT and determined complete, and T-RACT is later determined to be applicable the completeness determination of the application will be revoked until a supplemental application is submitted and determined complete. When the supplemental application is determined complete, the timeline for agency action shall be reinitiated (Rules Section 210.13.b).

☐ If the Department determines that the source has proposed T-RACT, the Department shall develop emission standards to be incorporated into a permit to construct.

In some instances, the Department may consider a throughput limit or other inherently limiting operational restriction in a permit as an effective emission limit for the TAP, rather than including a specific emission rate limit..

H. TAP Compliance Using the Short Term Source Factor (Rules Section 210.15)

☒ For short term sources, the applicant may utilize a short term adjustment factor of ten (10) only for a carcinogenic pollutant listed in Rules Section 586. For a carcinogen listed in Rules Section 586 multiply either the applicable acceptable ambient concentration increment or the screening emission rate (EL), but not both, by ten (10) to demonstrate preconstruction compliance (Rules Section 210.15).

☒ A short term source is any new stationary source or modification to an existing source, with an operational life no greater than five (5) years from the inception of any operations to cessation of actual operations (Rules Section 210.15).

I. TAP Compliance for Environmental Remediation Sources (Rules Section 210.16)

☐ For remediation sources subject to or regulated by the Resource Conservation and Recovery Act and the Idaho Rules and Standard for Hazardous Waste, or the comprehensive Environmental Response, Compensation and Liability Act or a consent order, if the estimated ambient concentration is greater than the acceptable ambient impact increment listed in Rules Section 585 and 586, Best Available Control Technology shall be applied and operated until the estimated uncontrolled emission from the remediation source are below the applicable acceptable ambient concentration increment (Rules Section 210.16).

J. TAP Compliance Using Offset Ambient Concentration (Rules Section 210.11)

☐ Contact the Department prior to proposing to utilize Offset Ambient Concentrations to demonstrate preconstruction compliance.

☐ Emission offsets must satisfy the requirements for emission reduction credits (Rules Section 460).

- The proposed level of allowable emissions must be less than the actual emissions of the emissions units providing the offsets (Rules Section 460.01).
- An air quality permit must be issued that restricts the potential to emit of the emission unit providing the offset.
- Emission reduction imposed by local, state or federal regulations or permits shall not be allowed.

☐ Compare the source's or modifications approved emission offset ambient concentration to the applicable acceptable ambient concentration listed in Rules Section 585 and 586. If the source's or modifications approved offset concentration is less than the acceptable ambient concentration listed in Rules Section 585 and 586, no further procedures for demonstrating preconstruction compliance will be required.

☐ The Department shall include emission limits and other permit terms for the TAP in the permit to construct that will assure that the facility will be operated in the manner described in the preconstruction compliance demonstration (Rules Section 210.10.d).

Department of Environmental Quality

Dispersion Modeling Protocol Checklist

The following should be discussed in a dispersion modeling protocol:

1)	General project description.	X
2)	Describe the general modeling approach used. If the analyses include multiple operational scenarios, these should be thoroughly described.	X
3)	Thoroughly describe the area where the project will be located, including the attainment status for all criteria pollutants.	X
4)	Modeling applicability. Discuss how it will be determined what emissions sources and pollutants to include in the modeling analyses.	X
5)	Describe the model proposed for the analyses, including the version number.	X
6)	List the meteorological data proposed for the project and describe how those data are representative for the application site.	X
7)	List the source of terrain data used in the modeling analyses. If terrain affects are not proposed for the analyses, a justification for this should be provided.	X
8)	Provide a facility plot plan with emissions sources and buildings clearly identified, if available.	X
9)	Describe the modeling domain and the receptor network used. Suggested receptor spacing provided in the Idaho Air Modeling Guideline are general suggestions. DEQ may require a different grid spacing to adequately resolve maximum modeled concentrations.	X
10)	Provide justification for the ambient air boundary. The facility must prevent public access inside the ambient air boundary using methods described in the Idaho Air Modeling Guideline.	X
11)	If known, emissions rates used in the modeling should be listed. This will give DEQ reviews an idea of the magnitude of the project. Describe how modeling emissions rates will be calculated for various averaging periods (exa. 1-hour, 24-hour, and annual for sources that do not operate continuously).	X
12)	If known, emissions release parameters associated with emissions release points should be listed. Documentation and justification of these values should also be provided.	X
13)	Describe what values will be used for background concentrations if a full impact analysis is required. DEQ may be consulted for assistance with determining background concentrations.	X
14)	Describe what modeled values will be used to evaluate compliance with standards (highest, 1st high values; highest, 2nd high values; etc.)	X

NOTE - Simplot submitted a modeling protocol to IDEQ on April 24, 2013 and supplemental information via email to Mr. Kevin Schilling on May 7, 2013. Based on these submittals, The Department issued a conditional approval of Simplot's modeling protocol on May 20, 2013. Additional information was submitted vial email to Mr. Kevin Schilling of IDEQ on May 29th and May 30th, 2013. Mr. Shilling confirmed the use of Level II modeling thresholds on June 3, 2013.

Department of Environmental Quality
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline - 1-877-5PERMIT

Department of Environmental Quality - Air Quality Division
Minor Source Permit to Construct Application Completeness Checklist

This checklist is designed to aid the applicant in submitting a complete permit to construct application.

I. Actions Recommended Before Submitting Application

☒ Refer to the Rule. Read the Permit to Construct requirements contained in IDAPA 58.01.01.200-228, Rules for the Control of Air Pollution in Idaho. The Rules are available on DEQ's website (go to http://adm.idaho.gov/adminrules/rules/idapa58/0101.pdf).

☒ Refer to DEQ's Permit to Construct Guidance Document. DEQ has developed a guidance document to aid applicants in submitting a complete permit to construction application. The guidance document is located on DEQ's website (go to http://www.deq.idaho.gov/air/permits_forms/permitting/ptc_prepermit_guidance.pdf).

☒ Consult with DEQ Representatives. It is recommended that the applicant schedule a pre-application meeting with DEQ to discuss application requirements before submitting the permit to construct application. The meeting can be in person or on the phone. Contact DEQ's Air Quality Hotline at **877-5PERMIT** to schedule the pre-application meeting.

☒ Submit Ambient Air Quality Modeling Protocol. It is strongly recommended that an ambient air quality modeling protocol be submitted to DEQ at least two (2) weeks before the permit to construct application is submitted. Contact DEQ's Air Quality Hotline at **877-5PERMIT** for information about the protocol.

II. Application Content

Application content should be prepared using the checklist below. The checklist is based on the requirements contained in IDAPA 58.01.01.202.

☒ Apply for a Permit to Construct. Submit a Permit to Construct application using forms available on DEQ's website at http://www.deq.idaho.gov/air/permits_forms/forms/ptc_general_application.pdf.

☒ Permit to Construct Application Fee. The permit to construct application fee of $1000 must be submitted at the time the original permit to construct application is submitted. Refer to IDAPA 58.01.01.224. If the permit to construct application is withdrawn or denied and a new application is submitted, a new $1,000 application fee is required to be submitted. The application fee is not transferable or refundable. The application fee can be paid by check, credit card or Electronic Funds Transfer (EFT). If you choose to pay by credit card or EFT, please refer to the following Access Idaho link:
https://www.accessidaho.org/secure/deq/payport/item.html?id=511
If you choose to pay by check, enclose the check with your permit to construct application.

☒ Process Description(s). The process or processes for which construction is requested must be described in sufficient detail and clarity such that a member of the general public not familiar with air quality can clearly understand the proposed project. A process flow diagram is required for each process.

☒ Equipment List. All equipment that will be used for which construction is requested must be described in detail. Such description includes, but is not limited to, manufacturer, model number or other descriptor, serial number, maximum process rate, proposed process rate, maximum heat input capacity, stack height, stack diameter, stack gas flowrate, stack gas temperature, etc. All equipment that will be used for which construction is requested must be clearly labeled on the process flow diagram.

☒ Potential to Emit. Submit the uncontrolled potential to emit (pre-control equipment emissions estimates) and the controlled potential to emit (post-control equipment emissions estimates) for all equipment for which construction is requested. Any limit on the equipment for which is construction is requested may become a

limit on that equipment in the permit to construct.

☒ Potential to Emit and Modeled Ambient Concentration for All Regulated Air Pollutants. All proposed emission limits and modeled ambient concentrations for all regulated air pollutants must demonstrate compliance with all applicable air quality rules and regulations. Regulated air pollutants include criteria air pollutants, toxic air pollutants listed pursuant to IDAPA 58.01.01.585 and 586, and hazardous air pollutants listed pursuant to Section 112 of the 1990 Clean Air Act Amendments (go to http://www.epa.gov/ttn/atw/188polls.html). Describe in detail how the proposed emissions limits and modeled ambient concentrations demonstrate compliance with each applicable air quality rule and regulation. It is requested that emissions calculations, assumptions, and documentation be submitted with sufficient detail so DEQ can verify the validity of the emissions estimates.

☒ Scaled Plot Plan. It is required a scaled plot plan be included in the permit to construct application and it must clearly label the location of each proposed process and the equipment that will be used in the process.

☒ List all Applicable Requirements. All applicable requirements must be cited by the rule or regulation section/subpart that applies for each emissions unit.

☒ Certification of Permit to Construct Application. The permit to construct application must be signed by the Responsible Official and must contain a certification signed by the Responsible Official. The certification must state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Refer to IDAPA 58.01.01.123.

☒ Submit the Permit to Construct Application. Submit the permit to construct application and application fee to the following address:

Air Quality Program Office – Application Processing
Department of Environmental Quality
1410 N. Hilton
Boise, ID 83706-1255

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

Emissions Unit - General **Form EU0**
Revision 4
08/28/08

Please see instructions on page 2 before filling out the form.

IDENTIFICATION

1. Company Name:	2. Facility Name:	3. Facility ID No:
J. R. Simplot Company	Conda Pump Station	

4. Brief Project Description: Install and operate pilot-scale phosphate rock calciner.

EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION

5.	Emissions Unit (EU) Name:	PILOT CALCINER
6.	EU ID Number:	PC01
7.	EU Type:	☒ New Source ☐ Unpermitted Existing Source ☐ Modification to a Permitted Source -- Previous Permit #: Date Issued:
8.	Manufacturer:	CUSTOM
9.	Model:	CUSTOM
10..	Maximum Capacity:	1 T/HR (LIMITED BY FEED SYSTEM)
11.	Date of Construction:	CALCINER IS USED; WILL BE INSTALLED IN JUNE 2013
12.	Date of Modification (if any):	
13.	Is this a Controlled Emission Unit?	☐ No ☒ Yes If Yes, complete the following section. If No, go to line 22.

EMISSIONS CONTROL EQUIPMENT

14. Control Equipment Name and ID:	Cyclone Collector (CY01) and Wet Scrubber (SC01)
15. Date of Installation:	June 2013 16. Date of Modification (if any): New equipment
17. Manufacturer and Model Number:	TBD
18. ID(s) of Emission Unit Controlled:	PC01
19. Is operating schedule different than emission units(s) involved?	☐ Yes ☒ No
20. Does the manufacturer guarantee the control efficiency of the control equipment?	☐ Yes ☒ No (If Yes, attach and label manufacturer guarantee)

	Pollutant Controlled					
	PM	PM10	SO_2	NOx	VOC	CO
Control Efficiency	75+98	75+98	80	0	0	0

21. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency. TBD

EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)

22.	Actual Operation:	24 HR/DAY
23.	Maximum Operation:	24 HR/DAY

REQUESTED LIMITS

24.	Are you requesting any permit limits?	☒ Yes ☐ No (If Yes, indicate all that apply below)
	☐ Operation Hour Limit(s):	
	☒ Production Limit(s):	1,500 LB/HR
	☒ Material Usage Limit(s):	2,800 T/YR
	☐ Limits Based on Stack Testing:	Please attach all relevant stack testing summary reports
	☒ Other:	SEE SECTION 3 OF PTC APPLICATION.
25.	Rationale for Requesting the Limit(s):	SYNTHETIC MINOR LIMIT AND TAP RATES.

Instructions for Form EU0

This form provides DEQ with information about an emissions unit. An emissions unit is the equipment or process that generates emissions of regulated air pollutant(s). This form is used by the permit writer to become familiar with the emissions unit (EU). This form is also used by DEQ to identify the control equipment and the emission point (stack or vent) used for the emission unit(s) proposed in this permit application. This form also asks for supporting documents to verify stated control efficiencies and details about the emission point. Additional information may be requested.

1 - 4. Provide the same company name, facility name (if different), facility ID number, and brief project description as on Form CS in the boxes provided. This is useful in case any pages of the application get separated.

5. Provide the name of the emissions unit (EU), such as "Union boiler," etc. A separate EU0 form is required for each emissions unit.

6. Provide the identification (ID) number of the EU. It can be any unique identifier you choose; however, this ID number should be unique to this EU and should be used consistently throughout this application and any other air quality permit application(s) (e.g., operating permit application) to identify this EU.

7. Indicate the type of EU by checking the appropriate box (e.g., a new source to be constructed, an unpermitted existing source (as-built) applying for the first time, or an existing permitted source to be modified). If the EU is being modified, indicate on the form the most recent permit issued for the EU.

8. Provide the manufacturer's name for the EU. If the EU is custom-designed or homemade, indicate so.

9. Provide the model number of the EU. If the EU is custom-designed or homemade, indicate so.

10. Provide the maximum capacity of the EU. For example, a boiler's rated capacity may be modified in units of MMBtu/hr in terms of heat input of natural gas; an assembly line capacity may be in parts produced per day. Capacity should be based on a rated nameplate or as stated in the manufacturer's literature.

11. The date of construction is the month, day, and year in which construction or modification was commenced.

Definitions:

Construction fabrication, erection, or installation of an affected facility.

Commenced an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

Modification any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted to the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) to the atmosphere not previously emitted.

12. If the EU has been or will be modified, provide the month, day, and year of the most recent or future modification as defined in IDAPA 58.01.01.006.

13. Indicate if emissions from the EU are controlled by air pollution control equipment. If the answer is yes, complete the next section. If the answer is no, go to line 18.

14. Provide the name of the air pollution control equipment (e.g., wet scrubber) and the control equipment's identification number. This identification number should be unique to this air pollution control equipment and should be used consistently throughout this and all other air quality permit applications (e.g., operating permit application) to identify this air pollution control equipment.

15. Provide the date the air pollution control equipment was installed.

16. If the air pollution control equipment has been modified, provide the date of the modification.

17. Provide the name of the manufacturer and the model number for the air pollution control equipment.

18. If this air pollution control equipment controls emissions from more than this EU, provide the identification number(s) of the other EU(s).

19. Indicate if this air pollution control equipment operates on a schedule different from the EU(s) it controls.

20. Indicate if the air pollution control manufacturer guarantees the control efficiency of the control equipment. If the answer is yes, attach the manufacturer's guarantee and label it with the air pollution control equipment identification number. Indicate the control efficiency for the target pollutant(s).

21. If the control efficiency of the air pollution control equipment is not guaranteed, attach the design specifications and any performance data to support the control efficiency stated in part 16. Label the supporting documentation with the air pollution control equipment identification number.

22. Provide the projected actual operating schedule for the emission unit in hours/day, hours/year, or other.

23. Provide the maximum operating schedule for the emission unit in hours/day, hours/year, or other.

24. If you are requesting to have limits placed on this EU, mark "Yes." Then, check the applicable requested limit(s) and provide the limit(s). For example, production limits may be in terms of parts produced per year, material usage limits may be in gallons per day.

25. Please provide the reason you are requesting limits, if any. This helps DEQ and the applicant determine whether the limits are necessary, and if they will accomplish the desired purpose. Provide supporting documentation (calculations, modeling assessment, regulatory review, etc.) for each limit requested.

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline: 1-877-5PERMIT

Cyclone Separator - **Form CYS**
Revision 2
08/28/08

Please see instructions on page 3 before filling out the form.

IDENTIFICATION

1. Company Name:	J.R. Simplot Company	2. Facility Name:	Conda Pumping Station	3. Facility ID No.:
4. Brief Project Description:	Install and operate pilot-scale phosphate rock calciner.			

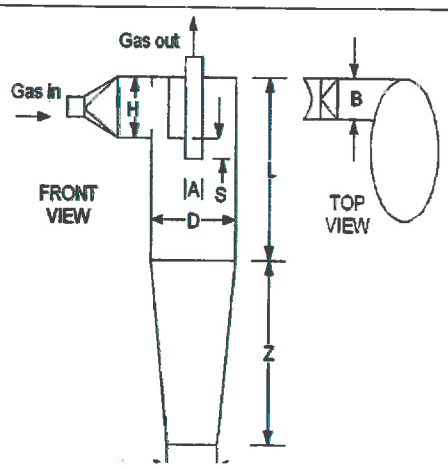
CYCLONE SEPARATOR INFORMATION

Equipment Description

5. Manufacturer: TBD

6. Model Number: TBD

7. Dimensions



Give dimensions of cyclone. (See sample diagram above.)

1. B: TBD in.
2. H: TBD in.
3. S: TBD in.
4. L: TBD in.
5. Z: TBD in.
6. D: TBD in.
7. A: TBD in.
8. J: TBD in.

8. Particulate Size Distribution Data

Micron range	Particle size distribution weight %	Manufacturer's guaranteed removal efficiency for each micron range
0.5-1.0	0	TBD
1.0-5.0	5	TBD
5-10	10	TBD
10-20	85	TBD
Over 20		

9. Type of Cyclone: ☐ Wet ☒ Dry

10. Type of Cyclone Unit: ☐ Single ☐ Dual ☐ Quadruple ☐ Multiclone

11. Blower: Blower horsepower: TBD hp
Design flow rate: TBD scfm
Draft: ☐ Forced ☐ Induced

12. Design Criteria: Cyclone configuration: ☒ Positive pressure ☐ Negative pressure

13. Pre-Treatment Device: ☐ Cyclone ☐ Knock-out chamber ☐ Precooler ☒ None ☐ Preheater

14. Post-Treatment Device: ☐ Baghouse/Cartridge ☐ HEPA ☒ Other: Scrubber

TBD = To be determined; Simplot has not yet received this information from prospective vendors.

Process Stream Characteristics	
15. Brief Description of Process	.Calciner off-gas. Temperature between 1000 and 1500 F.
16. Flow Data	Gas stream temperature: Varies - see description degrees F Moisture content: 0.2 grams of water/cubic feet (ft^3) of dry air Pressure drop range High: TBD in. H_2O Low: TBD in. H_2O Dew point temperature of process stream: 160-170 degrees F Inlet flow rate: TBD ACFM
17. Dust Collection Device	☐ Pneumatic conveyor ☐ Rotary airlock values ☐ Screw conveyors ☐ Closed container ☒ Double dump ☐ Drag conveyor ☐ Manual discharge device: ☐ Slide gate OR ☐ Hinged doors or drawers
18. Operating Schedule	Normal: 24 hours/day 5 days/week 50 weeks/year Maximum: 24 hours/day 7 days/week 52 weeks/year

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

Scrubber Control Equipment - **Form SCE**
Revision 5
08/28/08

Please see instructions on page 2 before filling out the form.

IDENTIFICATION			
1. Company Name:	J.R. Simplot Company	2. Facility Name: Conda Pumping Station	3. Facility ID No.:
4. Brief Project Description:	Install and operate pilot-scale phosphate rock calciner.		

EMISSION UNIT ID				SCRUBBER					
5.	6.	7.	8.	9.	10.	11.	12.	13	14.
Emission Unit	EU ID No.	CE ID No.	Stack ID No.	Manufacturer Name	Model No.	Type	Dimensions In Feet (Ht x Dia x L)	Water Flow (gpm)	Pressure Drop (in H_2O)
Pilot Calciner	PC01	SC01	EP01	TBD	TBD	TBD	TBD	TBD	TBD
TBD = To Be Determined									

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

AIR PERMIT APPLICATION

Revision 6
10/7/09

For each box in the table below, CTRL+click on the blue underlined text for instructions and information.

IDENTIFICATION	
1. Company Name: J.R. Simplot Company	2. Facility Name: Conda Pumping Station
3. Brief Project Description: Install and operate pilot-scale phosphate rock calciner.	

APPLICABILITY DETERMINATION	
4. List applicable subparts of the New Source Performance Standards (NSPS) (40 CFR part 60). Examples of NSPS affected emissions units include internal combustion engines, boilers, turbines, etc. The applicant must thoroughly review the list of affected emissions units.	List of applicable subpart(s): See discussion in Section 3.8 of PTC application. ☑ Not Applicable
5. List applicable subpart(s) of the National Emission Standards for Hazardous Air Pollutants (NESHAP) found in 40 CFR part 61 and 40 CFR part 63. Examples of affected emission units include solvent cleaning operations, industrial cooling towers, paint stripping and miscellaneous surface coating. EPA has a web page dedicated to NESHAP that should be useful to applicants.	List of applicable subpart(s): See discussion in Section 3.9 of PTC application. ☑ Not Applicable
6. For each subpart identified above, conduct a complete a regulatory analysis using the instructions and referencing the example provided on the following pages. **Note** - Regulatory reviews must be submitted with sufficient detail so that DEQ can verify applicability and document in legal terms why the regulation applies. Regulatory reviews that are submitted with insufficient detail will be determined incomplete.	☑ A detailed regulatory review is provided (Follow instructions and example). ☐ DEQ has already been provided a detailed regulatory review. Give a reference to the document including the date.

IF YOU ARE UNSURE HOW TO ANSWER ANY OF THESE QUESTIONS, CALL THE AIR PERMIT HOTLINE AT 1-877-5PERMIT

It is emphasized that it is the applicant's responsibility to satisfy all technical and regulatory requirements, and that DEQ will help the applicant understand what those requirements are prior to the application being submitted but that DEQ will not perform the required technical or regulatory analysis on the applicant's behalf.

Certification of Pre-Permit Construction Eligibility and Proof of Eligibility

Pre-permit construction approval is not available for any new Prevention of Significant Deterioration (PSD) major source, any proposed PSD major modification, or any proposed major NSR project in a non-attainment area. Emissions netting and emissions offsets are not allowed to be used. A certified proof of pre-permit construction eligibility must be submitted with the pre-permit construction approval application. Refer to IDAPA 58.01.01.213.01.

I hereby certify that the planned project to construct a pilot-scale calciner at J.R. Simplot's Conda, Idaho pump station is eligible for pre-permit construction approval by IDEQ. The proposed project does not constitute construction of a major source under PSD nor is it a major modification to an existing PSD major source. The source is not located in a non-attainment area and neither emissions netting nor emissions offsets are used to establish the major source status of this project. Proof of such eligibility can be found in the PTC application that accompanies this certification.

Scott C. Lundy	Mine Manager	6/5/2013
NAME	TITLE	DATE

Certification of Pre-Permit Construction Approval Application.

I hereby certify that, after reasonable inquiry, I have determined that the statements and information in this PTC application are true, accurate and complete.

NAME	TITLE	DATE
Scott C Lumpkin	Mine Manager	6/5/2013

J.R. SIMPLOT COMPANY / P.O. BOX 1270 / AFTON, WYOMING 83110 / (208) 873-3700

AgriBusiness
Smoky Canyon Mine

June 5, 2013

Mike Simon
Stationary Source Program Manager
IDEQ – Air Quality Division
1410 N. Hilton
Boise, Idaho 83706

Dear Mr. Simon,

With this PTC application J. R. Simplot Company is requesting the ability to construct before obtaining the required permit to construct is issued. This request is being made in accordance with IDAPA 58.01.01.213.01.c. The PTC application includes and addresses all of the elements required for such approval.

Sincerely,

Scott C. Lusty
Mine Manager
J. R. Simplot Company – Smoky Canyon Mine

Receipt

Print this page or check your email for a receipt.

Payment Complete

Idaho.gov State of ID will appear on your statement for this transaction. Thank you for your business.

Order Number: PP3ID1425188SID6653161-1425188
Order Date: Tue Jun 04 10:35:36 MDT 2013
Payment Method: Visa xxxxxxxxxxxx4236
Cost: $1,030.00

Order

Item/Service	Qty	Price	Total
PTC Application Fee	1	$1,000.00	$1,000.00
		Subtotal	$1,000.00
		Sales Tax	$0.00
		Shipping	$0.00
		Purchased through Idaho.gov Price	$1,030.00

Contact information

Bill To: Tracy Jones
P.O. Box 1270
Afton, WY 83110
Phone: (208) 873-3731
Email: jonest@simplot.com

Billing questions

Contact Idaho.gov by phone 208-332-0102 or toll-free at 1-877-443-3468.

« Return to Catalog | Sign out

SCOTCH THISTLE
Silverleaf Nightshade
SKELETON LEAF BURSAGE
Small Bugloss
SPOTTED KNAPWEED
Squarrose Knapweed
Syrian Beancaper
Tall Hawkweed
Tansy Ragwort
Toothed Spurge
Vipers Bugloss
Water Hyacinth
WHITE BRYONY
WHITETOP
Yellow Devil Hawkweed
Yellow Hawkweed
Yellow Starthistle
YELLOW TOADFLAX
Scott Shuler
Caribou County Weed Dept.
Soda Springs, ID 83276
Published May 16 and 23, 2013 in the Caribou County Sun.

PUBLIC NOTICE

The following application(s) have been filed to appropriate the public waters of the State of Idaho:

11-7771
Bear River Meadows LLC
2920 W Directors Row
Salt Lake City UT 84104
Point of Diversion: NWSWSE Sec 29 T09S R42E, Caribou County
Source: Bailey Creek tributary to Bear River
Use: Irrigation 04/15 to 10/30 0.95 cfs
Stockwater 01/01 to 12/31 0.05 cfs
Priority Date: 04/15/1947
Place of Use:
Irrigation and Stockwater
T09S R42E Sec 29 SWNW SENW NESW NWSW SESW NWSE SWSE for 47.7 acres

For additional information concerning the property location, contact Eastern Region office at (208) 525-7161; or for a full description of the rights, please see www.idwr.idaho.gov/apps/ExtSearch/WRFiling.asp.

Exceptions to a claim may be filed with the Department of Water Resources, Eastern Region, 900 N Skyline Dr, Ste A, Idaho Falls ID 83402.

GARY SPACKMAN
Director

Published on May 16 and 23, 2013 in the Caribou County Sun.

PUBLIC NOTICE

The following application(s) have been filed to appropriate the public waters of the State of Idaho:

29-14066
UNITED STATES OF AMERICA
CARIBOU-TARGHEE NATIONAL FOREST
1405 HOLLIPARK DR
IDAHO FALLS, ID 83401
Point of Diversion NESW
S35 T07S R37E
CARIBOU County

[illegible] OF A MORE PARTICULAR DESCRIPTION OF THE ABOVE-DESCRIBED REAL PROPERTY, BUT FOR PURPOSES OF COMPLIANCE WITH IDAHO CODE, SECTION 60-113, THE TRUSTEE HAS BEEN INFORMED THAT THE STREET ADDRESS OF: 110 West 4th South, Grace, ID 83241, MAY SOMETIMES BE ASSOCIATED WITH SAID REAL PROPERTY.

Said sale will be made without covenant or warranty regarding title, possession or encumbrances to satisfy the obligation secured by and pursuant to the power of sale conferred in the deed of trust executed by Lance Peterson and Krista Peterson, husband and wife, as Grantor to Alliance Title & Escrow Corp., as Successor Trustee, for the benefit and security of Federal National Mortgage Association as Successor Beneficiary, recorded February 9, 2007 as Instrument No. 177441, Mortgage records of Caribou County, Idaho.. THE ABOVE GRANTORS ARE NAMED TO COMPLY WITH SECTION 45-1506(4)(a), IDAHO CODE, NO REPRESENTATION IS MADE THAT THEY ARE, OR ARE NOT, PRESENTLY RESPONSIBLE FOR THIS OBLIGATION.

The default for which this sale is to be made is failure to:

Make principal and interest payments as set forth on said Deed of Trust and Promissory Note. The original loan amount was $96,600.00 together with interest thereon at the rate of 4.6250% per annum, as evidenced in Promissory Note dated February 6, 2007. Payments are in default for the months of February 2013 through and including May 2013 in the amount of $434.18 per month and continuing each and every month thereafter until date of sale or reinstatement. The principal balance as of May 8, 2013 is $94,035.13 together with accrued and accruing interest thereon at the rate of 4.6250% per annum. In addition to the above, there is also due any late charges, advances, escrow collection fees, attorney fees, fees or costs associated with this foreclosure.

The balance owing as of this date on the obligation secured by said deed of trust is $94,035.13, excluding interest, costs and expenses actually incurred in enforcing the obligations thereunder or in this sale, as trustee's fees and/or reasonable attorney's fees as authorized in the promissory note secured by the aforementioned Deed of Trust.

Dated: May 14, 2013
Alliance Title & Escrow Corp.
By: Bobbi Oldfield
Trust Officer
Phone: 208-947-1553

Published May 23, 30, June 6 and 13, 2013 in the Caribou County Sun.

PUBLIC NOTICE

Notice of Trustee's Sale Idaho Code 45-1506 Today's date: April 29, 2013 File No.: 7021.15153 Sale date and time (local time): August 29, 2013 at 11:00 AM Sale location: in the front lobby of Caribou Land Title, 241 South [illegible] degrees 20' East 512.76 feet; thence East 184.41 feet; thence South 33 degrees 53' East 31.3 feet; thence North 83 degrees 01' East 62.7 feet; thence North 0 degrees 06' East 531.2 feet, to the Point of Beginning. The sale is subject to conditions, rules and procedures as described at the sale and which can be reviewed at www.northwesttrustee.com or USA-Foreclosure.com. The sale is made without representation, warranty or covenant of any kind. (TS# 7021.15153) 1002.248129-File No.

Published May 9, 16, 23 and 30, 2013 in the Caribou County Sun.

PUBLIC NOTICE

First Time Published

June 6th, 5:00 PM – 6:00 PM
Soda Springs City Hall
9 West 2nd South
Simplot Pilot Plant for thermal beneficiating ore.
Meeting to discuss air quality related aspects of the project.
Published May 23, 30 and June 6, 2013 in the Caribou County Sun.

PUBLIC NOTICE

First Time Published

City of Bancroft
The City of Bancroft proposes to set following fees for the personal use of the City trucks as of May 13, 2013. The fee schedule will be set as follows:
1 day rental: $20.00
1 week rental: $100.00
Unauthorized personal use is prohibited. Violators will be fined.
The above mentioned fees have been set to cover the cost of fuel and maintenance. For additional information regarding rental fees, please contact the City of Bancroft at 648-7648 or visit the City office at 95 South Main.
Published May 23, 2013 in the Caribou County Sun.

BSU Graduate

Derek Christensen, son of Irvin and Kim Christensen, and the late Linda Christensen, of Soda Springs, graduated Saturday, May 18, with a degree in civil engineering during Boise State University commencement services, after five years of schooling.

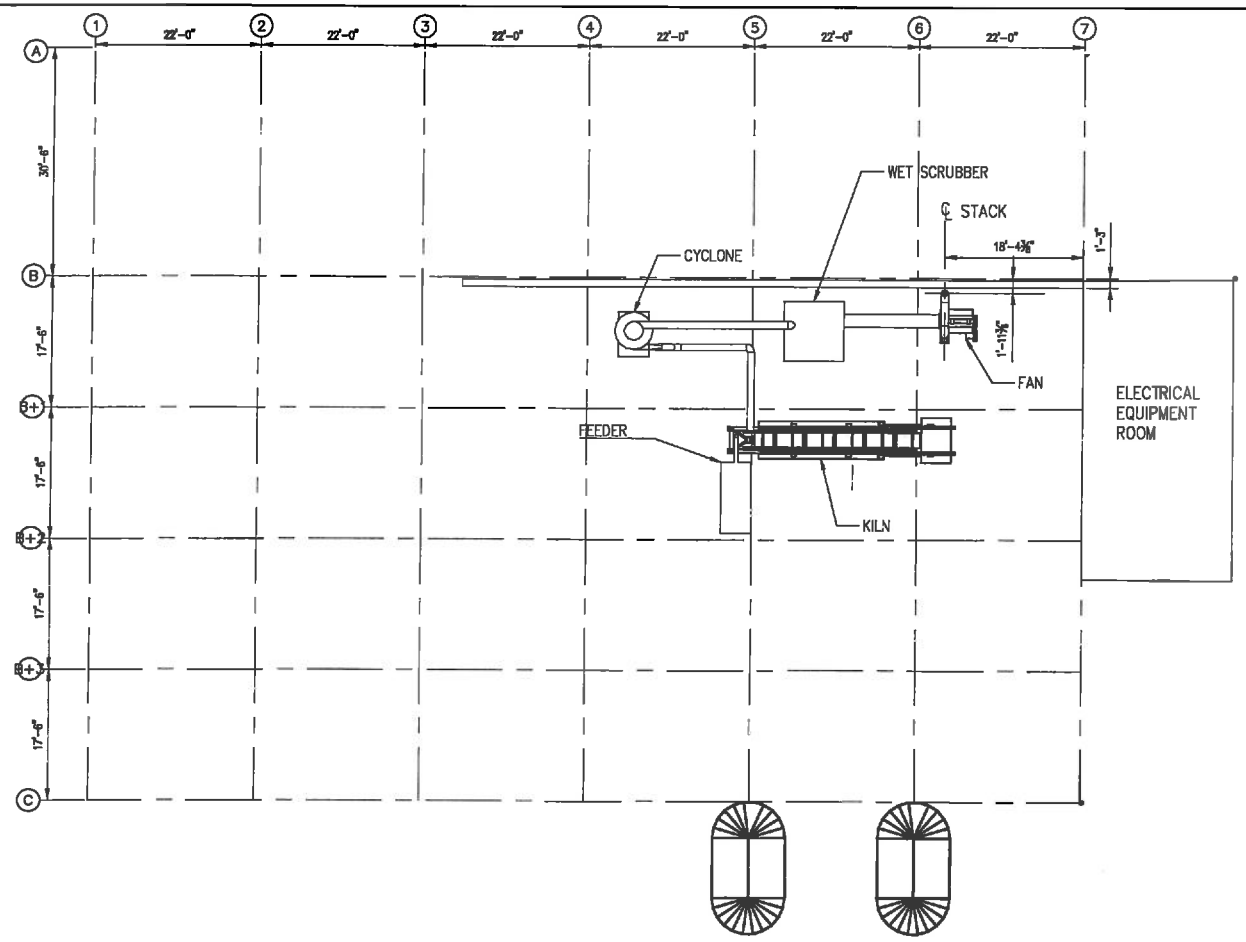
Irvin and Kim, accompanied by their daughter and son-in-law, Tiffany and Daniel Lindsay of Grace, attended the services during which there were 2,250 graduates.

Never be afraid to sit a while and think.

Lorraine Hansberry

APPENDIX B

Simplot Conda Facility Plot Plan



PLAN VIEW (1)
SCALE: 1/8" = 1'-0"

ISSUED FOR REVIEW

Simplot
AGRIBUSINESS GROUP POCATELLO, IDAHO

THERMAL BENEFICIATION PILOT PLANT
ROTARY KILN
BAFFLES AND LIFTERS
DETAILS

CAD DWG. #: GENERAL ARRANGEMENT CONCENTRATOR BLDG.DWG

TBPP-001

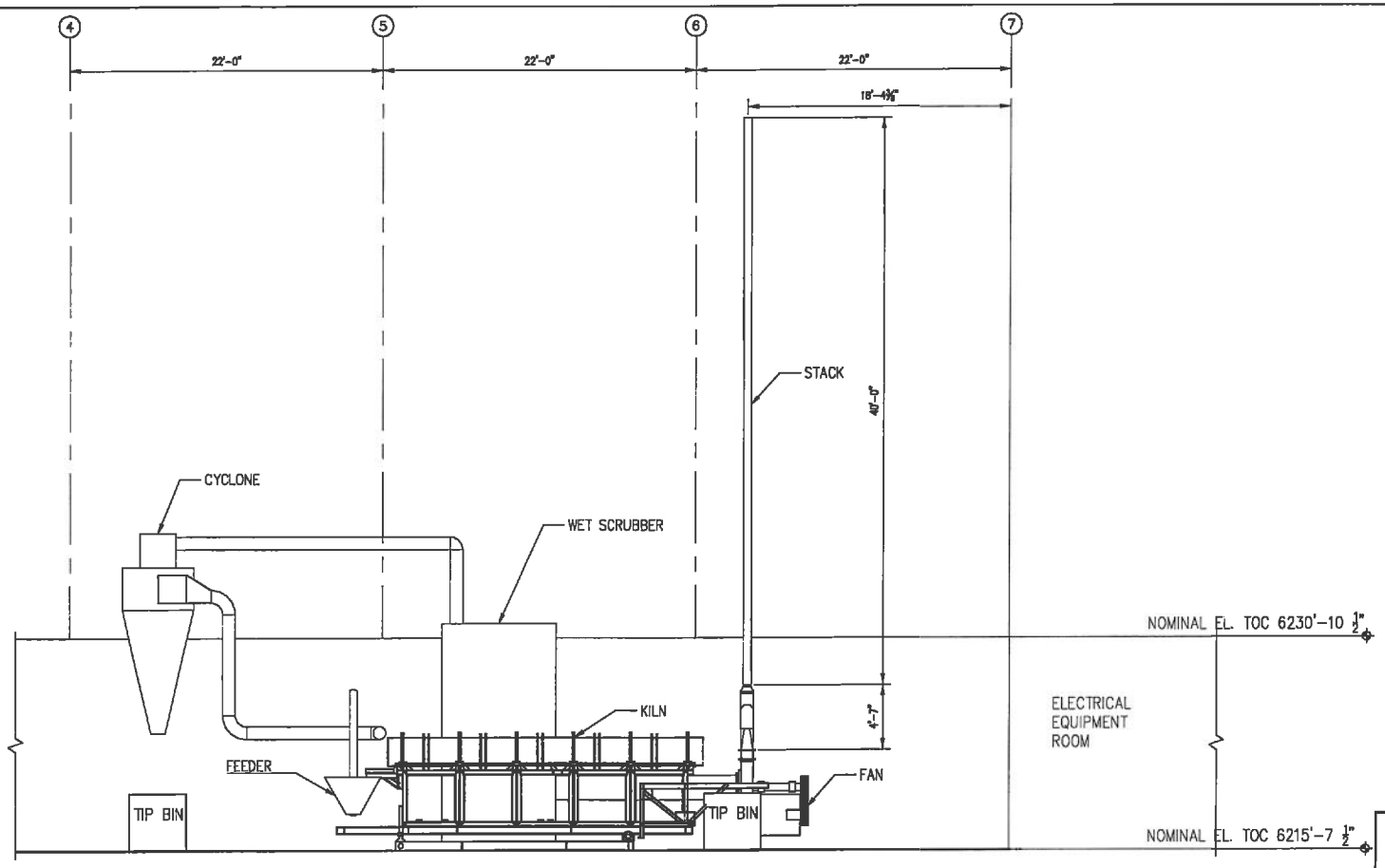
SCALE: NOTED

REVISION: A

REFERENCES NO.	DESCRIPTION

REVISIONS NO.	REVISED BY	DATE	DESCRIPTION
A	D. NICHALSON	5/24/13	ISSUED FOR REVIEW

DRAWN BY: D. NICHALSON	5/24/13	
DESIGNED BY:		
CHECKED BY:		
APPV'D. BY:		



ELEVATION 1
SCALE: 1/4" = 1'-0"
LOOKING EAST??

ISSUED FOR REVIEW

Simplot
AGRIBUSINESS GROUP POCATELLO, IDAHO

THERMAL BENEFICIATION PILOT PLANT
ROTARY KILN
BAFFLES AND LIFTERS
DETAILS

CAD DWG. #: GENERAL ARRANGEMENT CONCENTRATOR BLDG.DWG

TBPP-002

SCALE: NOTED

REVISION 1

REFERENCES NO.	DESCRIPTION

REVISIONS NO.	REVISED BY	DATE	DESCRIPTION
1	D. NICHALSON	5/24/13	ISSUED FOR REVIEW

NO.	REVISED BY	DATE	DESCRIPTION

DRAWN BY:	D. NICHALSON	5/24/13
DESIGNED BY:		
CHECKED BY:		
APPV'D. BY:		

Appendix C

Emissions Calculations
for
Simplot's Conda Pilot Phosphate Rock Calciner

Emissions Calculations - General Discussion

For purposes of evaluating regulatory applicability, the methodology used for evaluating emissions increases from the Conda pilot calciner project is the actual-to-potential test. Since all of the equipment to be installed as part of this project is new to the Conda location, baseline actual emissions are zero. Potential emissions are estimated based on test data, design specifications, and standard emissions factors. The potential emissions estimates account for the effects of requested permit limits found in Section 3.11 of this PTC application. Much of the emissions data used to evaluate the pilot unit PTE is taken from the results of tests that Simplot conducted using a small-scale calciner at a test facility in Wisconsin. These data are summarized in the accompanying spreadsheet printouts and tables.

The remainder of this Appendix C contains printouts of the emissions calculation sheets and the underlying data used in the calculations. Simplot believes these calculation sheets and tables are self-explanatory and complete. Additional details or explanation can be provided upon request.

Potential Emissions of NSR Pollutants from Pilot Calciner (EU- PC01)				
Parameter		Value	Units	Source / Basis
Calculation Input Data:				
Maximum Short-Term Feed Rate	=	0.75	T/hr	See 'Constants' sheet.
Maximum Annual Feed Rate	=	2,800	T/yr	See 'Constants' sheet.
Cyclone PM Control Efficiency	=	75.0%	wt. %	See 'Constants' sheet.
Scrubber PM Control Efficiency	=	98.0%	wt. %	See 'Constants' sheet.
Scrubber SO2 Control Efficiency	=	80.0%	wt. %	See 'Constants' sheet.
Scrubber Fluoride Control Efficiency	=	80.0%	wt. %	See 'Constants' sheet.
Calciner PM EF	=	1.51	LB/T	Controlled; derived from pilot tests and design control efficiencies.
Calciner PM10 EF	=	1.51	LB/T	= (Calciner PM EF) x (Calciner_PM10_Fxn)
Calciner PM2.5 EF	=	0.76	LB/T	= (Calciner PM EF) x (Calciner_PM2.5_Fxn)
Calciner SO2 EF	=	1.62	LB/T	Controlled; derived from pilot tests and design control efficiencies.
Calciner NOx EF	=	1.40	LB/T	Derived from pilot tests.
Calciner CO EF	=	0.41	LB/T	Derived from pilot tests.
Calciner VOC EF	=	0.07	LB/T	Derived from pilot tests.
Calciner Lead EF	=	6.4E-06	LB/T	Controlled; derived from pilot tests and design control efficiencies.
Calciner Fluoride EF	=	0.22	LB/T	Controlled; derived from pilot tests and estimated control efficiency.
Calciner CO2e EF	=	1,226	LB/T	Derived from pilot tests.
Calciner H2SO4 EF	=	0.02	LB/T	Assumed equal to 1% of SO2 emissions.
Hourly Emissions Calculations:				
PM Emissions	=	1.13	lb/hr	= (Maximum Short-Term Feed Rate- T/hr) x (Calciner PM EF- lb/T)
PM10 Emissions	=	1.13	lb/hr	= (Maximum Short-Term Feed Rate- T/hr) x (Calciner PM10 EF- lb/T)
PM2.5 Emissions	=	0.57	lb/hr	= (Maximum Short-Term Feed Rate- T/hr) x (Calciner PM2.5 EF- lb/T)
SO2 Emissions	=	1.21	lb/hr	= (Maximum Short-Term Feed Rate- T/hr) x (Calciner SO2 EF- lb/T)
NOx Emissions	=	1.05	lb/hr	= (Maximum Short-Term Feed Rate- T/hr) x (Calciner NOx EF- lb/T)
CO Emissions	=	0.31	lb/hr	= (Maximum Short-Term Feed Rate- T/hr) x (Calciner CO EF- lb/T)
VOC Emissions	=	0.05	lb/hr	= (Maximum Short-Term Feed Rate- T/hr) x (Calciner VOC EF- lb/T)
Lead Emissions	=	0.00	lb/hr	= (Maximum Short-Term Feed Rate- T/hr) x (Calciner Lead EF- lb/T)
Fluoride Emissions	=	0.16	lb/hr	= (Maximum Short-Term Feed Rate- T/hr) x (Calciner Fluoride EF- lb/T)
CO2e Emissions	=	920	lb/hr	= (Maximum Short-Term Feed Rate- T/hr) x (Calciner CO2e EF- lb/T)
H2SO4 Emissions	=	0.01	lb/hr	= (Maximum Short-Term Feed Rate- T/hr) x (Calciner H2SO4 EF- lb/T)
Annual Emissions Calculations				
PM Emissions	=	2.11	tpy	= (Maximum Annual Feed Rate- T/yr) x (Calciner PM EF - lb/T) / (2,000 lb/T)
PM10 Emissions	=	2.11	tpy	= (Maximum Annual Feed Rate- T/yr) x (Calciner PM10 EF - lb/T) / (2,000 lb/T)
PM2.5 Emissions	=	1.06	tpy	= (Maximum Annual Feed Rate- T/yr) x (Calciner PM2.5 EF - lb/T) / (2,000 lb/T)
SO2 Emissions	=	2.27	tpy	= (Maximum Annual Feed Rate- T/yr) x (Calciner SO2 EF - lb/T) / (2,000 lb/T)
NOx Emissions	=	1.96	tpy	= (Maximum Annual Feed Rate- T/yr) x (Calciner NOx EF - lb/T) / (2,000 lb/T)
CO Emissions	=	0.57	tpy	= (Maximum Annual Feed Rate- T/yr) x (Calciner CO EF - lb/T) / (2,000 lb/T)
VOC Emissions	=	0.09	tpy	= (Maximum Annual Feed Rate- T/yr) x (Calciner VOC EF - lb/T) / (2,000 lb/T)
Lead Emissions	=	9.0E-06	tpy	= (Maximum Annual Feed Rate- T/yr) x (Calciner Lead EF - lb/T) / (2,000 lb/T)
Fluoride Emissions	=	0.3	tpy	= (Maximum Annual Feed Rate- T/yr) x (Calciner Fluoride EF - lb/T) / (2,000 lb/T)
CO2e Emissions	=	1,717	tpy	= (Maximum Annual Feed Rate- T/yr) x (Calciner CO2e EF - lb/T) / (2,000 lb/T)
H2SO4 Emissions	=	2.3E-02	tpy	= (Maximum Annual Feed Rate- T/yr) x (Calciner H2SO4 EF - lb/T) / (2,000 lb/T)

Summary of Results: Pilot Calciner Potential Emissions (tons per year)

Pollutant	=	PM	PM10	PM2.5	SO2	NOx	CO	VOC	Pb	Fluoride	CO2e	H2SO4
Shrot-Term Rate (lb/hr)	=	1.13	1.13	0.57	1.21	1.05	0.3075	0.05025	4.8E-06	0.16	920	0.01
Annual Rate (TPY)	=	2.11	2.11	1.06	2.27	1.96	0.57	0.09	0.00	0.31	1716.89	0.02

Calciner PTE TAP & HAP

Poilutant	Natural Gas EF	NG EF Units	NG EF Source	Production-Based Natural Gas EF (lb/T)	UncontrolledPilot Test EF (lb/T)	Maximum EF (lb/T)	Particulate or Gaseous ‡	Short-Term Calciner PTE (lb/hr) †	Annual Avg Calciner PTE (lb/hr)	Calciner PTE (T/yr)
2-Methylnaphthalene*	2.40E-05	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	6.27E-08		6.27E-08	G	4.71E-08	2.01E-08	8.78E-08
3-Methylchloranthrene*	<1.8E-06	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	<4.71E-09		<4.71E-09	G	<3.53E-09	<1.50E-09	<6.59E-09
7,12-Dimethylbenz(a)anthracene*	<1.6E-05	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	<4.18E-08		<4.18E-08	G	<3.14E-08	<1.34E-08	<5.86E-08
Acenaphthene*	<1.8E-06	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	<4.71E-09		<4.71E-09	G	<3.53E-09	<1.50E-09	<6.59E-09
Anthracene*	<2.4E-06	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	<6.27E-09		<6.27E-09	G	<4.71E-09	<2.01E-09	<8.78E-09
Benzo(a)anthracene	<1.8E-06	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	<4.71E-09		<4.71E-09	G	<3.53E-09	<1.50E-09	<6.59E-09
Benzene*	2.10E-03	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	5.49E-06		5.49E-06	G	4.12E-06	1.75E-06	7.69E-06
Benzo(a)pyrene*	<1.2E-06	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	<3.14E-09		<3.14E-09	G	<2.35E-09	<1.00E-09	<4.39E-09
Benzo(b)fluoranthene	<1.8E-06	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	<4.71E-09		<4.71E-09	G	<3.53E-09	<1.50E-09	<6.59E-09
Benzo(g,h,i)perylene*	<1.2E-06	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	<3.14E-09		<3.14E-09	G	<2.35E-09	<1.00E-09	<4.39E-09
Benzo(k)fluoranthene	<1.8E-06	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	<4.71E-09		<4.71E-09	G	<3.53E-09	<1.50E-09	<6.59E-09
Chrysene	<1.8E-06	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	<4.71E-09		<4.71E-09	G	<3.53E-09	<1.50E-09	<6.59E-09
Dibenzo(a,h)anthracene	<1.2E-06	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	<3.14E-09		<3.14E-09	G	<2.35E-09	<1.00E-09	<4.39E-09
Dichlorobenzene	1.20E-03	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	3.14E-06		3.14E-06	G	2.35E-06	1.00E-06	4.39E-06
Fluoranthene*	3.00E-06	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	7.84E-09		7.84E-09	G	5.88E-09	2.51E-09	1.10E-08
Fluoride					1.09E+00	1.09E+00		1.64E-01	6.97E-02	3.05E-01
Fluorene	2.80E-06	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	7.32E-09		7.32E-09	G	5.49E-09	2.34E-09	1.02E-08
Formaldehyde*	7.50E-02	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	1.96E-04		1.96E-04	G	1.47E-04	6.27E-05	2.75E-04
Hexane	1.80E+00	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	2.09E-03		2.09E-03	G	1.57E-03	6.69E-04	2.93E-03
Indeno(1,2,3-cd)pyrene	<1.8E-06	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	<4.71E-09		<4.71E-09	G	<3.53E-09	<1.50E-09	<6.59E-09
N2O	2.20E+00	(lb/MMSCF)	AP42; Table 1.4-2; 7/98.	5.23E-04		5.23E-04	G	3.92E-04	1.67E-04	7.32E-04
Naphthalene	6.10E-04	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	1.59E-06		1.59E-06	G	1.20E-06	5.10E-07	2.23E-06
Phenanthrene*	1.70E-05	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	4.44E-08		4.44E-08	G	3.33E-08	1.42E-08	6.22E-08
Pyrene*	5.00E-06	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	1.31E-08		1.31E-08	G	9.80E-09	4.18E-09	1.83E-08
TOTAL PAH*	<7.80E-06	(lb/MMSCF)	Sum of 7-PAH EFs from AP42.	<2.04E-08		<2.04E-08	G	<1.53E-08	<6.52E-09	<2.85E-08
Toluene	3.40E-03	(lb/MMSCF)	AP42; Table 1.4-3; 7/98.	8.89E-06		8.89E-06	G	6.67E-06	2.84E-06	1.24E-05
Arsenic*	2.00E-04	(lb/MMSCF)	AP42; Table 1.4-4; 7/98.	5.23E-07	8.37E-03	8.37E-03	P	3.14E-05	1.34E-05	5.86E-05
Barium	4.40E-03	(lb/MMSCF)	AP42; Table 1.4-4; 7/98.	1.15E-05		1.15E-05	P	4.31E-08	1.84E-08	8.05E-08
Beryllium*	<1.2E-05	(lb/MMSCF)	AP42; Table 1.4-4; 7/98.	<3.14E-08	4.72E-04	4.72E-04	P	1.77E-06	7.54E-07	3.30E-06
Cadmium*	1.10E-03	(lb/MMSCF)	AP42; Table 1.4-4; 7/98.	2.88E-06	1.51E-01	1.51E-01	P	5.66E-04	2.41E-04	1.06E-03
Chromium (VI)*					2.88E-02	2.88E-02	P	1.08E-04	4.61E-05	2.02E-04
Cobalt	8.40E-05	(lb/MMSCF)	AP42; Table 1.4-4; 7/98.	2.20E-07	7.20E-04	7.20E-04	P	2.70E-06	1.15E-06	5.04E-06
Copper	8.50E-04	(lb/MMSCF)	AP42; Table 1.4-4; 7/98.	2.22E-06		2.22E-06	P	8.33E-09	3.55E-09	1.56E-08
Manganese	3.80E-04	(lb/MMSCF)	AP42; Table 1.4-4; 7/98.	9.93E-07	1.81E-02	1.81E-02	P	6.80E-05	2.90E-05	1.27E-04
Mercury	2.60E-04	(lb/MMSCF)	AP42; Table 1.4-4; 7/98.	6.80E-07	2.03E-04	2.03E-04	P	7.62E-07	3.25E-07	1.42E-06
Molybdenum	1.10E-03	(lb/MMSCF)	AP42; Table 1.4-4; 7/98.	2.88E-06		2.88E-06	P	1.08E-08	4.60E-09	2.01E-08
Nickel*	2.10E-03	(lb/MMSCF)	AP42; Table 1.4-4; 7/98.	5.49E-06	1.34E-02	1.34E-02	P	5.01E-05	2.14E-05	9.35E-05
Sulfuric Acid	9.19E-03	(lb/MMSCF)	1% of SO2 (AP42; Table 1.4-2.)	2.40E-05		2.40E-05	P	9.01E-08	3.84E-08	1.68E-07
Selenium	<2.4E-05	(lb/MMSCF)	AP42; Table 1.4-4; 7/98.	<6.27E-08	7.89E-03	7.89E-03	P	2.96E-05	1.26E-05	5.52E-05
Vanadium	2.30E-03	(lb/MMSCF)	AP42; Table 1.4-4; 7/98.	6.01E-06		6.01E-06	P	2.25E-08	9.61E-09	4.21E-08
Zinc	2.90E-02	(lb/MMSCF)	AP42; Table 1.4-4; 7/98.	7.58E-05	5.16E-01	5.16E-01	P	1.93E-03	8.24E-04	3.61E-03

* Els and AACs adjusted upward by a factor of 10 pursuant to the provisions of IDAPA 58.01.01, Section 210.15

† See 'Calciner PTE NSR Pollutants' for basis for fluoride emissions estiamtes.

‡ As a conservative assumption, it is assumed that those TAPs indicated with a "G" are not controlled by either the cyclone or the scrubber.

PTE values are controlled rates. See 'Constants' sheet for design control efficiencies.

PM Emissions due to Haul Roads		
Parameter	**Value Units**	**Source / Basis**
Annual Processing Rate =	2,800 T/yr	Requested Permit Limit
Daily Processing Rate =	18.0 T/day	Based on maximum hourly rate, 24-hr/day.
Round Trip Distance =	1.2 miles	Estimtate: travel distance from property line to location of pilot unit.
Truck Type =	10T Dump	10 ton capacity dump truck.
Empty Vehicle Weight =	26,000 lb	Typical 10 Ton truck empty weight.
Empty Vehicle Weight =	13.0 tons	= (Empty Vehicle Weight) / (2000 lb/T)
Full Vehicle Weight =	23.0 tons	= Empty weight + 10 tons.
Mean Vehicle Weight (W) =	18.0 tons	= (Empty Vehicle Weight + Full Vehicle Weight) / 2
Daily Round Trips =	2.0 trips/day	
Truck miles per day =	2.4 VMT/day	= (Daily Round Trips) x (Round Trip Distance)
Unpaved Road Silt Fraction (s) =	4.8 wt. %	AP-42; Table 13.2.2-1 (Mean for Sand & Gravel Processing - Plant Road); 11/06.
Unpaved PM particle size factor (k) =	4.90 lb/VMT	AP-42; Table 13.2.2-2; 11/06.
Unpaved PM10 particle size factor (k) =	1.50 lb/VMT	AP-42; Table 13.2.2-2; 11/06.
Unpaved PM2.5 particle size factor (k) =	0.15 lb/VMT	AP-42; Table 13.2.2-2; 11/06.
Unpaved TSP "a" constant =	0.70 lb/VMT	AP-42; Table 13.2.2-2; 11/06.
Unpaved PM10 "a" constant =	0.90 lb/VMT	AP-42; Table 13.2.2-2; 11/06.
Unpaved PM2.5 "a" constant =	0.90 lb/VMT	AP-42; Table 13.2.2-2; 11/06.
Unpaved TSP "b" constant =	0.45 lb/VMT	AP-42; Table 13.2.2-2; 11/06.
Unpaved PM10 "b" constant =	0.45 lb/VMT	AP-42; Table 13.2.2-2; 11/06.
Unpaved PM2.5 "b" constant =	0.45 lb/VMT	AP-42; Table 13.2.2-2; 11/06.
Days with > 0.01" of precipitation (P) =	100.0 days/yr	AP-42; Figure 13.2.1-2; 1/11.
Days in Period =	365.0 days/yr	Used for calculation of annual rates.
Daily Uncontrolled PM Emissions Factor =	5.78 lb/VMT	$E = k\,(s/12)^a (W/3)^b$ (1a)
Daily Uncontrolled PM10 Emissions Factor =	1.47 lb/VMT	
Daily Uncontrolled PM2.5 Emissions Factor =	0.15 lb/VMT	
Annual Uncontrolled PM Emissions Factor =	4.20 lb/VMT	$E_{ext} = E\,[(365 - P)/365]$ (2)
Annual Uncontrolled PM10 Emissions Factor =	1.07 lb/VMT	
Annual Uncontrolled PM2.5 Emissions Factor =	0.11 lb/VMT	
Daily PM Emissions =	13.9 lb/day	= (Daily Uncontrolled PM Emissions Factor) x (Truck miles per day)
Daily PM10 Emissions =	3.53 lb/day	= (Daily Uncontrolled PM10 Emissions Factor) x (Truck miles per day)
Daily PM2.5 Emissions =	0.35 lb/day	= (Daily Uncontrolled PM2.5 Emissions Factor) x (Truck miles per day)
Annual PM Emissions =	0.78 tons/yr	= (Annual Uncontrolled PM Emissions Factor) x (Truck miles per day) x (Annual Processing Rate) / (Daily Processing Rate) / (2,000 lb/T)
Annual PM10 Emissions =	0.20 tons/yr	= (Annual Uncontrolled PM10 Emissions Factor) x (Truck miles per day) x (Annual Processing Rate) / (Daily Processing Rate) / (2,000 lb/T)
Annual PM2.5 Emissions =	0.02 tons/yr	= (Annual Uncontrolled PM2.5 Emissions Factor) x (Truck miles per day) x (Annual Processing Rate) / (Daily Processing Rate) / (2,000 lb/T)

PM Emissions due to Wind Erosion from Raw Rock Storage Piles			
Parameter	Value	Units	Source / Basis
Storage Pile Mass =	9	tons	Mass to be stored in each pile.
Storage Pile Volume =	138.5	ft3	Estimate (9 tons per pile, bulk density = 130 lb/ft3)
Storage Pile Angle of Repose =	37	°	Estimate
Storage Pile Radius =	4.73	ft	Calculated
Storage Pile Height =	5.92	ft	Calculated
No. of Storage Piles =	2	piles	
Storage Pile Area =	175.8	ft2	= (Surface area of conical pile) x (Number of storage piles)
Storage Pile Area =	0.004	acre	= (Storage Pile Area) / (43,560 ft2/acre)
Annual Pile Days =	233	days/yr	Annual receiving rate / daily reclaim rate.
Silt Content (s) =	50	wt. %	Worst-case estimate.
Threshold Wind Speed (f) =	20	% of time	From Soda Springs met data (% of time > 5.4 m/s @ 10m elevation).
Days with > 0.01" of precipitation (p) =	100	days/yr	AP-42; Figure 13.2.1-2; 1/11.
PM Particle Size Multiplier =	1		Air Pollution Engineering Manual; p 136; AWMA; 1992.
PM-10 Particle Size Multiplier =	0.5		Air Pollution Engineering Manual; p 136; AWMA; 1992.
PM-2.5 Particle Size Multiplier =	0.2		Air Pollution Engineering Manual; p 136; AWMA; 1992.
PM Emissions Factor =	85.2	lb/day/acre	Air Pollution Engineering Manual; p 136; Eqn. 5 (active storage piles); AWMA; 1992.
PM-10 Emissions Factor =	42.6	lb/day/acre	Air Pollution Engineering Manual; p 136; Eqn. 5 (active storage piles); AWMA; 1992.
PM-2.5 Emissions Factor =	17.0	lb/day/acre	Air Pollution Engineering Manual; p 136; Eqn. 5 (active storage piles); AWMA; 1992.
PM Emissions (24-hr avg basis) =	0.0143	lb/hr	= (Storage Pile Area) x (PM Emissions Factor) / (24 hr/day)
PM-10 Emissions (24-hr avg basis) =	0.0072	lb/hr	= (Storage Pile Area) x (PM-10 Emissions Factor) / (24 hr/day)
PM-2.5 Emissions (24-hr avg basis) =	0.0029	lb/hr	= (Storage Pile Area) x (PM-2.5 Emissions Factor) / (24 hr/day)
Annual PM Emissions =	0.0401	tpy	= (Storage Pile Area) x (Annual Pile Days) x (PM Emissions Factor) / (2000 lb/ton)
Annual PM-10 Emissions =	0.0201	tpy	= (Storage Pile Area) x (Annual Pile Days) x (PM-10 Emissions Factor) / (2000 lb/ton)
Annual PM-2.5 Emissions =	0.0080	tpy	= (Storage Pile Area) x (Annual Pile Days) x (PM-2.5 Emissions Factor) / (2000 lb/ton)

PM Emissions due to Wind Erosion from Product Cooling Pad			
Parameter	Value	Units	Source / Basis
Volume of Product on Cooling Pad =	369	ft3	Estimate = two days' worth of product)
Thickness of Material =	0.5	ft	Estimate
Cooling Pad Area =	738	ft2	Surface area of conical pile.
Cooling Pad Area =	0.02	acre	= (Cooling Pad Area - ft2) / (43,560 ft2/acre)
Annual Pile Days =	233	days/yr	Annual receiving rate / daily reclaim rate
Silt Content (s) =	50	wt. %	Worst-case estimate.
Threshold Wind Speed (f) =	20	% of time	From Soda Springs met data (% of time > 5.4 m/s @ 10m elevation).
Days with > 0.01" of precipitation (p) =	100	days/yr	AP-42; Figure 13.2.1-2; 1/11.
PM Particle Size Multiplier =	1		Air Pollution Engineering Manual; p 136; AWMA; 1992.
PM-10 Particle Size Multiplier =	0.5		Air Pollution Engineering Manual; p 136; AWMA; 1992.
PM-2.5 Particle Size Multiplier =	0.2		Air Pollution Engineering Manual; p 136; AWMA; 1992.
PM Emissions Factor =	85.2	lb/day/acre	Air Pollution Engineering Manual; p 136; Eqn. 5 (active storage piles); AWMA; 1992.
PM-10 Emissions Factor =	42.6	lb/day/acre	Air Pollution Engineering Manual; p 136; Eqn. 5 (active storage piles); AWMA; 1992.
PM-2.5 Emissions Factor =	17.0	lb/day/acre	Air Pollution Engineering Manual; p 136; Eqn. 5 (active storage piles); AWMA; 1992.
PM Emissions (24-hr avg basis) =	0.0602	lb/hr	= (Cooling Pad Area) x (PM Emissions Factor) / (24 hr/day)
PM-10 Emissions (24-hr avg basis) =	0.0301	lb/hr	= (Cooling Pad Area) x (PM-10 Emissions Factor) / (24 hr/day)
PM-2.5 Emissions (24-hr avg basis) =	0.0120	lb/hr	= (Cooling Pad Area) x (PM-2.5 Emissions Factor) / (24 hr/day)
Annual PM Emissions =	0.1685	tpy	= (Cooling Pad Area) x (Annual Pile Days) x (PM Emissions Factor) / (2000 lb/ton)
Annual PM-10 Emissions =	0.0843	tpy	= (Cooling Pad Area) x (Annual Pile Days) x (PM-10 Emissions Factor) / (2000 lb/ton)
Annual PM-2.5 Emissions =	0.0337	tpy	= (Cooling Pad Area) x (Annual Pile Days) x (PM-2.5 Emissions Factor) / (2000 lb/ton)

PM Emissions due to Raw Rock Transfer Points		
Parameter	Value Units	Source / Basis
Mean Wind Speed [U] =	8.4 mph	Approximate monthly average wind speed @ Soda Springs.
PM Particle Size Multiplier [k] =	0.7	AP-42, Sec. 13.2.4, p. 13.2.4-4; 1/95.
PM10 Particle Size Multiplier [k] =	0.4	AP-42, Sec. 13.2.4, p. 13.2.4-4; 1/95.
PM2.5 Particle Size Multiplier [k] =	0.1	AP-42, Sec. 13.2.4, p. 13.2.4-4; 1/95.
Material Moisture Content [M] =	10.0 wt. %	Unprocessed Rock.
Number of Xfer Points =	2	Unloading to storage pile and Loading to feed hopper.
Applied Control Efficiency =	0.0 wt. %	No control assumed.
PM Emissions Factor =	4.9E-04 lb/ton	AP-42, Sec. 13.2.4, Eqn 1, p. 13.2.4-4;11/06.
PM-10 Emissions Factor =	2.3E-04 lb/ton	AP-42, Sec. 13.2.4, Eqn 1, p. 13.2.4-4;11/06.
PM-2.5 Emissions Factor =	3.5E-05 lb/ton	AP-42, Sec. 13.2.4, Eqn 1, p. 13.2.4-4;11/06.
Hourly Processing Rate =	25.0 ton/hr	Estimated unloading rate.
Annual Processing Rate =	2800.0 ton/yr	Maximum planned annual processing rate.
PM Hourly Emissions =	2.4E-02 lb/hr	= (Number of Xfer Points) x (Hourly Processing Rate) x (PM Emissions Factor)
PM-10 Hourly Emissions =	1.2E-02 lb/hr	= (Number of Xfer Points) x (Hourly Processing Rate) x (PM-10 Emissions Factor)
PM-2.5 Hourly Emissions =	1.7E-03 lb/hr	= (Number of Xfer Points) x (Hourly Processing Rate) x (PM-2.5 Emissions Factor)
PM Annual Emissions =	1.4E-03 ton/yr	= (Number of Xfer Points) x (Annual Processing Rate) x (PM Emissions Factor) / (2000 lb/ton)
PM-10 Annual Emissions =	6.5E-04 ton/yr	= (Number of Xfer Points) x (Annual Processing Rate) x (PM-10 Emissions Factor) / (2000 lb/ton)
PM-2.5 Annual Emissions =	9.8E-05 ton/yr	= (Number of Xfer Points) x (Annual Processing Rate) x (PM-2.5 Emissions Factor) / (2000 lb/ton)

PM Emissions due to Calciner Product Transfer Points			
Parameter	Value	Units	Source / Basis
Mean Wind Speed [U] =	8.4	mph	Approximate monthly average wind speed @ Soda Springs.
PM Particle Size Multiplier [k] =	0.7		AP-42, Sec. 13.2.4, p. 13.2.4-4; 1/95.
PM10 Particle Size Multiplier [k] =	0.4		AP-42, Sec. 13.2.4, p. 13.2.4-4; 1/95.
PM2.5 Particle Size Multiplier [k] =	0.1		AP-42, Sec. 13.2.4, p. 13.2.4-4; 1/95.
Material Moisture Content [M] =	2.0	wt. %	Processed Rock.
Number of Xfer Points [N] =	2.0		From kiln to stockpile & from stockpile to trucks.
Applied Control Efficiency =	0.0	wt. %	No control assumed.
PM Emissions Factor =	4.6E-03	lb/ton	AP-42, Sec. 13.2.4, Eqn 1, p. 13.2.4-4;11/06.
PM-10 Emissions Factor =	2.2E-03	lb/ton	AP-42, Sec. 13.2.4, Eqn 1, p. 13.2.4-4;11/06.
PM-2.5 Emissions Factor =	3.3E-04	lb/ton	AP-42, Sec. 13.2.4, Eqn 1, p. 13.2.4-4;11/06.
Hourly Processing Rate =	25.0	ton/hr	Estimated unloading rate.
Annual Processing Rate =	2800.0	ton/yr	Maximum planned annual processing rate.
PM Hourly Emissions =	0.23	lb/hr	= (Number of Xfer Points [N]) x (Hourly Processing Rate) x (PM Emissions Factor)
PM-10 Hourly Emissions =	0.11	lb/hr	= (Number of Xfer Points [N]) x (Hourly Processing Rate) x (PM-10 Emissions Factor)
PM-2.5 Hourly Emissions =	0.02	lb/hr	= (Number of Xfer Points [N]) x (Hourly Processing Rate) x (PM-2.5 Emissions Factor)
PM Annual Emissions =	0.01	ton/yr	= (Number of Xfer Points [N]) x (Annual Processing Rate) x (PM Emissions Factor) / (2000 lb/ton)
PM-10 Annual Emissions =	0.01	ton/yr	= (Number of Xfer Points [N]) x (Annual Processing Rate) x (PM-10 Emissions Factor) / (2000 lb/ton)
PM-2.5 Annual Emissions =	0.00	ton/yr	= (Number of Xfer Points [N]) x (Annual Processing Rate) x (PM-2.5 Emissions Factor) / (2000 lb/ton)

Constants

Constant	Value	Units	Basis
Max Hourly Rate =	1,500	lb/hr	Proposed permit limit.
Max Daily Hours =	24	hr/day	
Max Annual Rate =	2,800	T/yr	Proposed permit limit.
Rock Bulk Density =	130	lb/ft3	
Mean number of days with 0.01 inch or more of precipitation =	100	days/yr	
Soda Springs Threshold Wind Speed Fraction =	20	% of time	From Soda Springs met data (% of time > 5.4 m/s @ 10m elevation).
Soda Springs Mean Wind Speed =	8.4	mph	
SCF per lb-mole =	385.6	SCF/lbmol	SCF @ 68 °F.
micrograms per milligram =	1,000	ug/mg	
PM10 Fraction of Controlled Emissions =	100.0%	wt. %	See 'Calciner Stack PSD data' sheet.
PM2.5 Fraction of Controlled Emissions =	50.4%	wt. %	See 'Calciner Stack PSD data' sheet; linear interpolation.
Feet per Meter =	3.2808	ft/m	
Natural Gas Higher Heating Value =	1,020	Btu/SCF	AP-42, C1, S4.
Calciner Burner Maximum Heat Input =	2.0	MMBtu/hr	Vendor data.
Calciner Stack Modeled Impact (24-hr) =	49.3680	ug/m3/lb/hr	See Section 4 and Appendix D of Application.
Calciner Stack Modeled Impact (Annual) =	15.4067	ug/m3/lb/hr	See Section 4 and Appendix D of Application.
Cyclone PM Control Efficiency =	75.0%	wt. %	Design Basis
Scrubber PM Control Efficiency =	98.0%	wt. %	Design Basis
Scrubber SO2 Control Efficiency =	80.0%	wt. %	Design Basis
Scrubber Fluoride Control Efficiency =	80.0%	wt. %	Conservative estimate - see "Emission Factor Documentation for AP-42 Section 11.21", p. 20.
Short-Term TAP Adjustment Factor =	10		IDAPA Section 210.15.

Test-Based Emissions Factors

Basis for Pilot Kiln Emission Factors		
Feed Rate to Test Kiln =	200 lb/hr	
Raw Test Results		Test EF (uncontrolled)
Compound	lb/hr	lb/ton
Antimony	4.46E-05	4.46E-04
Arsenic	8.37E-04	8.37E-03
Beryllium	4.72E-05	4.72E-04
Cadmium	1.51E-02	1.51E-01
Chromium	9.49E-03	9.49E-02
Chromium (VI)	2.88E-03	2.88E-02
Cobalt	7.20E-05	7.20E-04
Manganese	1.81E-03	1.81E-02
Mercury	2.03E-05	2.03E-04
Nickel	1.34E-03	1.34E-02
Selenium	7.89E-04	7.89E-03
Zinc	5.16E-02	5.16E-01
Fluoride	1.09E-01	1.09E+00
Carbon Monoxide	4.10E-02	4.10E-01
Sulfur Dioxide	8.09E-01	8.09E+00
Nitrogen Oxides	1.40E-01	1.40E+00
Total VOCs	6.70E-03	6.70E-02
GHGs	1.23E+02	1.23E+03
Phosphate	9.30E-04	9.30E-03
PM	3.01E+01	3.01E+02
Lead	1.28E-04	1.28E-03

NOTE:

Virtually none of the Cr in the raw rock is Cr VI; However, as a conservative estimate, the Cr VI content of the total Cr emissions from the Calciner is assumed equal to 30% of total Cr emissions based on the Cr VI-to-Cr ratio in AP-42, C01S01.

The particle size data for the final exhaust stack is summarized in the following table:

Test Location	Filter "Cut" Size, Microns	Percent, by weight, less than the cut size
Final Stack	0.35	0 %
	0.87	9.1 %
	1.72	36.4 %
	2.73	54.5 %
	5.92	81.8 %
	9.45	100 %

Linear Interpolation	
Size (µm)	wt. %
2.5	50%

APPENDIX D

Air Quality Impacts Documentation

Jack Burke

From: Kevin.Schilling@deq.idaho.gov
Sent: Monday, June 03, 2013 12:02 PM
To: Jack Burke
Cc: John.Cunningham@simplot.com; dustin.hansen@simplot.com; burl.ackerman@Simplot.com; burke@rtpenv.com; michelle.reesman@simplot.com; David Keen
Subject: RE: Protocol Approval

Jack,

DEQ has evaluated the information in the protocol and the supplemental information submitted in your May 30, 2013, email and determined that Level II modeling thresholds are appropriate for the proposed project. This decision is based on the following:

1) The distance to the ambient air boundary provides for greater dispersion;
2) There are no existing large sources of SO2 at the site;
3) Dispersion characteristics of the proposed source should be reasonably good (elevated release and warm stack gas to promote plume rise).

Please include this email response in the submitted application along with the protocol approval notice.

Please contact me if you have any additional questions or concerns.

Kevin Schilling
Stationary Source Air Modeling Coordinator
Idaho Department of Environmental Quality
208 373-0112

From: Jack Burke [mailto:burke@rtpenv-nc.com]
Sent: Thursday, May 30, 2013 5:14 AM
To: Kevin Schilling
Cc: John.Cunningham@simplot.com; dustin.hansen@simplot.com; burl.ackerman@Simplot.com; burke@rtpenv.com; michelle.reesman@simplot.com; David Keen
Subject: RE: Protocol Approval

Kevin,

The project involves construction of a single point source - the pilot calciner, which will vent through a stack. The calciner will emit SO2, NOx and possibly PM2.5 at rates in excess of the Level I thresholds. All pollutant emissions will be below the Level II thresholds. The other emissions sources that are part of the project are the fugitive PM sources (i.e., roads, transfer points, and storage piles).

The only existing emissions sources at this location are emergency generators.

The closest point to the calciner stack that the general public has access to is about 700 meters to the Northeast.

Please let me know if you need additional info.

Jack Burke
RTP Environmental Associates, Inc.
304A West Millbrook Road
Raleigh, NC 27609
W1: 919.845.1422 X39
W2: 919.508.6921
C: 919.349.1108
F: 919.845.1422

From: Kevin.Schilling@deq.idaho.gov [mailto:Kevin.Schilling@deq.idaho.gov]
Sent: Wednesday, May 29, 2013 11:17 AM
To: Jack Burke
Cc: John.Cunningham@simplot.com; dustin.hansen@simplot.com; burl.ackerman@Simplot.com; burke@rtpenv.com; michelle.reesman@simplot.com
Subject: RE: Protocol Approval

Jack,

I have several questions to evaluate the appropriateness of using level 2 modeling thresholds:

1) What is the distance to ambient air (closest distance to location where public access is allowed).
2) Is this the only SO2 source at the facility? If not, what are the other sources and their approximate emissions of SO2.

Thank you,

Kevin

From: Jack Burke [burke@rtpenv-nc.com]
Sent: Wednesday, May 29, 2013 6:06 AM
To: Kevin Schilling
Cc: John.Cunningham@simplot.com; dustin.hansen@simplot.com; burl.ackerman@Simplot.com; burke@rtpenv.com; michelle.reesman@simplot.com
Subject: RE: Protocol Approval

Kevin,

I have a clarifying question regarding the Simplot Conda protocol approval. If the emissions of a pollutant (e.g., SO2) are below the Level II threshold but above Level I, is DEQ requiring modeling for that pollutant? Please let me know ASAP. Thanks in advance.

Jack Burke
RTP Environmental Associates, Inc.
304A West Millbrook Road
Raleigh, NC 27609
W1: 919.845.1422 X39
W2: 919.508.6921
C: 919.349.1108
F: 919.845.1422

From: Kevin.Schilling@deq.idaho.gov [mailto:Kevin.Schilling@deq.idaho.gov]
Sent: Monday, May 20, 2013 5:23 PM

To: michelle.reesman@simplot.com
Cc: John.Cunningham@simplot.com; dustin.hansen@simplot.com; burl.ackerman@Simplot.com; burke@rtpenv.com
Subject: Protocol Approval

John,

Attached is a modeling protocol approval for the proposed pilot calciner at the J.R. Simplot Conda facility.

Please contact me if you have any additional questions or concerns.

Kevin Schilling
Stationary Source Air Modeling Coordinator
Idaho Department of Environmental Quality
208 373-0112

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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

C. L. "BUTCH" OTTER, GOVERNOR
CURT FRANSEN, DIRECTOR

May 20, 2013

John Cunningham
Smoky Canyon EHS Manager
J.R. Simplot Company
Boise, ID

RE: Modeling protocol for the Permit to Construct application for the proposed J.R. Simplot Pilot Calciner at the Simplot Conda facility.

John:

DEQ received your dispersion modeling protocol received by DEQ on April 24, 2013. The modeling protocol was submitted on behalf of J.R. Simplot Company (Simplot). The modeling protocol proposes methods and data for use in the ambient impact analyses of a Permit to Construct (PTC) application for a proposed Pilot Calciner at the Simplot Conda facility.

The modeling protocol has been reviewed and DEQ has the following comments:

- Comment 1: The submitted application must provide clear, thorough, and complete justification and documentation of release parameters of all sources included in the modeling analyses. As results approach applicable standards, DEQ will demand a greater degree of stack parameter justification. If DEQ finds that stack locations or other parameters were incorrectly specified in the modeling analyses, the application will be declared incomplete or denied.

- Comment 2: The proposed receptor grid may be somewhat coarse. It is the applicant's responsibility to use a sufficiently tight receptor network such that the maximum modeled concentration is reasonably resolved. The receptor grid should be sufficiently tight such that receptors near the maximum-impacted receptor do not show substantially different concentrations than that of the maximum-impacted receptor.

- Comment 3: The specified emissions rates in the protocol were not reviewed by the DEQ modeling group, so approval of this protocol does not constitute approval of emissions calculation methods.

- Comment 4: The protocol states that ambient air receptors were not excluded from any locations because there is no fence to preclude public access. This is certainly an acceptable approach and conservative. However, DEQ will allow areas to be excluded from ambient air in certain instances even though a fence is not present. Please refer to the *State of Idaho Air Quality Modeling Guideline*, which is available on the Internet at http://www.deq.state.id.us/air/permits_forms/permitting/modeling_guideline.pdf, for further guidance on acceptable methods to effectively preclude public access in the absence of a fence.

- Comment 5: $PM_{2.5}$ emissions estimates were sent to DEQ from Jack Burke of RTP Environmental Associates, Inc. on May 7, 2013. These estimates indicated that 24-hour $PM_{2.5}$ and PM_{10} emissions could be 0.64 lb/hr and 0.91 lb/hr, respectively, after considering fugitives from road dust, transfer points, and storage piles. DEQ's Level I $PM_{2.5}$ modeling threshold is 0.054 lb/hr and the $PM_{2.5}$ Level II modeling threshold is 0.63 lb/hr. The PM_{10} Level I modeling threshold is 0.22 lb/hr and the PM_{10} Level II threshold is 2.6 lb/hr. $PM_{2.5}$ emissions exceed both Level I and II thresholds, and PM_{10} emissions exceed the Level I thresholds.

  Modeling thresholds are designed to assure that impacts at an existing facility do not exceed levels defined as a "significant contribution." Since there are no other emissions sources at the Simplot Conda site, it is more appropriate to adjust the thresholds to ensure compliance with NAAQS rather than Significant Impact Levels (SILs). When $PM_{2.5}$ thresholds are adjusted for NAAQS compliance, using the 35 $\mu g/m^3$ NAAQS and a conservatively high assumed background of 15 $\mu g/m^3$, the Level I threshold is 0.90 lb/hr and the Level II threshold is 10.5 lb/hr. PM_{10} adjust thresholds, based on the 150 $\mu g/m^3$ NAAQS and a 73 $\mu g/m^3$ background, are 3.4 lb/hr for Level I and 40 lb/hr for Level II.

  $PM_{2.5}$ emissions of 0.64 lb/hr and PM_{10} emissions of 0.92 lb/hr are well below both adjusted Level I and Level II thresholds. Site-specific $PM_{2.5}$ and PM_{10} modeling will not be required for this project, considering the level of emissions, the absence of other emissions sources at the site, the actual distance between the sources and the property boundary, the temporary nature of the emissions sources, and the potential for exposure to any sensitive receptors (residences, schools, hospitals, etc.).

DEQ's modeling staff considers the submitted dispersion modeling protocol, with resolution of the additional items noted above, to be approved. It should be noted, however, that the approval of this modeling protocol is not meant to imply approval of a completed dispersion modeling analysis. Please refer to the *State of Idaho Air Quality Modeling Guideline*, which is available on the Internet at http://www.deq.state.id.us/air/permits_forms/permitting/modeling_guideline.pdf, for further guidance.

To ensure a complete and timely review of the final analysis, our modeling staff requests that electronic copies of all modeling input and output files (including BPIP and AERMAP input and output files) are submitted with an analysis report. If DEQ provided model-ready meteorological data files, then these do not need to be resubmitted to DEQ with the application. If you have any further questions or comments, please contact me at (208) 373-0112.

Sincerely,

Kevin Schilling

Kevin Schilling
Stationary Source Air Modeling Coordinator
Idaho Department of Environmental Quality
208 373-0112

D/ Smoky Canyon / Air Quality / 2013

J.R. SIMPLOT COMPANY ONE CAPITAL CENTER 999 MAIN STREET SUITE 1300
P.O. BOX 27 BOISE, IDAHO 83707 (208) 336-2110 FAX (208) 389-7515

CORPORATE HEADQUARTERS

April 22, 2013

SENT VIA CERTIFIED MAIL #7009 0080 0001 0391 6778
RETURN RECEIPT REQUESTED

FILE COPY

Kevin Schilling
Idaho Department of Environmental Quality
1410 N. Hilton
Boise, ID 83706

Mr. Schilling,

Enclosed is the Air Dispersion Modeling Protocol for the proposed Pilot Calciner at the J.R. Simplot Conda facility for your review and approval.

Please call Chelly Reesman at 208.389.7558 if you have any questions.

Sincerely,

John Cunningham
Smoky Canyon EHS Manager

Enclosure

Cc: Burl Ackerman, J.R. Simplot Company
Scott Lusty, J.R. Simplot Company
Chris Pace, J.R. Simplot Company
Dustin Hanson, J.R. Simplot Company
Chelly Reesman, J.R. Simplot Company

AIR DISPERSION MODELING PROTOCOL FOR THE PROPOSED PILOT CALCINER AT THE SIMPLOT CONDA FACILITY IN CARIBOU COUNTY IDAHO

Prepared for:
J.R. Simplot Company
999 Main St., Suite 1300
Boise, ID 83702

Prepared by:
RTP Environmental Associates
304A West Millbrook Road
Raleigh, North Carolina 27609

April 2013

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1.0 INTRODUCTION

J. R. Simplot Company (Simplot) is planning a project to install a small-scale calciner on Simplot property near Conda Caribou County, Idaho. This calciner will be operated as a pilot project and on a temporary basis to determine whether the concept of calcining certain phosphate rock from the Smoky Canyon mine is a feasible means of beneficiation. Simplot anticipates that the pilot project will operate for one year or less.

The construction will result in emissions of regulated NSR pollutants as well as Toxic Air Pollutants (TAP) regulated under Idaho Air Rules Section 585 and 586. This document presents the protocol for the air quality dispersion modeling analysis to be conducted for emissions the proposed facility.

The protocol conforms with the modeling procedures outlined in the IDEQ's Guideline for Performing Air Quality Impact Analysis[1], the Environmental Protection Agency's Guideline on Air Quality Models[2] and associated EPA modeling policy and guidance including by not limited to the New Source Review Workshop Manual (Draft)[3].

2.0 PROJECT DESCRIPTION

The equipment to be installed and operated at Simplot's Conda site to support the pilot beneficiation project is illustrated in Figure 1 and it includes:

- A receiving/storage pile;
- A feed hopper and feed screw conveyor;
- A small-scale calciner that will be equipped with a cyclone for product recovery and a quench/spray tower and wet scrubber for emissions control; and
- A product storage bin/pile.

Crushed phosphate rock will be received by truck at the site and unloaded onto a storage pile. A front-end loader will be used to move this rock from the pile into a feed hopper. From the hopper, an enclosed screw conveyor will convey the rock into the calciner. It is anticipated that the feed rate to the calciner will be less than 1 ton per hour and that the calciner will be operated for less than 16 hour per day, five days per week.

The rock fed to the calciner will be heated from ambient temperature to temperatures up to about 1,500 °F. Heating volatilizes and oxidizes organic impurities in the rock, thereby increasing the phosphate content. Natural gas will be used to preheat the calciner and provide supplemental heat if needed. The phosphate rock product will discharge from the kiln into a collection bin for later transportation off-site. Exhaust gases from the kiln will first pass through a cyclone collector which serves to recover product and as a primary emissions control device. The gases leaving the cyclone will be quenched and scrubbed in a water scrubber to reduce particulate emissions before being discharged through a 40' tall stack.

While the emission calculations for the project are not finalized, preliminary calculations indicate that the project may result in an increase in emissions of SO_2 that is above the

IDEQ Modeling Guideline Level I modeling thresholds[1], while certain TAPs may be emitted at rates above the screening emissions levels found at IDAPA 58.01.01, §§ 585 and 586.

[1] Engineering of the scrubber is still ongoing and the final determination of the calciner's SO_2 PTE will depend on the SO_2 control efficiency of this device, which has yet to be finalized.

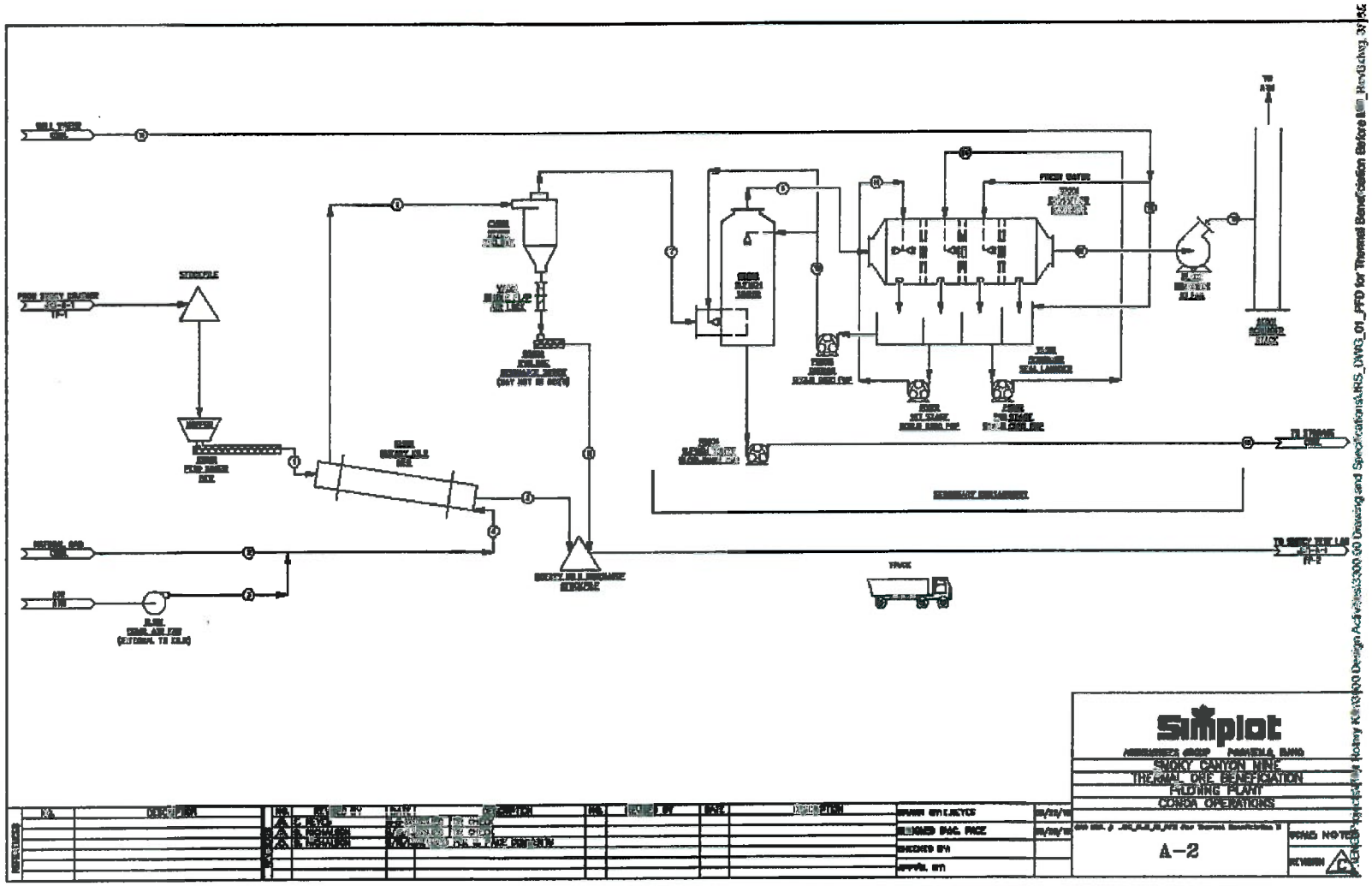

Figure 1. Process Flow Diagram

3.0 SITE DESCRIPTION

The Simplot facility facility will occupy approximately 30 acres and is located approximately 7 km northeast of Soda Springs in Caribou County. The approximate Universal Transmercator (UTM) coordinates of the facility are 456,777 meters east and 4,730,954 meters north (UTM Zone 12, NAD 83). Figure 2 shows the general location of the facility. Figure 3 shows the specific facility location on a 7.5 minute USGS topographic map.

The facility will be classified under the regulations governing Prevention of Significant Deterioration (40 CFR 52.21) and Title V (40 CFR 70.2) as a minor source of air pollution. Caribou County is designated as attainment or unclassifiable for $PM_{2.5}$, PM_{10}, SO_2, NO_2, CO, lead, and Ozone (40 CFR 81.313).

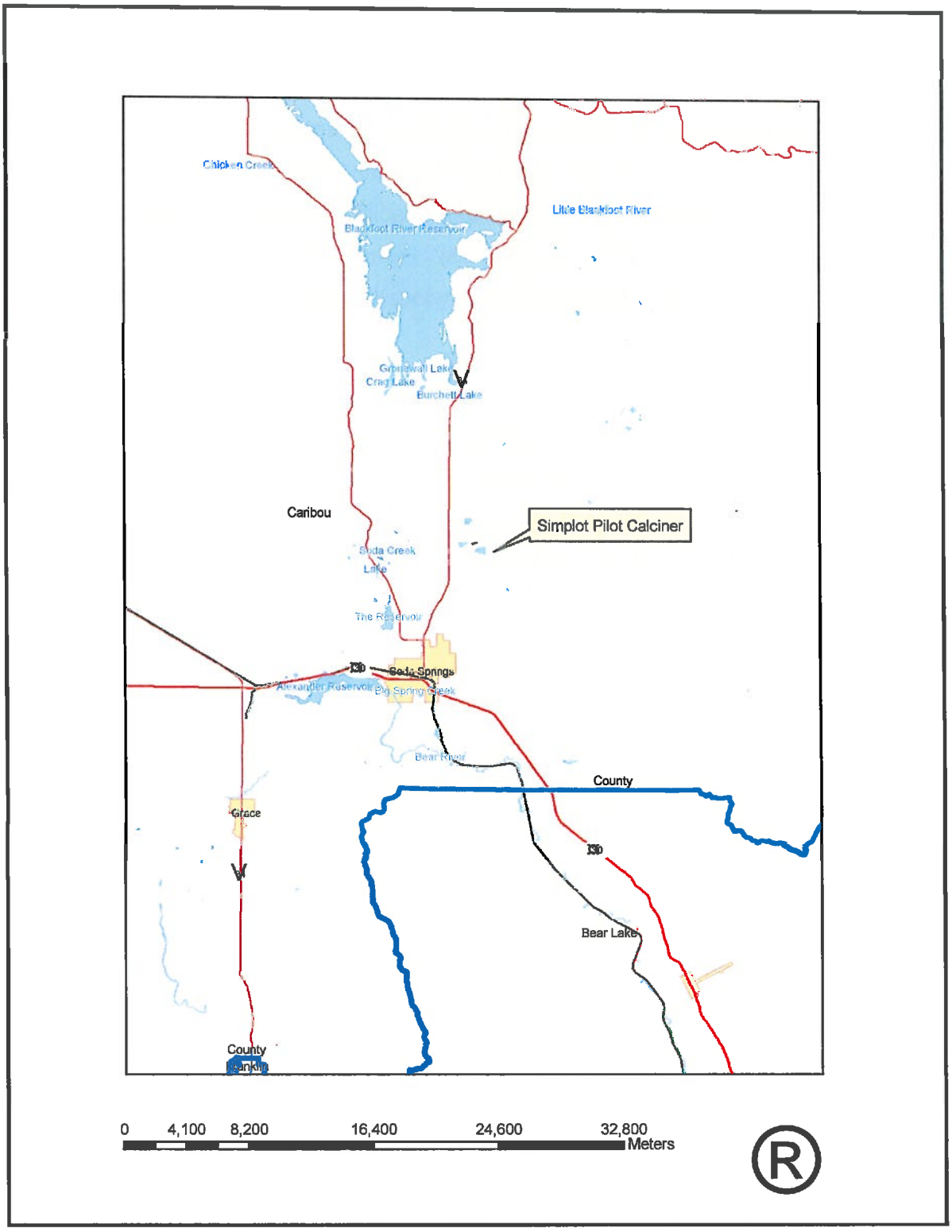

Figure 2. General Location of the Simplot Facility

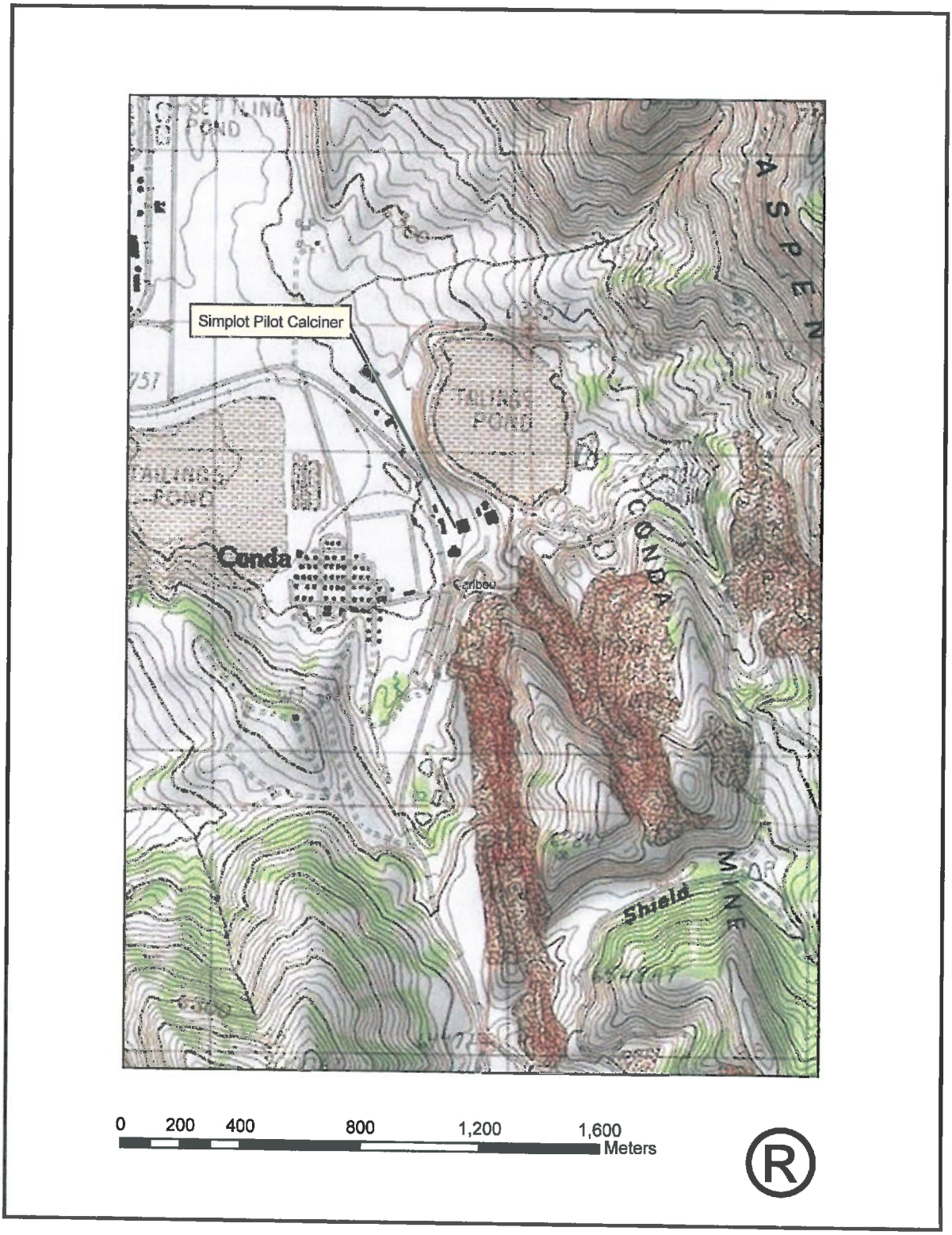

Figure 3. Specific Location of the Simplot Facility

4.0 MODEL SELECTION AND MODEL INPUT

4.1 Model Selection

The latest version of the AMS/EPA Regulatory Model (AERMOD, Version 12345) is proposed for conducting the dispersion modeling analysis. AERMOD is a Gaussian plume dispersion model that is based on planetary boundary layer principals for characterizing atmospheric stability. The model evaluates the non-Gaussian vertical behavior of plumes during convective conditions with the probability density function and the superposition of several Gaussian plumes. AERMOD is a modeling system with three components: AERMAP is the terrain preprocessor program, AERMET is the meteorological data preprocessor, and AERMOD includes the dispersion modeling algorithms.

AERMOD is the most appropriate model for calculating ambient concentrations near the Simplot facility based on the model's ability to incorporate multiple sources and source types. The model can also account for convective updrafts and downdrafts and meteorological data throughout the plume depth. The model also provides parameters required for use with up to date planetary boundary layer parameterization. The model also has the ability to incorporate building wake effects and to calculate concentrations within the cavity recirculation zone. It is also the model recommended for such studies by the Idaho Department of Environmental Quality (DEQ). All model options will be selected as recommended in the EPA Guidelines on Air Quality Models.

Oris Solution's BEEST graphical user interface (GUI) will be used to run AERMOD. The GUI does not alter the AERMOD code or the dispersion calculations of the AERMOD program. The GUI therefore does not affect the regulatory status of AERMOD.

4.2 Model Control Options and Land Use

AERMOD will be run in the regulatory default mode with rural dispersion coefficients. The selection of the appropriate dispersion coefficients in the model is dependent on the

land use within three kilometers of the facility. The land use typing scheme of Auer was used to determine the proper land use classification near the Simplot site.[4] It was determined that the land use in the vicinity of Simplot is predominantly rural. Therefore, AERMOD will not be run in the urban mode.

4.3 Source Data

Source Characterization

Only one emission source will be evaluated, the proposed new calciner. The calciner will be modeled as a point source in AERMOD. The release parameters are shown in Table 1. A unitized (1 lb/hr) emission rate will be modeled for the calciner and TAP impacts will be scaled based upon the individual TAP emissions. The source location will be based upon a NAD83, UTM Zone 12 projection.

Table 1. Simplot Calciner Model Input Data

Source ID	Source Description	Easting (X) (m)	Northing (Y) (m)	Base Elevation (ft)	Stack Height (ft)	Temp. (°F)	Exit Velocity (ft/sec)	Stack Diameter (ft)
PILOTCAL	Pilot Calciner	456,756.67	4,730,957.84	6221	40	120	59.4	0.5

Good Engineering Practice Stack Height Analysis

A Good Engineering Practice (GEP) stack height evaluation will be conducted. Procedures to be used will be in accordance with those described in the EPA Guidelines for Determination of Good Engineering Practice Stack Height (Technical Support Document for the Stack Height Regulations-Revised)[5]. GEP formula stack height, as defined in 40 CFR 51, is expressed as GEP = H_b + 1.5L, where H_b is the building height and L is the lesser of the building height or maximum projected width. Building/structure locations will be determined from facility site plans. The structure locations and heights will be input to the EPA's Building Profile Input Program (BPIP-PRIME) computer program to calculate the direction-specific building dimensions needed for AERMOD. The preliminary Simplot facility site plan is shown in Figure 4.

Figure 4. Preliminary Simplot Facility Plot Plan

4.4 Receptor Data

Modeled receptors will be placed in all areas considered as "ambient air" pursuant to 40 CFR 50.1(e). Ambient air is defined as that portion of the atmosphere, external to buildings, to which the general public has access.

Approximately 6,500 receptors will be used in the AERMOD analysis. The receptor grid will consist of three Cartesian grids. Since there is no fence to preclude public access, receptors will be placed within the Simplot facility confines. The first Cartesian grid will extend to approximately 500m in all directions. Receptors in this region will be spaced at 50m intervals. The second grid will extend to 2.5km. Receptor spacing in this region will be 100m. The third grid will extend to 7.5km with a spacing of 250m. The receptor grid is designed such that maximum facility impacts fall within the 50m spacing of receptors. The proposed receptor grid spacing is presented in Table 2.

Table 2. Proposed Receptor Grid Spacing

Receptor Spacing (m)	Distance from Facility (m)
50	500
100	2,500
250	7,500

The Simplot facility will be located in southeastern Idaho. Terrain within 5km of the site is mountainous with terrain elevations exceeding 7,000 feet (nearly 800 feet above the Simplot calciner stack base elevation). Receptor elevations and hill height scale factors will be calculated with AERMAP (11103) for each receptor location. The elevation data will be obtained from the USGS 1/3 and/or 1 arc second National Elevation Data (NED) obtained from the USGS. Locations will be based upon a NAD83, UTM Zone 12 projection. The proposed near-field receptor grid is presented in Figure 5.

4.5 Meteorological Data

The DEQ provided a five year, model-ready meteorological dataset (2004-2008) with surface data from Soda Springs and upper air data from Boise. These data are reasonably representative of the Simplot site. The data provided by the DEQ were processed using AERMET version 06341. The AERMET surface headers were changed to version 12345 to allow AERMOD to execute. The five-year windrose is presented in Figure 6.

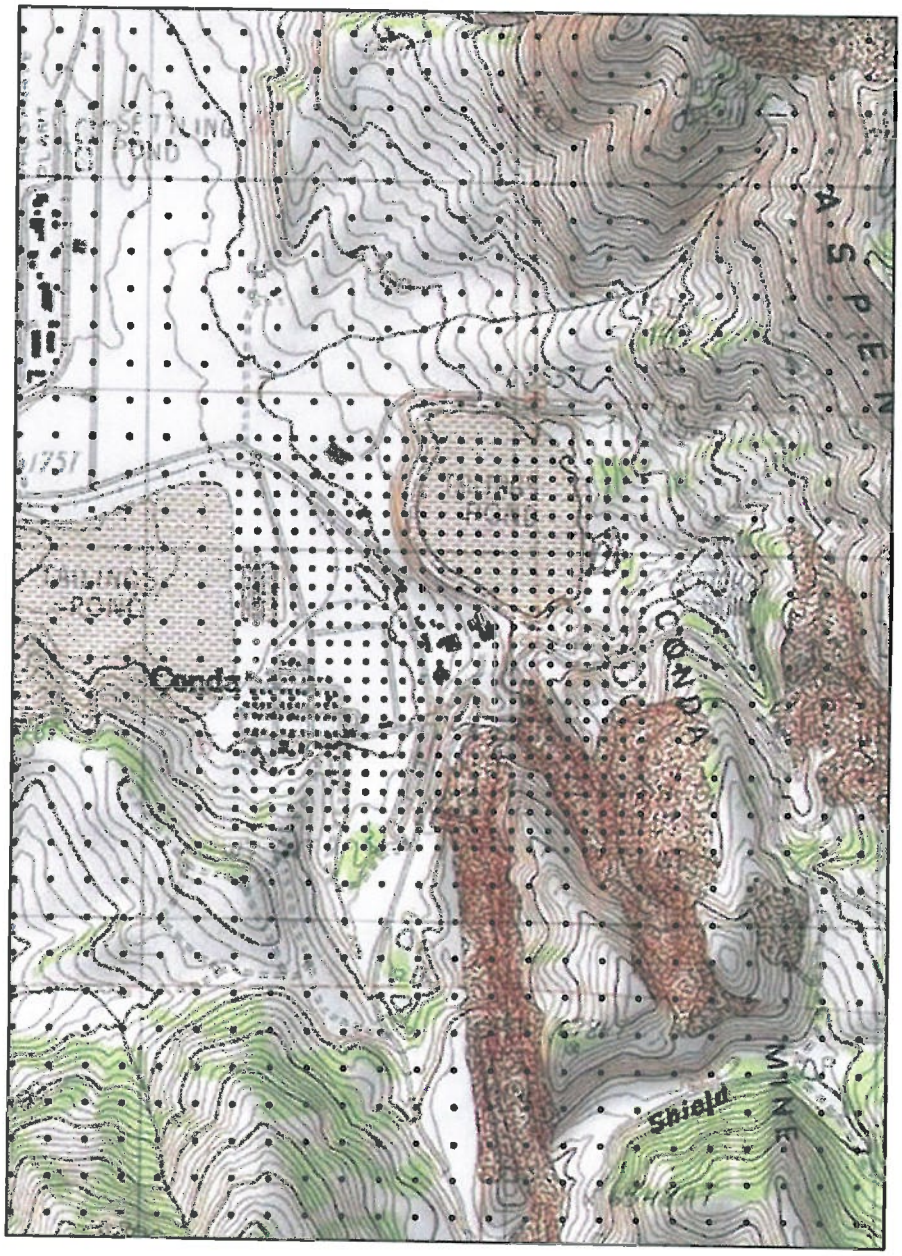

Figure 5. Simplot Near-field Receptor Grid

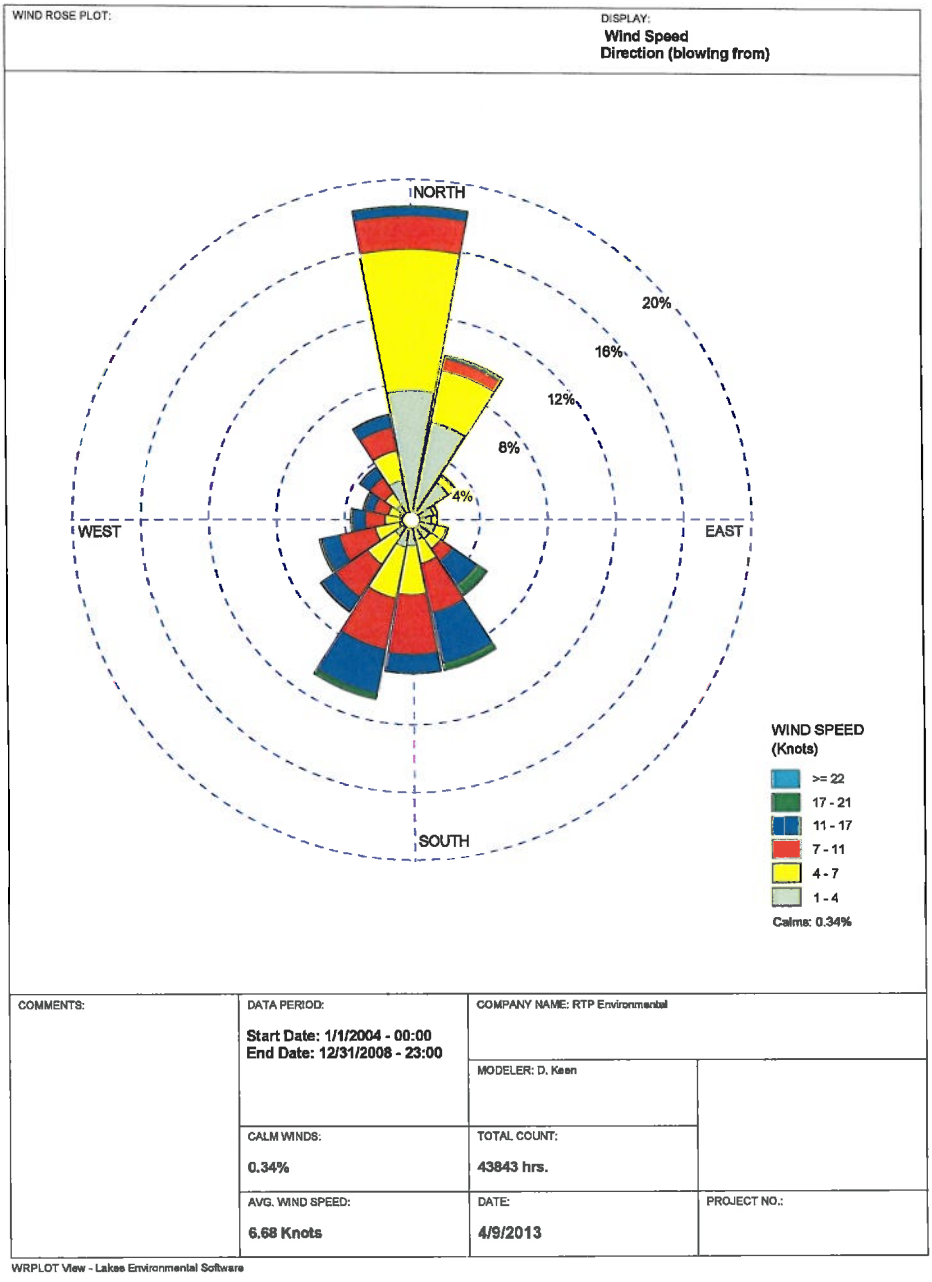

Figure 6. Soda Springs 2004-2008 Windrose

5.0 MODELING METHODOLOGY AND REPORT DATA ELEMENTS

Compliance with the applicable TAP increments of Idaho Air Rules Section 585 for non-carcinogens (AACs) and 586 for carcinogens (AACCs) will be assessed. Additionally, if required by the Department, compliance with applicable SO_2 NAAQS will be evaluated. AERMOD will be used to calculate the appropriate values for assessing compliance with the appropriate TAP increments and the SO_2 NAAQS, if necessary.

A modeling report will be submitted documenting the procedures and the results of the analysis. The report will include summary tables of results, a facility plot plan showing emission release locations and buildings. The plot plan will be drawn to scale. A topographical map of the area will also be submitted. Computer generated modeling results files as well as all model and BPIP input files will be submitted electronically.

REFERENCES

1. State of Idaho Guideline for Performing Air Quality Impact Analyses, Department of Environmental Quality, July 2011.

2. Guidelines on Air Quality Models, (Revised). EPA-450/2-78-027R, Appendix W of 40 CFR Part 51, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina. November 2005.

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5. Guideline for Determination of Good Engineering Practice Stack Height (Technical Support Document for Stack Height Regulations (Revised). EPA-450/4-80-023R, U.S. Environmental Protection Agency, June 1985.