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DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE A Q PROGRAM

December 8, 2011

VIA UPS

Mr. Mike Simon, Stationary Source Program Manager
Idaho Department of Environmental Quality
1410 N. Hilton
Boise, ID 83706

RE: Permit Application for J.R. Simplot Company Western Stockmen's Caldwell, Idaho Facility

Dear Mr. Simon:

Western Stockmen's is seeking an update to the existing Permit to Construct to reflect current business practices at its Caldwell, Idaho Facility. No new construction or modifications to the existing facility are anticipated as part of this application. Please refer to the enclosed application materials. A check covering the application fees in the amount of \$1,000.00 is also enclosed.

If there are any questions concerning the materials provided, please contact me at (208) 455-4834 or Chelly Reesman (208) 389-7558. Thank you for your attention to this matter.

Sincerely,

Ron Parks
Environmental Manager

Enclosure

cc: Alan Prouty

J.R. Simplot Company Western Stockmen's Permit- to-Construct Application Caldwell Facility

Prepared for:

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November 2011



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1.0 INTRODUCTION

J.R. Simplot Company Western Stockmen's (WSI) is proposing to modify the existing air quality Permit to Construct (PTC) for its animal feed and seed processing facility located in Caldwell, Idaho. WSI's Caldwell facility has been operating under PTC 0400-0008 since May 1, 1990. Upon review, it came to the attention of WSI that the existing PTC may need to be updated to reflect the current process. No new facility modifications will occur as a part of this PTC application.

The purpose of this document is to present all necessary and applicable information regarding the facility in support of a PTC Application for the facility. WSI's Caldwell facility will be a minor source for all Criteria and Toxic Air Pollutants. A site location map and plot plan are included in Appendix A for reference.

All applicable required DEQ PTC forms and checklists are included in Appendix B.

2.0 PROCESS DESCRIPTION

WSI's Caldwell facility is comprised of two main operational functions. The first is the production of animal feed products for both bulk and packaged delivery. The second function is the cleaning and processing of crop seed and bulk commodities. Within these main functional categories, WSI produces a range of individual products based on client needs. Feed and seed operations occur in two separate buildings on the WSI property and do not have operational overlap.

2.1 General Process Overview

The WSI Caldwell facility is structured to provide operational flexibility to both the feed and seed operations. For each operation, multiple products can be developed through the utilization of the facilities main processing machinery. As a result, the processes at the facility have been subdivided and described in detail in the sub-sections below.

Commodity Receiving

All raw commodities, such as grain, corn, trace minerals and seed are received at the facility through either truck or rail car. For the feed operations, raw commodities are received via belly dump and are transferred via auger and elevator to ingredient bins for later use. The feed side receiving is separated into two locations, new and old side receiving. Both sides function in a similar manner. Additionally, for the feed operation, a separate belly dump truck only receiving

operation exists for the non-medicated product line. This operation functions in a similar manner to other feed operations with commodities being augured and elevator transferred into storage bins once received.

For the seed operations, raw commodities are received via truck and are unloaded via auger and elevator into storage bins analogous to the feed operations.

Non-medicated Feed Products

In order to ensure no mixing of medicated and non-medicated feed products, the non-medicated feed line is separated from the other feed product lines at the facility. As described earlier, the non-medicated line has its own truck commodity receiving and commodity storage bins. Once the commodities are housed within the storage bins, the ingredients are augured and elevated into a mixer, the product mix is then transferred via auger to the pellet mill for pelletizing of the feed product. The pellets are then screened and the fine portion is returned to the mixer. The finished pellet feed is then manually bagged or placed in bins for bulk sales.

Mixed or Blocked Products

For either the blocked or the pelletized products (discussed below) the main ingredients are weighed and conveyed from ingredient bins or hand added into a main mixer. The finished ingredient mix is then augured and elevator fed to the pellet mills, a block press or a bagging machine.

Standard Pelletized Feed Products

The pelletized feed operations are comprised of four individual pellet mills, with each functioning in a very similar manner to the others. For each mill, raw ingredients are augured or hand added into a primary mixer. The ingredient mix is then sent into a surge hopper then augured and elevated into the pellet mill itself where it is conditioned, pelletized and cooled. The pellets are then screened and the fines are returned to be re-pelletized. The finished pellets are either sent via elevator to bulk load out bins or bagged using a portable bagger.

Rolled Products

In addition to pelletized feed products, the facility can also produce rolled corn and barley feed products. For each, the raw commodities are auger fed into a steam chest then into a roller mill which produces a flat rolled feed. The feed is then cooled and the fines are separated utilizing an air separator. The fines are returned to a bin for reuse. The finished product is sent via elevator to either direct bulk load out bins or bins for later use in texturized products.

Texturized Products

The texturizing process starts with the output of the rolling process. The rolled products are conveyed from their bins to the texturization line. The ingredient mix is screened and then texturized. The finished texturized feed is then either sent to a bagger or to a bulk truck load out.

Seed Cleaning and Processing

On the seed side of the operation, bulk seed is received via truck and auger/elevator fed to storage bins outside of the seed cleaning building. The seed is then auger fed into three separate seed cleaning lines. The three separate seed cleaning lines operate via a shaking and separating process to remove dirt and debris from the seed product. The finished seed is either bagged or transferred into bins for bulk sales.

Bulk Commodity Sales

In addition to produced products, the facility also sells bulk commodities directly. The bulk commodities are received as described previously, stored in bulk storage bins then sold by the truck to rail car load. The commodities are loaded via loadout spouts directly into open top trucks and rail cars.

2.2 WSI Caldwell Facility Process Flow Description

As described in Section 2.1, the facility is divided into feed and seed operations. As such, the process flow description for each of these operations will be described separately. For the feed operations, numerous products are produced. As a result, a sample process flow has been described and caveated to account for changes based on the production of other possible products.

2.2.1 Seed Operations

Seed operations begin with the delivery by truck of raw seeds or grain. The commodities are unloaded via auger and transferred via elevator to storage bins. A small amount of bulk grain sales occurs using the seed operation side, these commodities are directly loaded into trucks via a loading spout from the storage bins.

Once in the storage bins, the seeds are transferred to one of three seed cleaning towers. Each tower uses screening and vibration to separate the seed from other debris. Once cleaned, the finished seeds are transferred to storage bins. The seeds are then loaded for bulk sales or bagged for individual bagged sales.

2.2.2 Feed Operations

Feed operations begin with the delivery of bulk commodities via truck or rail car load. For each delivery method, the commodities are elevator transferred to storage bins. Some raw commodities are directly sold and are transferred to either rail car or truck via load out spout.

For product development, ingredients from the storage bins are weighted and mixed with additional additives. The finished ingredient mix is then either directly bagged, pressed into feed blocks, rolled and texturized or pelletized. For each feed process, the final product is transferred to either bulk load out bins in preparation for bulk sales or bagged for bagged sales. The bulk products are then loaded into either rail car or truck. This process is completed for both the main product line and the non-medicated product line.

Explicit process flow diagrams for each of the onsite processes are contained in Appendix C.

2.3 Emissions Source Description

Emissions were calculated for all onsite sources at the facility. The emissions were calculated based on EPA approved AP-42 calculation methodologies. Qualitative emissions source descriptions for each onsite emissions source are listed below. Total quantitative emissions are detailed in section 4 of this PTC and emissions spreadsheets will be provided electronically.

Commodity Receiving

Emissions from raw commodities receiving occur from rail and truck unloading and from commodity transfers into raw commodity storage.

Non-medicated Feed Products

Emissions from the non-medicated feed line include all emissions sources from non-medicated commodity receiving, storage, conveying and processing. The non-medicated line is controlled by a fines removal separator and a bag house.

Mixed, Blocked and Pelletized Products

Feed process emissions account for all processes including ingredient mixing, transfers, screening and pelletizing. Each of these processes is controlled via mechanical separation and baghouses.

Rolled and Texturized Products

The rolling and texturizing process emissions account for storage, screening, and fines product removal. Each of these processes is controlled via mechanical separation.

Seed Cleaning and Processing

Seed cleaning emissions account for the storage, transfer and active cleaning process of seeds on each of the three seed cleaning lines. In addition, total emissions account for emissions associated with seed bagging, screening and product loading.

Bulk Loadout

The facility sells bulk raw commodities, bulk processed products and bulk seed products. For each of these processes, loadout emissions are calculated for the transfer of commodities to either rail or truck.

Boilers

Boiler emissions account for the combustion of natural gas in each of the three natural gas boilers onsite. Two boilers are located in the main feed processing area while the third boiler services the non-medicated line area.

3.0 REGULATORY APPLICABILITY

A review of applicable State and Federal Rules for each emissions unit is provided in Sections 3.1 and 3.2 below.

3.1 State Regulatory Applicability

A review of applicable requirements of the Rules for the Control of Air Pollution in Idaho is provided in Table 3-1. Each regulation requiring additional description is detailed in the sections following the table.

Table 3-1 State Regulatory Applicability Summary

| Regulation | Description | Applicable | Location of Information In Document or Comments |
|-----------------|--|----------------------|---|
| IDAPA 58.01.01. | | | |
| 200 | Procedures and Requirements for Permits to Construct | Yes | NA |
| 201 | Permit to Construct Required | Yes | NA |
| 202 | Application Procedures | Yes – only 202.01.a. | Sections 1 - 3 |
| 203 | Permit Requirements for New and Modified Stationary | Yes | Sections 3 - 4 |

| Regulation IDAPA 58.01.01. | Description | Applicable | Location of Information In Document or Comments |
|----------------------------|--|------------|--|
| | Sources | | |
| 204 | Permit Requirements for New Major Facilities or Major Modifications in Nonattainment Areas | No | NA – WSI is not located in a nonattainment area and the project is not Major |
| 205 | Permit Requirements for new Major Facilities or Major Modification in Attainment or Unclassifiable Areas | No | Not a major modification – Section 4 |
| 206 | Optional Offsets for Permits to Construct | No | NA – Offsets are not required |
| 207 | Requirements for Emission Reduction Credit | No | NA |
| 208 | Demonstration of Air Quality Benefit | No | NA |
| 209 | Procedures for Issuing Permits | Yes | See below |
| 209.01 | General Procedures | No | Pertains to IDEQ |
| 209.02 | Additional Procedures for Specified Sources | No | NA |
| 209.03 | Good Engineering Stack Height | No | NA |
| 209.04 | Revisions of Permits to Construct | Yes | Pertains to IDEQ |
| 209.05 | Permit to Construct Procedures | No | |
| 209.06 | Transfer of Permits | No | |
| 210 | Demonstration of Preconstruction Compliance with Toxic Standards | Yes | Section 3 - 4 |
| 211 | Conditions for Permits to Construct | Yes | Pertains to IDEQ |
| 211.01 | Reasonable Conditions | Yes | Pertains to IDEQ |
| 211.02 | Cancellation | No | NA |

| Regulation IDAPA 58.01.01. | Description | Applicable | Location of Information In Document or Comments |
|----------------------------|---|------------|---|
| 211.03 | Notification to the Department | No | No additional facility changes will be completed |
| 211.04 | Performance Test | No | No additional facility changes will be completed |
| 212 | Obligation to Comply | Yes | See below |
| 212.01 | Responsibility to Comply with All Requirements | Yes | NA |
| 212.02 | Relaxation of Standards or Restrictions | No | NA –The application is not requesting a relaxation of requirements |
| 213 | Pre-Permit Construction | No | NA |
| 214 | Demonstration of Preconstruction Compliance For New and Reconstructed Major Sources of Hazardous Air Pollutants | No | NA – The project does not involve new construction or re-construction of a major source of HAPs |
| 220-223 | Exemptions | No | NA |
| 224 | Permit to Construct Application Fee | Yes | \$2,500 check is attached to application |
| 225 | Permit to Construct Processing Fee | Yes | NA |
| 226 | Payment of Fees for Permits to Construct | Yes | NA |
| 227 | Receipt and Usage of Fees | Yes | Pertains to IDEQ |
| 228 | Appeals | Yes | Generally applicable. |

| Regulation IDAPA 58.01.01. | Description | Applicable | Location of Information In Document or Comments |
|----------------------------|--|------------|---|
| 123 | Certification of Documents | Yes | NA |
| 510-515 | Stack Heights and Dispersion Techniques | No | NA - A new stack is not part of the permit application. |
| 550 | Air Pollution Emergency Rule | No | NA |
| 585-586 | Toxic Air Pollutants | Yes | Section 4 |
| 590 | New Source Performance Standards | No | 40 CFR 60 Subpart Dc is not applicable because the three onsite boilers are rated below 10 MMBtu/hr. See Section 4. |
| 591 | National Emission Standards for Hazardous Air Pollutants | Yes | 40 CFR 63, Subpart DDDDDDD applies to the facility due to facility use of manganese as a feed additive. See Section 4 |
| 625 | Visible Emissions | Yes | NA |
| 650 | Rules for Control of Fugitive Dust | Yes | NA |
| 675 | Fuel Burning Equipment | Yes | Section 4 |
| 702 | Process Weight | Yes | Applies to feed processes. Section 4. |

3.1.1 Certification of Documents

IDAPA 58.01.01.123 requires all documents including application forms for permits to construct, records, and monitoring reports submitted to the Department shall contain a certification by a responsible official. WSI will comply with this requirement and the appropriate certifications by a responsible official are being submitted with this application.

3.1.2 Demonstration of Preconstruction Compliance with Toxic Standards

IDAPA 58.01.01.210 establishes requirements for compliance with toxic standards. WSI will comply with this rule by identifying and calculating the toxic pollutant emission rates from all

applicable emissions units at the facility.

As described in Section 4.0 Emission Summary, WSI calculated the change in Toxic Air Pollutant (TAP) emission rates from all onsite emissions locations. No TAPs emissions rates exceeded the TAP emissions thresholds set by IDEQ.

3.1.3 Ambient Air Quality Standards for Specific Air Pollutants

IDAPA 58.01.01.577 establishes ambient air quality standards for specific air pollutants including PM-10, Sulfur Dioxide, Ozone, Nitrogen Oxide, Carbon Monoxide, Fluorides and Lead. This change to the WSI permit does not exceed any thresholds for analysis for specified air pollutants.

3.1.4 Toxic Air Pollutants

IDAPA 58.01.01.585 and 586 establishes requirements for compliance with toxic air pollutants. WSI has demonstrated compliance since no calculated TAPs emissions exceeded the TAPs emissions thresholds. The TAP Preconstruction Compliance Application Completeness Checklist is included in Attachment B and TAP emissions are shown in Section 4.0 below.

3.1.5 National Emission Standards for Hazardous Air Pollutants

40 CFR 63, 7D - National Emission Standards for Hazardous Air Pollutants Area Source Standards for Prepared Feeds Manufacturing applies to the WSI facility due to the inclusion of manganese in the prepared feed mix.

3.1.6 Visible Emissions

IDAPA 58.01.01.625 restricts discharge of air pollutants into the atmosphere which is greater than 20% opacity for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period. WSI will comply with this rule by completing all routine onsite equipment maintenance and ensuring that the facility is operated within the standards of good engineering practices.

3.1.7 Rules for Control of Fugitive Dust

IDAPA 58.01.01.650 requires that all reasonable precautions be taken to prevent the generation of fugitive dust. WSI will comply with fugitive particulate matter regulations, including through the use of baghouses and fines separators to enclose and filter potential fugitive particulate matter.

3.1.8 Fuel Burning Equipment – Particulate Matter

IDAPA 58.01.01.676 restricts any fuel burning source with a maximum rated input of 10 MMBtu/hr or more to limit the PM released from combustion to 0.015 gr/dscf when utilizing gas as a fuel. WSI will fulfill this requirement for their existing boilers.

3.1.9 Particulate Matter – Process Weight Limitations

IDAPA 58.01.01.701 promulgates restrictions on PM for the entire facility based on process weight. Fuel burning equipment at the facility is not subject to this requirement. Process weight calculations are shown in Table 3-2 below.

Table 3-2 Process Weight Calculations

| Source | Process Weight, PW (lb/hr) | PM-10 Emissions - Estimated (lb/hr) | Process Weight Rate Limitations - E (lb/hr) | In Compliance? (Y/N) |
|-------------------------------|----------------------------|-------------------------------------|---|----------------------|
| Bag House #1 or Bag House #12 | 96348.10 | 4.22E-02 | 19.38 | YES |
| Bag House #2 | 96348.10 | 4.22E-02 | 19.38 | YES |
| Bag House #3 | 24087.02 | 1.80E-01 | 13.70 | YES |
| Bag House #4 | 24087.02 | 3.91E-03 | 13.70 | YES |
| Bag House #5 | 96348.10 | 7.81E-03 | 19.38 | YES |
| Bag House #6 | 9634.81 | 1.49E-01 | 10.90 | YES |
| Bag House #7 | 96348.10 | 1.55E-01 | 19.38 | YES |
| Bag House #8 | 96348.10 | 9.92E-04 | 19.3 | YES |
| Bag House #9 or Bag House #10 | 96348.10 | 4.22E-02 | 19.38 | YES |
| Bag House #11 | 24087.02 | 7.24E-02 | 13.70 | YES |
| Bag House #13 | 96348.10 | 4.22E-02 | 19.38 | YES |
| Bag House #14 | 96348.10 | 9.92E-02 | 19.38 | YES |
| Bag House #15 | 0.49 | 6.56E-04 | 0.03 | YES |
| Cyclone #1 | 0.49 | 7.73E-03 | 0.03 | YES |
| Cyclone #2 | 0.49 | 2.10E-03 | 0.03 | YES |
| Cyclone #3 | 0.49 | 2.27E-02 | 0.03 | YES |

E = Emission Limit = $0.045(PW)^{0.60}$, if PW is less than 9,250 lb/hr. E = $1.10(PW)^{0.25}$, if PW is greater than 9,250 lb/hr.

3.2 Federal Regulatory Applicability

A review of applicable Federal Rules is provided in Table 3-3. Included in Appendix C is the completed federal regulatory applicability PTC form.

Table 3-3 Federal Regulatory Applicability Summary

| Section | Description | Regulatory Citation | Applicable |
|----------------|---|----------------------------|-------------------|
| 3.2.1 | National Ambient Air Quality Standards (NAAQS)- (dispersion modeling) | 40 CFR Part 50 | Yes |
| 3.2.2 | Title V Operating Permit | 40 CFR Part 70 | No |
| 3.2.3 | Air Pollutants (NESHAPs) | 40 CFR Parts 61, 63 | Yes |
| 3.2.4 | New Source Review (NSR) | 40 CFR Part 52 | Yes |
| 3.2.5 | New Source Performance Standards (NSPS) | 40 CFR Part 60 | No |
| 3.2.6 | Acid Rain Requirements | 40 CFR Parts 72–78 | No |
| 3.2.7 | Risk Management Programs For Chemical Accidental Release Prevention | 40 CFR Part 68 | No |

3.2.1 National Ambient Air Quality Standards (NAAQS)

Primary National Ambient Air Quality Standards (NAAQS) are identified in 40 CFR Part 50 and define levels of air quality, which the United States Environmental Protection Agency (USEPA) deems necessary to protect the public health. Secondary NAAQS define levels of air quality, which the USEPA judges necessary to protect public welfare from any known, or anticipated adverse effects of a pollutant. Examples of public welfare include protecting wildlife, buildings, national monuments, vegetation, visibility, and property values from degradation due to excessive emissions of criteria pollutants.

Specific standards for the following pollutants have been promulgated by USEPA: PM_{2.5}, PM₁₀, SO₂, NO_x, CO, ozone, and lead. The WSI facility will emit PM_{2.5}, PM₁₀, SO₂, NO_x, CO, and VOCs, a precursor to ozone. The facility will be a minor source.

3.2.2 Title V (Part 70) Operating Permit

Title V of the Clean Air Act (CAA) created the federal operating permit program. These permitting requirements are codified in 40 CFR Part 70. These permits are required for major sources with a PTE (considering federally enforceable limitations) greater than 100 tpy for any criteria pollutant, 25 tpy for all hazardous air pollutants (HAPs) in aggregate, or 10 tpy of any single HAP. WSI is a minor source because the potential to emit of any criteria pollutant is less than 100 tons per year, the potential to emit of all HAPs in aggregate is less than 25 tpy, and the potential to emit of any single HAP is less than 10 tpy. These do not apply to the WSI facility.

3.2.3 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

National Emission Standards for Hazardous Air Pollutants are discussed in Section 3.1.5 above.

3.2.4 New Source Review (NSR) Requirements

Canyon County is designated as an attainment area for all criteria pollutants. Therefore, the prevention of significant deterioration (PSD) regulations codified in 40 CFR Part 52 could potentially apply to the facility. The PSD rule applies to: (1) a new major source that has the potential to emit 100 tons per year or more for any criteria pollutant for a facility that is one of the 28 industrial source categories listed in 40 CFR § 52.21(b)(1)(i)(a); or (2) a new major source that has the potential to emit 250 tons per year or more of a regulated pollutant if the facility is not on the list of industrial source categories; or (3) a modification to an existing major source that results in a net emission increase greater than a PSD significant emission rate as specified in 40 CFR § 52.21 (b)(23)(i); or (4) a modification to an existing minor source that is major in itself. The WSI facility does not fall under one of the 28 industrial source categories, nor will the PTE exceed 250 tpy for any regulated pollutant. Therefore, WSI is not subject to PSD regulations.

3.2.5 New Source Performance Standards (NSPS)

New Source Performance Standards are not applicable for the WSI facility.

3.2.6 Acid Rain Requirements

The acid rain requirements codified in 40 CFR Parts 72-78 apply only to utilities and other facilities that combust fossil fuel and generate electricity for wholesale or retail sale. The facility does not generate electricity. Therefore, the facility is not subject to the acid rain provisions and will not require an acid rain permit.

3.2.7 Risk Management Programs for Chemical Accidental Release Prevention

The facility is not subject to the Chemical Accidental Release Prevention Program and will not be required to develop a Risk Management Plan (RMP). Facilities that produce, process, store, or use any regulated toxic or flammable substance in excess of the thresholds listed in 40 CFR Part 68 must develop a RMP. The facility does not store any regulated toxic or flammable substances in excess of the applicable thresholds. A RMP is not necessary for this facility.

4.0 EMISSIONS SUMMARY

This section includes all criteria air pollutant and TAPs calculations. A complete emissions inventory is included in Appendix E.

The facility will operate 18 hours per day Monday through Friday and 9 hours per day on Saturday for a total of approximately 5,148 hours per year for all process emissions sources. The boiler at the facility will be run on an 8760 hour per year basis. For the facilities feed operations, they currently produce approximately 20,000 tons of processed feed per feed line, however, emissions estimates assume maximum production of approximately 60,000 tons of processed product per mill. From these outputs, an assumption of approximately 250,000 tons of raw commodity inputs were used for the emissions estimates. The assumption of maximum production was also used for the emissions calculations for the non-medicated feed processes. All feed operation emissions (with the exception of fugitive emissions) are controlled by bag houses.

For the seed operations, an annual production rate of 2,500 tons of processed seed was used for the emissions calculations. This represents the maximum operational seed production on an annual basis. The seed operation is also used on a temporary basis for grain handling and raw commodity sales. The emissions for these processes were included in the raw commodity loading calculations at the feed operations and will account for approximately 10,000 tons per year. All seeds cleaning operations (with the exception of fugitive emissions) are controlled by cyclones.

Based on the facilities change in Potential to Emit (PTE) from their previously permitted levels, all emissions changes fall below the IDEQ screening emissions limits for Criteria Pollutants, non-carcinogen TAPs (IDAPA 58.01.01.585) and carcinogenic TAPs (IDAPA 58.01.01.586).

4.1 Criteria Pollutants

As discussed in Section 2.3, sources of criteria pollutant emissions at the WSI facility occur primarily from feed development processes, boiler utilization, raw commodity receiving and transporting, product packaging and shipping.

Emissions for each of these processes were developed utilizing EPA approved AP-42 Chapters 9.9 and 1.4. Emissions were based on maximum material throughputs and operating hours based on requested permit limits. Additionally, all emissions are based on existing facility emissions control devices including baghouses and cyclones.

Table 4-1 and 4-2 below show the controlled facility-wide PTE for criteria pollutants and the total facility change in emissions from previously permitted levels.

Table 4-1 Facility Criteria Pollutant PTE

| Emissions Unit | EU ID # | NSR Pollutant ^a | | | | | | |
|----------------------------------|------------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | | PM-10 | PM2.5 | CO | Pb | NOx | VOC | SO2 |
| | | T/yr ^b | T/yr ^b | T/yr ^b | T/yr ^b | T/yr ^b | T/yr ^b | T/yr ^b |
| Point Sources | | | | | | | | |
| Boiler #1 | B-1 | 2.68E-03 | 2.68E-03 | 2.97E-02 | n/a | 3.53E-02 | 1.94E-03 | 2.12E-04 |
| Boiler #2 | B-2 | 2.68E-03 | 2.68E-03 | 2.97E-02 | n/a | 3.53E-02 | 1.94E-03 | 2.12E-04 |
| Boiler #3 | B-3 | 2.68E-03 | 2.68E-03 | 2.97E-02 | n/a | 3.53E-02 | 1.94E-03 | 2.12E-04 |
| Bag House #1 or Bag House #12 | BH-1/BH-12 | 4.22E-02 | 7.19E-03 | n/a | n/a | n/a | n/a | n/a |
| Bag House #2 | BH-2 | 4.22E-02 | 7.19E-03 | n/a | n/a | n/a | n/a | n/a |
| Bag House #3 | BH-3 | 1.80E-01 | 2.91E-02 | n/a | n/a | n/a | n/a | n/a |
| Bag House #4 | BH-4 | 3.91E-03 | 6.82E-04 | n/a | n/a | n/a | n/a | n/a |
| Bag House #5 | BH-5 | 7.81E-03 | 1.36E-03 | n/a | n/a | n/a | n/a | n/a |
| Bag House #6 | BH-6 | 1.49E-01 | 1.49E-01 | n/a | n/a | n/a | n/a | n/a |
| Bag House #7 | BH-7 | 1.55E-01 | 2.48E-02 | n/a | n/a | n/a | n/a | n/a |
| Bag House #8 | BH-8 | 9.92E-04 | 9.92E-04 | n/a | n/a | n/a | n/a | n/a |
| Bag House #9 or Bag House #10 | BH-9/BH-10 | 4.22E-02 | 7.19E-03 | n/a | n/a | n/a | n/a | n/a |
| Bag House #11 | BH-11 | 7.24E-02 | 1.28E-02 | n/a | n/a | n/a | n/a | n/a |
| Bag House #13 | BH-13 | 4.22E-02 | 7.19E-03 | | | | | |
| Bag House #14 | BH-14 | 9.92E-02 | 9.92E-02 | | | | | |
| Bag House #15 | BH-15 | 6.56E-04 | 1.12E-04 | | | | | |
| Cyclone #1 | C-1 | 7.73E-03 | 1.32E-03 | n/a | n/a | n/a | n/a | n/a |
| Cyclone #2 | C-2 | 2.10E-03 | 3.59E-04 | n/a | n/a | n/a | n/a | n/a |
| Cyclone #3 | C-3 | 2.27E-02 | 3.88E-03 | n/a | n/a | n/a | n/a | n/a |
| Totals* | | 8.78E-01 | 3.60E-01 | 8.90E-02 | 0.00E+00 | 1.06E-01 | 5.83E-03 | 6.35E-04 |

a) NSR Regulated air Pollutants are defined^[1] as: Particulate Matter (PM-10, PM-2.5), Carbon Monoxide, Lead, Nitrogen Dioxide, Ozone (VOC), Sulfur Dioxide, all pollutants regulated by NSPS (40 CFR 60)(i.e. TRS, fluoride, sulfuric acid mist) & Class I & Class II Ozone Depleting Substances (40 CFR 82)(i.e. CFC, HCFC, Halon, etc.) The Gem State facility is not a source of any pollutants regulated by NSPS other than NSR regulated air pollutants, nor is the facility a source of Class I or Class II Ozone Depleting Substances

b) Ton per year emissions based on 5148 hours of operation/yr for the process operations and 8760 hrs/year for the boilers.

* Does not include fugitive emissions sources as the facility does not fall within a listed source category.

** See spreadsheets prepared by JBR (included in Appendix E of the permit application for further information regarding emission factors and calculation assumptions.

Table 4-2 Facility Criteria Pollutant Change in Emissions

| | | | | | | |
|---------------------------------------|-------|-------|--------|--------|--------|--------|
| Revised Facility Total (TPY) | 1.723 | 0.763 | 0.106 | 0.089 | 0.001 | 0.006 |
| Revised Facility PTE (TPY) | 0.878 | 0.360 | 0.106 | 0.089 | 0.001 | 0.006 |
| Existing PTC Emissions (TPY) | 0.608 | | 3.600 | 0.710 | 0.002 | 0.280 |
| Change in Emissions (TPY) | 0.270 | 0.360 | -3.494 | -0.621 | -0.001 | -0.274 |
| Facility Total (lb/hr) | 0.670 | 0.296 | 0.041 | 0.035 | 0.000 | 0.002 |
| Revised Facility PTE (lb/hr) | 0.341 | 0.140 | 0.041 | 0.035 | 0.000 | 0.002 |
| Existing PTC Emissions (lb/hr) | 0.138 | | 0.810 | 0.160 | 0.001 | 0.065 |
| Change in Emissions (lb/hr) | 0.203 | 0.140 | -0.769 | -0.125 | 0.000 | -0.063 |

4.2 Toxic and Hazardous Air Pollutants

Point sources TAPs and HAPS at the WSI facility are limited to emissions from natural gas combustion in the three onsite boilers. TAPs and HAPS emissions from this combustion were calculated utilizing the most recent version (7/98) of AP-42 Tables 1.4-3 and 1.4-4. The calculations assumed maximum utilization of all three boilers and an operating period of 8760 hours per year for each. The calculated emissions were compared to all applicable screening emissions limits. No emissions exceeded the related emissions threshold and as a result no further ambient impact analysis was required.

Table 4-3 and 4-4 below shows the controlled facility-wide PTE for TAPs and HAPs respectively.

Table 4-3 Facility TAPs PTE

**Part 1. PRE- AND POST PROJECT NON-CARCINOGENIC TAP EMISSIONS SUMMARY
POTENTIAL TO EMIT**

| Non-Carcinogenic Toxic Air Pollutants (sum of all emissions) | Pre-Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr) | Post Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr) | Change in 24-hour Average Emissions Rates for Units at the Facility (lb/hr) | Non- Carcinogenic Screening Emission Level (lb/hr) | Exceeds Screening Level? (Y/N) |
|---|---|---|--|--|---|
| Antimony | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Barium | 0.00E+00 | 1.06E-06 | 1.06E-06 | 9.21E-04 | N |
| Chromium | 0.00E+00 | 3.39E-07 | 3.39E-07 | 2.93E-04 | N |
| Cobalt | 0.00E+00 | 2.03E-08 | 2.03E-08 | 1.76E-05 | N |
| Copper | 0.00E+00 | 2.06E-07 | 2.06E-07 | 1.78E-04 | N |
| Ethylbenzene | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Fluoride (as F) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Hexane | 0.00E+00 | 4.35E-04 | 4.35E-04 | 3.77E-01 | N |
| Manganese | 0.00E+00 | 9.19E-08 | 9.19E-08 | 7.96E-05 | N |
| Mercury | 0.00E+00 | 6.29E-08 | 6.29E-08 | 5.44E-05 | N |
| Molybdenum | 0.00E+00 | 2.66E-07 | 2.66E-07 | 2.30E-04 | N |
| Naphthalene | 0.00E+00 | 1.48E-07 | 1.48E-07 | 1.28E-04 | N |
| Pentane | 0.00E+00 | 6.29E-04 | 6.29E-04 | 5.44E-01 | N |
| Phosphorous | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Selenium | 0.00E+00 | 5.80E-09 | 5.80E-09 | 5.02E-06 | N |
| 1,1,1-Trichloroethane | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Toluene | 0.00E+00 | 8.22E-07 | 8.22E-07 | 7.12E-04 | N |
| o-Xylene | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Zinc | 0.00E+00 | 7.01E-06 | 7.01E-06 | 6.07E-03 | N |

** See spreadsheets prepared by JBR (included in Appendix F of the permit application for further information regarding emission factors and calculation assumptions.

Part 2. PRE- AND POST PROJECT CARCINOGENIC TAP EMISSIONS SUMMARY POTENTIAL TO EMIT

| Carcinogenic Toxic Air Pollutants (sum of all emissions) | Pre-Project Annual Average Emissions Rates for Units at the Facility (lb/hr) | Post Project Annual Average Emissions Rates for Units at the Facility (lb/hr) | Change in Annual Average Emissions Rates for Units at the Facility (lb/hr) | Carcinogenic Screening Emission Level (lb/hr) | Exceeds Screening Level? (Y/N) |
|--|---|---|--|---|--|
| Arsenic | 0.00E+00 | 4.84E-08 | 4.84E-08 | 4.19E-05 | N |
| Benzene | 0.00E+00 | 5.08E-07 | 5.08E-07 | 4.40E-04 | N |
| Beryllium | 0.00E+00 | 2.90E-09 | 2.90E-09 | 2.51E-06 | N |
| Cadmium | 0.00E+00 | 2.66E-07 | 2.66E-07 | 2.30E-04 | N |
| Chromium VI | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Formaldehyde | 0.00E+00 | 1.81E-05 | 1.81E-05 | 1.57E-02 | N |
| Nickel | 0.00E+00 | 5.08E-07 | 5.08E-07 | 4.40E-04 | N |
| Benzo(a)pyrene | 0.00E+00 | 2.90E-10 | 2.90E-10 | 2.51E-07 | N |
| Benz(a)anthracene | 0.00E+00 | 4.35E-10 | 4.35E-10 | 3.76857E-07 | N |
| Benzo(b)fluoranthene | 0.00E+00 | 4.35E-10 | 4.35E-10 | 3.76857E-07 | N |
| Benzo(k)fluoranthene | 0.00E+00 | 4.35E-10 | 4.35E-10 | 3.76857E-07 | N |
| Chrysene | 0.00E+00 | 4.35E-10 | 4.35E-10 | 3.76857E-07 | N |
| Dibenzo(a,h)anthracene | 0.00E+00 | 2.90E-10 | 2.90E-10 | 2.51238E-07 | N |
| Indeno(1,2,3-cd)pyrene | 0.00E+00 | 4.35E-10 | 4.35E-10 | 3.76857E-07 | N |
| Total PAHs | 0.00E+00 | 2.76E-09 | 2.76E-09 | 2.39E-06 | N |

a) PAH is considered as one TAP comprised of: benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, chrysene, indeno(1,2,3-cd)pyrene, benzo(a)pyrene. The total is compared to benzo(a)pyrene.

** See spreadsheets prepared by JBR (included in Appendix E of the permit application for further information regarding emission factors and calculation assumptions.

Table 4-4 Facility HAPs PTE

| HAP Pollutants | PTE (T/yr) |
|----------------------------|-----------------|
| Benzene | 1.16E-07 |
| Formaldehyde | 4.14E-06 |
| Hexane* | 9.94E-05 |
| Naphthalene | 3.37E-08 |
| Toluene | 1.88E-07 |
| Arsenic Compounds | 1.10E-08 |
| Beryllium Compounds | 6.62E-10 |
| Cadmium Compounds | 6.07E-08 |
| Chromium Compounds | 7.73E-08 |
| Cobalt Compounds | 4.64E-09 |
| Manganese Compounds | 2.10E-08 |
| Mercury Compounds | 1.44E-08 |
| Nickel Compounds | 1.16E-07 |
| Selenium Compounds | 1.32E-09 |
| Total | 1.04E-04 |

* Maximum Individual HAP

** See spreadsheets prepared by JBR (included in Appendix E of the permit application for further information regarding emission factors and calculation assumptions.)

5.0 LIMITATIONS ON POTENTIAL TO EMIT

WSI proposes the following limits on the operations and equipment parameters at the facility. These proposed emissions limits coincide with the data utilized in developing the Emissions Inventory which demonstrates compliance with the IDEQ emissions thresholds. WSI is requesting limits on material throughputs and operating hours per year.

5.1 Operating Hours

- Boiler at the facility shall operate for a total of 8760 hours of operation per year.
- Process equipment at the facility shall operate for a total of 5,148 hours of operation per year.

5.2 Material Throughput

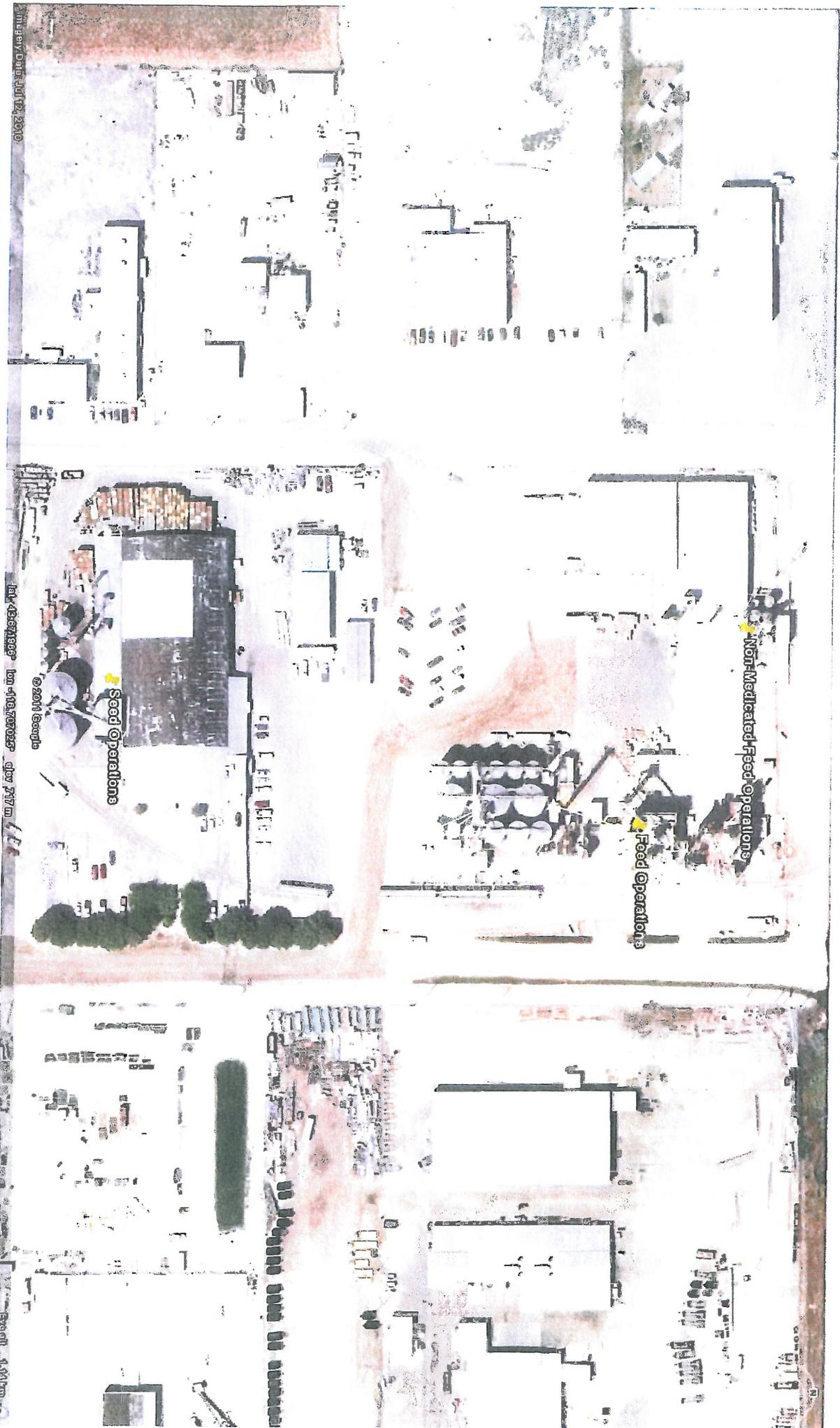
- Each pellet mill will be limited to 62,000 tons per year of produced feed.
- Total raw commodity receiving will be limited to 248,000 tons per year.

5.3 Control Equipment

- The onsite process control baghouses will provide a control efficiency of 99%

APPENDIX A

Site Location Map and Plot Plan



Emergency Date: Jul 12, 2010

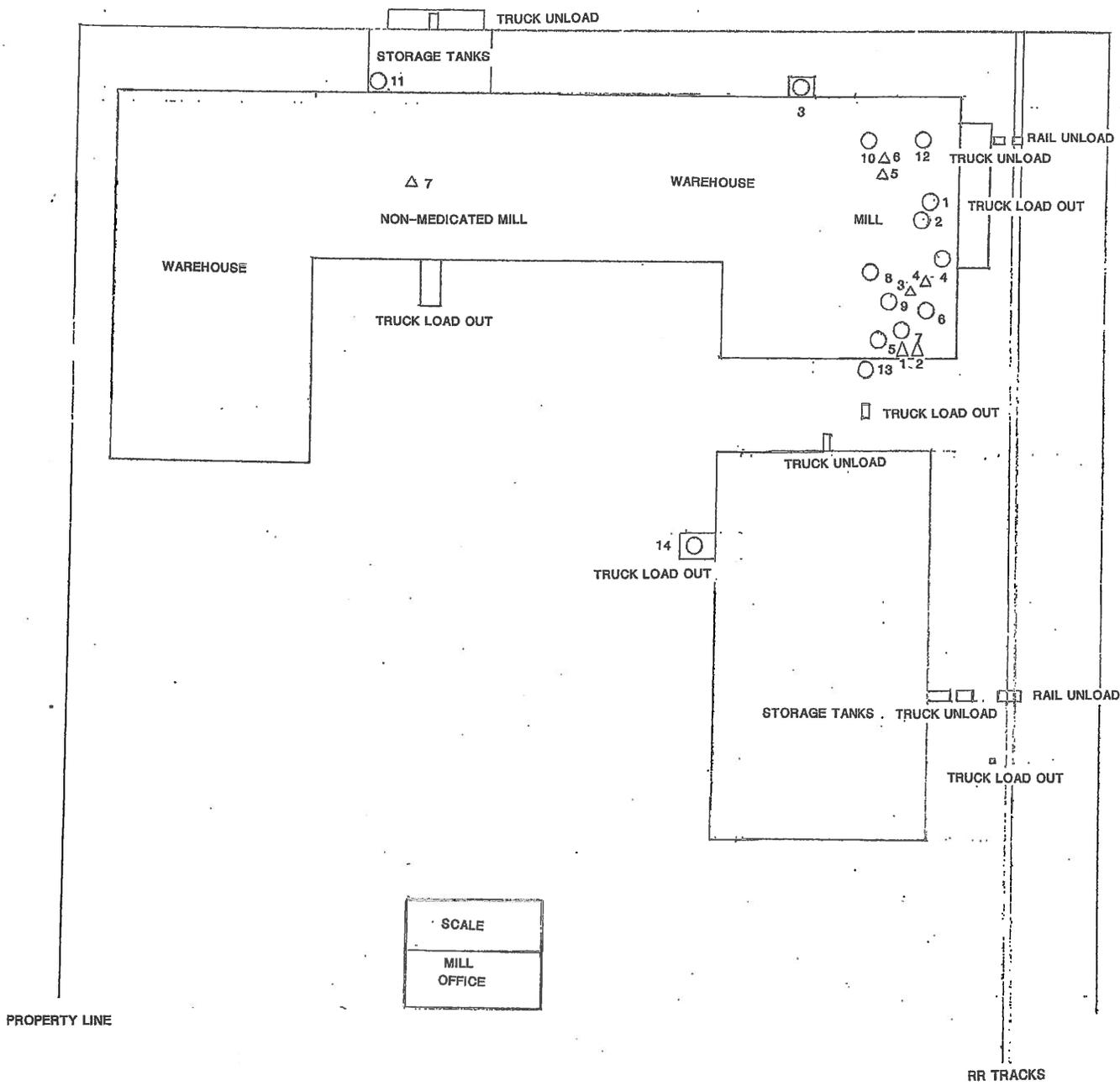
lat: 45.657133 lon: -103.0023 elev: 274m Spot: 44km

@2011 Google

Seed Operations

Feed Operations

Non-Medicated Feed Operations

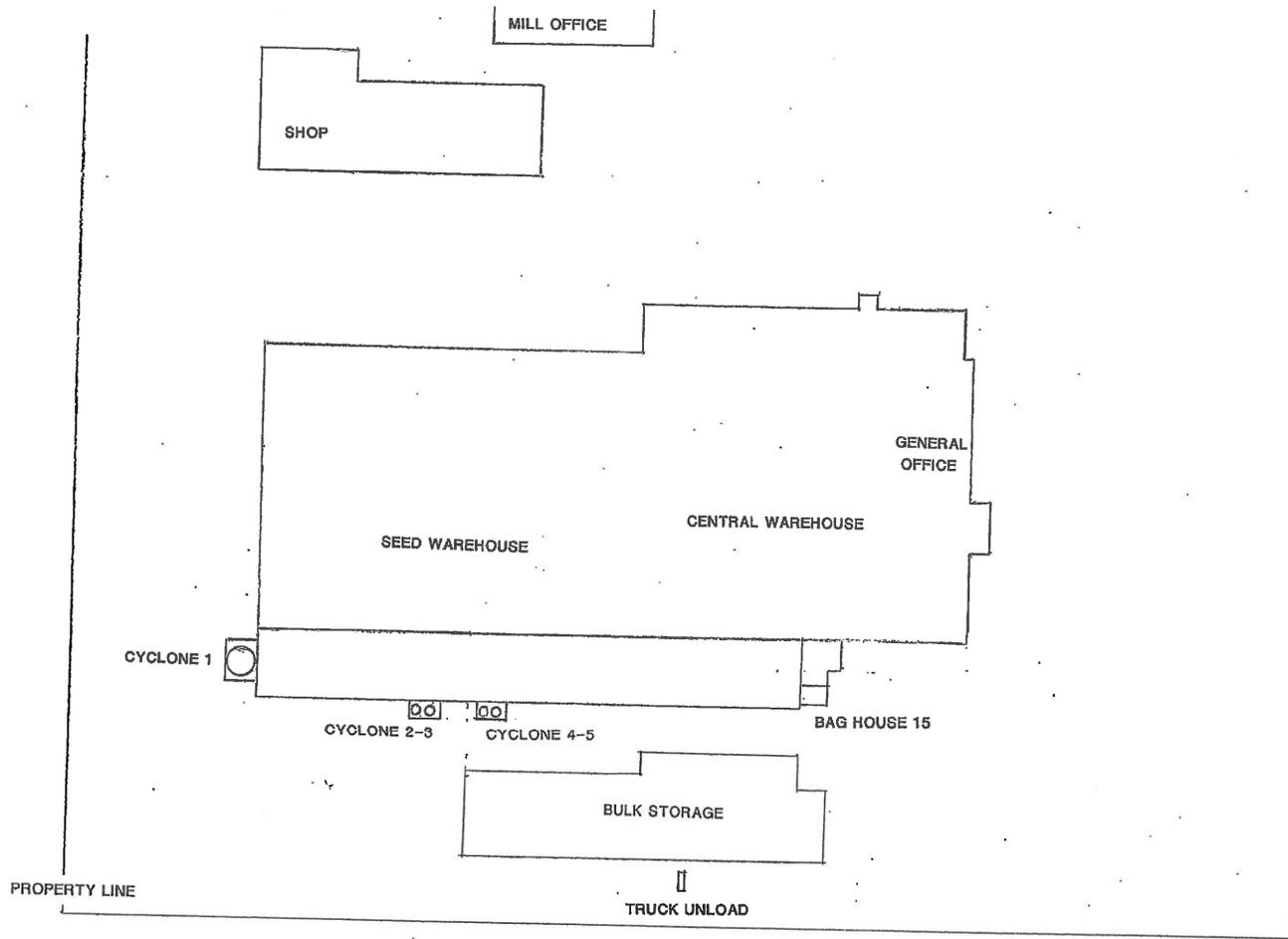


1IN. EQUALS 50FT.
 ○ BAGHOUSE
 △ AIR SEPERATOR

WESTERN STOCKMENS
 FACILITY LAYOUT
 CALDWELL ID.
 NORTHSIDE

PROPERTY LINE

RR TRACKS



1IN. EQUALS 50FT.

WESTERN STOCKMENS
FACILITY LAYOUT
CALDWELL ID.
SOUTHSIDE

APPENDIX B

DEQ PTC Forms and Checklists



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
 2/18/10

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

All information is required. If information is missing, the application will not be processed.

| IDENTIFICATION | | | |
|---|--|------------------------------------|---------------|
| 1. Company Name | | 2. Facility Name: | |
| J.R. Simplot Company Western Stockmen's (WSI) | | WSI Caldwell Facility | |
| 3. Brief Project Description: | Modification to existing permit for an animal feed processing and manufacturing plant | | |
| FACILITY INFORMATION | | | |
| 4. Primary Facility Permit Contact Person/Title | Mr. Ron Parks | Environmental Manager | |
| 5. Telephone Number and Email Address | (208) 455-4834 | ron.parks@simplot.com | |
| 6. Alternate Facility Contact Person/Title | Ms. Chelly Reesman | Corporate Environmental Engineer 4 | |
| 7. Telephone Number and Email Address | (208) 389-7558 | michelle.reesman@simplot.com | |
| 8. Address to Which the Permit Should be Sent | 223 Rodeo Ave | | |
| 9. City/County/State/Zip Code | Caldwell | Canyon | Idaho 83605 |
| 10. Equipment Location Address (if different than the mailing address above) | | | |
| 11. City/County/State/Zip Code | | | |
| 12. Is the Equipment Portable? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |
| 13. SIC Code(s) and NAICS Code | Primary SIC: 2048 | Secondary SIC: | NAICS: 311119 |
| 14. Brief Business Description and Principal Product | Animal Feed Processing & Manufacturing Plant, Animal Feed | | |
| 15. Identify any adjacent or contiguous facility that this company owns and/or operates | N/A | | |
| 16. Specify the reason for the application | <input checked="" type="checkbox"/> Permit to Construct (PTC) | | |
| | <div style="border: 1px solid black; padding: 5px;"> <p>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.</p> <input type="checkbox"/> Incorporate the PTC at the time of the Tier I renewal <input type="checkbox"/> Co-process the Tier I modification and PTC <input type="checkbox"/> Administratively amend the Tier I permit to incorporate the PTC upon your request (IDAPA 58.01.01.209.05.a, b, or c) </div> | | |
| | <input type="checkbox"/> Tier I Permit <input type="checkbox"/> Tier II Permit <input type="checkbox"/> Tier II/Permit to Construct | | |
| 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. | | | |
| 17. Responsible Official's Name/Title | Mr. Ron Parks | Environmental Manager | |
| 18. Responsible Official's Signature | | Date: | 12-06-11 |
| 19. <input checked="" type="checkbox"/> Check here to indicate that you would like to review the draft permit prior to final issuance. | | | |

Instructions for Form GI

This form is used by DEQ to identify a company or facility, equipment locations, and personnel involved with the permit application. Additional information may be requested.

- 1 – 3. Please fill in the same company name, facility name (if different), and brief project description as on Form CS. This is useful in case any pages of the application are separated.
4. Name of the primary person who should be contacted regarding this permit.
5. Telephone number and e-mail address of person listed in 4.
6. Name of the person who should be contacted if the person listed in 4 is not available.
7. Telephone number and e-mail address of person listed in 6.
- 8 – 9. Address to which DEQ should mail the permit.
- 10 – 11. Physical address at which the equipment is located (if different than 9).
12. If the equipment is portable (such as an asphalt plant), identify by marking “yes.” If there are other locations where you know the portable equipment will be used, attach a Portable Equipment Relocation Form (PERF) to list those locations. An electronic copy of the PERF can be obtained from the DEQ website http://www.deq.idaho.gov/air/permits_forms/forms/ptc_relocation.pdf (or http://www.deq.idaho.gov/air/permits_forms/forms/ptc_relocation.doc for Word format). **Important note:** In addition to being submitted with this PTC application, a PERF must also be completed and filed at DEQ at least 10 days in advance of relocating any of the equipment covered in this application.
13. Provide the Standard Industrial Classification (SIC) code and the North American Industry Classification System (NAICS) code for your plant. NAICS codes can be found at <http://www.census.gov/epcd/naics02/naicod02.htm>. If a secondary SIC code is applicable, provide it also.
14. Describe the primary activity and principal product of your business as it relates to the SIC code or NAISC code listed in line 13.
15. Please indicate if there are any other branches or divisions of this company located on adjacent or contiguous properties.
16. Check the box which describes the type of permit application.

For existing Tier I facilities that are applying for a PTC the applicant must specify how the PTC will be incorporated to the Tier I permit (IDAPA 58.01.01.209.05; Call the Air Permit Hotline if you have questions 1-877-573-7648).
- 17 – 18. Provide the name and title of the facilities responsible official. Responsible official is defined in IDAPA 58.01.01.006.97. The Responsible official must sign and date the application before it is submitted to DEQ.
19. If you would like to review a draft before the final permit is issued, check this box.



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 Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility |
| 3. Brief Project Description: Animal feed processing and manufacturing plant | |
| 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): <input checked="" type="checkbox"/> 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): 40 CFR Part 63 Subpart DDDDDDD <input type="checkbox"/> 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. | <input checked="" type="checkbox"/> A detailed regulatory review is provided (Follow instructions and example). <input type="checkbox"/> DEQ has already been provided a detailed regulatory review. Give a reference to the document including the date. |
| <p>IF YOU ARE UNSURE HOW TO ANSWER ANY OF THESE QUESTIONS, CALL THE AIR PERMIT HOTLINE AT 1-877-5PERMIT</p> <p><i>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.</i></p> | |

Instructions for Form FRA

- Item 4 & 5.** It is important that facilities review the most recent federal regulations when submitting their permit application to DEQ. Current federal regulations can be found at the following Web site: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?&c=ecfr&tpl=/ecfrbrowse/Title40/40tab_02.tpl.
- Item 6.** For each applicable subpart identified under items 4-5 conduct a complete regulatory analysis. The facility must follow the procedure given below or obtain permission from DEQ to provide the necessary information using an alternative procedure:
1. Retrieve a TEXT or PDF copy of the applicable federal regulation subpart(s) online at <http://www.gpoaccess.gov/cfr/retrieve.html>
 2. Copy and paste the regulation(s) into your DEQ air permit application.
 3. Highlight or underline sections in the regulation(s) that are applicable to the source(s).
 4. Under each section of the subpart, explain why the source is subject to the section, or why the source is not subject to the section. When providing the explanation use a different font than the regulation (i.e. ***bold, italic***) so that it is easy for the reader to determine the text that the applicant has provided. An example NSPS regulatory analysis is attached. The applicant must provide all necessary information needed to determine applicability. If information is lacking or the analysis is incomplete the application will be determined incomplete.

EPA provides a web site dedicated to NSPS/NESHAP applicability determinations that may be useful to applicants. Follow this link to the applicability determination index [Clean Air Act Applicability Determination Index - Compliance Monitoring - EPA](#). Another useful source of information is the preamble to the regulation which is published in the Federal Register on the date the regulation was promulgated. Federal Registers may be found online at [Federal Register: Main Page](#). The date the regulation was published in the Federal Register is included in the footnotes of the regulation.
 5. DEQ will assist in identifying the applicable requirements that the applicant must include in the application but will not perform the required technical or regulatory analysis on the applicant's behalf. Applicants should contact the Air Quality Permit Hotline (1-877-573-7648) to discuss NSPS/NESHAP regulatory analysis requirements or to schedule a meeting.
 6. It also benefits facilities to document a non-applicability determination on federal air regulations which appear to apply to the facility but actually do not. A non-applicability determination will avoid future confusion and expedite the air permit application review. If you conduct an applicability determination and find that your activity is not NSPS or NESHAP affected facility an analysis should be submitted using the methods described above.
 7. **It is not sufficient to simply provide a copy of the NSPS or NESHAP. The applicant must address each section of the regulation as described above and as shown in the example that is provided.**

EXAMPLE OF A NSPS REGULATORY ANALYSIS

[Title 40, Volume 6]
 [Revised as of July 1, 2008]
 From the U.S. Government Printing Office via GPO Access
 [CITE: 40CFR60]

TITLE 40--PROTECTION OF ENVIRONMENT

CHAPTER I--ENVIRONMENTAL PROTECTION AGENCY (CONTINUED)

PART 60 STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES--
Table of Contents

Subpart H Standards of Performance for Sulfuric Acid Plants

Sec.60.80 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to each sulfuric acid production unit, which is the affected facility.

(b) Any facility under paragraph (a) of this section that commences construction or modification after August 17, 1971, is subject to the requirements of this subpart.

ACME Chemicals, Inc. is proposing to construct after August 17, 1971 a sulfuric acid plant which burns elemental sulfur as defined by 40 CFR 60.81(a). ACME is therefore affected by this subpart.

(Be sure to use the terms of the regulation to describe applicability; usually applicability is determined based on a specific date, definition of an affected facility, and rated input capacity. All of the applicability criteria must be addressed by the applicant.)

Note - if a determination of non-applicability is being submitted it is not necessary to address the remaining non-applicable regulatory sections. Be sure to provide the applicability determination in terms of the regulation (i.e. construction/modification date, rated input capacity, definition of affected facility).

Sec.60.81 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) Sulfuric acid production unit means any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, organic sulfides and mercaptans, or acid sludge, but does not include facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.

(b) Acid mist means sulfuric acid mist, as measured by Method 8 of appendix A to this part or an equivalent or alternative method.

ACME Chemicals, Inc. has read and understands these definitions and used them in providing this regulatory analysis.

Sec.60.82 Standard for sulfur dioxide.

(a) On and after the date on which the performance test required to be conducted by Sec.60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of 2 kg per metric ton of acid produced (4 lb per ton), the production being expressed as 100 percent H₂/SO₄/.

ACME Chemicals, Inc. is subject to this standard and has provided a documented emission inventory (or manufacturer guarantee) which shows compliance.

Sec.60.83 Standard for acid mist.

(a) On and after the date on which the performance test required to be conducted by Sec.60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which:

(1) Contain acid mist, expressed as H₂/SO₄/, in excess of 0.075 kg per metric ton of acid produced (0.15 lb per ton), the production being expressed as 100 percent H₂/SO₄/.

ACME Chemicals, Inc. is subject to this standard and has provided a documented emission inventory (or manufacturer guarantee) which shows compliance.

(2) Exhibit 10 percent opacity, or greater.

ACME Chemicals, Inc. understands that this will become a permit condition and has supplied a manufacturer guarantee that the sulfuric acid plant will comply with this standard.

Sec.60.84 Emission monitoring.

(a) A continuous monitoring system for the measurement of sulfur dioxide shall be installed, calibrated, maintained, and operated by the owner or operator. The pollutant gas used to prepare calibration gas mixtures under Performance Specification 2 and for calibration checks under Sec.60.13(d), shall be sulfur dioxide (SO₂/). Method 8 shall be used for conducting monitoring system performance evaluations under Sec.60.13(c) except that only the sulfur dioxide portion of the Method 8 results shall be used. The span value shall be set at 1000 ppm of sulfur dioxide.

(b) The owner or operator shall establish a conversion factor for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, lb/ton). The conversion factor shall be determined, as a minimum, three times daily by measuring the concentration of sulfur dioxide entering the converter using suitable methods (e.g., the Reich test, National Air Pollution Control Administration Publication No. 999-AP-13) and calculating the appropriate conversion factor for each eight-hour period as follows:

$$CF=k[(1.000-0.015r)/(r-s)]$$

where:

CF=conversion factor (kg/metric ton per ppm, lb/ton per ppm).
 k=constant derived from material balance. For determining CF in metric units, k=0.0653. For determining CF in English units, k=0.1306.
 r=percentage of sulfur dioxide by volume entering the gas converter.
 Appropriate corrections must be made for air injection plants subject to the Administrator's approval.
 s=percentage of sulfur dioxide by volume in the emissions to the atmosphere determined by the continuous monitoring system required under paragraph (a) of this section.

(c) The owner or operator shall record all conversion factors and values under paragraph (b) of this section from which they were computed (i.e., CF, r, and s).

ACME Chemicals, Inc. is not proposing to utilize Sections 60.84(a)-(c) listed above to monitor emissions. Instead ACME Chemicals is utilizing 40 CFR 60.84(d) listed below to monitor emissions of sulfur dioxide.

(d) Alternatively, a source that processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen may use the following continuous emission monitoring approach and calculation procedures in determining SO₂/ emission rates in terms of the standard. This procedure is not required, but is an alternative that would alleviate problems encountered in the measurement of gas velocities or production rate. Continuous emission monitoring systems for measuring SO₂/, O₂/, and CO₂/ (if required) shall be installed, calibrated, maintained, and operated by the owner or operator and subjected to the certification procedures in Performance Specifications 2 and 3. The calibration procedure and span value for the SO₂/ monitor shall be as specified in paragraph (b) of this section. The span value for CO₂/ (if required) shall be 10 percent and for O₂/ shall be 20.9 percent (air). A conversion factor based on process rate data is not necessary. Calculate the SO₂/ emission rate as follows:

$$Es = (Cs / S) / [0.265 - (0.126 \%O_2) - (A \%CO_2)]$$

where:

Es=emission rate of SO₂/, kg/metric ton (lb/ton) of 100 percent of H₂/SO₄/ produced.

Cs=concentration of SO₂/, kg/dscm (lb/dscf).

S=acid production rate factor, 368 dscm/metric ton (11,800 dscf/ton) of 100 percent H₂/SO₄/ produced.

%O₂/=oxygen concentration, percent dry basis.

A=auxiliary fuel factor,

=0.00 for no fuel.

=0.0226 for methane.

=0.0217 for natural gas.

=0.0196 for propane.

=0.0172 for No 2 oil.

=0.0161 for No 6 oil.

=0.0148 for coal.

=0.0126 for coke.

%CO₂/= carbon dioxide concentration, percent dry basis.

Note: It is necessary in some cases to convert measured concentration units to other units for these calculations:

Use the following table for such conversions:

| From-- | To-- | Multiply by-- |
|-----------------------------|-------------|------------------------|
| g/scm..... | kg/scm..... | 10 ⁻³ |
| mg/scm..... | kg/scm..... | 10 ⁻⁶ |
| ppm (SO ₂)..... | kg/scm..... | 2.660x10 ⁻⁶ |
| ppm (SO ₂)..... | lb/scf..... | 1.660x10 ⁻⁷ |

ACME Chemicals, Inc. has elected to use the monitoring requirements of the preceding section.

(e) For the purpose of reports under Sec.60.7(c), periods of excess emissions shall be all three-hour periods (or the arithmetic average of three consecutive one-hour periods) during which the integrated average sulfur dioxide emissions exceed the applicable standards under Sec.60.82.

ACME acknowledges that this section applies to the sulfuric acid plant.

Sec.60.85 Test methods and procedures.

(a) In conducting the performance tests required in Sec.60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in Sec.60.8(b). Acceptable alternative methods and procedures are given in paragraph (c) of this section.

(b) The owner or operator shall determine compliance with the SO₂/ acid mist, and visible emission standards in Sec. Sec. 60.82 and 60.83 as follows:

(1) The emission rate (E) of acid mist or SO₂/ shall be computed for each run using the following equation:

$$E = (CQsd) / (PK)$$

where:

E=emission rate of acid mist or SO₂/ kg/metric ton (lb/ton) of 100 percent H₂/SO₄/ produced.

C=concentration of acid mist or SO₂/, g/dscm (lb/dscf).

Qsd/=volumetric flow rate of the effluent gas, dscm/hr (dscf/hr).

P=production rate of 100 percent H₂/SO₄/, metric ton/hr (ton/hr).

K=conversion factor, 1000 g/kg (1.0 lb/lb).

(2) Method 8 shall be used to determine the acid mist and SO₂/ concentrations (C's) and the volumetric flow rate (Qsd/) of the effluent gas. The moisture content may be considered to be zero. The sampling time and sample volume for each run shall be at least 60 minutes and 1.15 dscm (40.6 dscf).

(3) Suitable methods shall be used to determine the production rate (P) of 100 percent H₂/SO₄/ for each run. Material balance over the production system shall be used to confirm the production rate.

(4) Method 9 and the procedures in Sec.60.11 shall be used to determine opacity.

(c) The owner or operator may use the following as alternatives to

the reference methods and procedures specified in this section:

(1) If a source processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen, the following procedure may be used instead of determining the volumetric flow rate and production rate:

(i) The integrated technique of Method 3 is used to determine the O₂/ concentration and, if required, CO₂/ concentration.

(ii) The SO₂/ or acid mist emission rate is calculated as described in Sec.60.84(d), substituting the acid mist concentration for Cs/ as appropriate.

ACME Chemicals, Inc. acknowledges that performance tests shall be conducted as specified above.



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 Western Stockmen's (WSI) |
| 2. Facility Name | WSI Caldwell Facility |
| 3. Facility ID No. | |
| 4. Brief Project Description - One sentence or less | Animal feed processing and manufacturing plant |

| PERMIT APPLICATION TYPE | |
|-------------------------|---|
| 5. | <input type="checkbox"/> New Source <input type="checkbox"/> New Source at Existing Facility <input type="checkbox"/> PTC for a Tier I Source Processed Pursuant to IDAPA 58.01.01.209.05.c <input type="checkbox"/> Unpermitted Existing Source <input type="checkbox"/> Facility Emissions Cap <input checked="" type="checkbox"/> Modify Existing Source: Permit No.: <u>0400-0008</u> Date Issued: <u>5/1/1990</u> <input type="checkbox"/> Required by Enforcement Action: Case No.: _____ |
| 6. | <input checked="" type="checkbox"/> Minor PTC <input type="checkbox"/> Major PTC |

| FORMS INCLUDED | | | |
|-------------------------------------|-------------------------------------|--|--------------------------|
| Included | N/A | Forms | DEQ Verify |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Form CSPTC – Cover Sheet | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Form GI – Facility Information | <input type="checkbox"/> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Form EU0 – Emissions Units General | <input type="checkbox"/> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Form EU1– Industrial Engine Information Please specify number of EU1s attached: _____ | <input type="checkbox"/> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Form EU2– Nonmetallic Mineral Processing Plants Please specify number of EU2s attached: _____ | <input type="checkbox"/> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Form EU3– Spray Paint Booth Information Please specify number of EU3s attached: _____ | <input type="checkbox"/> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Form EU4– Cooling Tower Information Please specify number of EU3s attached: _____ | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Form EU5 – Boiler Information Please specify number of EU4s attached: <u>3</u> _____ | <input type="checkbox"/> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Form CBP– Concrete Batch Plant Please specify number of CBPs attached: _____ | <input type="checkbox"/> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Form HMAP – Hot Mix Asphalt Plant Please specify number of HMAPs attached: _____ | <input type="checkbox"/> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | PERF – Portable Equipment Relocation Form | <input type="checkbox"/> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Form AO – Afterburner/Oxidizer | <input type="checkbox"/> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Form CA – Carbon Adsorber | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Form CYS – Cyclone Separator | <input type="checkbox"/> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Form ESP – Electrostatic Precipitator | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Form BCE– Baghouses Control Equipment | <input type="checkbox"/> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Form SCE– Scrubbers Control Equipment | <input type="checkbox"/> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Form VSCE – Venturi Scrubber Control Equipment | <input type="checkbox"/> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Form CAM – Compliance Assurance Monitoring | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Forms EI– Emissions Inventory | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | PP – Plot Plan | <input type="checkbox"/> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Forms MI1 – MI4 – Modeling (Excel workbook, all 4 worksheets) | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Form FRA – Federal Regulation Applicability | <input type="checkbox"/> |

Instructions for Form CSPTC

This form is the cover sheet for an air quality permit application. It provides DEQ with basic information regarding the company and the proposed permitting action. This form helps DEQ efficiently determine whether the application is administratively complete. This form also provides the applicant with a list of forms available to aid the applicant to successfully submit a complete application.

Company Name, Facility Name, and Facility ID Number

- 1-3. Provide the name of your company, the name of the facility (if different than company name), and the facility identification (ID) number (Facility ID No.) in the boxes provided. The facility ID number is also known as the AIRS number or AIRS/AFS number (example: 095-00077). If you already have a permit, the facility ID number is located in the upper right hand corner of the cover page. The facility ID number must be provided unless your facility has not received one, in which case you may leave this box empty. **Use these same names and ID number on all forms.** This is useful in case any pages of the application are separated.
4. Provide a brief description of this permitting project in one sentence or less. Examples might be "Install/construct a new boiler" or "Increase the allowable process throughput." **This description will be used by DEQ as a unique identifier for this permitting project, in conjunction with the name(s) and ID number referenced in 1-3.** You will need to put this description, using the exact same words, on all other forms that are part of this project application. This is useful in case any pages of the application are separated.

Permit Application Type

5. Provide the reason you are submitting the permit application by checking the appropriate box (e.g., a new facility being constructed, a new source being constructed at an existing facility, an unpermitted existing source (as-built) applying for a permit for the first time, a permitted source to be modified, or the permit application is the result of an enforcement action, in which case provide the case number). If you are modifying an existing permitted source, provide the number and issue date of the most recent permit.

If this PTC is for a Tier I source issued pursuant to the procedures contained at IDAPA 58.01.01.209.05.c, the source or modification may operate upon submittal of a Tier I Administrative Amendment issued pursuant to IDAPA 58.01.01.381.

6. Indicate if the application is a minor permit to construct application or a major permit to construct application by checking the appropriate box (e.g., major PTC or minor PTC). If the permit to construct application is for a major new source or major modification, you must ensure that all necessary information required by IDAPA 58.01.01.202, and .204, or .205, as applicable, is provided.

Forms Included

Check the "Included" box for each form included in this permit to construct application. If there are multiples of a form for multiple units of that type, check the box and fill in the number of forms in the blank provided.

The "N/A" box should only be checked if the form is absolutely unnecessary to complete the application. Additional information may be requested.

Application Fee

All applicants for a PTC shall submit a PTC application fee of \$1000.00 to DEQ at the time of the original submission of the application as required by IDAPA 58.01.01.224. An application fee is not required for exemption applicability determinations, typographical errors, and name or ownership changes. An application fee can be paid by check, credit card, or Electronic Funds Transfer (EFT). If you choose to pay by credit card or EFT, call DEQs Fiscal Office to complete the necessary paperwork. Paper checks must be submitted with the original application as described below.

Submit Application

When complete, enclose a check for the application fee along with the hardcopy application certified by a responsible official (as defined in IDAPA 58.01.01.006.94), and send to:

Air Quality Program Office – Application Processing
Department of Environmental Quality
1410 N. 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)anthracene, 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 - 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



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AQ-CH-P008

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 Units - Industrial Boiler Information **Form EU5**

Revision 5
 08/28/08

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

| IDENTIFICATION | | | | |
|--|---|---|--|--|
| 1. Company Name: J.R. Simplot Company Western Stockmen's (WSI) | | 2. Facility Name: WSI Caldwell Facility | | 3 Facility ID No: N/A |
| 4. Brief Project Description: Animal feed processing and manufacturing plant | | | | |
| EXEMPTION | | | | |
| Please see IDAPA 58.01.01.222 for a list of industrial boilers that are exempt from Permit to Construct requirements. | | | | |
| BOILER (EMISSION UNIT) DESCRIPTION AND SPECIFICATIONS | | | | |
| 5. Type of Request: <input type="checkbox"/> New Unit <input type="checkbox"/> Unpermitted Existing Unit <input checked="" type="checkbox"/> Modification to a Unit with Permit #:0400-0008 | | | | |
| 6. Use of Boiler: <input checked="" type="checkbox"/> % Used For Process <input checked="" type="checkbox"/> % Used For Space Heat <input type="checkbox"/> % Used For Generating Electricity <input type="checkbox"/> Other: | | | | |
| 7. Boiler ID Number: Boiler #1 | | 8. Rated Capacity: <input checked="" type="checkbox"/> 0.628 Million British Thermal Units Per Hour (MMBtu/hr) <input type="checkbox"/> 1,000 Pounds Steam Per Hour (1,000 lb steam/hr) | | |
| 9. Construction Date: N/A | | 10. Manufacturer: N/A | | 11. Model: N/A |
| 12. Date of Modification (if applicable): N/A | | 13. Serial Number (if available): N/A | | 14. Control Device (if any): N/A Note: Attach applicable control equipment form(s) |
| FUEL DESCRIPTION AND SPECIFICATIONS | | | | |
| 15. Fuel Type | <input type="checkbox"/> Diesel Fuel (#) (gal/hr) | <input checked="" type="checkbox"/> Natural Gas 80.6 (cf/hr) | <input type="checkbox"/> Coal (unit: /hr) | <input type="checkbox"/> Other Fuels (unit: /hr) |
| 16. Full Load Consumption Rate | | 80.6 | | |
| 17. Actual Consumption Rate | | 80.6 | | |
| 18. Fuel Heat Content (Btu/unit, LHV) | | 1020 | | |
| 19. Sulfur Content wt% | | 2,000 gr/MMscf | | |
| 20. Ash Content wt% | | N/A | | |
| STEAM DESCRIPTION AND SPECIFICATIONS | | | | |
| 21. Steam Heat Content | NA | NA | | |
| 22. Steam Temperature (°F) | N/A | N/A | | |
| 23. Steam Pressure (psi) | N/A | N/A | | |
| 24 Steam Type | N/A | N/A | <input type="checkbox"/> Saturated <input type="checkbox"/> Superheated | <input type="checkbox"/> Saturated <input type="checkbox"/> Superheated |
| OPERATING LIMITS & SCHEDULE | | | | |
| 25. Imposed Operating Limits (hours/year, or gallons fuel/year, etc.): | | | N/A | |
| 26. Operating Schedule (hours/day, months/year, etc.): | | | 8,760 hrs/yr | |
| 27. NSPS Applicability: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | If Yes, which subpart: | | |

Instructions for Form EU5

Please refer to IDAPA 58.01.01.222 for a list of industrial boilers which are exempt from the Permit to Construct requirements.

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

Boiler Description and Specification:

5. Indicate whether the unit is new, existing but unpermitted, or being modified.
6. Indicate the percentage of the steam used for process, space heat, generating electricity, or others.
7. Provide the boiler identification (ID) number. Each boiler in the application must have its own number. If boilers included in this permit application are not identical in make and model, fill out a separate EU5 form for each boiler. If the boilers are identical, attach a separate sheet labeled EU5A listing them by ID number and date of construction or modification. The boiler ID numbers should match the boiler ID numbers used on other construction permit applications and within this application. It can be any number. However, if you submitted an operating permit application, the numbers used for identification purposes in this application should be consistent with the ID numbers used in your operating permit application.
8. The boiler's rated capacity should be read from the boiler's nameplate or from the manufacturer's literature.
9. The date of construction of the emission unit is the date, month, and year in which construction or modification begins as defined in EU0 Form Instruction item 7.
10. Provide the name of the manufacturer of the boiler.
11. Provide the model number of the boiler. This number should be available from the nameplate of the boiler.
12. If the boiler has been or will be modified, give the date, month and year of the most recent or future modification.
13. Provide the manufacturer's serial number for this boiler, if available.
14. Provide the control device name and number if a pollution control device is attached to this emission unit. The name and number of the control device should be consistent with control equipment forms throughout the application. **Note: a separate control equipment form(s) should be attached for all applicable control equipment serving this unit.**

Fuel Description and Specifications:

15. Indicate the fuel type used by the boiler. If diesel fuel is used, you need to indicate the ranking number. If the boiler is a dual-fuel engine, please check all appropriate fuel type boxes in this row.
16. The full-load consumption rate is the fuel consumption rate at the boiler's rated capacity.
17. The actual consumption rate is the fuel consumption rate (usually daily average) under typical operational conditions.
18. Provide fuel net or lower heating value (LHV).
19. Provide the weight percentage of the sulfur content in the fuel.
20. Provide the weight percentage of the ash content in the fuel. For gaseous fuel, this information is not required.

Steam Description and Specifications:

21. Provide the steam heat content. This information is not required for gaseous or liquid fuel.
22. Provide the steam temperature in °F. This information is not required for gaseous or liquid fuel.
23. Provide the steam pressure in pound per square inch (psi). This information is not required for gaseous or liquid fuel.
24. Provide the steam type (i.e. saturated or superheated). This information is not required for gaseous or liquid fuel.

Operation Limits:

25. If any, indicate the operating limits you imposed on this boiler in the units of operating hours per year, or gallons fuel per hour, per year, etc.
26. Indicate your operation schedule for the projected maximum operation of the engine.
27. Provide NSPS (new source performance standards) applicability determination and, if applicable, subpart reference.



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

| IDENTIFICATION | | | | |
|--|--|---|---|--|
| 1. Company Name: J.R. Simplot Company Western Stockmen's (WSI) | | 2. Facility Name: WSI Caldwell Facility | | 3 Facility ID No: N/A |
| 4. Brief Project Description: Animal feed processing and manufacturing plant | | | | |
| EXEMPTION | | | | |
| Please see IDAPA 58.01.01.222 for a list of industrial boilers that are exempt from Permit to Construct requirements. | | | | |
| BOILER (EMISSION UNIT) DESCRIPTION AND SPECIFICATIONS | | | | |
| 5. Type of Request: <input type="checkbox"/> New Unit <input type="checkbox"/> Unpermitted Existing Unit <input checked="" type="checkbox"/> Modification to a Unit with Permit #:0400-0008 | | | | |
| 6. Use of Boiler: <input checked="" type="checkbox"/> % Used For Process <input checked="" type="checkbox"/> % Used For Space Heat <input type="checkbox"/> % Used For Generating Electricity <input type="checkbox"/> Other: | | | | |
| 7. Boiler ID Number: Boiler #2 | | 8. Rated Capacity: <input checked="" type="checkbox"/> 0.628 Million British Thermal Units Per Hour (MMBtu/hr) <input type="checkbox"/> 1,000 Pounds Steam Per Hour (1,000 lb steam/hr) | | |
| 9. Construction Date: N/A | | 10. Manufacturer: N/A | | 11. Model: N/A |
| 12. Date of Modification (if applicable): N/A | | 13. Serial Number (if available): N/A | | 14. Control Device (if any): N/A Note: Attach applicable control equipment form(s) |
| FUEL DESCRIPTION AND SPECIFICATIONS | | | | |
| 15. Fuel Type | | <input type="checkbox"/> Diesel Fuel (#) (gal/hr) | <input checked="" type="checkbox"/> Natural Gas 80.6 (cf/hr) | <input type="checkbox"/> Coal (unit: /hr) |
| 16. Full Load Consumption Rate | | 80.6 | | |
| 17. Actual Consumption Rate | | 80.6 | | |
| 18. Fuel Heat Content (Btu/unit, LHV) | | 1020 | | |
| 19. Sulfur Content wt% | | 2,000 gr/MMscf | | |
| 20. Ash Content wt% | | N/A | | |
| STEAM DESCRIPTION AND SPECIFICATIONS | | | | |
| 21. Steam Heat Content | | NA | | NA |
| 22. Steam Temperature (°F) | | N/A | | N/A |
| 23. Steam Pressure (psi) | | N/A | | N/A |
| 24 Steam Type | | N/A | | <input type="checkbox"/> Saturated <input type="checkbox"/> Superheated |
| | | | | <input type="checkbox"/> Saturated <input type="checkbox"/> Superheated |
| OPERATING LIMITS & SCHEDULE | | | | |
| 25. Imposed Operating Limits (hours/year, or gallons fuel/year, etc.): | | | | N/A |
| 26. Operating Schedule (hours/day, months/year, etc.): | | | | 8,760 hrs/yr |
| 27. NSPS Applicability: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | If Yes, which subpart: | | |

Instructions for Form EU5

Please refer to IDAPA 58.01.01.222 for a list of industrial boilers which are exempt from the Permit to Construct requirements.

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

Boiler Description and Specification:

5. Indicate whether the unit is new, existing but unpermitted, or being modified.
6. Indicate the percentage of the steam used for process, space heat, generating electricity, or others.
7. Provide the boiler identification (ID) number. Each boiler in the application must have its own number. If boilers included in this permit application are not identical in make and model, fill out a separate EU5 form for each boiler. If the boilers are identical, attach a separate sheet labeled EU5A listing them by ID number and date of construction or modification. The boiler ID numbers should match the boiler ID numbers used on other construction permit applications and within this application. It can be any number. However, if you submitted an operating permit application, the numbers used for identification purposes in this application should be consistent with the ID numbers used in your operating permit application.
8. The boiler's rated capacity should be read from the boiler's nameplate or from the manufacturer's literature.
9. The date of construction of the emission unit is the date, month, and year in which construction or modification begins as defined in EU0 Form Instruction item 7.
10. Provide the name of the manufacturer of the boiler.
11. Provide the model number of the boiler. This number should be available from the nameplate of the boiler.
12. If the boiler has been or will be modified, give the date, month and year of the most recent or future modification.
13. Provide the manufacturer's serial number for this boiler, if available.
14. Provide the control device name and number if a pollution control device is attached to this emission unit. The name and number of the control device should be consistent with control equipment forms throughout the application. **Note: a separate control equipment form(s) should be attached for all applicable control equipment serving this unit.**

Fuel Description and Specifications:

15. Indicate the fuel type used by the boiler. If diesel fuel is used, you need to indicate the ranking number. If the boiler is a dual-fuel engine, please check all appropriate fuel type boxes in this row.
16. The full-load consumption rate is the fuel consumption rate at the boiler's rated capacity.
17. The actual consumption rate is the fuel consumption rate (usually daily average) under typical operational conditions.
18. Provide fuel net or lower heating value (LHV).
19. Provide the weight percentage of the sulfur content in the fuel.
20. Provide the weight percentage of the ash content in the fuel. For gaseous fuel, this information is not required.

Steam Description and Specifications:

21. Provide the steam heat content. This information is not required for gaseous or liquid fuel.
22. Provide the steam temperature in °F. This information is not required for gaseous or liquid fuel.
23. Provide the steam pressure in pound per square inch (psi). This information is not required for gaseous or liquid fuel.
24. Provide the steam type (i.e. saturated or superheated). This information is not required for gaseous or liquid fuel.

Operation Limits:

25. If any, indicate the operating limits you imposed on this boiler in the units of operating hours per year, or gallons fuel per hour, per year, etc.
26. Indicate your operation schedule for the projected maximum operation of the engine.
27. Provide NSPS (new source performance standards) applicability determination and, if applicable, subpart reference.



DEQ AIR QUALITY PROGRAM
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 For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

Emissions Units - Industrial Boiler Information **Form EU5**
 Revision 5
 08/28/08

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

| IDENTIFICATION | | | | |
|--|---|---|--|---|
| 1. Company Name: J.R. Simplot Company Western Stockmen's (WSI) | | 2. Facility Name: WSI Caldwell Facility | | 3 Facility ID No: N/A |
| 4. Brief Project Description: Animal feed processing and manufacturing plant | | | | |
| EXEMPTION | | | | |
| Please see IDAPA 58.01.01.222 for a list of industrial boilers that are exempt from Permit to Construct requirements. | | | | |
| BOILER (EMISSION UNIT) DESCRIPTION AND SPECIFICATIONS | | | | |
| 5. Type of Request: <input type="checkbox"/> New Unit <input type="checkbox"/> Unpermitted Existing Unit <input checked="" type="checkbox"/> Modification to a Unit with Permit #:0400-0008 | | | | |
| 6. Use of Boiler: <input checked="" type="checkbox"/> % Used For Process <input checked="" type="checkbox"/> % Used For Space Heat <input type="checkbox"/> % Used For Generating Electricity <input type="checkbox"/> Other: | | | | |
| 7. Boiler ID Number: Boiler #3 | | 8. Rated Capacity: <input checked="" type="checkbox"/> 0.628 Million British Thermal Units Per Hour (MMBtu/hr) <input type="checkbox"/> 1,000 Pounds Steam Per Hour (1,000 lb steam/hr) | | |
| 9. Construction Date: N/A | | 10. Manufacturer: N/A | | 11. Model: N/A |
| 12. Date of Modification (if applicable): N/A | | 13. Serial Number (if available): N/A | | 14. Control Device (if any): N/A Note: Attach applicable control equipment form(s) |
| FUEL DESCRIPTION AND SPECIFICATIONS | | | | |
| 15. Fuel Type | <input type="checkbox"/> Diesel Fuel (#) (gal/hr) | <input checked="" type="checkbox"/> Natural Gas 80.6 (cf/hr) | <input type="checkbox"/> Coal . (unit: /hr) | <input type="checkbox"/> Other Fuels (unit: /hr) |
| 16. Full Load Consumption Rate | | 80.6 | | |
| 17. Actual Consumption Rate | | 80.6 | | |
| 18. Fuel Heat Content (Btu/unit, LHV) | | 1020 | | |
| 19. Sulfur Content wt% | | 2,000 gr/MMscf | | |
| 20. Ash Content wt% | | N/A | | |
| STEAM DESCRIPTION AND SPECIFICATIONS | | | | |
| 21. Steam Heat Content | NA | NA | | |
| 22. Steam Temperature (°F) | N/A | N/A | | |
| 23. Steam Pressure (psi) | N/A | N/A | | |
| 24 Steam Type | N/A | N/A | <input type="checkbox"/> Saturated <input type="checkbox"/> Superheated | <input type="checkbox"/> Saturated <input type="checkbox"/> Superheated |
| OPERATING LIMITS & SCHEDULE | | | | |
| 25. Imposed Operating Limits (hours/year, or gallons fuel/year, etc.): | | | N/A | |
| 26. Operating Schedule (hours/day, months/year, etc.): | | | 8,760 hrs/yr | |
| 27. NSPS Applicability: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | If Yes, which subpart: | | |

Instructions for Form EU5

Please refer to IDAPA 58.01.01.222 for a list of industrial boilers which are exempt from the Permit to Construct requirements.

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

Boiler Description and Specification:

5. Indicate whether the unit is new, existing but unpermitted, or being modified.
6. Indicate the percentage of the steam used for process, space heat, generating electricity, or others.
7. Provide the boiler identification (ID) number. Each boiler in the application must have its own number. If boilers included in this permit application are not identical in make and model, fill out a separate EU5 form for each boiler. If the boilers are identical, attach a separate sheet labeled EU5A listing them by ID number and date of construction or modification. The boiler ID numbers should match the boiler ID numbers used on other construction permit applications and within this application. It can be any number. However, if you submitted an operating permit application, the numbers used for identification purposes in this application should be consistent with the ID numbers used in your operating permit application.
8. The boiler's rated capacity should be read from the boiler's nameplate or from the manufacturer's literature.
9. The date of construction of the emission unit is the date, month, and year in which construction or modification begins as defined in EU0 Form Instruction item 7.
10. Provide the name of the manufacturer of the boiler.
11. Provide the model number of the boiler. This number should be available from the nameplate of the boiler.
12. If the boiler has been or will be modified, give the date, month and year of the most recent or future modification.
13. Provide the manufacturer's serial number for this boiler, if available.
14. Provide the control device name and number if a pollution control device is attached to this emission unit. The name and number of the control device should be consistent with control equipment forms throughout the application. **Note: a separate control equipment form(s) should be attached for all applicable control equipment serving this unit.**

Fuel Description and Specifications:

15. Indicate the fuel type used by the boiler. If diesel fuel is used, you need to indicate the ranking number. If the boiler is a dual-fuel engine, please check all appropriate fuel type boxes in this row.
16. The full-load consumption rate is the fuel consumption rate at the boiler's rated capacity.
17. The actual consumption rate is the fuel consumption rate (usually daily average) under typical operational conditions.
18. Provide fuel net or lower heating value (LHV).
19. Provide the weight percentage of the sulfur content in the fuel.
20. Provide the weight percentage of the ash content in the fuel. For gaseous fuel, this information is not required.

Steam Description and Specifications:

21. Provide the steam heat content. This information is not required for gaseous or liquid fuel.
22. Provide the steam temperature in °F. This information is not required for gaseous or liquid fuel.
23. Provide the steam pressure in pound per square inch (psi). This information is not required for gaseous or liquid fuel.
24. Provide the steam type (i.e. saturated or superheated). This information is not required for gaseous or liquid fuel.

Operation Limits:

25. If any, indicate the operating limits you imposed on this boiler in the units of operating hours per year, or gallons fuel per hour, per year, etc.
26. Indicate your operation schedule for the projected maximum operation of the engine.
27. Provide NSPS (new source performance standards) applicability determination and, if applicable, subpart reference.



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

Baghouse Control Equipment **Form BCE**
 Revision 6
 2/18/10

Complete this form for each baghouse. Please see instructions on page 2 before filling out the form.

| IDENTIFICATION | | |
|---|--|---|
| 1. Company Name J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name WSI Caldwell Facility | |
| 3. Brief Project Description: Animal feed processing and manufacturing plant | | |
| BAGHOUSE INFORMATION | | |
| 4. Baghouse Manufacturer: Torits/ Donaldson | 5. Baghouse Model: 25-PJD-8 | 6. Baghouse Equipment ID: Baghouse #1 |
| 7 (a). Baghouse particulate matter emission concentration. Note: Provide information in 7(a)-(c) or answer question #8 below. | <u>N/A</u> gr/dscf | <i>Manufacturers typically provide guarantees in grains per dry standard cubic foot (gr/dscf). Provide a copy of the guarantee, or other documentation, with the application along with a description of the types of bags that must be used to achieve the emission concentration. Emission concentrations less than 0.01 gr/dscf will receive additional scrutiny by DEQ and a source test of the baghouse may be required. If a guarantee is not provided then you must document how you obtained the emission concentration. Without documentation the application is not complete.</i> |
| 7 (b). Percentage PM ₁₀ Or Provide PM ₁₀ Emission Concentration | <u>99.9</u> % <u>N/A</u> gr/dscf | <i>What percentage of the PM concentration listed in question #7(a) is PM₁₀. You must provide documentation as to how the percentage was determined (i.e. per the baghouse manufacturer). Without documentation the application is not complete.</i> |
| 7 (c). Baghouse flow rate | <u>N/A</u> dscfm | <i>Provide the baghouse flow rate in dry standard cubic feet per minute. Actual cubic feet per minute may be given in lieu of dscfm if it is documented that moisture content is insignificant. You must provide documentation as to how this flow rate was determined (i.e. per the exhaust fan manufacturer, combustion evaluation, etc.). Without documentation the application is not complete.</i> |
| 8. Baghouse particulate matter control efficiency. Note: Not needed if section #7 is completed. | <u>99.9</u> % PM control <u>99.9</u> % PM ₁₀ control | <i>Applicant's providing the control efficiency of the baghouse must provide control efficiency for both PM and PM₁₀. Provide a copy of the control efficiency documentation with the application. Documentation must include a description of the types of bags that must be used to achieve the control efficiency. Without documentation the application is not complete.</i> |
| 9. Is the baghouse equipped with a bag leak detector? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <i>If a bag leak detector is installed provide documentation on the leak detector, including; how the leak detector functions and what level of the output signal indicates that a bag is leaking. Without documentation the application is not complete.</i> |

Instructions for Form BCE

- 1 – 3. Provide the same company name, facility name, and brief project description as on the application cover sheet Form CS**. This is useful if application pages are separated.

USE ATTACHMENT IF ADDITIONAL SPACE IS REQUIRED.

Baghouse Information:

- 4-5. Provide the baghouse manufacturer name and the model number.
6. Provide an identification number for the baghouse stack. This number is assigned by the applicant and must be provided on any other application materials which are submitted that include baghouse information.
- 7-9. Follow the instructions in the form. All documentation provided must be sufficient so that DEQ can verify the validity of the information provided. Provide the Baghouse Equipment ID number on all submitted documentation. If documentation is not provided the application is incomplete.



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

Baghouse Control Equipment **Form BCE**
 Revision 6
 2/18/10

Complete this form for each baghouse. Please see instructions on page 2 before filling out the form.

IDENTIFICATION

| | |
|--|--|
| 1. Company Name J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility |
| 3. Brief Project Description: Animal feed processing and manufacturing plant | |

BAGHOUSE INFORMATION

| | | |
|---|--|---|
| 4. Baghouse Manufacturer: Torits/ Donaldson | 5. Baghouse Model: N/A | 6. Baghouse Equipment ID: Baghouse #2 |
| 7 (a). Baghouse particulate matter emission concentration. Note: Provide information in 7(a)-(c) or answer question #8 below. | N/A gr/dscf | Manufacturers typically provide guarantees in grains per dry standard cubic foot (gr/dscf). Provide a copy of the guarantee, or other documentation, with the application along with a description of the types of bags that must be used to achieve the emission concentration. Emission concentrations less than 0.01 gr/dscf will receive additional scrutiny by DEQ and a source test of the baghouse may be required. If a guarantee is not provided then you must document how you obtained the emission concentration. Without documentation the application is not complete. |
| 7 (b). Percentage PM ₁₀ Or Provide PM ₁₀ Emission Concentration | N/A % N/A gr/dscf | What percentage of the PM concentration listed in question #7(a) is PM ₁₀ . You must provide documentation as to how the percentage was determined (i.e. per the baghouse manufacturer). Without documentation the application is not complete. |
| 7 (c). Baghouse flow rate | N/A dscfm | Provide the baghouse flow rate in dry standard cubic feet per minute. Actual cubic feet per minute may be given in lieu of dscfm if it is documented that moisture content is insignificant. You must provide documentation as to how this flow rate was determined (i.e. per the exhaust fan manufacturer, combustion evaluation, etc.). Without documentation the application is not complete. |
| 8. Baghouse particulate matter control efficiency. Note: Not needed if section #7 is completed. | 99.9 % PM control 99.9 % PM ₁₀ control | Applicant's providing the control efficiency of the baghouse must provide control efficiency for both PM and PM ₁₀ . Provide a copy of the control efficiency documentation with the application. Documentation must include a description of the types of bags that must be used to achieve the control efficiency. Without documentation the application is not complete. |
| 9. Is the baghouse equipped with a bag leak detector? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If a bag leak detector is installed provide documentation on the leak detector, including; how the leak detector functions and what level of the output signal indicates that a bag is leaking. Without documentation the application is not complete. |

Instructions for Form BCE

- 1 – 3. Provide the same company name, facility name, and brief project description as on the application cover sheet Form CS**. This is useful if application pages are separated.

USE ATTACHMENT IF ADDITIONAL SPACE IS REQUIRED.

Baghouse Information:

- 4-5. Provide the baghouse manufacturer name and the model number.
6. Provide an identification number for the baghouse stack. This number is assigned by the applicant and must be provided on any other application materials which are submitted that include baghouse information.
- 7-9. Follow the instructions in the form. All documentation provided must be sufficient so that DEQ can verify the validity of the information provided. Provide the Baghouse Equipment ID number on all submitted documentation. If documentation is not provided the application is incomplete.



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Baghouse Control Equipment **Form BCE**
 Revision 6
 2/18/10

Complete this form for each baghouse. Please see instructions on page 2 before filling out the form.

| IDENTIFICATION | | |
|---|--|--|
| 1. Company Name J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility | |
| 3. Brief Project Description: Animal feed processing and manufacturing plant | | |
| BAGHOUSE INFORMATION | | |
| 4. Baghouse Manufacturer: Torits/ Donaldson | 5. Baghouse Model: 80HPW | 6. Baghouse Equipment ID: Baghouse #3 |
| 7 (a). Baghouse particulate matter emission concentration. Note: Provide information in 7(a)-(c) or answer question #8 below. | <u>N/A</u> gr/dscf | <i>Manufacturers typically provide guarantees in grains per dry standard cubic foot (gr/dscf). Provide a copy of the guarantee, or other documentation, with the application along with a description of the types of bags that must be used to achieve the emission concentration. Emission concentrations less than 0.01 gr/dscf will receive additional scrutiny by DEQ and a source test of the baghouse may be required. If a guarantee is not provided then you must document how you obtained the emission concentration. Without documentation the application is not complete.</i> |
| 7 (b). Percentage PM ₁₀ Or Provide PM ₁₀ Emission Concentration | <u>N/A</u> % <u>N/A</u> gr/dscf | <i>What percentage of the PM concentration listed in question #7(a) is PM₁₀. You must provide documentation as to how the percentage was determined (i.e. per the baghouse manufacturer). Without documentation the application is not complete.</i> |
| 7 (c). Baghouse flow rate | <u>N/A</u> dscfm | <i>Provide the baghouse flow rate in dry standard cubic feet per minute. Actual cubic feet per minute may be given in lieu of dscfm if it is documented that moisture content is insignificant. You must provide documentation as to how this flow rate was determined (i.e. per the exhaust fan manufacturer, combustion evaluation, etc.). Without documentation the application is not complete.</i> |
| 8. Baghouse particulate matter control efficiency. Note: Not needed if section #7 is completed. | <u>99.9</u> % PM control <u>99.9</u> % PM ₁₀ control | <i>Applicant's providing the control efficiency of the baghouse must provide control efficiency for both PM and PM₁₀. Provide a copy of the control efficiency documentation with the application. Documentation must include a description of the types of bags that must be used to achieve the control efficiency. Without documentation the application is not complete.</i> |
| 9. Is the baghouse equipped with a bag leak detector? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <i>If a bag leak detector is installed provide documentation on the leak detector, including; how the leak detector functions and what level of the output signal indicates that a bag is leaking. Without documentation the application is not complete.</i> |

Instructions for Form BCE

- 1 – 3. Provide the same company name, facility name, and brief project description as on the application cover sheet Form CS**. This is useful if application pages are separated.

USE ATTACHMENT IF ADDITIONAL SPACE IS REQUIRED.

Baghouse Information:

- 4-5. Provide the baghouse manufacturer name and the model number.
6. Provide an identification number for the baghouse stack. This number is assigned by the applicant and must be provided on any other application materials which are submitted that include baghouse information.
- 7-9. Follow the instructions in the form. All documentation provided must be sufficient so that DEQ can verify the validity of the information provided. Provide the Baghouse Equipment ID number on all submitted documentation. If documentation is not provided the application is incomplete.



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Baghouse Control Equipment **Form BCE**
 Revision 6
 2/18/10

Complete this form for each baghouse. Please see instructions on page 2 before filling out the form.

| IDENTIFICATION | | |
|---|--|---|
| 1. Company Name J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility | |
| 3. Brief Project Description: Animal feed processing and manufacturing plant | | |
| BAGHOUSE INFORMATION | | |
| 4. Baghouse Manufacturer: Torits/ Donaldson | 5. Baghouse Model: 9PJD8 | 6. Baghouse Equipment ID: Baghouse #4 |
| 7 (a). Baghouse particulate matter emission concentration. Note: Provide information in 7(a)-(c) or answer question #8 below. | <u>N/A</u> gr/dscf | <i>Manufacturers typically provide guarantees in grains per dry standard cubic foot (gr/dscf). Provide a copy of the guarantee, or other documentation, with the application along with a description of the types of bags that must be used to achieve the emission concentration. Emission concentrations less than 0.01 gr/dscf will receive additional scrutiny by DEQ and a source test of the baghouse may be required. If a guarantee is not provided then you must document how you obtained the emission concentration. Without documentation the application is not complete.</i> |
| 7 (b). Percentage PM ₁₀ Or Provide PM ₁₀ Emission Concentration | <u>N/A</u> % <u>N/A</u> gr/dscf | <i>What percentage of the PM concentration listed in question #7(a) is PM₁₀. You must provide documentation as to how the percentage was determined (i.e per the baghouse manufacturer). Without documentation the application is not complete.</i> |
| 7 (c). Baghouse flow rate | <u>N/A</u> dscfm | <i>Provide the baghouse flow rate in dry standard cubic feet per minute. Actual cubic feet per minute may be given in lieu of dscfm if it is documented that moisture content is insignificant. You must provide documentation as to how this flow rate was determined (i.e. per the exhaust fan manufacturer, combustion evaluation, etc.). Without documentation the application is not complete.</i> |
| 8. Baghouse particulate matter control efficiency. Note: Not needed if section #7 is completed. | <u>99.9</u> % PM control <u>99.9</u> % PM ₁₀ control | <i>Applicant's providing the control efficiency of the baghouse must provide control efficiency for both PM and PM₁₀. Provide a copy of the control efficiency documentation with the application. Documentation must include a description of the types of bags that must be used to achieve the control efficiency. Without documentation the application is not complete.</i> |
| 9. Is the baghouse equipped with a bag leak detector? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <i>If a bag leak detector is installed provide documentation on the leak detector, including; how the leak detector functions and what level of the output signal indicates that a bag is leaking. Without documentation the application is not complete.</i> |

Instructions for Form BCE

- 1 – 3. Provide the same company name, facility name, and brief project description as on the application cover sheet Form CS**. This is useful if application pages are separated.

USE ATTACHMENT IF ADDITIONAL SPACE IS REQUIRED.

Baghouse Information:

- 4-5. Provide the baghouse manufacturer name and the model number.
6. Provide an identification number for the baghouse stack. This number is assigned by the applicant and must be provided on any other application materials which are submitted that include baghouse information.
- 7-9. Follow the instructions in the form. All documentation provided must be sufficient so that DEQ can verify the validity of the information provided. Provide the Baghouse Equipment ID number on all submitted documentation. If documentation is not provided the application is incomplete.



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Baghouse Control Equipment Form BCE

Revision 6
 2/18/10

Complete this form for each baghouse. Please see instructions on page 2 before filling out the form.

IDENTIFICATION

| | |
|--|--|
| 1. Company Name J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility |
|--|--|

3. Brief Project Description: Animal feed processing and manufacturing plant

BAGHOUSE INFORMATION

| | | |
|---|--------------------------|---------------------------------------|
| 4. Baghouse Manufacturer: Torits/ Donaldson | 5. Baghouse Model: 96PJD | 6. Baghouse Equipment ID: Baghouse #5 |
|---|--------------------------|---------------------------------------|

7 (a). Baghouse particulate matter emission concentration. N/A gr/dscf
Note: Provide information in 7(a)-(c) or answer question #8 below.

Manufacturers typically provide guarantees in grains per dry standard cubic foot (gr/dscf). Provide a copy of the guarantee, or other documentation, with the application along with a description of the types of bags that must be used to achieve the emission concentration. Emission concentrations less than 0.01 gr/dscf will receive additional scrutiny by DEQ and a source test of the baghouse may be required. If a guarantee is not provided then you must document how you obtained the emission concentration. Without documentation the application is not complete.

7 (b). Percentage PM₁₀ N/A %
 Or Provide PM₁₀ Emission Concentration N/A gr/dscf

What percentage of the PM concentration listed in question #7(a) is PM₁₀. You must provide documentation as to how the percentage was determined (i.e per the baghouse manufacturer). Without documentation the application is not complete.

7 (c). Baghouse flow rate N/A dscfm

Provide the baghouse flow rate in dry standard cubic feet per minute. Actual cubic feet per minute may be given in lieu of dscfm if it is documented that moisture content is insignificant. You must provide documentation as to how this flow rate was determined (i.e. per the exhaust fan manufacturer, combustion evaluation, etc.). Without documentation the application is not complete.

8. Baghouse particulate matter control efficiency. 99.9 % PM control
99.9 % PM₁₀ control
Note: Not needed if section #7 is completed.

Applicant's providing the control efficiency of the baghouse must provide control efficiency for both PM and PM₁₀. Provide a copy of the control efficiency documentation with the application. Documentation must include a description of the types of bags that must be used to achieve the control efficiency. Without documentation the application is not complete.

9. Is the baghouse equipped with a bag leak detector? Yes
 No

If a bag leak detector is installed provide documentation on the leak detector, including; how the leak detector functions and what level of the output signal indicates that a bag is leaking. Without documentation the application is not complete.

Instructions for Form BCE

- 1 – 3. Provide the same company name, facility name, and brief project description as on the application cover sheet Form CS**. This is useful if application pages are separated.

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Baghouse Information:

- 4-5. Provide the baghouse manufacturer name and the model number.
6. Provide an identification number for the baghouse stack. This number is assigned by the applicant and must be provided on any other application materials which are submitted that include baghouse information.
- 7-9. Follow the instructions in the form. All documentation provided must be sufficient so that DEQ can verify the validity of the information provided. Provide the Baghouse Equipment ID number on all submitted documentation. If documentation is not provided the application is incomplete.



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Baghouse Control Equipment **Form BCE**
 Revision 6
 2/18/10

Complete this form for each baghouse. Please see instructions on page 2 before filling out the form.

| IDENTIFICATION | | |
|---|--|---|
| 1. Company Name J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility | |
| 3. Brief Project Description: Animal feed processing and manufacturing plant | | |
| BAGHOUSE INFORMATION | | |
| 4. Baghouse Manufacturer: Torits/ Donaldson | 5. Baghouse Model: 9PJD | 6. Baghouse Equipment ID: Baghouse #6 |
| 7 (a). Baghouse particulate matter emission concentration. Note: Provide information in 7(a)-(c) or answer question #8 below. | <u>N/A</u> gr/dscf | <i>Manufacturers typically provide guarantees in grains per dry standard cubic foot (gr/dscf). Provide a copy of the guarantee, or other documentation, with the application along with a description of the types of bags that must be used to achieve the emission concentration. Emission concentrations less than 0.01 gr/dscf will receive additional scrutiny by DEQ and a source test of the baghouse may be required. If a guarantee is not provided then you must document how you obtained the emission concentration. Without documentation the application is not complete.</i> |
| 7 (b). Percentage PM ₁₀ Or Provide PM ₁₀ Emission Concentration | <u>N/A</u> % <u>N/A</u> gr/dscf | <i>What percentage of the PM concentration listed in question #7(a) is PM₁₀. You must provide documentation as to how the percentage was determined (i.e per the baghouse manufacturer). Without documentation the application is not complete.</i> |
| 7 (c). Baghouse flow rate | <u>N/A</u> dscfm | <i>Provide the baghouse flow rate in dry standard cubic feet per minute. Actual cubic feet per minute may be given in lieu of dscfm if it is documented that moisture content is insignificant. You must provide documentation as to how this flow rate was determined (i.e. per the exhaust fan manufacturer, combustion evaluation, etc.). Without documentation the application is not complete.</i> |
| 8. Baghouse particulate matter control efficiency. Note: Not needed if section #7 is completed. | <u>99.9</u> % PM control <u>99.9</u> % PM ₁₀ control | <i>Applicant's providing the control efficiency of the baghouse must provide control efficiency for both PM and PM₁₀. Provide a copy of the control efficiency documentation with the application. Documentation must include a description of the types of bags that must be used to achieve the control efficiency. Without documentation the application is not complete.</i> |
| 9. Is the baghouse equipped with a bag leak detector? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <i>If a bag leak detector is installed provide documentation on the leak detector, including; how the leak detector functions and what level of the output signal indicates that a bag is leaking. Without documentation the application is not complete.</i> |

Instructions for Form BCE

- 1 – 3. Provide the same company name, facility name, and brief project description as on the application cover sheet Form CS**. This is useful if application pages are separated.

USE ATTACHMENT IF ADDITIONAL SPACE IS REQUIRED.

Baghouse Information:

- 4-5. Provide the baghouse manufacturer name and the model number.
6. Provide an identification number for the baghouse stack. This number is assigned by the applicant and must be provided on any other application materials which are submitted that include baghouse information.
- 7-9. Follow the instructions in the form. All documentation provided must be sufficient so that DEQ can verify the validity of the information provided. Provide the Baghouse Equipment ID number on all submitted documentation. If documentation is not provided the application is incomplete.



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Baghouse Control Equipment **Form BCE**
 Revision 6
 2/18/10

Complete this form for each baghouse. Please see instructions on page 2 before filling out the form.

| IDENTIFICATION | | |
|---|--|--|
| 1. Company Name J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility | |
| 3. Brief Project Description: Animal feed processing and manufacturing plant | | |
| BAGHOUSE INFORMATION | | |
| 4. Baghouse Manufacturer: Torits/ Donaldson | 5. Baghouse Model: 36HPT8 | 6. Baghouse Equipment ID: Baghouse #7 |
| 7 (a). Baghouse particulate matter emission concentration. Note: Provide information in 7(a)-(c) or answer question #8 below. | <u>N/A</u> gr/dscf | <i>Manufacturers typically provide guarantees in grains per dry standard cubic foot (gr/dscf). Provide a copy of the guarantee, or other documentation, with the application along with a description of the types of bags that must be used to achieve the emission concentration. Emission concentrations less than 0.01 gr/dscf will receive additional scrutiny by DEQ and a source test of the baghouse may be required. If a guarantee is not provided then you must document how you obtained the emission concentration. Without documentation the application is not complete.</i> |
| 7 (b). Percentage PM ₁₀ Or Provide PM ₁₀ Emission Concentration | <u>N/A</u> % <u>N/A</u> gr/dscf | <i>What percentage of the PM concentration listed in question #7(a) is PM₁₀. You must provide documentation as to how the percentage was determined (i.e per the baghouse manufacturer). Without documentation the application is not complete.</i> |
| 7 (c). Baghouse flow rate | <u>N/A</u> dscfm | <i>Provide the baghouse flow rate in dry standard cubic feet per minute. Actual cubic feet per minute may be given in lieu of dscfm if it is documented that moisture content is insignificant. You must provide documentation as to how this flow rate was determined (i.e. per the exhaust fan manufacturer, combustion evaluation, etc.). Without documentation the application is not complete.</i> |
| 8. Baghouse particulate matter control efficiency. Note: Not needed if section #7 is completed. | <u>99.9</u> % PM control <u>99.9</u> % PM ₁₀ control | <i>Applicant's providing the control efficiency of the baghouse must provide control efficiency for both PM and PM₁₀. Provide a copy of the control efficiency documentation with the application. Documentation must include a description of the types of bags that must be used to achieve the control efficiency. Without documentation the application is not complete.</i> |
| 9. Is the baghouse equipped with a bag leak detector? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <i>If a bag leak detector is installed provide documentation on the leak detector, including; how the leak detector functions and what level of the output signal indicates that a bag is leaking. Without documentation the application is not complete.</i> |

Instructions for Form BCE

- 1 – 3. Provide the same company name, facility name, and brief project description as on the application cover sheet Form CS**. This is useful if application pages are separated.

USE ATTACHMENT IF ADDITIONAL SPACE IS REQUIRED.

Baghouse Information:

- 4-5. Provide the baghouse manufacturer name and the model number.
6. Provide an identification number for the baghouse stack. This number is assigned by the applicant and must be provided on any other application materials which are submitted that include baghouse information.
- 7-9. Follow the instructions in the form. All documentation provided must be sufficient so that DEQ can verify the validity of the information provided. Provide the Baghouse Equipment ID number on all submitted documentation. If documentation is not provided the application is incomplete.



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Baghouse Control Equipment Form BCE
 Revision 6
 2/18/10

Complete this form for each baghouse. Please see instructions on page 2 before filling out the form.

| IDENTIFICATION | | |
|---|--|---|
| 1. Company Name J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility | |
| 3. Brief Project Description: Animal feed processing and manufacturing plant | | |
| BAGHOUSE INFORMATION | | |
| 4. Baghouse Manufacturer: Torits/ Donaldson | 5. Baghouse Model: 9PJD | 6. Baghouse Equipment ID: Baghouse #8 |
| 7 (a). Baghouse particulate matter emission concentration. Note: Provide information in 7(a)-(c) or answer question #8 below. | N/A gr/dscf | Manufacturers typically provide guarantees in grains per dry standard cubic foot (gr/dscf). Provide a copy of the guarantee, or other documentation, with the application along with a description of the types of bags that must be used to achieve the emission concentration. Emission concentrations less than 0.01 gr/dscf will receive additional scrutiny by DEQ and a source test of the baghouse may be required. If a guarantee is not provided then you must document how you obtained the emission concentration. Without documentation the application is not complete. |
| 7 (b). Percentage PM ₁₀ Or Provide PM ₁₀ Emission Concentration | N/A % N/A gr/dscf | What percentage of the PM concentration listed in question #7(a) is PM ₁₀ . You must provide documentation as to how the percentage was determined (i.e. per the baghouse manufacturer). Without documentation the application is not complete. |
| 7 (c). Baghouse flow rate | N/A dscfm | Provide the baghouse flow rate in dry standard cubic feet per minute. Actual cubic feet per minute may be given in lieu of dscfm if it is documented that moisture content is insignificant. You must provide documentation as to how this flow rate was determined (i.e. per the exhaust fan manufacturer, combustion evaluation, etc.). Without documentation the application is not complete. |
| 8. Baghouse particulate matter control efficiency. Note: Not needed if section #7 is completed. | 99.9 % PM control 99.9 % PM ₁₀ control | Applicant's providing the control efficiency of the baghouse must provide control efficiency for both PM and PM ₁₀ . Provide a copy of the control efficiency documentation with the application. Documentation must include a description of the types of bags that must be used to achieve the control efficiency. Without documentation the application is not complete. |
| 9. Is the baghouse equipped with a bag leak detector? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If a bag leak detector is installed provide documentation on the leak detector, including; how the leak detector functions and what level of the output signal indicates that a bag is leaking. Without documentation the application is not complete. |

Instructions for Form BCE

- 1 – 3. Provide the same company name, facility name, and brief project description as on the application cover sheet Form CS**. This is useful if application pages are separated.

USE ATTACHMENT IF ADDITIONAL SPACE IS REQUIRED.

Baghouse Information:

- 4-5. Provide the baghouse manufacturer name and the model number.
6. Provide an identification number for the baghouse stack. This number is assigned by the applicant and must be provided on any other application materials which are submitted that include baghouse information.
- 7-9. Follow the instructions in the form. All documentation provided must be sufficient so that DEQ can verify the validity of the information provided. Provide the Baghouse Equipment ID number on all submitted documentation. If documentation is not provided the application is incomplete.



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Baghouse Control Equipment Form **BCE**

Revision 6
 2/18/10

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| IDENTIFICATION | | |
|---|--|---|
| 1. Company Name J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility | |
| 3. Brief Project Description: Animal feed processing and manufacturing plant | | |
| BAGHOUSE INFORMATION | | |
| 4. Baghouse Manufacturer: Torits/ Donaldson | 5. Baghouse Model: 36HPT8 | 6. Baghouse Equipment ID: Baghouse #7 |
| 7 (a). Baghouse particulate matter emission concentration. Note: Provide information in 7(a)-(c) or answer question #8 below. | <u>N/A</u> gr/dscf | <i>Manufacturers typically provide guarantees in grains per dry standard cubic foot (gr/dscf). Provide a copy of the guarantee, or other documentation, with the application along with a description of the types of bags that must be used to achieve the emission concentration. Emission concentrations less than 0.01 gr/dscf will receive additional scrutiny by DEQ and a source test of the baghouse may be required. If a guarantee is not provided then you must document how you obtained the emission concentration. Without documentation the application is not complete.</i> |
| 7 (b). Percentage PM ₁₀ Or Provide PM ₁₀ Emission Concentration | <u>N/A</u> % <u>N/A</u> gr/dscf | <i>What percentage of the PM concentration listed in question #7(a) is PM₁₀. You must provide documentation as to how the percentage was determined (i.e per the baghouse manufacturer). Without documentation the application is not complete.</i> |
| 7 (c). Baghouse flow rate | <u>N/A</u> dscfm | <i>Provide the baghouse flow rate in dry standard cubic feet per minute. Actual cubic feet per minute may be given in lieu of dscfm if it is documented that moisture content is insignificant. You must provide documentation as to how this flow rate was determined (i.e. per the exhaust fan manufacturer, combustion evaluation, etc.). Without documentation the application is not complete.</i> |
| 8. Baghouse particulate matter control efficiency. Note: Not needed if section #7 is completed. | <u>99.9</u> % PM control <u>99.9</u> % PM ₁₀ control | <i>Applicant's providing the control efficiency of the baghouse must provide control efficiency for both PM and PM₁₀. Provide a copy of the control efficiency documentation with the application. Documentation must include a description of the types of bags that must be used to achieve the control efficiency. Without documentation the application is not complete.</i> |
| 9. Is the baghouse equipped with a bag leak detector? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <i>If a bag leak detector is installed provide documentation on the leak detector, including; how the leak detector functions and what level of the output signal indicates that a bag is leaking. Without documentation the application is not complete.</i> |

Instructions for Form BCE

- 1 – 3. Provide the same company name, facility name, and brief project description as on the application cover sheet Form CS**. This is useful if application pages are separated.

USE ATTACHMENT IF ADDITIONAL SPACE IS REQUIRED.

Baghouse Information:

- 4-5. Provide the baghouse manufacturer name and the model number.
6. Provide an identification number for the baghouse stack. This number is assigned by the applicant and must be provided on any other application materials which are submitted that include baghouse information.
- 7-9. Follow the instructions in the form. All documentation provided must be sufficient so that DEQ can verify the validity of the information provided. Provide the Baghouse Equipment ID number on all submitted documentation. If documentation is not provided the application is incomplete.



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Baghouse Control Equipment **Form BCE**
 Revision 6
 2/18/10

Complete this form for each baghouse. Please see instructions on page 2 before filling out the form.

| IDENTIFICATION | | |
|--|--|--|
| 1. Company Name J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility | |
| 3. Brief Project Description: Animal feed processing and manufacturing plant | | |
| BAGHOUSE INFORMATION | | |
| 4. Baghouse Manufacturer: Torits/ Donaldson | 5. Baghouse Model: 9PJD | 6. Baghouse Equipment ID: Baghouse #8 |
| 7 (a). Baghouse particulate matter emission concentration. Note: Provide information in 7(a)-(c) or answer question #8 below. | <u>N/A</u> gr/dscf | <i>Manufacturers typically provide guarantees in grains per dry standard cubic foot (gr/dscf). Provide a copy of the guarantee, or other documentation, with the application along with a description of the types of bags that must be used to achieve the emission concentration. Emission concentrations less than 0.01 gr/dscf will receive additional scrutiny by DEQ and a source test of the baghouse may be required. If a guarantee is not provided then you must document how you obtained the emission concentration. Without documentation the application is not complete.</i> |
| 7 (b). Percentage PM₁₀ Or Provide PM ₁₀ Emission Concentration | <u>N/A</u> % <u>N/A</u> gr/dscf | <i>What percentage of the PM concentration listed in question #7(a) is PM₁₀. You must provide documentation as to how the percentage was determined (i.e. per the baghouse manufacturer). Without documentation the application is not complete.</i> |
| 7 (c). Baghouse flow rate | <u>N/A</u> dscfm | <i>Provide the baghouse flow rate in dry standard cubic feet per minute. Actual cubic feet per minute may be given in lieu of dscfm if it is documented that moisture content is insignificant. You must provide documentation as to how this flow rate was determined (i.e. per the exhaust fan manufacturer, combustion evaluation, etc.). Without documentation the application is not complete.</i> |
| 8. Baghouse particulate matter control efficiency. Note: Not needed if section #7 is completed. | <u>99.9</u> % PM control <u>99.9</u> % PM ₁₀ control | <i>Applicant's providing the control efficiency of the baghouse must provide control efficiency for both PM and PM₁₀. Provide a copy of the control efficiency documentation with the application. Documentation must include a description of the types of bags that must be used to achieve the control efficiency. Without documentation the application is not complete.</i> |
| 9. Is the baghouse equipped with a bag leak detector? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <i>If a bag leak detector is installed provide documentation on the leak detector, including; how the leak detector functions and what level of the output signal indicates that a bag is leaking. Without documentation the application is not complete.</i> |

Instructions for Form BCE

- 1 – 3. Provide the same company name, facility name, and brief project description as on the application cover sheet Form CS**. This is useful if application pages are separated.

USE ATTACHMENT IF ADDITIONAL SPACE IS REQUIRED.

Baghouse Information:

- 4-5. Provide the baghouse manufacturer name and the model number.
6. Provide an identification number for the baghouse stack. This number is assigned by the applicant and must be provided on any other application materials which are submitted that include baghouse information.
- 7-9. Follow the instructions in the form. All documentation provided must be sufficient so that DEQ can verify the validity of the information provided. Provide the Baghouse Equipment ID number on all submitted documentation. If documentation is not provided the application is incomplete.



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Baghouse Control Equipment **Form BCE**
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2/18/10

Complete this form for each baghouse. Please see instructions on page 2 before filling out the form.

| IDENTIFICATION | | |
|---|--|---|
| 1. Company Name J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility | |
| 3. Brief Project Description: Animal feed processing and manufacturing plant | | |
| BAGHOUSE INFORMATION | | |
| 4. Baghouse Manufacturer: Torits/ Donaldson | 5. Baghouse Model: 9PJD | 6. Baghouse Equipment ID: Baghouse #9 |
| 7 (a). Baghouse particulate matter emission concentration. <u>N/A</u> gr/dscf Note: Provide information in 7(a)-(c) or answer question #8 below. | <u>N/A</u> gr/dscf | Manufacturers typically provide guarantees in grains per dry standard cubic foot (gr/dscf). Provide a copy of the guarantee, or other documentation, with the application along with a description of the types of bags that must be used to achieve the emission concentration. Emission concentrations less than 0.01 gr/dscf will receive additional scrutiny by DEQ and a source test of the baghouse may be required. If a guarantee is not provided then you must document how you obtained the emission concentration. Without documentation the application is not complete. |
| 7 (b). Percentage PM ₁₀ Or Provide PM ₁₀ Emission Concentration | <u>N/A</u> % <u>N/A</u> gr/dscf | What percentage of the PM concentration listed in question #7(a) is PM ₁₀ . You must provide documentation as to how the percentage was determined (i.e per the baghouse manufacturer). Without documentation the application is not complete. |
| 7 (c). Baghouse flow rate | <u>N/A</u> dscfm | Provide the baghouse flow rate in dry standard cubic feet per minute. Actual cubic feet per minute may be given in lieu of dscfm if it is documented that moisture content is insignificant. You must provide documentation as to how this flow rate was determined (i.e. per the exhaust fan manufacturer, combustion evaluation, etc.). Without documentation the application is not complete. |
| 8. Baghouse particulate matter control efficiency. Note: Not needed if section #7 is completed. | <u>99.9</u> % PM control <u>99.9</u> % PM ₁₀ control | Applicant's providing the control efficiency of the baghouse must provide control efficiency for both PM and PM ₁₀ . Provide a copy of the control efficiency documentation with the application. Documentation must include a description of the types of bags that must be used to achieve the control efficiency. Without documentation the application is not complete. |
| 9. Is the baghouse equipped with a bag leak detector? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If a bag leak detector is installed provide documentation on the leak detector, including; how the leak detector functions and what level of the output signal indicates that a bag is leaking. Without documentation the application is not complete. |

Instructions for Form BCE

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Baghouse Information:

- 4-5. Provide the baghouse manufacturer name and the model number.
6. Provide an identification number for the baghouse stack. This number is assigned by the applicant and must be provided on any other application materials which are submitted that include baghouse information.
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Baghouse Control Equipment Form BCE

Revision 6
 2/18/10

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| IDENTIFICATION | | |
|---|--|--|
| 1. Company Name J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility | |
| 3. Brief Project Description: Animal feed processing and manufacturing plant | | |
| BAGHOUSE INFORMATION | | |
| 4. Baghouse Manufacturer: Torits/ Donaldson | 5. Baghouse Model: 9PJD8 | 6. Baghouse Equipment ID: Baghouse #10 |
| 7 (a). Baghouse particulate matter emission concentration. Note: Provide information in 7(a)-(c) or answer question #8 below. | <u>N/A</u> gr/dscf | <i>Manufacturers typically provide guarantees in grains per dry standard cubic foot (gr/dscf). Provide a copy of the guarantee, or other documentation, with the application along with a description of the types of bags that must be used to achieve the emission concentration. Emission concentrations less than 0.01 gr/dscf will receive additional scrutiny by DEQ and a source test of the baghouse may be required. If a guarantee is not provided then you must document how you obtained the emission concentration. Without documentation the application is not complete.</i> |
| 7 (b). Percentage PM ₁₀ Or Provide PM ₁₀ Emission Concentration | <u>N/A</u> % <u>N/A</u> gr/dscf | <i>What percentage of the PM concentration listed in question #7(a) is PM₁₀. You must provide documentation as to how the percentage was determined (i.e per the baghouse manufacturer). Without documentation the application is not complete.</i> |
| 7 (c). Baghouse flow rate | <u>N/A</u> dscfm | <i>Provide the baghouse flow rate in dry standard cubic feet per minute. Actual cubic feet per minute may be given in lieu of dscfm if it is documented that moisture content is insignificant. You must provide documentation as to how this flow rate was determined (i.e. per the exhaust fan manufacturer, combustion evaluation, etc.). Without documentation the application is not complete.</i> |
| 8. Baghouse particulate matter control efficiency. Note: Not needed if section #7 is completed. | <u>99.9</u> % PM control <u>99.9</u> % PM ₁₀ control | <i>Applicant's providing the control efficiency of the baghouse must provide control efficiency for both PM and PM₁₀. Provide a copy of the control efficiency documentation with the application. Documentation must include a description of the types of bags that must be used to achieve the control efficiency. Without documentation the application is not complete.</i> |
| 9. Is the baghouse equipped with a bag leak detector? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <i>If a bag leak detector is installed provide documentation on the leak detector, including; how the leak detector functions and what level of the output signal indicates that a bag is leaking. Without documentation the application is not complete.</i> |

Instructions for Form BCE

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Baghouse Information:

- 4-5. Provide the baghouse manufacturer name and the model number.
6. Provide an identification number for the baghouse stack. This number is assigned by the applicant and must be provided on any other application materials which are submitted that include baghouse information.
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Baghouse Control Equipment **Form BCE**
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| IDENTIFICATION | | |
|---|--|---|
| 1. Company Name J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility | |
| 3. Brief Project Description: Animal feed processing and manufacturing plant | | |
| BAGHOUSE INFORMATION | | |
| 4. Baghouse Manufacturer: Dustex | 5. Baghouse Model: 3430-7-10SP | 6. Baghouse Equipment ID: Baghouse #11 |
| 7 (a). Baghouse particulate matter emission concentration. Note: Provide information in 7(a)-(c) or answer question #8 below. | <u>N/A</u> gr/dscf | <i>Manufacturers typically provide guarantees in grains per dry standard cubic foot (gr/dscf). Provide a copy of the guarantee, or other documentation, with the application along with a description of the types of bags that must be used to achieve the emission concentration. Emission concentrations less than 0.01 gr/dscf will receive additional scrutiny by DEQ and a source test of the baghouse may be required. If a guarantee is not provided then you must document how you obtained the emission concentration. Without documentation the application is not complete.</i> |
| 7 (b). Percentage PM ₁₀ Or Provide PM ₁₀ Emission Concentration | <u>N/A</u> % <u>N/A</u> gr/dscf | <i>What percentage of the PM concentration listed in question #7(a) is PM₁₀. You must provide documentation as to how the percentage was determined (i.e. per the baghouse manufacturer). Without documentation the application is not complete.</i> |
| 7 (c). Baghouse flow rate | <u>N/A</u> dscfm | <i>Provide the baghouse flow rate in dry standard cubic feet per minute. Actual cubic feet per minute may be given in lieu of dscfm if it is documented that moisture content is insignificant. You must provide documentation as to how this flow rate was determined (i.e. per the exhaust fan manufacturer, combustion evaluation, etc.). Without documentation the application is not complete.</i> |
| 8. Baghouse particulate matter control efficiency. Note: Not needed if section #7 is completed. | <u>99</u> % PM control <u>99</u> % PM ₁₀ control | <i>Applicant's providing the control efficiency of the baghouse must provide control efficiency for both PM and PM₁₀. Provide a copy of the control efficiency documentation with the application. Documentation must include a description of the types of bags that must be used to achieve the control efficiency. Without documentation the application is not complete.</i> |
| 9. Is the baghouse equipped with a bag leak detector? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <i>If a bag leak detector is installed provide documentation on the leak detector, including; how the leak detector functions and what level of the output signal indicates that a bag is leaking. Without documentation the application is not complete.</i> |

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Baghouse Information:

- 4-5. Provide the baghouse manufacturer name and the model number.
6. Provide an identification number for the baghouse stack. This number is assigned by the applicant and must be provided on any other application materials which are submitted that include baghouse information.
- 7-9. Follow the instructions in the form. All documentation provided must be sufficient so that DEQ can verify the validity of the information provided. Provide the Baghouse Equipment ID number on all submitted documentation. If documentation is not provided the application is incomplete.



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 Revision 6
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| IDENTIFICATION | | |
|---|--|---|
| 1. Company Name J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility | |
| 3. Brief Project Description: Animal feed processing and manufacturing plant | | |
| BAGHOUSE INFORMATION | | |
| 4. Baghouse Manufacturer: Torits/ Donaldson | 5. Baghouse Model: 80CAB | 6. Baghouse Equipment ID: Baghouse #12 |
| 7 (a). Baghouse particulate matter emission concentration. Note: Provide information in 7(a)-(c) or answer question #8 below. | <u>N/A</u> gr/dscf | Manufacturers typically provide guarantees in grains per dry standard cubic foot (gr/dscf). Provide a copy of the guarantee, or other documentation, with the application along with a description of the types of bags that must be used to achieve the emission concentration. Emission concentrations less than 0.01 gr/dscf will receive additional scrutiny by DEQ and a source test of the baghouse may be required. If a guarantee is not provided then you must document how you obtained the emission concentration. Without documentation the application is not complete. |
| 7 (b). Percentage PM ₁₀ Or Provide PM ₁₀ Emission Concentration | <u>N/A</u> % <u>N/A</u> gr/dscf | What percentage of the PM concentration listed in question #7(a) is PM ₁₀ . You must provide documentation as to how the percentage was determined (i.e per the baghouse manufacturer). Without documentation the application is not complete. |
| 7 (c). Baghouse flow rate | <u>N/A</u> dscfm | Provide the baghouse flow rate in dry standard cubic feet per minute. Actual cubic feet per minute may be given in lieu of dscfm if it is documented that moisture content is insignificant. You must provide documentation as to how this flow rate was determined (i.e. per the exhaust fan manufacturer, combustion evaluation, etc.). Without documentation the application is not complete. |
| 8. Baghouse particulate matter control efficiency. Note: Not needed if section #7 is completed. | <u>99.9</u> % PM control <u>99.9</u> % PM ₁₀ control | Applicant's providing the control efficiency of the baghouse must provide control efficiency for both PM and PM ₁₀ . Provide a copy of the control efficiency documentation with the application. Documentation must include a description of the types of bags that must be used to achieve the control efficiency. Without documentation the application is not complete. |
| 9. Is the baghouse equipped with a bag leak detector? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If a bag leak detector is installed provide documentation on the leak detector, including; how the leak detector functions and what level of the output signal indicates that a bag is leaking. Without documentation the application is not complete. |

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Baghouse Information:

- 4-5. Provide the baghouse manufacturer name and the model number.
6. Provide an identification number for the baghouse stack. This number is assigned by the applicant and must be provided on any other application materials which are submitted that include baghouse information.
- 7-9. Follow the instructions in the form. All documentation provided must be sufficient so that DEQ can verify the validity of the information provided. Provide the Baghouse Equipment ID number on all submitted documentation. If documentation is not provided the application is incomplete.



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| IDENTIFICATION | | |
|---|--|---|
| 1. Company Name J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility | |
| 3. Brief Project Description: Animal feed processing and manufacturing plant | | |
| BAGHOUSE INFORMATION | | |
| 4. Baghouse Manufacturer: Torits/ Donaldson | 5. Baghouse Model: 9PJD8 | 6. Baghouse Equipment ID: Baghouse #13 |
| 7 (a). Baghouse particulate matter emission concentration. Note: Provide information in 7(a)-(c) or answer question #8 below. | <u>N/A</u> gr/dscf | <i>Manufacturers typically provide guarantees in grains per dry standard cubic foot (gr/dscf). Provide a copy of the guarantee, or other documentation, with the application along with a description of the types of bags that must be used to achieve the emission concentration. Emission concentrations less than 0.01 gr/dscf will receive additional scrutiny by DEQ and a source test of the baghouse may be required. If a guarantee is not provided then you must document how you obtained the emission concentration. Without documentation the application is not complete.</i> |
| 7 (b). Percentage PM ₁₀ Or Provide PM ₁₀ Emission Concentration | <u>N/A</u> % <u>N/A</u> gr/dscf | <i>What percentage of the PM concentration listed in question #7(a) is PM₁₀. You must provide documentation as to how the percentage was determined (i.e per the baghouse manufacturer). Without documentation the application is not complete.</i> |
| 7 (c). Baghouse flow rate | <u>N/A</u> dscfm | <i>Provide the baghouse flow rate in dry standard cubic feet per minute. Actual cubic feet per minute may be given in lieu of dscfm if it is documented that moisture content is insignificant. You must provide documentation as to how this flow rate was determined (i.e. per the exhaust fan manufacturer, combustion evaluation, etc.). Without documentation the application is not complete.</i> |
| 8. Baghouse particulate matter control efficiency. Note: Not needed if section #7 is completed. | <u>99.9</u> % PM control <u>99.9</u> % PM ₁₀ control | <i>Applicant's providing the control efficiency of the baghouse must provide control efficiency for both PM and PM₁₀. Provide a copy of the control efficiency documentation with the application. Documentation must include a description of the types of bags that must be used to achieve the control efficiency. Without documentation the application is not complete.</i> |
| 9. Is the baghouse equipped with a bag leak detector? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <i>If a bag leak detector is installed provide documentation on the leak detector, including; how the leak detector functions and what level of the output signal indicates that a bag is leaking. Without documentation the application is not complete.</i> |

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Baghouse Information:

- 4-5. Provide the baghouse manufacturer name and the model number.
6. Provide an identification number for the baghouse stack. This number is assigned by the applicant and must be provided on any other application materials which are submitted that include baghouse information.
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 2/18/10

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| IDENTIFICATION | | |
|---|--|--|
| 1. Company Name J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility | |
| 3. Brief Project Description: Animal feed processing and manufacturing plant | | |
| BAGHOUSE INFORMATION | | |
| 4. Baghouse Manufacturer: DCL | 5. Baghouse Model: F5140-11114-2 | 6. Baghouse Equipment ID: Baghouse #14 |
| 7 (a). Baghouse particulate matter emission concentration. Note: Provide information in 7(a)-(c) or answer question #8 below. | <u>N/A</u> gr/dscf | <i>Manufacturers typically provide guarantees in grains per dry standard cubic foot (gr/dscf). Provide a copy of the guarantee, or other documentation, with the application along with a description of the types of bags that must be used to achieve the emission concentration. Emission concentrations less than 0.01 gr/dscf will receive additional scrutiny by DEQ and a source test of the baghouse may be required. If a guarantee is not provided then you must document how you obtained the emission concentration. Without documentation the application is not complete.</i> |
| 7 (b). Percentage PM ₁₀ Or Provide PM ₁₀ Emission Concentration | <u>N/A</u> % <u>N/A</u> gr/dscf | <i>What percentage of the PM concentration listed in question #7(a) is PM₁₀. You must provide documentation as to how the percentage was determined (i.e per the baghouse manufacturer). Without documentation the application is not complete.</i> |
| 7 (c). Baghouse flow rate | <u>N/A</u> dscfm | <i>Provide the baghouse flow rate in dry standard cubic feet per minute. Actual cubic feet per minute may be given in lieu of dscfm if it is documented that moisture content is insignificant. You must provide documentation as to how this flow rate was determined (i.e. per the exhaust fan manufacturer, combustion evaluation, etc.). Without documentation the application is not complete.</i> |
| 8. Baghouse particulate matter control efficiency. Note: Not needed if section #7 is completed. | 99 % PM control 99 % PM ₁₀ control | <i>Applicant's providing the control efficiency of the baghouse must provide control efficiency for both PM and PM₁₀. Provide a copy of the control efficiency documentation with the application. Documentation must include a description of the types of bags that must be used to achieve the control efficiency. Without documentation the application is not complete.</i> |
| 9. Is the baghouse equipped with a bag leak detector? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | <i>If a bag leak detector is installed provide documentation on the leak detector, including; how the leak detector functions and what level of the output signal indicates that a bag is leaking. Without documentation the application is not complete.</i> |

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Baghouse Information:

- 4-5. Provide the baghouse manufacturer name and the model number.
6. Provide an identification number for the baghouse stack. This number is assigned by the applicant and must be provided on any other application materials which are submitted that include baghouse information.
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| IDENTIFICATION | | |
|---|--|---|
| 1. Company Name J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility | |
| 3. Brief Project Description: Animal feed processing and manufacturing plant | | |
| BAGHOUSE INFORMATION | | |
| 4. Baghouse Manufacturer: Buhler | 5. Baghouse Model: N/A | 6. Baghouse Equipment ID: Baghouse #15 |
| 7 (a). Baghouse particulate matter emission concentration. Note: Provide information in 7(a)-(c) or answer question #8 below. | <u>N/A</u> gr/dscf | Manufacturers typically provide guarantees in grains per dry standard cubic foot (gr/dscf). Provide a copy of the guarantee, or other documentation, with the application along with a description of the types of bags that must be used to achieve the emission concentration. Emission concentrations less than 0.01 gr/dscf will receive additional scrutiny by DEQ and a source test of the baghouse may be required. If a guarantee is not provided then you must document how you obtained the emission concentration. Without documentation the application is not complete. |
| 7 (b). Percentage PM ₁₀ Or Provide PM ₁₀ Emission Concentration | <u>N/A</u> % <u>N/A</u> gr/dscf | What percentage of the PM concentration listed in question #7(a) is PM ₁₀ . You must provide documentation as to how the percentage was determined (i.e. per the baghouse manufacturer). Without documentation the application is not complete. |
| 7 (c). Baghouse flow rate | <u>N/A</u> dscfm | Provide the baghouse flow rate in dry standard cubic feet per minute. Actual cubic feet per minute may be given in lieu of dscfm if it is documented that moisture content is insignificant. You must provide documentation as to how this flow rate was determined (i.e. per the exhaust fan manufacturer, combustion evaluation, etc.). Without documentation the application is not complete. |
| 8. Baghouse particulate matter control efficiency. Note: Not needed if section #7 is completed. | <u>99</u> % PM control <u>99</u> % PM ₁₀ control | Applicant's providing the control efficiency of the baghouse must provide control efficiency for both PM and PM ₁₀ . Provide a copy of the control efficiency documentation with the application. Documentation must include a description of the types of bags that must be used to achieve the control efficiency. Without documentation the application is not complete. |
| 9. Is the baghouse equipped with a bag leak detector? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | If a bag leak detector is installed provide documentation on the leak detector, including; how the leak detector functions and what level of the output signal indicates that a bag is leaking. Without documentation the application is not complete. |

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Baghouse Information:

- 4-5. Provide the baghouse manufacturer name and the model number.
6. Provide an identification number for the baghouse stack. This number is assigned by the applicant and must be provided on any other application materials which are submitted that include baghouse information.
- 7-9. Follow the instructions in the form. All documentation provided must be sufficient so that DEQ can verify the validity of the information provided. Provide the Baghouse Equipment ID number on all submitted documentation. If documentation is not provided the application is incomplete.

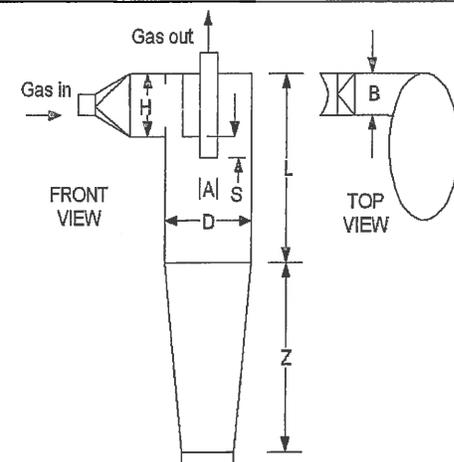


Please see instructions on page 3 before filling out the form.

| IDENTIFICATION | | |
|--|---|-------------------------|
| 1. Company Name: J.R. Simplot Company Western Stockmen's (WSI) | 2. Facility Name: WSI Caldwell Facility | 3. Facility ID No.: N/A |
| 4. Brief Project Description: Animal feed processing and manufacturing plant | | |

| CYCLONE SEPARATOR INFORMATION |
|-------------------------------|
|-------------------------------|

| Equipment Description |
|-----------------------|
|-----------------------|

| 5. Manufacturer: N/A | 6. Model Number: N/A | | | | | | | | | | | | | | | | | | |
|---|---|--|--|---------|-----|--|---------|-----|--|------|-----|--|-------|-----|--|---------|-----|--|--|
| <div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p>7. Dimensions</p>  <p style="font-size: small;">Give dimensions of cyclone. (See sample diagram above.)</p> <p>1. B: N/A in. 5. Z: N/A in.</p> <p>2. H: N/A in. 6. D: N/A in.</p> <p>3. S: N/A in. 7. A: N/A in.</p> <p>4. L: N/A in. 8. J: N/A in.</p> </div> <div style="flex: 1; padding-left: 20px;"> <p>8. Particulate Size Distribution Data</p> <table border="1" style="width:100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th style="width: 30%;">Micron range</th> <th style="width: 30%;">Particle size distribution weight %</th> <th style="width: 40%;">Manufacturer's guaranteed removal efficiency for each micron range</th> </tr> </thead> <tbody> <tr><td>0.5-1.0</td><td>N/A</td><td></td></tr> <tr><td>1.0-5.0</td><td>N/A</td><td></td></tr> <tr><td>5-10</td><td>N/A</td><td></td></tr> <tr><td>10-20</td><td>N/A</td><td></td></tr> <tr><td>Over 20</td><td>N/A</td><td></td></tr> </tbody> </table> <p>9. Type of Cyclone <input type="checkbox"/> Wet <input checked="" type="checkbox"/> Dry</p> <p>10. Type of Cyclone Unit <input checked="" type="checkbox"/> Single <input type="checkbox"/> Quadruple <input type="checkbox"/> Dual <input type="checkbox"/> Multiclone</p> <p>11. Blower Blower horsepower: N/A hp Design flow rate: N/A scfm Draft: <input type="checkbox"/> Forced <input type="checkbox"/> Induced</p> </div> </div> | Micron range | Particle size distribution weight % | Manufacturer's guaranteed removal efficiency for each micron range | 0.5-1.0 | N/A | | 1.0-5.0 | N/A | | 5-10 | N/A | | 10-20 | N/A | | Over 20 | N/A | | |
| Micron range | Particle size distribution weight % | Manufacturer's guaranteed removal efficiency for each micron range | | | | | | | | | | | | | | | | | |
| 0.5-1.0 | N/A | | | | | | | | | | | | | | | | | | |
| 1.0-5.0 | N/A | | | | | | | | | | | | | | | | | | |
| 5-10 | N/A | | | | | | | | | | | | | | | | | | |
| 10-20 | N/A | | | | | | | | | | | | | | | | | | |
| Over 20 | N/A | | | | | | | | | | | | | | | | | | |
| 12. Design Criteria Cyclone configuration: <input type="checkbox"/> Positive pressure <input checked="" type="checkbox"/> Negative pressure | | | | | | | | | | | | | | | | | | | |
| 13. Pre-Treatment Device <input checked="" type="checkbox"/> Cyclone <input type="checkbox"/> Knock-out chamber <input type="checkbox"/> Precooler <input type="checkbox"/> None <input type="checkbox"/> Preheater | 14. Post-Treatment Device <input type="checkbox"/> Baghouse/Cartridge <input type="checkbox"/> HEPA <input type="checkbox"/> Other: | | | | | | | | | | | | | | | | | | |

Process Stream Characteristics

| | |
|---|--|
| <p>15. Brief Description of Process</p> | <p>.Please see PTC Application</p> |
| <p>16. Flow Data</p> | <p>Gas stream temperature: Ambient degrees F</p> <p>Moisture content: N/A grams of water/cubic feet (ft³) of dry air</p> <p><u>Pressure drop range</u> High: N/A in. H₂O Low: N/A in. H₂O</p> <p>Dew point temperature of process stream: N/A degrees F</p> <p>Inlet flow rate: N/A ACFM</p> |
| <p>17. Dust Collection Device</p> | <p><input type="checkbox"/> Pneumatic conveyor <input type="checkbox"/> Rotary airlock valves <input type="checkbox"/> Screw conveyors <input type="checkbox"/> Closed container</p> <p><input type="checkbox"/> Double dump <input type="checkbox"/> Drag conveyor</p> <p><input type="checkbox"/> Manual discharge device: <input type="checkbox"/> Slide gate OR <input type="checkbox"/> Hinged doors or drawers</p> |
| <p>18. Operating Schedule</p> | <p>Normal: See PTC hours/day days/week weeks/year</p> <p>Maximum: hours/day days/week weeks/year</p> |

Instructions for Form CYS

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

Equipment Description

5 – 14. The information requested should be found in the operations and maintenance manual supplied by the manufacturer of the cyclone separator.

Process Stream Characteristics

15. Include a process flow diagram and engineering drawing of the filter system and the material processed. In the space provided, indicate what equipment is vented to the cyclone and how material is handled and disposed of.

16. Fill in all the requested information about flow rate.

17. Check the appropriate box to indicate the type of dust collection device.

18. Fill in the number of hours per day, days per week, or weeks per year for the normal operating schedule and separately for the maximum operating schedule.



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 Western Stockmen's (WSI) | 2. Facility Name: | WSI Caldwell Facility | |
| 3. Facility ID No.: | N/A | | | |
| 4. Brief Project Description: | Animal feed processing and manufacturing plant | | | |
| CYCLONE SEPARATOR INFORMATION | | | | |
| Equipment Description | | | | |
| 5. Manufacturer: | N/A | | | |
| 6. Model Number: | N/A | | | |
| 7. Dimensions | 8. Particulate Size Distribution Data | | | |
| <div style="text-align: center;"> <p style="font-size: small;">FRONT VIEW TOP VIEW</p> </div> <p style="font-size: small;">Give dimensions of cyclone. (See sample diagram above.)</p> <p>1. B: N/A in. 5. Z: N/A in.</p> <p>2. H: N/A in. 6. D: N/A in.</p> <p>3. S: N/A in. 7. A: N/A in.</p> <p>4. L: N/A in. 8. J: N/A in.</p> | Micron range | Particle size distribution weight % | Manufacturer's guaranteed removal efficiency for each micron range | |
| | 0.5-1.0 | N/A | | |
| | 1.0-5.0 | N/A | | |
| | 5-10 | N/A | | |
| | 10-20 | N/A | | |
| | Over 20 | N/A | | |
| | 9. Type of Cyclone | <input type="checkbox"/> Wet <input checked="" type="checkbox"/> Dry | | |
| | 10. Type of Cyclone Unit | <input checked="" type="checkbox"/> Single <input type="checkbox"/> Quadruple <input type="checkbox"/> Dual <input type="checkbox"/> Multiclone | | |
| 11. Blower | Blower horsepower: N/A hp Design flow rate: N/A scfm Draft: <input type="checkbox"/> Forced <input type="checkbox"/> Induced | | | |
| 12. Design Criteria | Cyclone configuration: <input type="checkbox"/> Positive pressure <input checked="" type="checkbox"/> Negative pressure | | | |
| 13. Pre-Treatment Device | <input checked="" type="checkbox"/> Cyclone <input type="checkbox"/> Knock-out chamber <input type="checkbox"/> Precooler <input type="checkbox"/> None <input type="checkbox"/> Preheater | | | |
| 14. Post-Treatment Device | <input type="checkbox"/> Baghouse/Cartridge <input type="checkbox"/> HEPA <input type="checkbox"/> Other: | | | |

Process Stream Characteristics

| | |
|---|--|
| <p>15. Brief Description of Process</p> | <p>.Please see PTC Application</p> |
| <p>16. Flow Data</p> | <p>Gas stream temperature: Ambient degrees F</p> <p>Moisture content: N/A grams of water/cubic feet (ft³) of dry air</p> <p><u>Pressure drop range</u> High: N/A in. H₂O Low: N/A in. H₂O</p> <p>Dew point temperature of process stream: N/A degrees F</p> <p>Inlet flow rate: N/A ACFM</p> |
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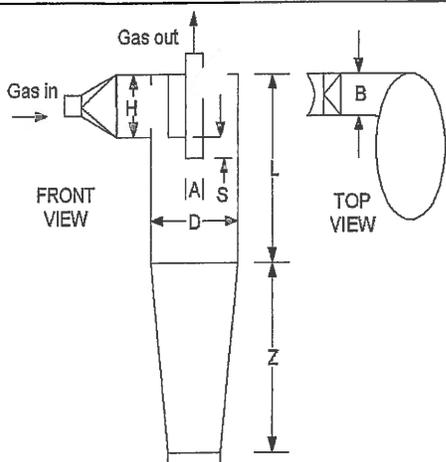


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| CYCLONE SEPARATOR INFORMATION |
|-------------------------------|
|-------------------------------|

| Equipment Description |
|-----------------------|
|-----------------------|

| 5. Manufacturer: N/A | 6. Model Number: N/A | | | | | | | | | | | | | | | | | |
|---|---|--|--|---------|-----|--|---------|-----|--|------|-----|--|-------|-----|--|---------|-----|--|
| <div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p>7. Dimensions</p>  <p style="font-size: small;">Give dimensions of cyclone. (See sample diagram above.)</p> <p>1. B: N/A in. 5. Z: N/A in.</p> <p>2. H: N/A in. 6. D: N/A in.</p> <p>3. S: N/A in. 7. A: N/A in.</p> <p>4. L: N/A in. 8. J: N/A in.</p> </div> <div style="flex: 1; padding-left: 20px;"> <p>8. Particulate Size Distribution Data</p> <table border="1" style="width:100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th style="width: 25%;">Micron range</th> <th style="width: 25%;">Particle size distribution weight %</th> <th style="width: 50%;">Manufacturer's guaranteed removal efficiency for each micron range</th> </tr> </thead> <tbody> <tr><td>0.5-1.0</td><td>N/A</td><td></td></tr> <tr><td>1.0-5.0</td><td>N/A</td><td></td></tr> <tr><td>5-10</td><td>N/A</td><td></td></tr> <tr><td>10-20</td><td>N/A</td><td></td></tr> <tr><td>Over 20</td><td>N/A</td><td></td></tr> </tbody> </table> <p>9. Type of Cyclone <input type="checkbox"/> Wet <input checked="" type="checkbox"/> Dry</p> <p>10. Type of Cyclone Unit <input checked="" type="checkbox"/> Single <input type="checkbox"/> Quadruple <input type="checkbox"/> Dual <input type="checkbox"/> Multiclone</p> <p>11. Blower Blower horsepower: N/A hp Design flow rate: N/A scfm Draft: <input type="checkbox"/> Forced <input type="checkbox"/> Induced</p> </div> </div> | Micron range | Particle size distribution weight % | Manufacturer's guaranteed removal efficiency for each micron range | 0.5-1.0 | N/A | | 1.0-5.0 | N/A | | 5-10 | N/A | | 10-20 | N/A | | Over 20 | N/A | |
| Micron range | Particle size distribution weight % | Manufacturer's guaranteed removal efficiency for each micron range | | | | | | | | | | | | | | | | |
| 0.5-1.0 | N/A | | | | | | | | | | | | | | | | | |
| 1.0-5.0 | N/A | | | | | | | | | | | | | | | | | |
| 5-10 | N/A | | | | | | | | | | | | | | | | | |
| 10-20 | N/A | | | | | | | | | | | | | | | | | |
| Over 20 | N/A | | | | | | | | | | | | | | | | | |
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| | |
|---|--|
| <p>15. Brief Description of Process</p> | <p>.Please see PTC Application</p> |
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IDEQ PTC Forms
Facility Wide Potential to Emit Emission Inventory

Table 1. POTENTIAL TO EMIT FOR NSR REGULATED POLLUTANTS

| Emissions Unit | EU ID # | NSR Pollutant ^a | | | | | | |
|----------------------|---------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | | PM-10 | PM2.5 | CO | Pb | NOx | VOC | SO2 |
| | | T/yr ^b | T/yr ^b | T/yr ^b | T/yr ^b | T/yr ^b | T/yr ^b | T/yr ^b |
| Point Sources | | | | | | | | |
| Boiler #1 | B-1 | 2.68E-03 | 2.68E-03 | 2.97E-02 | n/a | 3.53E-02 | 1.94E-03 | 2.12E-04 |
| Boiler #2 | B-2 | 2.68E-03 | 2.68E-03 | 2.97E-02 | n/a | 3.53E-02 | 1.94E-03 | 2.12E-04 |
| Boiler #3 | B-3 | 2.68E-03 | 2.68E-03 | 2.97E-02 | n/a | 3.53E-02 | 1.94E-03 | 2.12E-04 |
| Bag House #1 | BH-1 | 4.22E-02 | 7.19E-03 | n/a | n/a | n/a | n/a | n/a |
| Bag House #2 | BH-2 | 4.22E-02 | 7.19E-03 | n/a | n/a | n/a | n/a | n/a |
| Bag House #3 | BH-3 | 1.80E-01 | 2.91E-02 | n/a | n/a | n/a | n/a | n/a |
| Bag House #4 | BH-4 | 3.91E-03 | 6.82E-04 | n/a | n/a | n/a | n/a | n/a |
| Bag House #5 | BH-5 | 7.81E-03 | 1.36E-03 | n/a | n/a | n/a | n/a | n/a |
| Bag House #6 | BH-6 | 1.49E-01 | 1.49E-01 | n/a | n/a | n/a | n/a | n/a |
| Bag House #7 | BH-7 | 1.55E-01 | 2.48E-02 | n/a | n/a | n/a | n/a | n/a |
| Bag House #8 | BH-8 | 4.22E-02 | 7.19E-03 | n/a | n/a | n/a | n/a | n/a |
| Bag House #10 | BH-10 | 4.22E-02 | 7.19E-03 | n/a | n/a | n/a | n/a | n/a |
| Bag House #11 | BH-11 | 7.24E-02 | 1.28E-02 | n/a | n/a | n/a | n/a | n/a |
| Cyclone #1 | C-1 | 9.84E-03 | 1.68E-03 | n/a | n/a | n/a | n/a | n/a |
| Cyclone #2 | C-2 | 2.27E-02 | 3.88E-03 | n/a | n/a | n/a | n/a | n/a |
| Cyclone #3 | C-3 | 3.25E-03 | 5.66E-04 | n/a | n/a | n/a | n/a | n/a |
| Totals* | | 7.81E-01 | 2.60E-01 | 8.90E-02 | 0.00E+00 | 1.06E-01 | 5.83E-03 | 6.35E-04 |

a) NSR Regulated air Pollutants are defined¹¹ as: Particulate Matter (PM-10, PM-2.5), Carbon Monoxide, Lead, Nitrogen Dioxide, Ozone (VOC), Sulfur Dioxide, all pollutants regulated by NSPS (40 CFR 60)(i.e. TRS,
b) Ton per year emissions based on 5148 hours of operation/yr for the process operations and 8760 hrs/year for the boilers.

** See spreadsheets prepared by JBR (included in Appendix F of the permit application for further information regarding emission factors and calculation assumptions.

IDEQ PTC Forms
Toxic Air Pollutant Emissions Inventory

Table 1. PRE- AND POST PROJECT NON-CARCINOGENIC TAP EMISSIONS SUMMARY POTENTIAL TO EMIT

| Non-Carcinogenic Toxic Air Pollutants (sum of all emissions) | Pre-Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr) | Post Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr) | Change in 24-hour Average Emissions Rates for Units at the Facility (lb/hr) | Non-Carcinogenic Screening Emission Level (lb/hr) | Exceeds Screening Level? (Y/N) |
|---|--|--|---|--|--|
| Antimony | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Barium | 0.00E+00 | 1.06E-06 | 1.06E-06 | 9.21E-04 | N |
| Chromium | 0.00E+00 | 3.39E-07 | 3.39E-07 | 2.93E-04 | N |
| Cobalt | 0.00E+00 | 2.03E-08 | 2.03E-08 | 1.76E-05 | N |
| Copper | 0.00E+00 | 2.06E-07 | 2.06E-07 | 1.78E-04 | N |
| Ethylbenzene | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Fluoride (as F) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Hexane | 0.00E+00 | 4.35E-04 | 4.35E-04 | 3.77E-01 | N |
| Manganese | 0.00E+00 | 9.19E-08 | 9.19E-08 | 7.96E-05 | N |
| Mercury | 0.00E+00 | 6.29E-08 | 6.29E-08 | 5.44E-05 | N |
| Molybdenum | 0.00E+00 | 2.66E-07 | 2.66E-07 | 2.30E-04 | N |
| Naphthalene | 0.00E+00 | 1.48E-07 | 1.48E-07 | 1.28E-04 | N |
| Pentane | 0.00E+00 | 6.29E-04 | 6.29E-04 | 5.44E-01 | N |
| Phosphorous | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Selenium | 0.00E+00 | 5.80E-09 | 5.80E-09 | 5.02E-06 | N |
| 1,1,1-Trichloroethane | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Toluene | 0.00E+00 | 8.22E-07 | 8.22E-07 | 7.12E-04 | N |
| o-Xylene | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Zinc | 0.00E+00 | 7.01E-06 | 7.01E-06 | 6.07E-03 | N |

** See spreadsheets prepared by JBR (included in Appendix F of the permit application for further information regarding emission factors and calculation assumptions.

APPENDIX C

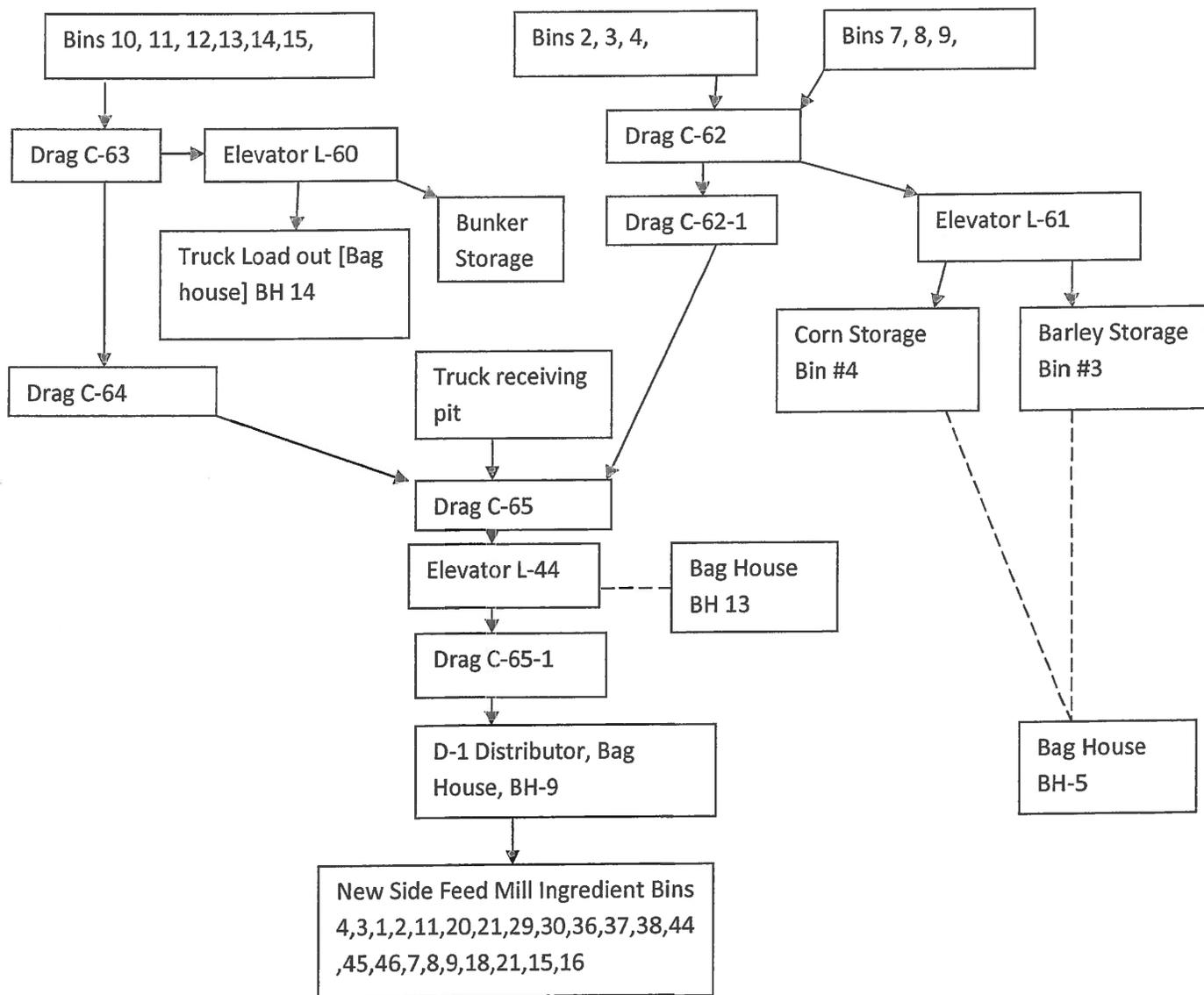
Process Flow Diagrams

Dust Equipment,

Western Stockmen, Caldwell

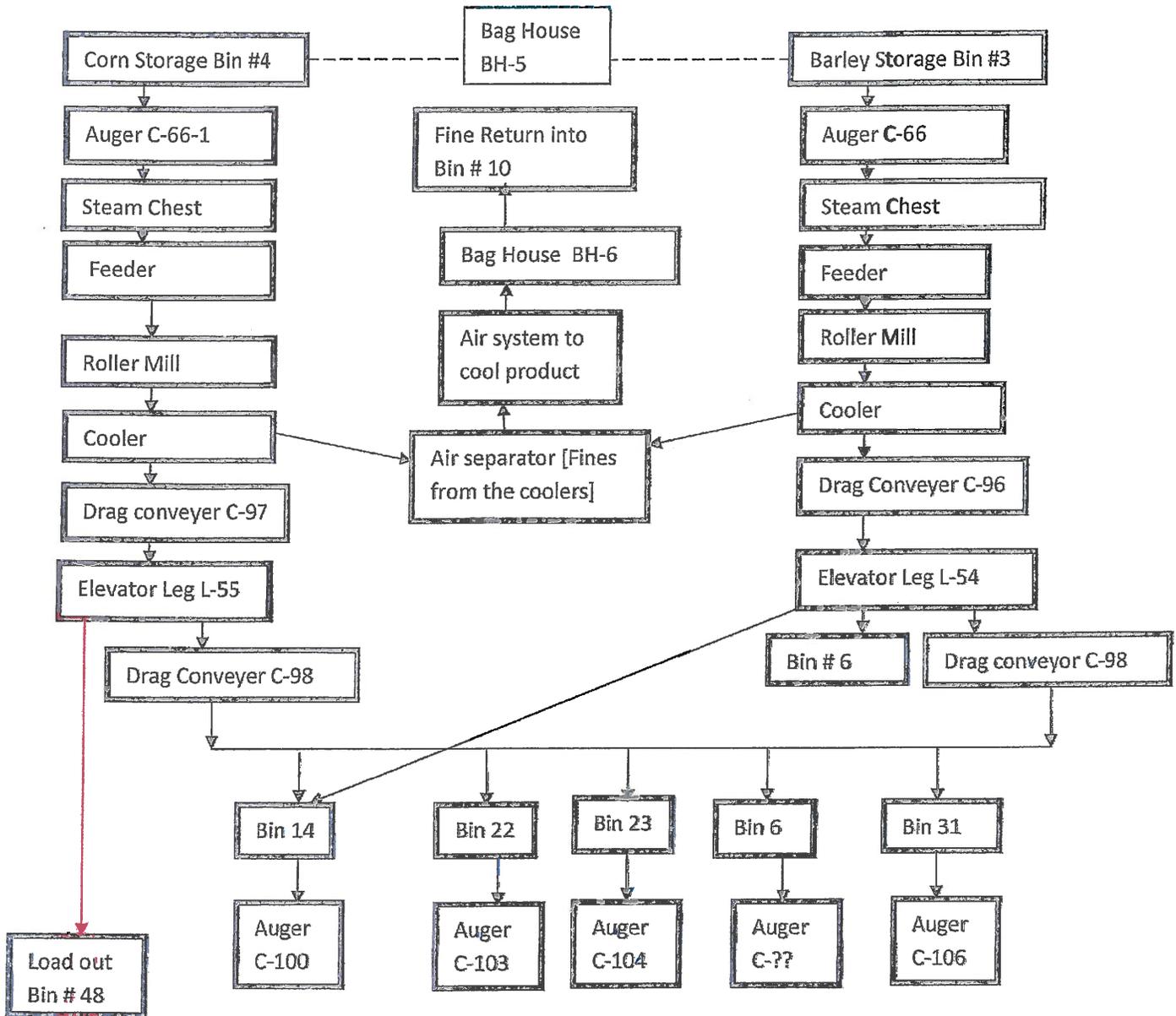
| Identification | Location | Brand Name | Model # | Serial # | Efficiency |
|----------------|--------------------------|-------------------|---------------|------------|---------------------|
| BH-1 | New Side Mixer | Torits/ Donaldson | 25-PJD-8 | I15605 | 99.9 |
| BH-2 | L-47 | Torits/ Donaldson | ? | ? | 99.9 |
| Bh-3 | N Side Old Mill | Torits/ Donaldson | 80HPW | IG439130 | 99.9 |
| BH-4 | Pellet Mill 3 and 4 | Torits/ Donaldson | 9PJD8 | IG440883-2 | 99.9 |
| BH-5 | Bins 3 and 4 | Torits/ Donaldson | 96PJD | IG450240 | 99.9 |
| BH-6 | L-45 Grinder | Torits/ Donaldson | 9PJD | IG440854 | 99.9 |
| BH-7 | Bin 10 Corn and Barley | Torits/ Donaldson | 36HPT8 | | 99.9 |
| Bh-8 | Middle Bagger Bins 47-48 | Torits/ Donaldson | 9PJD | IG450241 | 99.9 |
| BH-9 | New side Distributor | Torits/ Donaldson | 9PJD | IG728361 | 99.9 |
| BH-10 | Old side Distributor | Torits/ Donaldson | 9PJD8 | IG440883-3 | 99.9 |
| BH-11 | New Mill | Dustex | 3430-7-10SP | 2006001207 | 99 |
| BH-12 | Old Side Mixer | Torits/ Donaldson | 80CAB | IG439133 | 99.9 |
| BH-13 | Receiving leg L-44 | Torits/ Donaldson | 9PJD8 | TG440883-1 | 99.9 |
| BH-14 | Commodity Bulk Load out | DCL | F5140-11114-2 | FS 6853 | 99 |
| BH-15 | Seed | Buhler | ? | ? | 99 |
| A-1 | Pellet Mill 1 | N/A | N/A | | Returned to Process |
| A-2 | Pellet Mill 2 | N/A | N/A | | Returned to Process |
| A-3 | Pellet Mill 3 | N/A | N/A | | Returned to Process |
| A-4 | Pellet Mill 4 | N/A | N/A | | Returned to Process |
| A-5 | Non Med Mill | N/A | N/A | | Returned to Process |
| A-6 | Roller | N/A | N/A | | Returned to Process |
| A-7 | Roller | N/A | N/A | | Returned to Process |

Transfer Commodity Storage to Feed Mill Storage and Truck Receiving. WSI, Caldwell For 2011 Air Permit



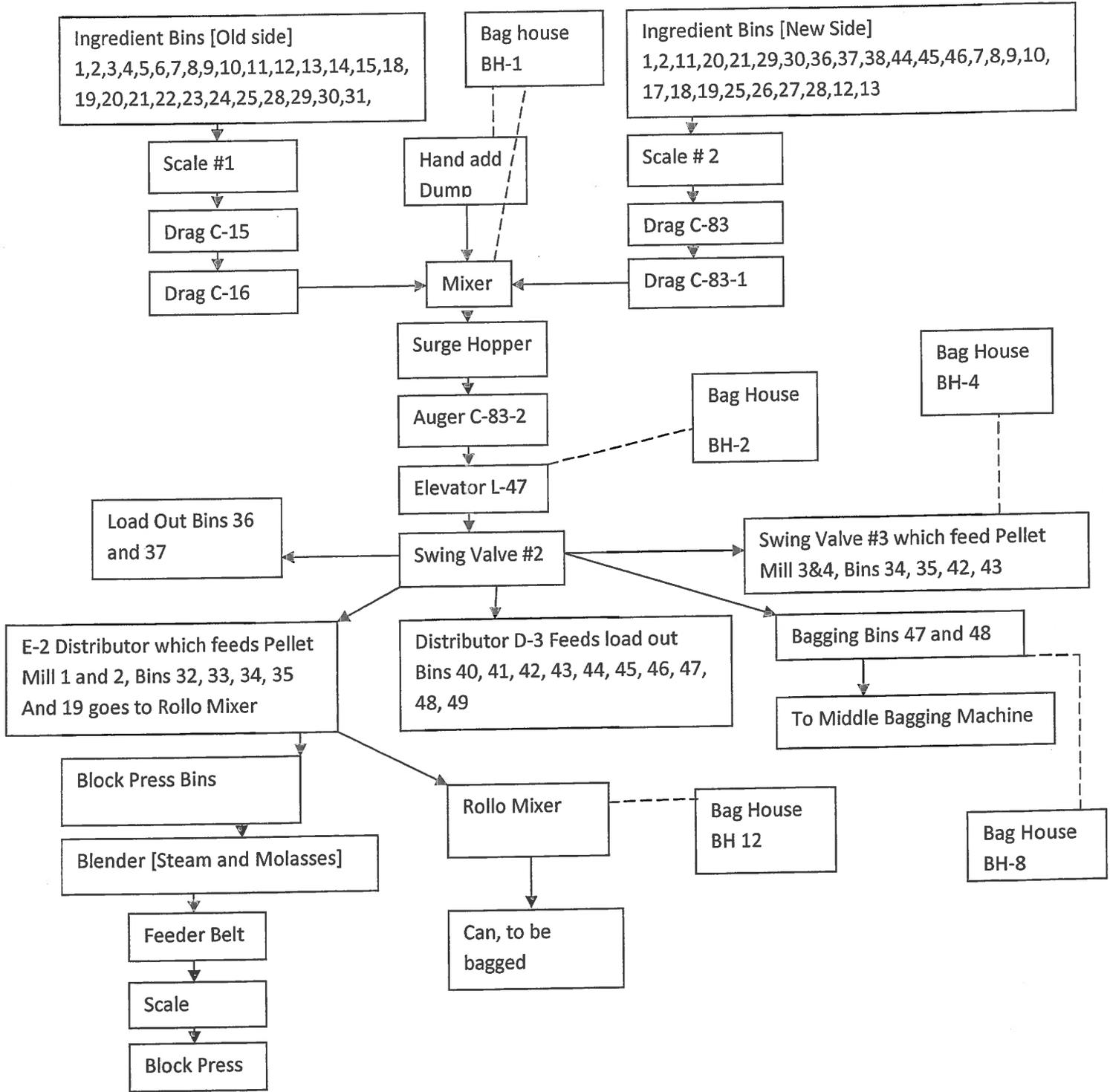
Rolling Sequence/Rolled Product WSI, Caldwell

For 2011 Air Permit



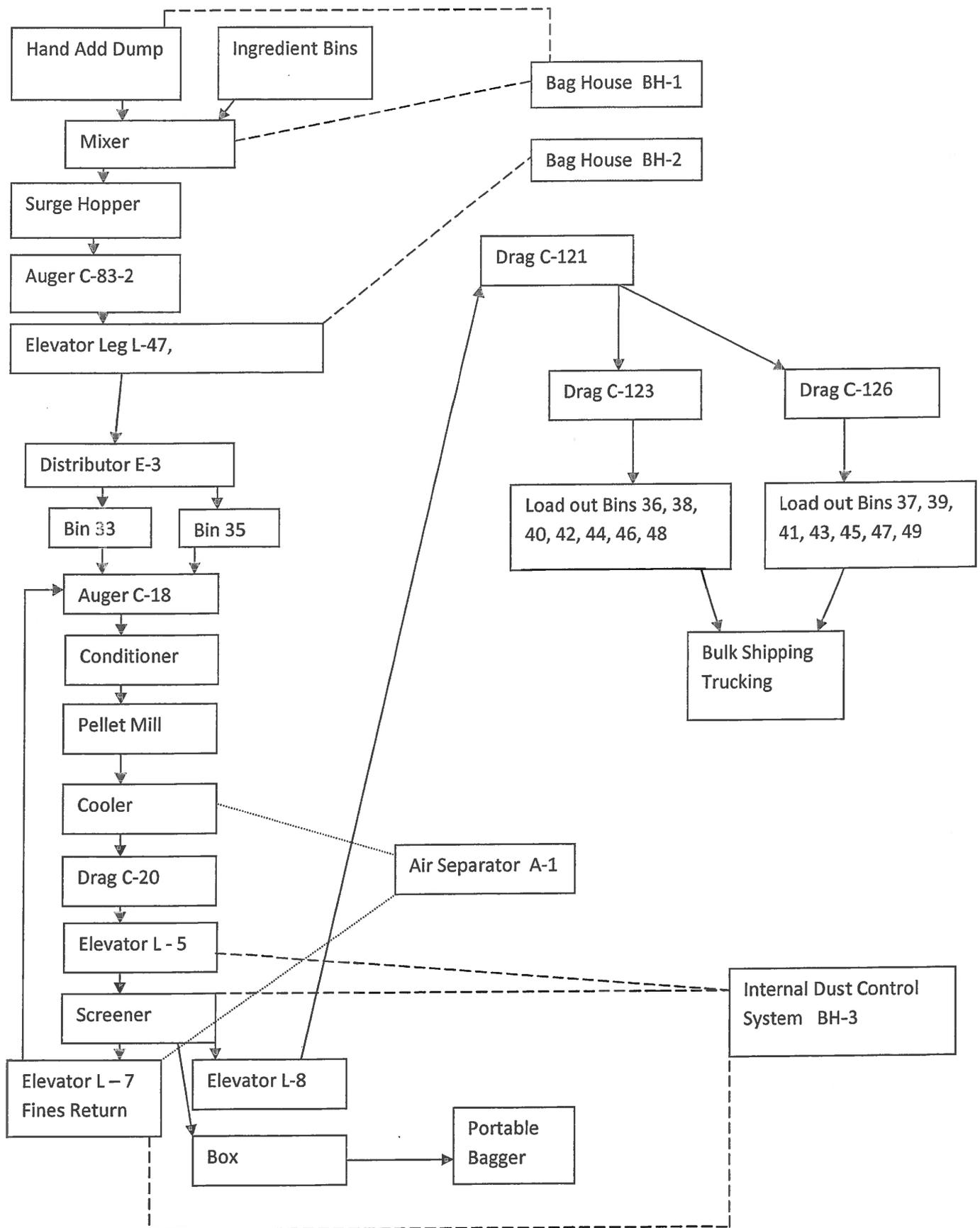
Mixing Process/Blocking Process/Middle Bagger For 2011 Air Permit

WSI, Caldwell



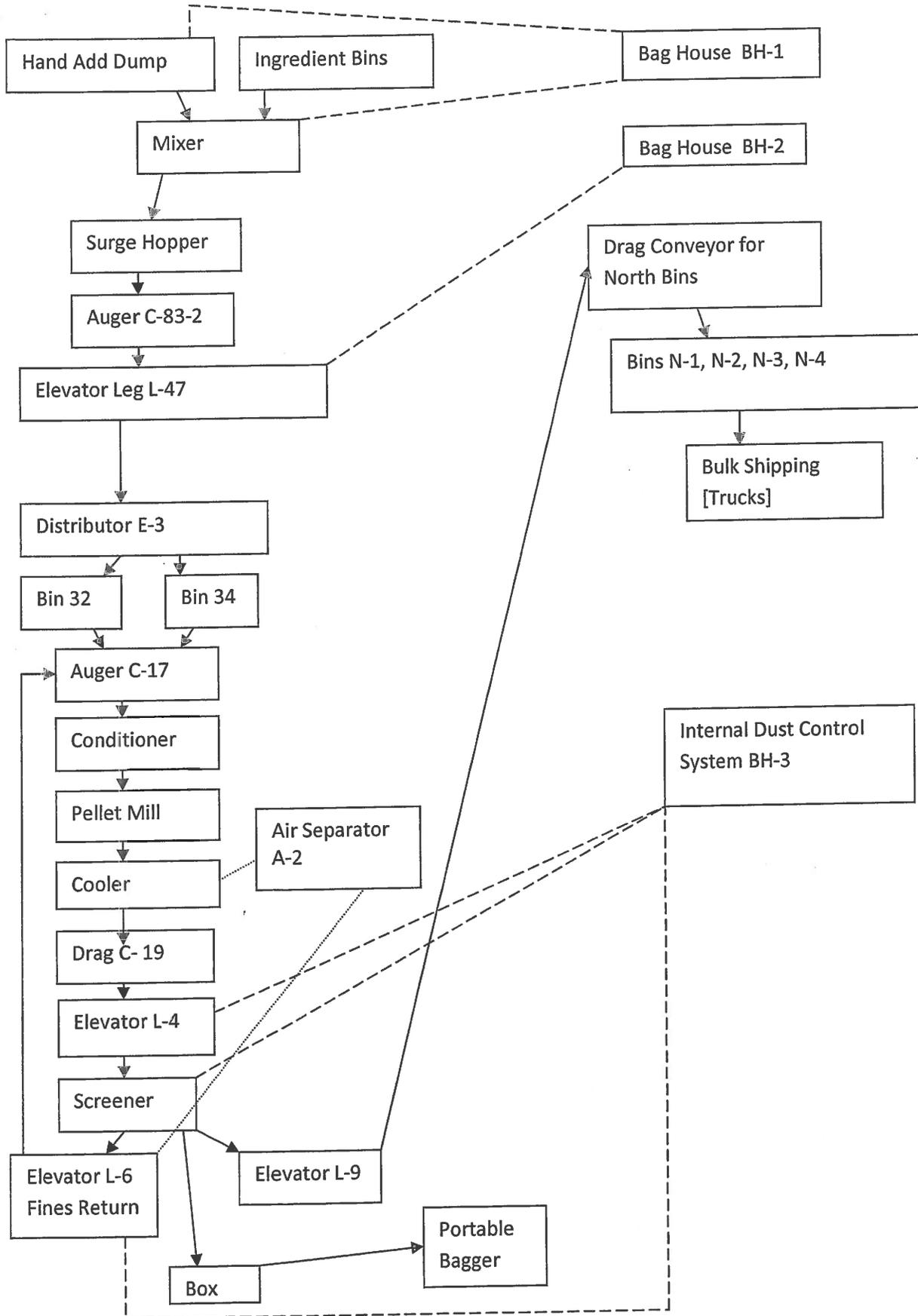
Pellet Mill # 1 Flow Diagram For 2011 Air Permit

WSI, Caldwell



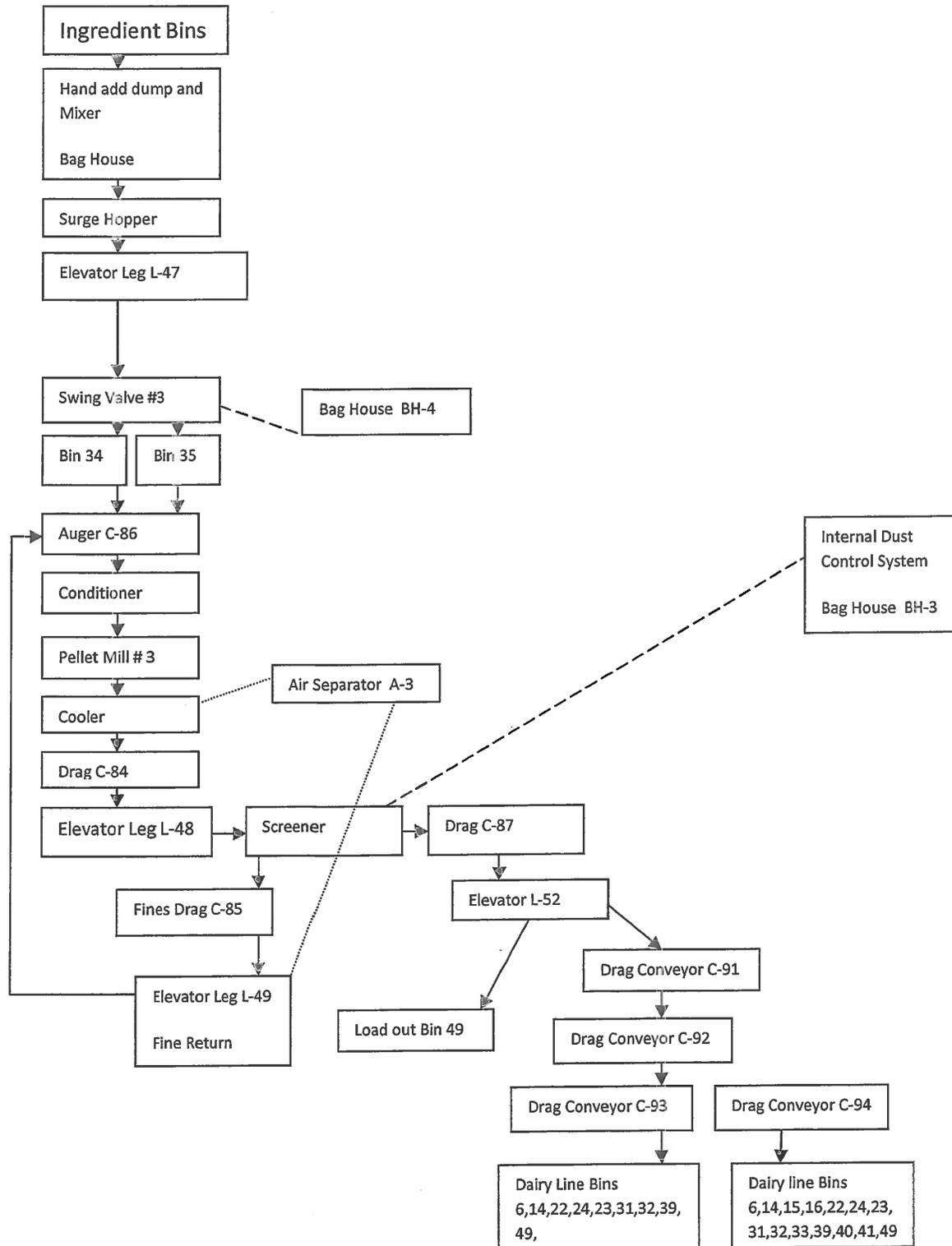
Pellet Mill # 2 Flow Diagram For 2011 Air Permit

WSI, Caldwell



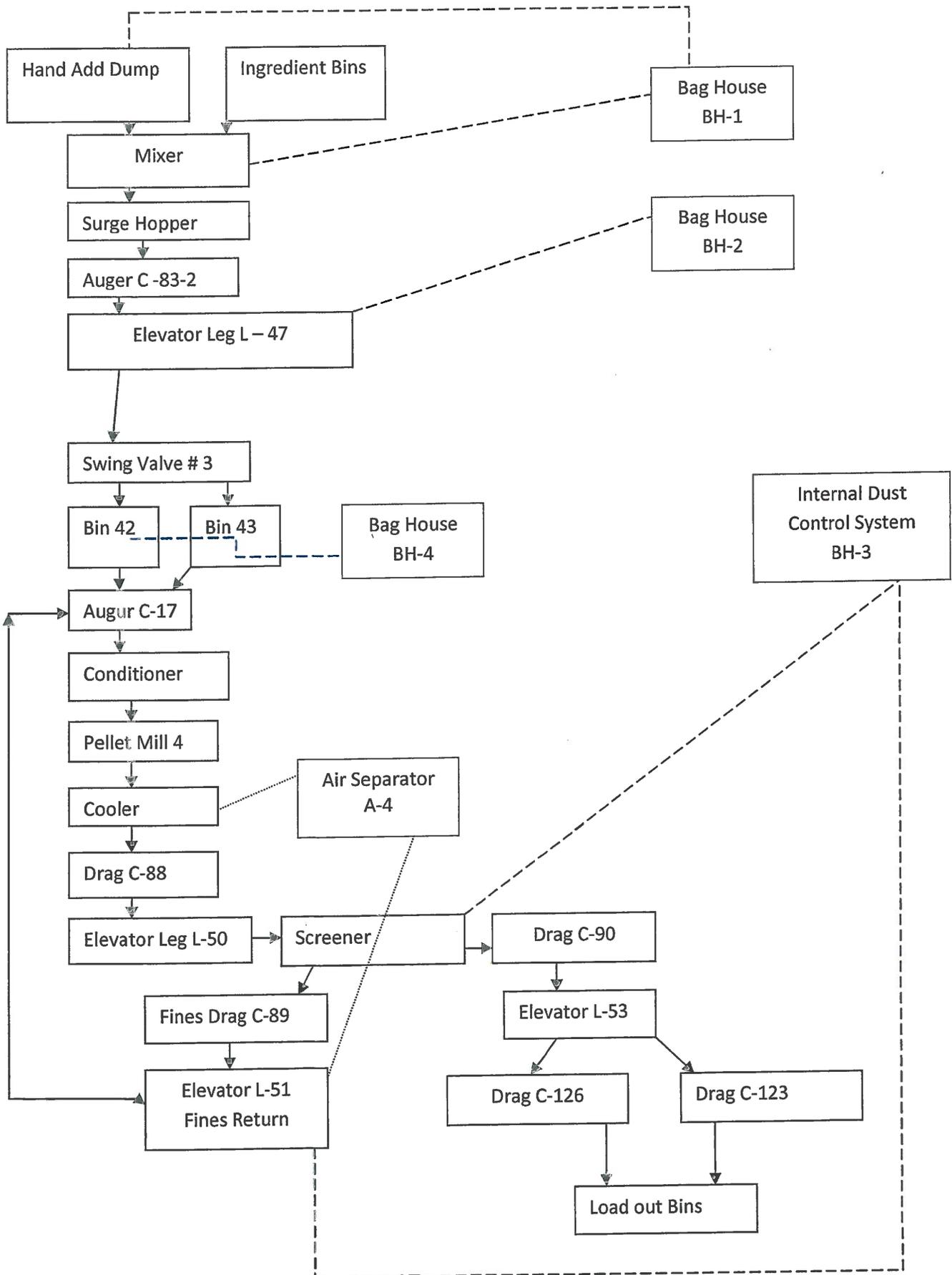
Pellet Mill # 3 Flow Diagram For 2011 Air Permit

WSI, Caldwell



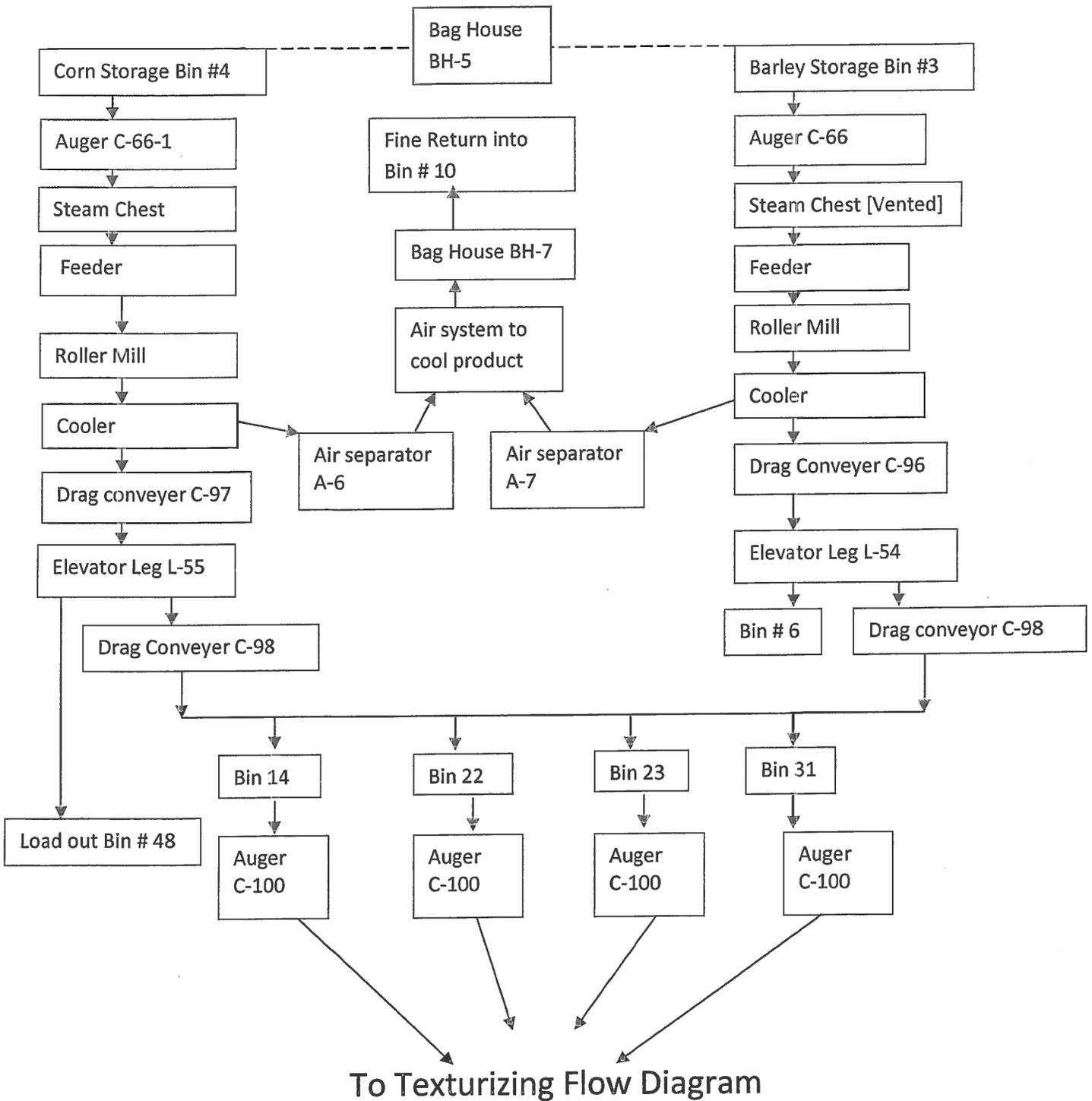
Pellet Mill # 4 Flow Diagram For 2011 Air Permit

WSI, Caldwell



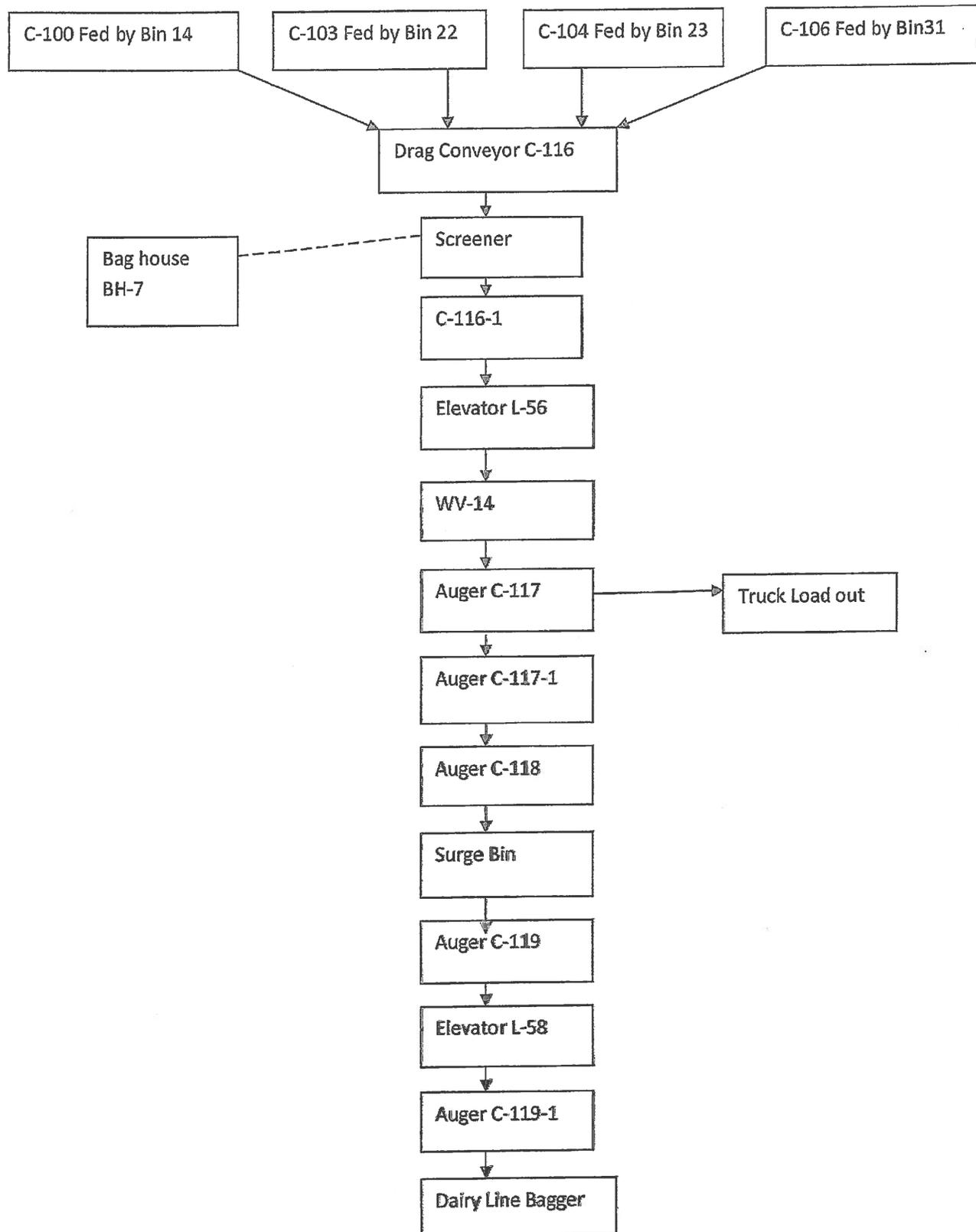
Rolling Sequence/Rolled Product For 2011 Air Permit

Western Stockmen



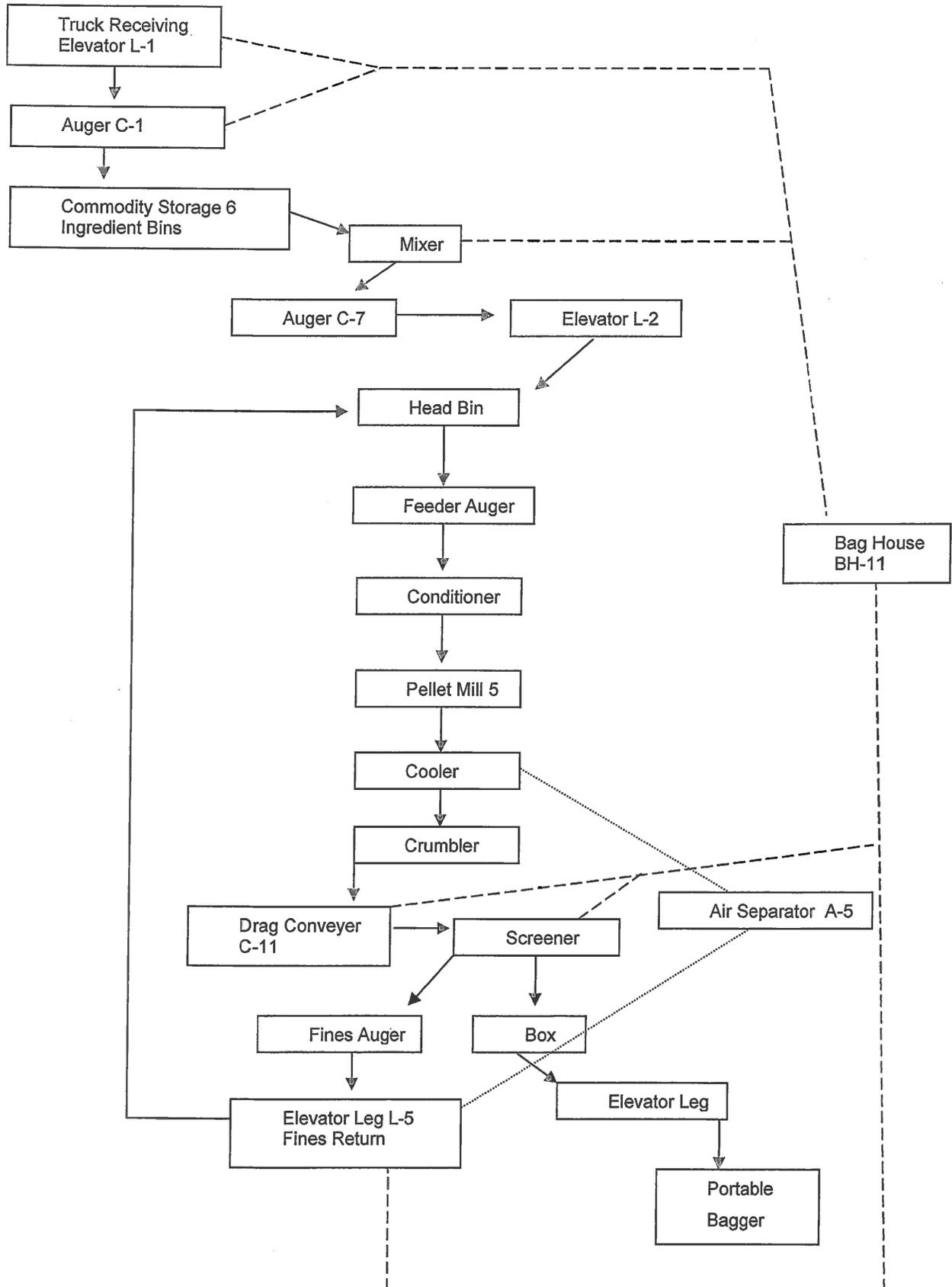
Texturizing Flow Diagram For 2011 Air Permit

WSI, Caldwell



Non Med Mill
For 2011 Air Permit

WSI, Caldwell



APPENDIX D

Manufacturer Information

Dust Equipment,

Western Stockmen, Caldwell

| Identification | Location | Brand Name | Model # | Serial # | Efficiency | |
|----------------|--------------------------|-------------------|---------------|------------|---------------------|---|
| BH-1 | New Side Mixer | Torits/ Donaldson | 25-PJD-8 | I15605 | 99.9 | c |
| BH-2 | L-47 | Torits/ Donaldson | ? | ? | 99.9 | c |
| Bh-3 | N Side Old Mill | Torits/ Donaldson | 80HPW | IG439130 | 99.9 | c |
| BH-4 | Pellet Mill 3 and 4 | Torits/ Donaldson | 9PJD8 | IG440883-2 | 99.9 | c |
| BH-5 | Bins 3 and 4 | Torits/ Donaldson | 96PJD | IG450240 | 99.9 | c |
| BH-6 | L-45 Grinder | Torits/ Donaldson | 9PJD | IG440854 | 99.9 | c |
| BH-7 | Bin 10 Corn and Barley | Torits/ Donaldson | 36HPT8 | | 99.9 | c |
| Bh-8 | Middle Bagger Bins 47-48 | Torits/ Donaldson | 9PJD | IG450241 | 99.9 | c |
| BH-9 | New side Distributor | Torits/ Donaldson | 9PJD | IG728361 | 99.9 | c |
| BH-10 | Old side Distributor | Torits/ Donaldson | 9PJD8 | IG440883-3 | 99.9 | c |
| BH-11 | New Mill | Dustex | 3430-7-10SP | 2006001207 | 99 | c |
| BH-12 | Old Side Mixer | Torits/ Donaldson | 80CAB | IG439133 | 99.9 | |
| BH-13 | Receiving leg L-44 | Torits/ Donaldson | 9PJD8 | TG440883-1 | 99.9 | |
| BH-14 | Commodity Bulk Load out | DCL | F5140-11114-2 | FS 6853 | 99 | c |
| BH-15 | Seed | Buhler | ? | ? | 99 | c |
| A-1 | Pellet Mill 1 | N/A | N/A | | Returned to Process | |
| A-2 | Pellet Mill 2 | N/A | N/A | | Returned to Process | |
| A-3 | Pellet Mill 3 | N/A | N/A | | Returned to Process | |
| A-4 | Pellet Mill 4 | N/A | N/A | | Returned to Process | |
| A-5 | Non Med Mill | N/A | N/A | | Returned to Process | |
| A-6 | Roller | N/A | N/A | | Returned to Process | |
| A-7 | Roller | N/A | N/A | | Returned to Process | |

From: "charles.brockmeyer@buhlergroup.com" <charles.brockmeyer@buhlergroup.com>
To: rweeks65@yahoo.com
Sent: Monday, July 19, 2010 10:38 AM
Subject: PDAZ-28 Degree of Dust Removal

Dear Richard,

In regards to what we discussed today; Attached find the efficiency rating of the PDAZ Compact separators. The original is in German so I added some English translation. Basically if you keep the operating pressure and CFM in the range specified, along with ratio of 1:0.02 air to dust ratio, you should be 97-99% efficient at standard conditions.

Best regards,
Chuck Brockmeyer
Industry Specialist

Buhler Inc.
Grain Processing
13105 12th Avenue North
Plymouth MN 55441-4509
T 763-847-0301
F 763-847-9915
C 612-597-2438
<mailto:charles.brockmeyer@buhlergroup.com>
www.buhlergroup.com

SIZING TABLE - PRESSURE DROP IN INCHES WG

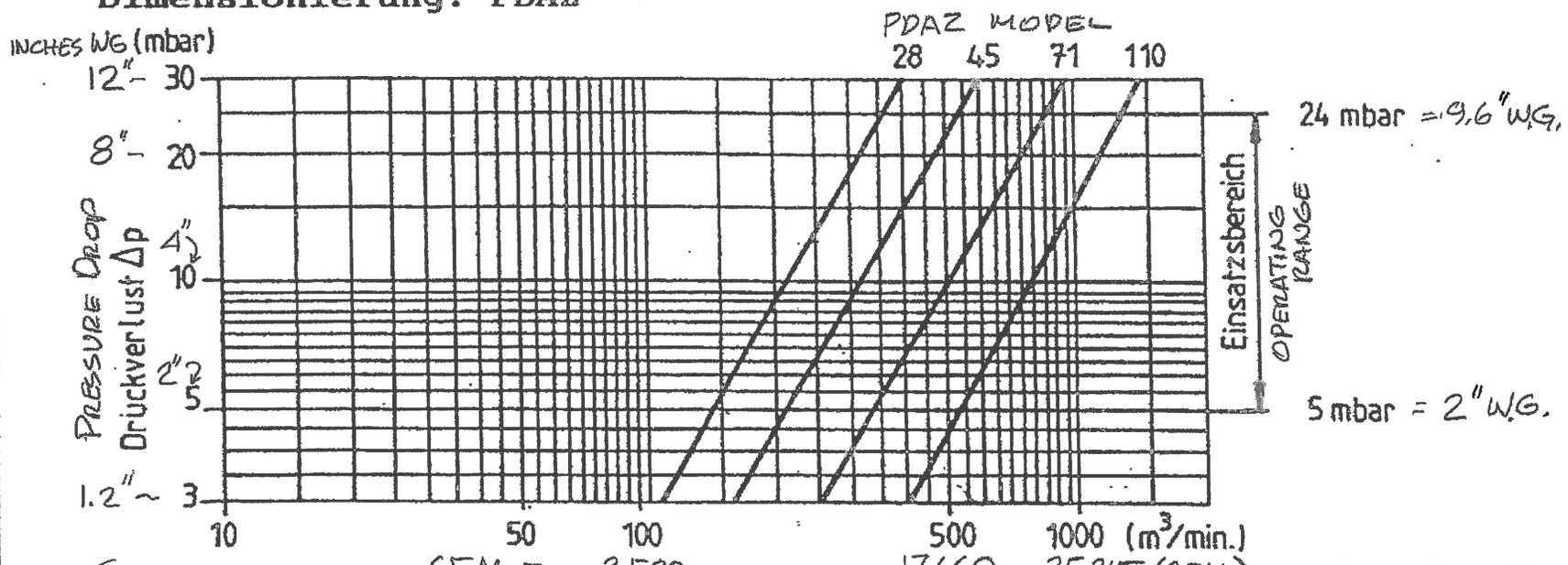
| Date 1-05-09 | Sizing Data is For SCFM (STD Temp & Elevation) | | | | |
|--------------|---|-----|-----|-----|-----|
| | If used in a Dryer / High heat situation or at high elevation the ACFM must be calculated and used. | | | | |
| PDAZ TYPE | 11 | 28 | 45 | 71 | 110 |
| SCFM | "WG | "WG | "WG | "WG | "WG |
| 3,000 | 3 | | | | |
| 4,000 | 5 | | | | |
| 5,000 | 6.5 | 2.5 | | | |
| 5,500 | 8 | 3 | | | |
| 6,000 | 9.5 | 3.5 | | | |
| 7,000 | | 5 | | | |
| 8,000 | | 6 | 2.5 | | |
| 10,000 | | 9 | 4 | | |
| 12,000 | | | 5.5 | 2.5 | |
| 14,000 | | | 7 | 3 | |
| 16,000 | | | 9.5 | 4 | |
| 18,000 | | | | 5 | |
| 20,000 | | | | 6 | 2.5 |
| 24,000 | | | | 8 | 3 |
| 28,000 | | | | | 4.5 |
| 30,000 | | | | | 5 |
| 34,000 | | | | | 6 |
| 36,000 | | | | | 6.5 |
| 40,000 | | | | | 7 |
| 42,000 | | | | | 7.5 |
| 46,000 | | | | | 8 |
| 48,000 | | | | | 9 |
| 50,000 | | | | | 9.5 |

RATIO OF DUST TO AIR VOLUME : 0.02
 Abscheidegrad : 97...99% — EFFICIENCY
 Druckverlust : 6...24mbar — OPERATING RANGE STATIC PRESS.
 Einsatz : $p_u = +50$ mbar, $p_s = -80$ mbar — MAX. S.P. SUCTION PRESS.
 Temperaturbereich : -20...+60° C (mit Spezialanstrich...+150° C)



SIZING CHART
 Dimensionierung: PDAZ

← OPERATING RANGE TEMP.



Luftmenge V_L bei $t = 20^\circ$ C, $p = 1$ bar, $\rho_L = 1,2$ kg/m³ = STANDARD AIR (SIMILAR TO SCFM)

Einbaumöglichkeiten: beliebige horizontale Einbaulagen



**Engineering &
Manufacturing Facility**

Telephone No. (231) 547-5600
1-800-748-0563 Ext. 3117
E-Mail: randerson@dclinc.com

Dust Control and Loading Systems, Inc.

08660 Ance Rd.
P.O. Box 125
Charlevoix, Michigan 49720

Sales, Research & Development

Phone # (231) 547-3344 Ext. 3117
Fax No. (231) 547-3343
Web Site: <http://www.dclinc.com>

October 19, 2011

Mr. John Deboer
Western Stockmans
Ph: (208) 455-4835
E-mail: john.deboer@simplot.com

Re: DCL equipment model FS140-11114-Z Bag Style Dust Collector
REF: DCL #95236, Serial #FS-6853

Dear John,

Enclosed please find our equipment performance specifications relating to the DCL Bag Style Dust Collector.

We submit the following:

- | | |
|--------------------------------------|---|
| 1 - Guaranteed outlet loading | .01 Grains per SCFM |
| 2 - Filter area | 138 sq. ft. |
| 3 - Number of bags | 48 |
| 4 - Filter velocity(air/cloth ratio) | 7.2 @ 1000 CFM (fan max capacity, damper full open) |
| 5 - Type of filter bag media | 16 oz. Polypropylene |
| 6 - Fabric weave | Felt |
| 7 - Standard pressure drop range | 2 to 4 in. SPWG |
| 8 - Cleaning method | Pulse jet type |
| 9 - Cleaning time cycle | Factory settings are: pulse interval 15 seconds off, 100 milliseconds on |
| 10 - Induced or forced flow | induced (fan inlet is on the collector clean air side) |



Dust Control and Loading Systems

Performances are based on:

- A - Dust collector installed, maintained and serviced according to DCL service & installation manual
- B - Inlet loadings to the dust collector do not exceed 5 Grains per SCFM
- C - Fan operated at the recommended damper settings
- D - Replacement fans must meet the specifications of the original equipment ie: CFM & SPWG

Please feel free to contact me if you have any questions or further requirements.

Sincerely,

Ryan D. Anderson
randerson@dclinc.com
DCL - Technical Sales

DISCLAIMER: Donaldson Company Inc. cannot be held responsible for modifications of this document from its original version. Specifications are subject to change without notice, so confirm you are working from the most current version. Current specifications are available on the Donaldson Torit Info Center (DTIC).

Product Specification Sheet Dura-Life™ Polyester, Revision 1

Filter bag media shall be hydro-entangled polyester fibers for enhanced dust release, increased efficiency, and low pressure drop.

Minimum removal efficiency shall be 99.9% by mass.*

Maximum continuous operating temperature shall be 275°F (135°C), with brief surge temperature excursions to 300°F maximum.

The bag media shall have:

- A base weight of 10.5 oz/square yd, a Frazier permeability of 25-35 cfm at 0.50 "wg and a thickness of 0.060"-0.080" for self supported media

-or-

- A base weight of 10 oz/square yd, a Frazier permeability of 25-35 cfm at 0.50 "wg and a thickness of 0.060"-0.080" for scrim supported media.

Workmanship and structural integrity shall be guaranteed for a minimum of 2,000 hours of operation.

Bag media properties shall conform to the following specifications:

| Physical Property | Specification |
|--------------------------|----------------------|
| Surface Treatment\Finish | None |
| Subject to Hydrolysis | Yes |
| Chemical Resistance | Fair |

The filters shall be Donaldson® Torit® Dura-Life bags as manufactured by Donaldson Company, Inc.

Note: all Donaldson filter bags are available in a wide variety of top and bottom configurations. Special additions such as ground wires, abrasion cuffs, expansion rings, etc. are also available.

* Efficiency is affected by system velocity, contaminant size and shape, atmospheric conditions, dust cake porosity and filter pressure drop. Results will vary according to your specific operating parameters.

DUSTEX PERFORMANCE STATEMENT

Dustex warrants for a period of not in excess of twelve (12) months from date of shipment, that the Dustex Collector Model quoted herein, will collect the solid particles introduced to the collector through the inlet connection with the system gases to a level where said gases, when leaving the collector outlet connection, will contain no more than 0.03 grains per dry standard cubic foot, providing that:

- (1) The dust loading, gas volume in ACFM and gas temperature at the inlet of the collector do not exceed those stated in this quotation, and that indicated in the installation and operating instructions for this unit.
- (2) Temperature through the unit must be maintained above the dew point at all times to prevent wetting & blinding of the bags.
- (3) The nature of the dust is substantially as described in this quotation.
- (4) The filter bags are those supplied by Dustex, and are properly installed and in good condition.
- (5) The collector is in proper mechanical operating condition and the cleaning cycle is as specified for the collector.
- (6) The collector is operated in accordance with the Operating Instructions furnished by Dustex for this unit.

In the event that the performance of the collector, within the life of the guarantee, is in question, the buyer must notify the seller in writing of his intent to have the collector tested. The seller at his option will have an engineer to observe the conducting of this test.

Stack tests are to be conducted at the buyers expense, by an accredited testing organization mutually acceptable to buyer and seller. The tests are to be conducted in accordance with established EPA procedure.

Rev. 3-25-74

ISSUED 4/1/74

APP'D RSB

MADE BY GHB

PERFORMANCE STATEMENT

ENGINEERING

701-0208 C

SHEET NO. OF

APPENDIX E

Emissions Inventory

Non-Medicated Mill

Total Throughput =
(Assume 10% Fines)

Process Weight
62000 tons/year 24087.02 (lb/hr)

| Equipment | Throughput (tons) | Emission Source Category | Emission Factor (lb/ton) | | | Total Emissions (TPY) | | |
|--------------------------------------|---------------------------------|---|--------------------------|--------|--------|-----------------------|----------|----------|
| | | | PM | PM-10 | PM-2.5 | PM | PM-10 | PM-2.5 |
| Baghouse - Assume 99% control | Non-Med Baghouse (BH-11) | | | | | | | |
| Truck Receiving Elevator L-1 | 62000 | Grain receiving ^{1,5} | 0.017 | 0.0025 | 0.0025 | 5.27E-03 | 7.75E-04 | 7.75E-04 |
| Auger C-1 | 62000 | Headhouse and grain handling ² | 0.061 | 0.034 | 0.0058 | 1.89E-02 | 1.05E-02 | 1.80E-03 |
| Non-Med Mixer | 62000 | Mixer ³ | 0.061 | 0.034 | 0.0058 | 1.89E-02 | 1.05E-02 | 1.80E-03 |
| Drag Conveyer C-11 | 62000 | Headhouse and grain handling ² | 0.061 | 0.034 | 0.0058 | 1.89E-02 | 1.05E-02 | 1.80E-03 |
| Non-Med Screener | 62000 | Grain cleaning ^{2,4} | 0.5 | 0.125 | 0.02 | 1.55E-01 | 3.88E-02 | 6.20E-03 |
| Elevator L-5 Fines Return | 6200 | Headhouse and grain handling ² | 0.061 | 0.034 | 0.0058 | 1.89E-03 | 1.05E-03 | 1.80E-04 |
| Non-Med Bagger | 62000 | Feed shipping ^{1,b} | 0.0033 | 0.0008 | 0.0008 | 1.02E-03 | 2.48E-04 | 2.48E-04 |
| | | | | | | 2.20E-01 | 7.24E-02 | 1.28E-02 |

1. AP-42 Table 9.9.1-2
2. AP-42 Table 9.9.1-1
3. AP-42 Table 9.9.1-2 lists this emission factor as ND. Use Grain Handling emission factor to approximate.
4. Uncontrolled emission factor calculated by using the given control efficiency for a cyclone (85%) and back calculating
5. No emission factor for PM2.5 given in AP-42. Assume PM2.5 emission factor equal to PM10 emission factor.

$$E = PR \times EF \times (1-CE/100)/2000$$

Receiving and Grinding**

Total Output =
(Assume 10% Fines)

248,000 tons²

Process Weight
96348.10 (lb/hr)

| Equipment | Throughput (tons) | Emission Source Category | Emission Factor (lb/ton) | | | Total Emissions (tons) | | |
|---------------------------------------|---|---|--------------------------|--------|--------|------------------------|----------|----------|
| | | | PM | PM-10 | PM-2.5 | PM | PM-10 | PM-2.5 |
| Baghouse - Assume 99% control | Old Side Baghouse (BH-10) or New Side Baghouse (BH-9) | | | | | | | |
| Elevator L-1 Feeding Distributor E-1 | 248,000 | Headhouse and grain handling ¹ | 0.061 | 0.034 | 0.0058 | 7.56E-02 | 4.22E-02 | 7.19E-03 |
| Truck/Rail Receiving (Non Controlled) | 248,000 | Grain receiving ¹ | 0.017 | 0.0025 | 0.0025 | 2.11E+00 | 3.10E-01 | 3.10E-01 |
| | | | | | | 2.18E+00 | 3.52E-01 | 3.17E-01 |

1. AP-42 Table 9.9.1-1

2. Throughput assumed to be equal to all commodities needed for Max operation of pellet mills (4x62k tons/mill)

** All receiving assumed to go through Old Side as emissions would be consistent from old or new side processing.

$$E = PR \times EF \times (1-CE/100)/2000$$

Transfer Commodity's to Feed Mill Storage and Product Loadout

Total Output =
(Assume 10% Fines)

Process Weight
248,000 tons 96348.10 (lb/hr)
(To New Side Feed Mill Ingredient Bins)

| Equipment | Throughput (tons) | Emission Source Category | Emission Factor (lb/ton) | | | Total Emissions (tons) | | |
|--|-------------------|---|--------------------------|--------|--------|------------------------|----------|----------|
| | | | PM | PM-10 | PM-2.5 | PM | PM-10 | PM-2.5 |
| Baghouse - Assume 99% control | | Trans Comm Baghouse (BH-13) | | | | | | |
| Elevator L-44 | 248,000 | Headhouse and grain handling ¹ | 0.061 | 0.034 | 0.0058 | 7.56E-02 | 4.22E-02 | 7.19E-03 |
| Baghouse - Assume no controls if new loadout used (BH-14) would reduce emissions | | | | | | | | |
| Product Truck Loadout | 248,000 | Feed shipping ^{2,3} | 0.0033 | 0.0008 | 0.0008 | 4.09E-01 | 9.92E-02 | 9.92E-02 |
| | | | | | | 4.85E-01 | 1.41E-01 | 1.06E-01 |

1. AP-42 Table 9.9.1-1

2. AP-42 Table 9.9.1-2

3. No emission factor for PM2.5 given in AP-42. Assume PM2.5 emission factor equal to PM10 emission factor.

$$E = PR \times EF \times (1-CE/100)/2000$$

$$E = PR \times EF/2000$$

Rolled/Texturized

Total Output =
(Assume 10% Fines)

248000 tons/yr

Process Weight
96348.10 (lb/hr)

| Equipment | Throughput (tons) | Emission Source Category | Emission Factor (lb/ton) | | | Total Emissions (tons) | | |
|--------------------------------------|-----------------------------------|---------------------------------|--------------------------|--------|--------|------------------------|----------|----------|
| | | | PM | PM-10 | PM-2.5 | PM | PM-10 | PM-2.5 |
| Baghouse - Assume 99% control | Rolled Baghouse(BH-5) | | | | | | | |
| Corn Storage Bin #4 | 49600 | Storage bin (vent) ¹ | 0.025 | 0.0063 | 0.0011 | 6.20E-03 | 1.56E-03 | 2.73E-04 |
| Barley Storage Bin #3 | 198400 | Storage bin (vent) ¹ | 0.025 | 0.0063 | 0.0011 | 2.48E-02 | 6.25E-03 | 1.09E-03 |
| Baghouse - Assume 99% control | Air System Baghouse (BH-6) | | | | | | | |
| Air separator/cooler (fines) | 24800 | Pellet cooler ^{2,3,4} | 2.4 | 1.2 | 1.2 | 2.98E-01 | 1.49E-01 | 1.49E-01 |
| Baghouse - Assume 99% control | Roll Screen Baghouse(BH-7) | | | | | | | |
| Roll/Texture Screener | 248000 | Grain cleaning ^{1,3} | 0.5 | 0.125 | 0.02 | 6.20E-01 | 1.55E-01 | 2.48E-02 |
| | | | | | | 9.49E-01 | 3.12E-01 | 1.75E-01 |

1. AP-42 Table 9.9.1-1

2. AP-42 Table 9.9.1-2

3. Uncontrolled emission factor calculated by using the given control efficiency for a cyclone (85%) and back calculating

4. No emission factor for PM2.5 given in AP-42. Assume PM2.5 emission factor equal to PM10 emission factor.

$$E = PR \times EF \times (1-CE/100)/2000$$

Mixing Process/Blocking Process/Middle Bagger

Total Output =
(Assume 10% Fines)

Process Weight
248,000 tons 96348.10 (lb/hr)
New Side and Old Side Ingredient Bins

| Equipment | Throughput (tons) | Emission Source Category | Emission Factor (lb/ton) | | | Total Emissions (tons) | | |
|--------------------------------------|-------------------|--|--------------------------|-------|--------|------------------------|----------|----------|
| | | | PM | PM-10 | PM-2.5 | PM | PM-10 | PM-2.5 |
| Baghouse - Assume 99% control | | Mixer Paddle Baghouse (BH-1) or (BH-12) | | | | | | |
| Mixer Paddle | 248,000 | Mixer ¹ | 0.061 | 0.034 | 0.0058 | 7.56E-02 | 4.22E-02 | 7.19E-03 |
| Baghouse - Assume 99% control | | Mixer Elevator Baghouse (BH-2) | | | | | | |
| Elevator L-47 | 248,000 | Headhouse and grain handling ² | 0.061 | 0.034 | 0.0058 | 7.56E-02 | 4.22E-02 | 7.19E-03 |
| | | | | | | 1.51E-01 | 8.43E-02 | 1.44E-02 |

$E = PR \times EF \times (1-CE/100)/2000$

1. AP-42 Table 9.9.1-2 lists this emission factor as ND. Use AP-42 Table 9.9.1-1 Grain Handling emission factor to approximate.
2. AP-42 Table 9.9.1-1

Pellet Mills #1, 2, 3 and 4

Screening

Total Output =

(Assume 10% Fines)

248,000 tons

Process Weight

96348.10 (lb/hr)

| Equipment | Throughput (tons) | Emission Source Category | Emission Factor (lb/ton) | | | Total Emissions (tons) | | |
|--|-------------------|-------------------------------|--------------------------|--------|--------|------------------------|----------|----------|
| | | | PM | PM-10 | PM-2.5 | PM | PM-10 | PM-2.5 |
| Internal Dust Control System - 99% control (BH-3) | | | | | | | | |
| Pellet Mill Screener | 248,000 | Grain cleaning ^{1,2} | 0.5 | 0.125 | 0.02 | 6.20E-01 | 1.55E-01 | 2.48E-02 |
| Middle Bagger - 99% control (BH-8) | | | | | | | | |
| Pellet Mill Screener | 248,000 | Feed Shipping ^{3,4} | 0.0033 | 0.0008 | 0.0008 | 4.09E-03 | 9.92E-04 | 9.92E-04 |
| | | | | | | 6.24E-01 | 1.56E-01 | 2.58E-02 |

1. AP-42 Table 9.9.1-1

2. Uncontrolled emission factor calculated by using the given control efficiency for a cyclone (85%) and back calculating

3. AP-42 Table 9.9.1-2

4. No emission factor for PM2.5 given in AP-42. Assume PM2.5 emission factor equal to PM10 emission factor.

$$E = PR \times EF \times (1-CE/100)/2000$$

Pellet Mill #1

Total Output =
(Assume 10% Fines)

62000 tons

Process Weight
24087.02 (lb/hr)

| Equipment | Throughput (tons) | Emission Source Category | Emission Factor (lb/ton) | | | Total Emissions (tons) | | |
|--|-------------------|---|--------------------------|-------|--------|------------------------|-----------------|-----------------|
| | | | PM | PM-10 | PM-2.5 | PM | PM-10 | PM-2.5 |
| Internal Dust Control System - 99% control (BH-3) | | | | | | | | |
| Elevator L-5 | 62000 | Headhouse and grain handling ¹ | 0.061 | 0.034 | 0.0058 | 1.89E-02 | 1.05E-02 | 1.80E-03 |
| Elevator L-7 | 6200 | Headhouse and grain handling ¹ | 0.061 | 0.034 | 0.0058 | 1.89E-03 | 1.05E-03 | 1.80E-04 |
| | | | | | | 2.08E-02 | 1.16E-02 | 1.98E-03 |

1. AP-42 Table 9.9.1-1

$$E = PR \times EF \times (1-CE/100)/2000$$

Pellet Mill #2

Total Output =
(Assume 10% Fines)

62000 tons

Process Weight
24087.02 (lb/hr)

| Equipment | Throughput (tons) | Emission Source Category | Emission Factor (lb/ton) | | | Total Emissions (tons) | | |
|--|-------------------|---|--------------------------|-------|--------|------------------------|----------|----------|
| | | | PM | PM-10 | PM-2.5 | PM | PM-10 | PM-2.5 |
| Internal Dust Control System - 99% control (BH-3) | | | | | | | | |
| Elevator L-4 | 62000 | Headhouse and grain handling ¹ | 0.061 | 0.034 | 0.0058 | 1.89E-02 | 1.05E-02 | 1.80E-03 |
| Elevator L-6 | 6200 | Headhouse and grain handling ¹ | 0.061 | 0.034 | 0.0058 | 1.89E-03 | 1.05E-03 | 1.80E-04 |
| | | | | | | 2.08E-02 | 1.16E-02 | 1.98E-03 |

1. AP-42 Table 9.9.1-1

$$E = PR \times EF \times (1-CE/100)/2000$$

Pellet Mill #3

Total Output =
(Assume 10% Fines)

62000 tons

Process Weight
24087.02 (lb/hr)

| Equipment | Throughput (tons) | Emission Source Category | Emission Factor (lb/ton) | | | Total Emissions (tons) | | |
|--|---------------------------------------|---|--------------------------|--------|--------|------------------------|----------|----------|
| | | | PM | PM-10 | PM-2.5 | PM | PM-10 | PM-2.5 |
| Baghouse - Assume 99% control | Pellet Mill #4 Baghouse (BH-4) | | | | | | | |
| Bin 42 | 31000 | Storage bin (vent) ¹ | 0.025 | 0.0063 | 0.0011 | 3.88E-03 | 9.77E-04 | 1.71E-04 |
| Bin 43 | 31000 | Storage bin (vent) ¹ | 0.025 | 0.0063 | 0.0011 | 3.88E-03 | 9.77E-04 | 1.71E-04 |
| Internal Dust Control System - 99% control (BH-3) | | | | | | | | |
| Elevator L-49 Fines Return | 6200 | Headhouse and grain handling ¹ | 0.061 | 0.034 | 0.0058 | 1.89E-03 | 1.05E-03 | 1.80E-04 |
| | | | | | | 9.64E-03 | 3.01E-03 | 5.21E-04 |

1. AP-42 Table 9.9.1-1

$$E = PR \times EF \times (1-CE/100)/2000$$

Pellet Mill #4

Total Output =
(Assume 10% Fines)

62000 tons

Process Weight
24087.02 (lb/hr)

| Equipment | Throughput (tons) | Emission Source Category | Emission Factor (lb/ton) | | | Total Emissions (tons) | | |
|---|--------------------------------|---|--------------------------|--------|--------|------------------------|----------|----------|
| | | | PM | PM-10 | PM-2.5 | PM | PM-10 | PM-2.5 |
| Baghouse - Assume 99% control | Pellet Mill #4 Baghouse (BH-4) | | | | | | | |
| Bin 34 | 31000 | Storage bin (vent) ¹ | 0.025 | 0.0063 | 0.0011 | 3.88E-03 | 9.77E-04 | 1.71E-04 |
| Bin 35 | 31000 | Storage bin (vent) ¹ | 0.025 | 0.0063 | 0.0011 | 3.88E-03 | 9.77E-04 | 1.71E-04 |
| Internal Dust Control System - 99% control (BH-3) | | | | | | | | |
| Elevator L-51 Fines Return | 6200 | Headhouse and grain handling ¹ | 0.061 | 0.034 | 0.0058 | 1.89E-03 | 1.05E-03 | 1.80E-04 |
| | | | | | | 9.64E-03 | 3.01E-03 | 5.21E-04 |

1. AP-42 Table 9.9.1-1

$$E = PR \times EF \times (1-CE/100)/2000$$

CRITERIA EMISSIONS - NATURAL GAS COMBUSTION

Emission Factors

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

| Description | Fuel Usage (Therms/yr) | Throughput (scf/yr) | Hours (hr/yr) | Ton per Year | | | | |
|---------------|------------------------|---------------------|---------------|----------------------|---------------------|-------------------------------|----------------------|----------------------|
| | | | | NOx Emissions (T/yr) | CO Emissions (T/yr) | PM-10/PM-2.5 Emissions (T/yr) | SOx Emissions (T/yr) | VOC Emissions (T/yr) |
| Boiler 1 | 72,020 | 706,078 | 8,760 | 0.0353 | 0.0297 | 0.0027 | 0.0002 | 0.0019 |
| Boiler 2 | 72,020 | 706,078 | 8,760 | 0.0353 | 0.0297 | 0.0027 | 0.0002 | 0.0019 |
| Boiler 3 | 72,020 | 706,078 | 8,760 | 0.0353 | 0.0297 | 0.0027 | 0.0002 | 0.0019 |
| TOTAL= | | | | 0.1059 | 0.0890 | 0.0080 | 0.0006 | 0.0058 |

E= EF x PR/2000

HAPS EMISSIONS - NATURAL GAS COMBUSTION

**TOXIC AIR POLLUTANTS (TAPs) COMBUSTION CALCULATIONS
GEM STATE**

| Description | Throughput (scf/yr) | Hours (hr/yr) | (scf/hr) |
|-------------|---------------------|---------------|----------|
| Boiler 1 | 706,078.43 | 8,760 | 80.60 |
| Boiler 2 | 706,078.43 | 8,760 | 80.60 |
| Boiler 3 | 706,078.43 | 8,760 | 80.60 |

NON-CARCINOGENS (POUNDS PER HOUR)

| Pollutant | CAS # | EF for NG Combustion (lb/10 ⁶ scf) ^a | TAP Emissions (lb/hr) | Screening Level (lb/hr) | Modeling? (Y/N) |
|-----------------------|------------|--|-----------------------|-------------------------|-----------------|
| Antimony | 7440-36-0 | 0.0E+00 | 0.00E+00 | 3.3E-02 | No |
| Barium | 7440-39-3 | 4.4E-03 | 1.06E-06 | 3.3E-02 | No |
| Chromium | 7440-47-3 | 1.4E-03 | 3.39E-07 | 3.3E-02 | No |
| Cobalt | 7440-48-4 | 8.4E-05 | 2.03E-08 | 3.3E-03 | No |
| Copper | 7440-50-8 | 8.5E-04 | 2.06E-07 | 6.7E-02 | No |
| Ethylbenzene | 100-41-4 | 0.0E+00 | 0.00E+00 | 2.9E+01 | No |
| Fluoride (as F) | 16984-48-8 | 0.0E+00 | 0.00E+00 | 1.67E-01 | No |
| Hexane | 110-54-3 | 1.8E+00 | 4.35E-04 | 1.2E+01 | No |
| Manganese | 7439-96-5 | 3.8E-04 | 9.19E-08 | 3.33E-01 | No |
| Mercury | 7439-97-6 | 2.6E-04 | 6.29E-08 | 3.E-03 | No |
| Molybdenum | 7439-98-7 | 1.1E-03 | 2.66E-07 | 3.33E-01 | No |
| Naphthalene | 91-20-3 | 6.1E-04 | 1.48E-07 | 3.33E+00 | No |
| Pentane | 109-66-0 | 2.6E+00 | 6.29E-04 | 1.18E+02 | No |
| Phosphorous | 7723-14-0 | 0.0E+00 | 0.00E+00 | 7.E-03 | No |
| Selenium | 7782-49-2 | 2.4E-05 | 5.80E-09 | 1.3E-02 | No |
| 1,1,1-Trichloroethane | 71-55-6 | 0.0E+00 | 0.00E+00 | 1.27E+02 | No |
| Toluene | 108-88-3 | 3.4E-03 | 8.22E-07 | 2.5E+01 | No |
| o-Xylene | 1330-20-7 | 0.0E+00 | 0.00E+00 | 2.9E+01 | No |
| Zinc | 7440-66-6 | 2.9E-02 | 7.01E-06 | 6.67E-01 | No |

CARCINOGENS (POUNDS PER HOUR)

| Pollutant | CAS # | EF for Natural Gas Combustion (lb/10 ⁶ scf) ^a | TAP Emissions (lb/hr) | Screening Level (lb/hr) | Modeling? (Y/N) |
|------------------------|-----------|---|-----------------------|-------------------------|-----------------|
| Arsenic | 7440-38-2 | 2.0E-04 | 4.84E-08 | 1.5E-06 | No |
| Benzene | 71-43-2 | 2.1E-03 | 5.08E-07 | 8.0E-04 | No |
| Beryllium | 7440-41-7 | 1.2E-05 | 2.90E-09 | 2.8E-05 | No |
| Cadmium | 7440-43-9 | 1.1E-03 | 2.66E-07 | 3.7E-06 | No |
| Chromium VI | 7440-47-3 | 0.0E+00 | 0.00E+00 | 5.6E-07 | No |
| Formaldehyde | 50-00-0 | 7.5E-02 | 1.81E-05 | 5.1E-04 | No |
| Nickel | 7440-02-0 | 2.1E-03 | 5.08E-07 | 2.7E-05 | No |
| Benzo(a)pyrene | 50-32-8 | 1.2E-06 | 2.90E-10 | 2.0E-06 | No |
| Benz(a)anthracene | 56-55-3 | 1.8E-06 | 4.35E-10 | NA | No |
| Benzo(b)fluoranthene | 205-82-3 | 1.8E-06 | 4.35E-10 | NA | No |
| Benzo(k)fluoranthene | 205-99-2 | 1.8E-06 | 4.35E-10 | NA | No |
| Chrysene | 218-01-9 | 1.8E-06 | 4.35E-10 | NA | No |
| Dibenzo(a,h)anthracene | 53-70-3 | 1.2E-06 | 2.90E-10 | NA | No |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | 1.8E-06 | 4.35E-10 | NA | No |
| Total PAHs | | 1.1E-05 | 2.76E-09 | 2.00E-06 | No |

^aEFs from AP-42, Tables 1.4-3 and 1.4-4, 7/98

^bEFs from AP-42, Table 1.3-10, 9/98

PARTICULATE EMISSIONS - SEED PROCESSING

| Description | Maximum Throughput (ton/yr) | Control Factor (%) | Uncontrolled | | Controlled | | Control Device | Process Weight |
|---|-----------------------------|--------------------|-------------------|--------------------|--------------------------|---------------------------|----------------|-------------------------------|
| | | | PM-10 EF (lb/ton) | PM-2.5 EF (lb/ton) | PM-10 Emissions (ton/yr) | PM-2.5 Emissions (ton/yr) | | |
| Truck Unloading (Seed Receiving) ^a | 2,500 | | 0.059 | 0.01 | 0.074 | 0.013 | | 0.49 (lb/hr) |
| Seed conveying (to bins and boxes) ^b | 2,500 | | 0.034 | 0.0058 | 0.043 | 0.007 | | |
| Screen Line #1 | | | | | | | | |
| Screen Line #1 ^c (screening/cleaning total) | 825 | 85% | 0.125 | 0.0213 | 0.0077 | 0.0013 | CY-1 & 2 | E = PR x EF x (1-CE/100)/2000 |
| Screen Line #1 ^b (material handling conveyor (2) legs) | 825 | 85% | 0.034 | 0.0058 | 0.0021 | 0.0004 | CY-1 & 2 | |
| Screen Line #2 | | | | | | | | |
| Screen Line #2 ^c (screening/cleaning) | 825 | 85% | 0.125 | 0.0213 | 0.0077 | 0.0013 | CY-3 | |
| Screen Line #2 ^d (screening only) | 825 | 75% | 0.125 | 0.0213 | 0.0129 | 0.0022 | CY-3 | |
| Screen Line #2 ^b (material handling conveyor (2) legs) | 825 | 85% | 0.034 | 0.0058 | 0.0021 | 0.0004 | CY-3 | |
| Screen Line #3 | | | | | | | | |
| Screen Line #3 ^e (screening/boxed + cleaned only) | 825 | 99% | 0.125 | 0.0213 | 5.156E-04 | 8.7986E-05 | BH-15 | |
| Screen Line #3 ^b (material handling conveyor leg) | 825 | 99% | 0.034 | 0.0058 | 1.403E-04 | 2.3925E-05 | BH-15 | |
| Secondary Bagger ^f (Oats + screening) | 825 | | 0.0063 | 0.0011 | 2.599E-03 | 4.5375E-04 | | |
| Truck Loading ^g (screened seed + treated seed) | 1,250.00 | | 0.029 | 0.0049 | 0.0000 | 0.002 | | |
| | | | | | 0.15 | 0.03 | | |

^a AP-42 Table 9.9.1-1 Grain receiving- straight truck

^b AP-42 Table 9.9.1-1 Headhouse and grain handling (conveyors, belts etc.)

^c AP-42 Table 9.9.1-1 Grain cleaning (cyclone control efficiency assumed to be 85%)- Line #1 & #2 throughput reflects initial cleaning and box + bagged cleaning to get total emissions from two separate cleaning operations.

^d AP-42 Table 9.9.1-1 Grain cleaning (inside building assumed control efficiency of 75%- consistent with 3-sided enclosure)

^e AP-42 Table 9.9.1-1 Grain cleaning (baghouse control efficiency assumed to be 99%)

^f AP-42 Table 9.9.1-1 Storage bin

^g AP-42 Table 9.9.1-1 Grain shipping (truck). Treated seed has had liquid applied and is assumed to have 50% lower emissions than untreated seed.

Rail and Truck Raw Commodity Loadout (Feed and Seed)

Total Output =

28,700 tons

Process Weight
11149.96 (lb/hr)

| Equipment | Throughput (tons) | Emission Source Category | Emission Factor (lb/ton) | | | Total Emissions (tons) | | |
|-----------------------|-------------------|-----------------------------------|--------------------------|-------|--------|------------------------|----------|----------|
| | | | PM | PM-10 | PM-2.5 | PM | PM-10 | PM-2.5 |
| Product Truck Loadout | 28,700 | Grain Truck Shipping ¹ | 0.086 | 0.029 | 0.0049 | 1.23E+00 | 4.16E-01 | 7.03E-02 |
| | | | | | | 1.23E+00 | 4.16E-01 | 7.03E-02 |

1. AP-42 Table 9.9.1-1

E= PR x EF/2000

| Source | Process Weight, PW (lb/hr) | PM-10 Emissions - Estimated (lb/hr) | Process Weight Rate Limitations - E (lb/hr) | In Compliance? (Y/N) |
|----------------------------------|-------------------------------|--|--|-------------------------|
| Bag House #1 or Bag House #12 | 96348.10 | 4.22E-02 | 19.380 | YES |
| Bag House #2 | 96348.10 | 4.22E-02 | 19.380 | YES |
| Bag House #3 | 24087.02 | 1.80E-01 | 13.704 | YES |
| Bag House #4 | 24087.02 | 3.91E-03 | 13.704 | YES |
| Bag House #5 | 96348.10 | 7.81E-03 | 19.380 | YES |
| Bag House #6 | 9634.81 | 1.49E-01 | 10.898 | YES |
| Bag House #7 | 96348.10 | 1.55E-01 | 19.380 | YES |
| Bag House #8 | 96348.10 | 9.92E-04 | 19.380 | YES |
| Bag House #9 or Bag House #10 | 96348.10 | 4.22E-02 | 19.380 | YES |
| Bag House #11 | 24087.02 | 7.24E-02 | 13.704 | YES |
| Bag House #13 | 96348.10 | 4.22E-02 | 19.380 | YES |
| Bag House #14 | 96348.10 | 9.92E-02 | 19.380 | YES |
| Bag House #15 | 0.49 | 6.56E-04 | 0.029 | YES |
| Cyclone #1 | 0.49 | 7.73E-03 | 0.029 | YES |
| Cyclone #2 | 0.49 | 2.10E-03 | 0.029 | YES |
| Cyclone #3 | 0.49 | 2.27E-02 | 0.029 | YES |

E = Emission Limit = $0.045(PW)^{0.60}$, if PW is less than 9,250 lb/hr. E = $1.10(PW)^{0.25}$, if PW is greater than 9,250 lb/hr.

Facility Summary

| | TPY | PM10 | PM2.5 | NOx | CO | SOx | VOC |
|------------------------|-----|----------|----------|----------|----------|----------|----------|
| Bean and Seed | | 1.52E-01 | 2.79E-02 | | | | |
| Boilers | | 8.05E-03 | 8.05E-03 | 1.06E-01 | 8.90E-02 | 6.35E-04 | 5.83E-03 |
| Non-Med | | 7.24E-02 | 1.28E-02 | | | | |
| Receiving/Grinding | | 3.52E-01 | 3.17E-01 | | | | |
| Transfers | | 1.41E-01 | 1.06E-01 | | | | |
| Rolled/Textured | | 3.12E-01 | 1.75E-01 | | | | |
| Block/Mix | | 8.43E-02 | 1.44E-02 | | | | |
| Pellet Screen/Bagging | | 1.56E-01 | 2.58E-02 | | | | |
| Pellet Mill #1 | | 1.16E-02 | 1.98E-03 | | | | |
| Pellet Mill #2 | | 1.16E-02 | 1.98E-03 | | | | |
| Pellet Mill #3 | | 3.01E-03 | 5.21E-04 | | | | |
| Pellet Mill #4 | | 3.01E-03 | 5.21E-04 | | | | |
| Commodity Load | | 4.16E-01 | 7.03E-02 | | | | |
| Facility Total (TPY) | | 1.723 | 0.763 | 0.106 | 0.089 | 0.001 | 0.006 |
| Facility Total (lb/hr) | | 0.670 | 0.296 | 0.041 | 0.035 | 0.000 | 0.002 |

| Existing PTC Emissions | PM10 (TPY) | PM10 (lb/hr) | NOx (TPY) | NOx (lb/hr) | CO (TPY) | CO (lb/hr) | SOx (TPY) | SOx (lb/hr) | VOC (TPY) | VOC (lb/hr) |
|------------------------|------------|--------------|-----------|-------------|----------|------------|-----------|-------------|-----------|-------------|
| Roll Mill 1 | 0.093 | 0.021 | | | | | | | | |
| Roll Mill 2 | 0.093 | 0.021 | | | | | | | | |
| Pellet Mill 1 | 0.084 | 0.019 | | | | | | | | |
| Pellet Mill 2 | 0.13 | 0.03 | | | | | | | | |
| Bin 10 Baghouse | 0.026 | 0.0058 | | | | | | | | |
| HEDS Baghouse | 0.0022 | 0.0005 | 3.6 | 0.81 | 0.71 | 0.16 | 0.0021 | 0.0005 | 0.28 | 0.065 |
| Boiler | 0.18 | 0.041 | | | | | | | | |
| Facility Total | 0.6082 | 0.1383 | 3.6 | 0.81 | 0.71 | 0.16 | 0.0021 | 0.0005 | 0.28 | 0.065 |

Facility Emissions Changes

| | (TPY) | PM10 | PM2.5 | NOx | CO | SOx | VOC |
|--------------------------------|-------|----------|----------|----------|----------|----------|----------|
| Bean and Seed | | 1.52E-01 | 2.79E-02 | | | | |
| Boilers | | 8.05E-03 | 8.05E-03 | 1.06E-01 | 8.90E-02 | 6.35E-04 | 5.83E-03 |
| Non-Med | | 7.24E-02 | 1.28E-02 | | | | |
| Receiving/Grinding | | 3.52E-01 | 3.17E-01 | | | | |
| Transfers | | 1.41E-01 | 1.06E-01 | | | | |
| Rolled/Textured | | 3.12E-01 | 1.75E-01 | | | | |
| Block/Mix | | 8.43E-02 | 1.44E-02 | | | | |
| Pellet Screen/Bagging | | 1.56E-01 | 2.58E-02 | | | | |
| Pellet Mill #1 | | 1.16E-02 | 1.98E-03 | | | | |
| Pellet Mill #2 | | 1.16E-02 | 1.98E-03 | | | | |
| Pellet Mill #3 | | 3.01E-03 | 5.21E-04 | | | | |
| Pellet Mill #4 | | 3.01E-03 | 5.21E-04 | | | | |
| Commodity Loading | | 4.16E-01 | 7.03E-02 | | | | |
| Revised Facility Total (TPY) | | 1.723 | 0.763 | 0.106 | 0.089 | 0.001 | 0.006 |
| Revised Facility PTE (TPY) | | 0.878 | 0.360 | 0.106 | 0.089 | 0.001 | 0.006 |
| Existing PTC Emissions (TPY) | | 0.608 | | 3.600 | 0.710 | 0.002 | 0.280 |
| Change in Emissions (TPY) | | 0.270 | 0.360 | -3.494 | -0.621 | -0.001 | -0.274 |
| Facility Total (lb/hr) | | 0.670 | 0.296 | 0.041 | 0.035 | 0.000 | 0.002 |
| Revised Facility PTE (lb/hr) | | 0.341 | 0.140 | 0.041 | 0.035 | 0.000 | 0.002 |
| Existing PTC Emissions (lb/hr) | | 0.138 | | 0.810 | 0.160 | 0.001 | 0.065 |
| Change in Emissions (lb/hr) | | 0.203 | 0.140 | -0.769 | -0.125 | 0.000 | -0.063 |

IDEQ PTC Forms

Facility Wide Potential to Emit Emission Inventory

Table 1. POTENTIAL TO EMIT FOR NSR REGULATED POLLUTANTS

| Emissions Unit | EU ID # | NSR Pollutant ^a | | | | | | |
|----------------------------------|------------|----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | | PM-10 | PM2.5 | CO | Pb | NOx | VOC | SO2 |
| | | T/yr ^b | T/yr ^b | T/yr ^b | T/yr ^b | T/yr ^b | T/yr ^b | T/yr ^b |
| Point Sources | | | | | | | | |
| Boiler #1 | B-1 | 2.68E-03 | 2.68E-03 | 2.97E-02 | n/a | 3.53E-02 | 1.94E-03 | 2.12E-04 |
| Boiler #2 | B-2 | 2.68E-03 | 2.68E-03 | 2.97E-02 | n/a | 3.53E-02 | 1.94E-03 | 2.12E-04 |
| Boiler #3 | B-3 | 2.68E-03 | 2.68E-03 | 2.97E-02 | n/a | 3.53E-02 | 1.94E-03 | 2.12E-04 |
| Bag House #1 or Bag House #12 | BH-1/BH-12 | 4.22E-02 | 7.19E-03 | n/a | n/a | n/a | n/a | n/a |
| Bag House #2 | BH-2 | 4.22E-02 | 7.19E-03 | n/a | n/a | n/a | n/a | n/a |
| Bag House #3 | BH-3 | 1.80E-01 | 2.91E-02 | n/a | n/a | n/a | n/a | n/a |
| Bag House #4 | BH-4 | 3.91E-03 | 6.82E-04 | n/a | n/a | n/a | n/a | n/a |
| Bag House #5 | BH-5 | 7.81E-03 | 1.36E-03 | n/a | n/a | n/a | n/a | n/a |
| Bag House #6 | BH-6 | 1.49E-01 | 1.49E-01 | n/a | n/a | n/a | n/a | n/a |
| Bag House #7 | BH-7 | 1.55E-01 | 2.48E-02 | n/a | n/a | n/a | n/a | n/a |
| Bag House #8 | BH-8 | 9.92E-04 | 9.92E-04 | n/a | n/a | n/a | n/a | n/a |
| Bag House #9 or Bag House #10 | BH-9/BH-10 | 4.22E-02 | 7.19E-03 | n/a | n/a | n/a | n/a | n/a |
| Bag House #11 | BH-11 | 7.24E-02 | 1.28E-02 | n/a | n/a | n/a | n/a | n/a |
| Bag House #13 | BH-13 | 4.22E-02 | 7.19E-03 | | | | | |
| Bag House #14 | BH-14 | 9.92E-02 | 9.92E-02 | | | | | |
| Bag House #15 | BH-15 | 6.56E-04 | 1.12E-04 | | | | | |
| Cyclone #1 | C-1 | 7.73E-03 | 1.32E-03 | n/a | n/a | n/a | n/a | n/a |
| Cyclone #2 | C-2 | 2.10E-03 | 3.59E-04 | n/a | n/a | n/a | n/a | n/a |
| Cyclone #3 | C-3 | 2.27E-02 | 3.88E-03 | n/a | n/a | n/a | n/a | n/a |
| Totals* | | 8.78E-01 | 3.60E-01 | 8.90E-02 | 0.00E+00 | 1.06E-01 | 5.83E-03 | 6.35E-04 |

a) NSR Regulated air Pollutants are defined^[1] as: Particulate Matter (PM-10, PM-2.5), Carbon Monoxide, Lead, Nitrogen Dioxide, Ozone (VOC), Sulfur Dioxide, all pollutants regulated by NSPS (40

b) Ton per year emissions based on 5148 hours of operation/yr for the process operations and 8760 hrs/year for the boilers.

* Does not include fugitive emissions sources as the facility does not fall within a listed source category.

** See spreadsheets prepared by JBR (included in Appendix E of the permit application for further information regarding emission factors and calculation assumptions.

IDEQ PTC Forms

Toxic Air Pollutant Emissions Inventory

Part 1. PRE- AND POST PROJECT NON-CARCINOGENIC TAP EMISSIONS SUMMARY POTENTIAL TO EMIT

| Non-Carcinogenic Toxic Air Pollutants (sum of all emissions) | Pre-Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr) | Post Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr) | Change in 24-hour Average Emissions Rates for Units at the Facility (lb/hr) | Non-Carcinogenic Screening Emission Level (lb/hr) | Exceeds Screening Level? (Y/N) |
|---|--|--|---|---|---------------------------------------|
| Antimony | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Barium | 0.00E+00 | 1.06E-06 | 1.06E-06 | 9.21E-04 | N |
| Chromium | 0.00E+00 | 3.39E-07 | 3.39E-07 | 2.93E-04 | N |
| Cobalt | 0.00E+00 | 2.03E-08 | 2.03E-08 | 1.76E-05 | N |
| Copper | 0.00E+00 | 2.06E-07 | 2.06E-07 | 1.78E-04 | N |
| Ethylbenzene | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Fluoride (as F) | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Hexane | 0.00E+00 | 4.35E-04 | 4.35E-04 | 3.77E-01 | N |
| Manganese | 0.00E+00 | 9.19E-08 | 9.19E-08 | 7.96E-05 | N |
| Mercury | 0.00E+00 | 6.29E-08 | 6.29E-08 | 5.44E-05 | N |
| Molybdenum | 0.00E+00 | 2.66E-07 | 2.66E-07 | 2.30E-04 | N |
| Naphthalene | 0.00E+00 | 1.48E-07 | 1.48E-07 | 1.28E-04 | N |
| Pentane | 0.00E+00 | 6.29E-04 | 6.29E-04 | 5.44E-01 | N |
| Phosphorous | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Selenium | 0.00E+00 | 5.80E-09 | 5.80E-09 | 5.02E-06 | N |
| 1,1,1-Trichloroethane | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Toluene | 0.00E+00 | 8.22E-07 | 8.22E-07 | 7.12E-04 | N |
| o-Xylene | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Zinc | 0.00E+00 | 7.01E-06 | 7.01E-06 | 6.07E-03 | N |

** See spreadsheets prepared by JBR (included in Appendix F of the permit application for further information regarding emission factors and calculation assumptions.

Part 2. PRE- AND POST PROJECT CARCINOGENIC TAP EMISSIONS SUMMARY POTENTIAL TO EMIT

| Carcinogenic Toxic Air Pollutants (sum of all emissions) | Pre-Project Annual Average Emissions Rates for Units at the Facility (lb/hr) | Post Project Annual Average Emissions Rates for Units at the Facility (lb/hr) | Change in Annual Average Emissions Rates for Units at the Facility (lb/hr) | Carcinogenic Screening Emission Level (lb/hr) | Exceeds Screening Level? (Y/N) |
|--|--|--|---|--|--|
| Arsenic | 0.00E+00 | 4.84E-08 | 4.84E-08 | 4.19E-05 | N |
| Benzene | 0.00E+00 | 5.08E-07 | 5.08E-07 | 4.40E-04 | N |
| Beryllium | 0.00E+00 | 2.90E-09 | 2.90E-09 | 2.51E-06 | N |
| Cadmium | 0.00E+00 | 2.66E-07 | 2.66E-07 | 2.30E-04 | N |
| Chromium VI | 0.00E+00 | 0.00E+00 | 0.00E+00 | 0.00E+00 | N |
| Formaldehyde | 0.00E+00 | 1.81E-05 | 1.81E-05 | 1.57E-02 | N |
| Nickel | 0.00E+00 | 5.08E-07 | 5.08E-07 | 4.40E-04 | N |
| Benzo(a)pyrene | 0.00E+00 | 2.90E-10 | 2.90E-10 | 2.51E-07 | N |
| Benz(a)anthracene | 0.00E+00 | 4.35E-10 | 4.35E-10 | 3.76857E-07 | N |
| Benzo(b)fluoranthene | 0.00E+00 | 4.35E-10 | 4.35E-10 | 3.76857E-07 | N |
| Benzo(k)fluoranthene | 0.00E+00 | 4.35E-10 | 4.35E-10 | 3.76857E-07 | N |
| Chrysene | 0.00E+00 | 4.35E-10 | 4.35E-10 | 3.76857E-07 | N |
| Dibenzo(a,h)anthracene | 0.00E+00 | 2.90E-10 | 2.90E-10 | 2.51238E-07 | N |
| Indeno(1,2,3-cd)pyrene | 0.00E+00 | 4.35E-10 | 4.35E-10 | 3.76857E-07 | N |
| Total PAHs | 0.00E+00 | 2.76E-09 | 2.76E-09 | 2.39E-06 | N |

a) PAH is considered as one TAP comprised of: benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, chrysene, indeno(1,2,3-cd)pyrene, benzo(a)pyrene. The total is compared to benzo(a)pyrene.

** See spreadsheets prepared by JBR (included in Appendix E of the permit application for further information regarding emission factors and calculation assumptions.

IDEQ PTC Forms

Facility Wide Hazardous Air Pollutant Potential to Emit

Table 1 HAP POTENTIAL TO EMIT EMISSIONS SUMMARY

| HAP Pollutants | PTE (T/yr) |
|----------------------------|-----------------|
| Benzene | 1.16E-07 |
| Formaldehyde | 4.14E-06 |
| Hexane* | 9.94E-05 |
| Naphthalene | 3.37E-08 |
| Toluene | 1.88E-07 |
| Arsenic Compounds | 1.10E-08 |
| Beryllium Compounds | 6.62E-10 |
| Cadmium Compounds | 6.07E-08 |
| Chromium Compounds | 7.73E-08 |
| Cobalt Compounds | 4.64E-09 |
| Manganese Compounds | 2.10E-08 |
| Mercury Compounds | 1.44E-08 |
| Nickel Compounds | 1.16E-07 |
| Selenium Compounds | 1.32E-09 |
| Total | 1.04E-04 |

* Maximum Individual HAP

** See spreadsheets prepared by JBR (included in Appendix E of the permit application for further information regarding emission factors and calculation assumptions.)