

MONSANTO COMPANY - ELOY

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1. Introduction

This section merely introduces the vocabulary utilized in the enforceable provisions of this permit; any explanation or characterization in this section should not be construed as a limitation on facility emissions or operation.

This revised permit **renewal** pertains to an existing cotton seed delinting facility, operated by Monsanto **AG Products** Company (previously Delta and Pine Land Company), a Delaware Limited Liability Company. The facility, commonly known as **Delta & Pine Land Company Eloy Cotton Seed Delinting Plant**, is located at 15790 State Highway 87, Eloy, Arizona, upon a parcel also identified by Pinal County Assessor's Parcel # 411-12-015-A5. The source is situated in an area classified as "attainment" for all pollutants.

A summary of the permitting history for this facility can be found in the **Technical Support Document (TSD)**

Permit History

A. ~~Initial Permit~~

~~On 2/9/2000 permit B30677.000 authorized operation of this facility as a "synthetic minor," with HCl emissions from the delinting process constituting the "critical" pollutant. Based on test-derived emission rates for HCl, that permit imposed operational limitations to assure "minor" status. See the PTE analysis included in the Title V application dated 11/12/99.~~

~~Even by the time that permit issued, the operator anticipated the need for a Title V permit, and filed such an application dated 11/19/1999. That application explained the seasonally-drive, inherent limitations on processing cotton seed, and posited emission potentials based on 5660 hours of operation per year. Title V permit V20611.000 was issued on 4/1/2001, and that permit corresponding allowed hours-of-operation limitations (See §5.C.2 infra), resulting in potential HCl emissions at the "major source" level.~~

B. ~~Revision "V20611.R02", issued on 3/15/05, incorporates the following changes:~~

- ~~1. Removal of the testing requirements for the Foundation Gin and Delinter exhaust systems.~~

~~This change does not incur any changes in emissions at the facility. Permittee has brought up the problems associated with obtaining 3 consecutive 1 hour test runs on these exhaust fans given the operating constraints and intermittent operating schedule. PCAQCD has agreed to remove the testing condition since the potential particulate matter emissions from the Foundation Gin and Delinter are relatively negligible, and besides the testing, this permit requires sufficient monitoring for particulate matter.~~

- ~~2. Minor revisions.~~

~~As part of this revision, the source has submitted updated flow diagrams. Even though no physical changes have been made to the facility since the last revision "R01", the diagrams reflect a more accurate description of the various exhaust systems and controls. Several sections throughout the permit, including the Equipment List have been revised to better depict the operations at this facility, and to match the updated flow diagrams.~~

C. ~~Revision "V20611.R01", issued on 9/3/03 authorizes the following:~~

- ~~1. Under the underlying permit V20611.000, performance testing is already required for the (042) cyclone installed under that permit, controlling emissions from the delinter (010) and from the pit hopper (011).~~

- ~~2. Within the main delinting plant, the primary seed processing facility, the baghouses identified as (019A, B) on Figure 1, the process flow diagram, have been replaced by updated 72-bag baghouses. That includes replacement of the old 36-baghouse with a 72-~~

bag unit. These baghouses operate in parallel to further control emissions from the two cyclones (18A, B) that control emissions from the elevator (012), the buffing reels (013), two bins (033, 047) and a box filler (048) from the main delinting facility. To the extent that performance testing has not already been conducted, this revision also requires re-testing of the PM₁₀ emissions from the newly reconfigured baghouses (019A,B). (Note: as of this latest revision, "R02", the testing has been conducted.)

3. Increase in the fan system, exhaust capacity of the trash handling hopper and cyclones of the foundation gin in the small delinting facility from 8,000 scfm to 15,000 scfm. The applicant indicates that the change is not driven by a plan to increase throughput, but rather to avoid clogging and maintenance problems. Again, to the extent that performance testing has not already been conducted, this revision also requires re-testing of the PM₁₀ emissions from the cyclones on the newly reconfigured "foundation gin" pilot-scale process line. Also note the numerical identification in the schedule of equipment of the production units in the "foundation gin" and delinter plant.

Since this aggregate increase in uncontrolled PTE from the change in fan system exhaust capacity falls below the 15 tpy "significance" threshold for PM₁₀ this revision qualifies as a "minor revision."

- D. Renewal V20625.000 reflects some small corrections and changes: Deletes SIP requirements that have been rescinded or deleted, revises the opacity rule to reflect that as of April 2006, the standard will go from 40% to 20%¹, includes the fuel burning particulate emission requirement (§5-5-190) which was previously left out, and corrects typos.
- E. Revision V20625.R01 (processed as .A02 due to a permit transfer at the same time) authorizes several small changes that will be conducted throughout the plant in 2008 to update and replace aging equipment. These are the authorized changes:

1. Upgrade of the Foundation plant gin by replacing the existing 2 gin stands, each with a capacity of 2 bales per hour, with a single one with a capacity of 10 bales per hour and installing 2 new cyclones (C-110A and C-110B) for additional particulate matter control. Even with the increase in capacity, potential PM10 emissions from the Foundation Gin and Delinter will not exceed 1 tpy.
2. Installation of a new module feeder at the Foundation Plant to allow for consistent and uninterrupted feed to the gin stand. Emissions from this new module feeder will be controlled through the existing cyclones C-106A&B.
3. Replacement of 15 old cyclones by like-kind equipment which will have the same air flow rates, dimensions and control efficiencies. There are no changes in emissions from the replacement of these pieces of equipment.
4. Installation of a capture system and tie-in to the existing pollution control devices to reduce fugitive dust from the calcium carbonate/talc seed treatment chemical mix tank area. A closed cover and ventilation system will be installed for capture of emissions, which will be vented through the existing cyclones C-023C,D.
5. Replacement of the current 1st stage 3 MMBtu/hr dryer unit with a new 4 MMBtu/hr unit, and at the same time installing a 2nd stage 4 MMBtu/hr dryer unit, in series with the 1st stage one, to provide more precise control of moisture content of the processed cotton. Potential CO and NO_x emissions from the dryer changes do not exceed 1 tpy, and particulate matter emissions will be controlled by twin cyclones.

Potential emissions increase from these changes do not exceed 1 tpy for any regulated pollutant.

¹This change does not affect the cotton gin on site, since it is already regulated by a standard with opacity.

~~This revision also authorizes the installation and operation of a 3.37MMBtu/hr (approximately 1325hp) emergency diesel generator. Based on standard emission factors and continuous operation, the generator has a potential to emit approximately 42 tons per year ("tpy") of NO_x. However, this permit limits the generator operation to 500 hours per year based on the assumption that generator will only be used during a power failure. The generator, manufactured after April 2006, falls subject to CAA §111, New Source Performance Standard (NSPS) for Internal Combustion Engines in 40 CFR 60 Subpart III.~~

Source Description

The source includes a delinter, baggers, cyclones, baghouses, and other equipment used to process and prepare raw cotton seed for use in planting the succeeding cotton crop. A complete list of equipment from which emissions are allowed by this permit is given in section 11 of this permit.

Fuzzy cotton seed is loaded into a hopper and fed to natural gas fired dryers to lower the moisture content. The dryer outputs to a charge cart, which feeds a batch of fuzzy seed through an auger assembly to the delinter. The solid plug of material in the feed auger effectively precludes emissions from that point. A cyclone system controls particulate emissions generated in the drying operation.

In the delinter, gaseous anhydrous hydrogen chloride ("HCl") is applied to physically weaken the structure of the lint. The HCl is delivered in trailer-mounted, pressurized cylinders. The quantity of HCl applied is controlled such that it is completely, or nearly completely, consumed by the process. Previously, excess HCl was applied, and ammonia was used to neutralize the excess HCl. Under this permit, ammonia is no longer used in the process. Rather, a continuous weighing system provides a computerized control system with the data needed to meter the HCl applied to precisely correspond to the quantity of seed being processed. That results in all, or nearly all, of the HCl being neutralized or consumed in the reaction with the cotton lint.

Subsequently, the seed drops from the delinter into a pit hopper, and is lifted by an elevator and dropped into a two-stage buffing reel assembly. The mechanical action separates the weakened lint fibers from the seed. The buffing reels empty on a batch basis into an elevator hopper. The elevator lifts the seed into a clipper cleaner, which removes trash such as sticks and pebbles. An elevator moves the seed to surge tanks, where it is fed to gravity tables that separate good seed from culls. The good seed is delivered to storage tanks by an elevator. Another elevator transports the seed from the storage tanks to a weigh belt after which it is treated with insecticide and fungicide and bagged for use. In addition, calcium carbonate is included with the packed seed to neutralize any trace amounts of HCl that may be present.

The buffing reels include screens that separate the seed from the lint that is removed by mechanical abrasion. The lint solids are transported to the lint tank by an auger; the solid plug of material leaving the buffing reels effectively precludes emissions. A forced draft system collects airborne lint and other possible emissions from the delinter, the pit hopper, the elevator to the buffing reels, and the buffing reels themselves. Cyclones remove the bulk of the airborne lint from the flow, and down-stream baghouses further control any remaining particulate emissions.

A secondary force draft system also serves the delinter, as well as the gravity table. The delinter/gravity table exhaust system vents to the atmosphere through a cyclone. An additional exhaust flow captures emissions from the clipper cleaner, and exhausts through a dedicated cyclone. Finally, an additional set of cyclones control particulate emissions captured during the final seed treatment and packaging operations. Solids from the baghouses and all of the cyclones, other than the final treatment/packaging operations, are also conveyed to the lint tank.

To the extent that the gaseous HCl is not completely consumed in the reaction with the seed-borne lint, HCl emissions may escape through either the baghouses on the primary particulate control system, or the cyclone on the secondary control system that serves the delinter.

Emissions of volatile organic compounds, VOCs, may occur from the chemicals used in treating the processed cotton seed. Negligible emissions of VOCs are emitted during the imprinting of seed packages.

In addition to the main delinting plant, the facility also includes a small foundation gin and a delinting system. The throughput of the gin is approximately 10 bales per hour with a maximum of 600 tons per year.

The gin equipment and trash handling hopper are exhausted with a 10000 scfm exhaust system. This exhaust system along with three cyclone separators operating in parallel plus 2 additional cyclones control particulate emissions.

The small delinter has a throughput of two tons of fuzzy seed per hour with a maximum of 400 tons of seed per year. Sulfuric acid is used for the delinting process. A 5,000 scfm exhaust system serves the small delinter along with two cyclone separators operating in parallel to control particulate emissions. **The Foundation Seed Treatment line processes up to 2 tons of seed per hour, with an annual operating schedule of 1,500 hours per year. This Treatment and Packing area will be implemented for full scale operating during the 2010-11 season.**

~~As an informational disclosure, emissions listed in Section 12. of this permit entitled "EMISSION INVENTORY TABLE" constitute good-faith estimates of potential emissions subject to regulation, as set forth in the application for permit.~~

As an assistance, and not as a mandate, Appendix A to the permit sets forth a suggested semi-annual reporting form.

2. Listing of (*Federally Enforceable*) Applicable Requirements [*Mandated by 40 CFR §70.5(c)(4)*]

- A. Those specific provisions of the Pinal-Gila Counties Air Quality Control District ("PGAQCD") Regulations, as adopted by the Pinal County Board of Supervisors on March 31, 1975, and approved by the Administrator as elements of the Arizona State Implementation Plan ("SIP") at 43 FR 50531, 50532 (11/15/78), and specifically the following rules:
- 7-3-1.1 Emission Standards - Particulates - Visible Emissions - General
 - 7-3-1.2 Emission Standards - Particulate Emissions - Fugitive Dust
 - 7-3-1.8 Particulate Emissions - Process Industries
 - 7-3-5.1 NOx Emissions - Fuel Burning Equipment
- B. Those specific provisions of the Pinal-Gila Counties Air Quality Control District Regulations, as last amended by the Pinal County Board of Supervisors on June 16, 1980, and approved by the Administrator as elements of the Arizona SIP at 47 FR 15579 (4/12/82), specifically, the following rules:
- 7-3-1.1 Visible Emissions; General
 - 7-3-1.7.F Fuel Burning Equipment
- D. National Emission Standards for Hazardous Air Pollutants, General Provisions and Requirements for Control Technology Determinations for Major Sources, 40 CFR Part 63, Subpart A [40 CFR §§63.1 - 63.15] and Subpart B [40 CFR §§63.40 - 60.56 (1999)].
- E. National Emission Standards for Hazardous Air Pollutants for Asbestos, 40 CFR Part 61, Subpart M [40 CFR §§61.140- 61.157].
- F. Stratospheric Ozone and Climate Protection, 40 CFR Part 82, Subpart F, Recycling and Emissions Reduction [40 CFR §82.150-82.166].
- G. New Source Performance Standards, General Provisions, 40 CFR Part 60, Subpart A [40 CFR §60.1-60.10, 60.12-60.17, 60.19]
- H. New Source Performance Standard for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart IIII [40 CFR §4200 *et seq.*]
- I. **The National Emission Standards for Hazardous Air Pollutants ("NESHAP") for Stationary Reciprocating Internal Combustion Engines, 40 CFR Part 63, Subpart ZZZZ [40 CFR §§63.6590-63.6675]**
- J. **Those specific provisions of the Pinal County Air Quality Control District Regulations, as last amended by the Pinal County Board of Supervisors on October 27, 2004, and approved by the**

Administrator as elements of the Arizona SIP at 75 FR 17307, specifically, the following rules:

4-2-040 (Reasonable Precautions) Standards

3. Compliance Certification

- A. Compliance Plan [*Mandated by* 40 CFR §70.5(c)(8)]

Inssofar as the Permittee is currently in compliance, the compliance plan consists of continued adherence to the requirements of this permit and those requirements set forth in applicable regulations and statutes.

- B. Compliance Schedule [*Mandated by* 40 CFR §§ 70.5(c)(8), 70.6(c)(3)]

Inssofar as the Permittee is currently in compliance, no compliance schedule to attain compliance is required.

4. Authority to Construct [*Federally enforceable - Code §§3-1-010, 3-1-040 (as amended 10/12/95) approved as a SIP Element at 61 FR 15717 (4/9/96)*]

- A. Generally

This permit authorizes operations at 15790 State Highway 87, Eloy, Arizona, on a parcel also identified by Pinal County Assessor's Parcel # 411-12-015-A5. Emissions from this facility, specifically emissions from the equipment described in "Equipment Schedule" section below, and the operating configuration more fully described in the application for permit, already fall subject to the independent Federally enforceable limitations identified elsewhere in this permit. Therefore, based on the regulations in effect upon the date of issuance of this permit and a finding that allowable emissions from the equipment described in the Equipment Schedule will neither cause nor contribute to a violation of any ambient air quality standard even without any additional limitations, and a further finding that this does not constitute a "major emitting source" within the meaning of Code §3-3-203, this permit constitutes authority to construct and operate such equipment.

- B. Minor New Source Review Requirements - Control Requirements [*Code §§3-1-010, 3-1-040 (as amended 10/12/95) approved as a SIP element at 61 FR 15717 (4/9/96)*]; Material Permit Condition [*Code §3-1-109*]

The generator identified in §11 of this permit shall:

1. Be equipped with an hour meter, configured to record hours of operation.
2. The 3.37 MMBtu/hr (350 kW) generator shall not operate more than 500 hours per year. This 500 hours limitation is based on the assumption that the engine will only be used during a power failure.

5. Emission Limitations [*Mandated by* 40 CFR §70.6(a)(1)]

- A. Allowable Emissions (Code § 3-1-081.A.2.)

Permittee is authorized to discharge or cause to discharge into the atmosphere those emissions of air contaminants as set forth below. Permittee shall not use any material, process, or equipment not identified in the permit application which will cause emissions of any regulated air pollutant in excess of the *de minimis* amount of 5.5 pounds per day, unless authorized by a separate permit issued by the District.

- B. Emission Limitation - Particulate Matter

Emission Cap [*Federally enforceable provision, pursuant to Code §3-1-084 (8/11/94)*] (Code §3-1-081.A)

Permittee shall limit emissions, in any consecutive twelve-month period, such that the emissions of particulate matter, measured as PM₁₀ are less than 100 tons.

- C. Emissions Limitations - Hydrogen Chloride (Code §3-1-081.A)
1. Permittee shall limit the total hours of plant operation, based on a twelve (12) month rolling average, to 5660 hours.
 2. Permittee shall not use HCl in the small, pilot-scale delinter.
- D. Process Controls - Particulate Matter [*Federally enforceable provision pursuant to Code §§3-1-084 and Code §3-1-081.A*].
1. Main Delinting Facility
 - a. Two cyclones (016) shall be used to control particulate emissions from the rotary dryer (006).
 - b. A single cyclone (017) shall be used to control particulate emissions from the surge bin (008) and the scales and charger (009).
 - c. A single cyclone (042) shall be used to control particulate emissions from the delinter (010) and the pit hopper (011).
 - d. Two cyclones (018A,B) and two 72 unit baghouses (019A,B) shall be used to control particulate emissions from the elevator (012), the buffing reels # 1 and 2 (013), two holding bins (033) and (047), and a box filler (048).
 - e. A double cyclone (025A,B) shall be used to control particulate emissions from the clipper cleaner (040).
 - f. A triple cyclone (021A,B,C) shall be used to control particulate emissions from the two gravity tables (036) and the delinter hood (10).
 - g. Two cyclones (023A,B) shall be used to control particulate emissions from the rotary dryer (030A) and a second pair of cyclones (023C,D) shall be used to control particulate emissions from the second ~~treater~~ rotary dryer (030B) .
 - h. A single cyclone (022) shall be used to control particulate emissions from the ~~valve pack bagger~~ final storage bin (027).
 - i. ~~A single cyclone (044) shall be used to control particulate emissions from the weigh belt (046).~~
 - i. To assure continued optimal operations of each of the control devices mentioned above, Permittee shall make a weekly visual inspection of each such device, and if perforations or other visual defects are observed, shall cease operation until the defective device is repaired or replaced.
 2. Foundation Gin and Delinter Plant
 - a. Particulate emissions from the gin line equipment shall be controlled in the following manner:
 - i. Twin cyclones (109A,B) shall be used to control particulate emissions from the 1st stage dryer/trash fan exhaust (100A).
 - ii. Twin cyclones (110A,B) shall be used to control particulate matter emissions from the 2nd stage dryer/trash fan exhaust (100B).

- iii. Twin cyclones (106A,B) shall be used to control particulate emissions from the suction tube exhaust (101).
- iv. Twin cyclones (107A,B) shall be used to control particulate emissions from the lint cleaners (102) and (104A,B) exhaust.
- v. Twin cyclones (108A,B) shall be used to control particulate emissions from the battery condenser (104C).
- Iv. A single cyclone (106C) shall be used to control particulate matter emissions from the overflow separator.
- b. Particulate matter emissions from the foundation delinter plant shall be controlled in the following manner:
 - i. Cyclone (127) shall be used to control particulate matter from the Dryer A(122A) exhaust.
 - ii. Cyclone (128) shall be used to control particulate matter from the Dryer B(122B) exhaust.
 - iii. Cyclone (129) shall be used to control particulate matter from the clipper cleaner (124) exhaust.
 - iv. Cyclone (130) shall be used to control particulate matter from the gravity table (125) exhaust.
 - v. Cyclone (131) shall be used to control particulate matter from the bagger (126) exhaust.
- c. To assure continued optimal operations of each of the control devices mentioned in a. and b. above. Permittee shall make a weekly visual inspection of each such device, and if perforations or other visual defects are observed, shall cease operation until the defective device is repaired or replaced.

E. Particulate Emissions Limitations

- 1. Opacity Limits [~~Currently federally enforceable pursuant to PGAQCD Reg. 7-3-1.1 (6/16/80) approved as a SIP element at 47 FR 15579 (4/12/82)~~](Code §§2-8-300, 4-2-040 and 5-8-260)

~~The opacity of any plume or effluent as determined by Reference Method 9 in the Arizona Testing Manual (ADEQ, 1992), shall not be:~~

- ~~a. Greater than 40% from the Cotton Gin, and~~
- ~~b. All other operations,~~

~~Nothing in this limitation shall be interpreted to prevent the discharge or emission of uncontaminated aqueous steam, or uncombined water vapor, to the open air.~~

- a. **SIP Limitation - [Federally enforceable pursuant to PGAQCD Reg. 7-3-1.1 (6/16/80) approved as a SIP Element at 47 FR 15579 (4/12/82)]**

The opacity of any plume or effluent shall not be greater than 40 percent as determined by reference method 9 in the Arizona Testing Manual.

- b. **Locally Enforceable Limitation (Code §2-8-300)**

The opacity of any plume or effluent from any point source not subject to a New

Source Performance Standard adopted under Chapter 6 of the Code, and not subject to an opacity standard in Chapter 5 of the Code, shall not be greater than 20% as determined in Method 9 in 40 CFR 60, Appendix A. Affected sources are all emission points at the facility except those associated with the Foundation Gin.

2. Particulate Emissions - Process Industries [*Currently federally enforceable pursuant to PGAQCD Reg. 7-3-1.8 (3/31/75) approved as a SIP element at 43 FR 50531 (11/15/78)*] (Code §5-5-190)

Permittee shall capture, to the maximum practical extent, all particulate matter resulting from operation of individual equipment comprising the complete process. Permittee not cause, suffer, allow or permit the discharge of particulate matter into the atmosphere in any one hour from any existing process source whatsoever, except fuel-burning equipment, in total quantities in excess of the amount calculated by the whichever of the following equations may be applicable:

- a. For any process operating at a production process weight rate ("P") up to 30 tons-per-hour, allowable emissions ("E") shall not exceed:

$$E = 4.10 P^{0.67} \text{ pounds-per-hour.}$$

- b. For any process operating at a production process weight rates ("P") equal to or greater than 30 tons-per-hour, allowable emissions ("E") shall not exceed:

$$E = (55.0 P^{0.11} - 40.0) \text{ pounds-per-hour.}$$

3. Control of Fugitive Dust [*Currently federally enforceable pursuant to PGAQCD Reg. 7-3-1.2 (3/31/75) approved as a SIP element at 43 FR 50531 (11/15/78)*]

Permittee shall not cause, suffer, allow or permit a building or its appurtenances or open area to be used, constructed, repaired, altered or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Particulate emissions shall be kept to a minimum by such measures as wetting down, covering, landscaping, paving, treating or by other reasonable means.

4. Particulate Emissions - Fuel Burning [*Currently federally enforceable pursuant to PGAQCD Reg. 7-3-1.7 (3/31/75) approved as a SIP element at 43 FR 50531 (11/15/78)*] (Code §5-21-930)

Permittee shall not cause, suffer, allow or permit the discharge of particulate matter into the atmosphere, caused by combustion of fuel, in total quantities in excess of the amount calculated by:

$$E = 1.02 Q^{0.769} \text{ pounds-per-hour.}$$

where:

E = maximum allowable particulate emissions rate (lb/hr),

Q = total heat input of all operating fuel-burning units on a plant or premises (MMBtu/hr)

5. Reasonable Precautions (§4-2-040) [*Currently federally enforceable pursuant to PCAQCD Reg. 4-2-040 (4/27/04) approved as a SIP element at 75 FR 17307*]

- a. Permittee shall not cause, suffer, allow, or permit a building or its appurtenances, subdivision site, driveway, parking area, vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, or fill dirt to be deposited, without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.

- b. Permittee shall not cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, such as but not limited to all-terrain vehicles, trucks, cars, cycles, bikes, or buggies, without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.
 - c. Permittee shall not disturb or remove soil or natural cover from any area without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.
 - d. Permittee shall not crush, screen, handle or convey materials or cause, suffer, allow or permit material to be stacked, piled or otherwise stored without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.
 - e. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such a manner, or with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne. Other reasonable precautions shall be taken, as necessary, to effectively prevent fugitive dust from becoming airborne.
 - f. Permittee shall not cause, suffer, allow or permit transportation of materials likely to give rise to fugitive dust without taking reasonable precautions to prevent fugitive dust from becoming airborne. Earth and other material that is tracked out or transported by trucking and earth moving equipment on paved streets shall be removed by the party or person responsible for such deposits.
 - g. Permittee shall not cause, suffer, allow or permit the use, repair, construction or reconstruction of any road or alley without taking every reasonable precaution to effectively prevent fugitive dust from becoming airborne.
- F. Cotton Gin Standards (Code §5-8-260)
- 1. Fugitive dust, lint, bolls, cotton seed or other material emitted from a cotton gin or lying loose in a yard shall be collected and disposed of in an efficient manner or shall be treated in accordance with the fugitive dust requirements of Chapter 4 of the Code.
 - 2. Permittee shall not cause, allow or permit to be emitted into the atmosphere particulate mater which exceeds 40% opacity.
- G. Fuel Use Limitations (Code §§3-1-081)
- 1. Primary Fuel
The Permittee is allowed to burn natural gas.
 - 2. Other Fuels (Code §§3-1-081.G, 5-23-1010.F)
The Permittee shall not use used oil, used oil fuel, hazardous waste, and hazardous waste fuel (as defined in federal, state, or county codes and rules) ~~in the steam generating units and the combustion turbines~~ without first obtaining a separate permit or an appropriate permit revision.
 - 3. ~~The treater dryer shall use less than 1 mmbtu/hour of natural gas.~~
- H. NSPS Standard for Emergency Generator [*40 CFR §§60.4205(a), 60.4206, 60.4207(a)&(b), 60.4209(a), 60.4211(e), 40 CFR 63 Subpart ZZZZ*]
- 1. Permittee shall comply with the following emission standards with respect to the ~~1325~~ **350 Kw (469 hp)** internal combustion engine (ICE):

2007 model year and later engines with maximum engine power less than or equal to 3,000 horsepower and a displacement of less than 10 liters per cylinder shall meet the emission standards for nonroad compression ignition engines in 40 CFR 89.112 and 40 CFR 89.113~~1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115 and Table 2 to 40 CFR part 60, Subpart III.~~

2. Permittee shall operate and maintain the engine according to manufacturer's written instructions or procedures developed by the Permittee that are approved by the manufacturer, over the entire life of the engine.
3. Fuel Requirements:
 - a. ~~After October 1, 2007, Permittee shall use diesel fuel for the ICE that meets the requirements of 40 CFR 80.510(a): Sulfur content of 500 parts per million (ppm) maximum.~~
 - a. ~~After October 1, 2010, Permittee shall use diesel fuel for the ICE that meets the requirements of 40 CFR 80.510(b): Sulfur content of 15 parts per million (ppm) maximum and a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.~~
4. Permittee shall install a non-resettable hour meter prior to the startup of the engine.
5. Permittee may operate emergency engine for the purpose of maintenance checks and readiness testing, provided the tests are recommended by Federal, State, or local government, the manufacturer, the vendor or the insurance company associated with the engine. Permittee shall not operate the ICE for the purposes of maintenance checks and readiness testing for more than 100 hours per year unless the Permittee maintains records identifying the Federal, State or local standards that require maintenance and testing of emergency internal combustion engines beyond 100 hours per year. Copies of such records shall be provided to the District upon request.

I. Standards of Performance for Stationary Rotating Machinery [Code §5-23-1010.A.B.C.D]

- a. For equipment having a heat input rate of 4200 million Btu/hr or less, the maximum allowable emissions shall be determined by the following equation:

$$E = 1.02 * Q^{0.769}$$

Where: E = the maximum allowable particulate emissions rate in pounds-mass per hour
 Q = the total heat input of all operating fuel burning units on a plant premises in million btu/hr

- b. For equipment having a heat input rate greater than 4200 million Btu/hr or less, the maximum allowable emissions shall be determined by the following equation:

$$E = 17.0 * Q^{0.432}$$

Where: E = the maximum allowable particulate emissions rate in pounds-mass per hour
 Q = the total heat input of all operating fuel burning units on a plant premises in million btu/hr

- c. For references purposes only, the actual values shall be calculated from the applicable equations and rounded off to two decimal places.
- d. No person shall cause, allow or permit to be emitted into the atmosphere from any stationary rotating machinery, smoke for any period greater than 10 consecutive seconds which exceeds 40% opacity. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.

- e. When low sulfur oil is fired , stationary rotating machinery installations shall burn fuel which limits the emission of sulfur dioxide to 1.0 pound per million Btu heat input.

J. General Maintenance Obligation (Code §3-1-081)

At all times, including periods of start-up, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate the permitted facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

K. Additional Applicable Limitations

- 1. Asbestos NESHAP Compliance [*Currently federally enforceable; 40 CFR Part 61, Subpart M*] (Code §§7-1-030, 7-1-060)

Permittee shall comply with Code §§7-1-030.A. and 7-1-060 and 40 CFR Part 61, Subpart M, when conducting any renovation or demolition activities at the facility.

- 2. Stratospheric Ozone and Climate Protection [*Currently federally enforceable; 40 CFR Part 82 Subpart F*] (Code §§1-3-140.15, 1-3-140.58.k)

The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, Recycling and Emissions Reduction.

6. Compliance Demonstration [*Mandated by 40 CFR §70.6(c)*]

A. Monitoring and Testing [*Mandated by 40 CFR §70.6(a)(3)*](

- 1. Monitoring and Recordkeeping for the Emergency Generator [*40 CFR §60.4211(a), (b), 40 CFR 63 Subpart ZZZZ*](Code §3-1-083)

- a. Permittee shall comply with the **emergency generator** emission standards of **this permit §5.H** by:

- i. Purchasing an engine that is certified to meet the standards of ~~§4.D~~ for the model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's specification.
- ii. Obtaining performance test results for each pollutant for a test conducted on a similar engine; data from the engine manufacturer; data from the control device vendor or conducting a performance test.
- iii. Maintaining records which indicate that the engine is complying with emission standards, keeping those records on file and having them available for inspection.

- 2. Non-instrumental emissions monitoring - oxides of nitrogen (Code §3-1-083)

- a. As a surrogate measurement for monitoring emissions of oxides of nitrogen, Permittee shall maintain monthly records of natural gas purchases.
- b. Permittee shall make a monthly record of the number of hours the emergency generator is operated. Each month, Permittee shall further calculate the aggregate number of hours the generator has operated in the preceding 12 calendar months, and verify that total does not exceed the limit under this permit.

- 3. Non-instrumental emissions monitoring - Particulate matter

- a. Since the emissions authorized under this permit constitute a direct function of

- the material throughput at the source, the Permittee shall maintain records, updated at least monthly, of the weight of fuzzy cotton seed processed and the weight of cotton seed produced.
- b. In order to demonstrate compliance with the emission control requirements under this permit, the Permittee shall maintain records, updated at least monthly, of the number of times the baghouses and cyclones are emptied or cleaned.
 - c. In order to demonstrate compliance with the emission control requirements under this permit, Permittee shall maintain a written record of the results of the weekly inspections of the control equipment required under this permit.
4. Non-instrumental emissions monitoring - HCl
- a. As a surrogate measurement for monitoring emissions of hydrogen chloride, Permittee shall maintain monthly records of the hours of plant operation and HCl usage per ton of seed.
 - b. On a monthly basis, Permittee shall calculate allowable number of hours of plant operation and compare it to the actual hours of plant operation.
5. Non-instrumental emissions monitoring - volatile organic compounds (Code §3-1-083)
- As a surrogate measurement for monitoring emissions of volatile organic compounds, Permittee shall maintain monthly records of the chemicals which contain VOCs and are used in the treatment of seed. The records shall include the amounts used and the VOC content of the chemicals. Emissions of VOCs shall be calculated assuming all contained VOCs are emitted.
6. Non-instrumental emissions monitoring - sulfur dioxide
- As an alternative to monitoring fuel sulfur, Permittee shall maintain a verification from the fuel supplier that **sulfur content of the diesel fuel for the generator does not exceed 15 ppm** contain more than 0.9% by weight.
7. Performance testing [Federally enforceable provision pursuant to 40 CFR, Part 60, §60.8] (Code §§3-1-084, 3-1-160 & 3-1-170)
- a. At least once during the permit term, and no later than 5 years from the previous performance test, Permittee shall conduct performance tests to verify the emissions of particulate matter and HCl from the following exhaust stacks.
 - i) Rotary Dryer (Cyclone 016)
 - ii) Surge Bin/Charge Cart (Cyclone 017)
 - iii) Buffing Reels (Baghouses Stack 019)
 - iv) Gravity Table/Delinter Drum Inlet (Cyclone 021)
 - v) ~~Holding Bin/Treatment~~ **Hot Water Seed** Dryer (Cyclones 023A and 023B)
 - vi) Clipper Cleaner Cyclone (025)
 - vii) ~~Valve Pack Bagging~~ **Hot Water Soak** Cyclone (022)
 - viii) Delinter Outlet/Delinter Pit (Cyclone 042)
 - b. All tests shall utilize standard EPA test methods (40 CFR Part 60) and be performed at the maximum practical production rate. A test plan protocol for each test shall be submitted to the District at least sixty (60) days before the testing. The test protocol shall provide for quantifying emissions in both concentration and pounds per hour.
 - c. Performance Test Notice

Notice of the performance test required by this permit shall be submitted to the District at least 14 days prior to running the test.

d. Performance Test Report

A copy of the test report, quantifying PM₁₀ and HCl emissions in both, concentration and pound per hour shall be submitted to the District for approval within forty-five days after the test. The test report shall further calculate a total annual PM₁₀ emission figure for the test-affected emission points, based on an assumed 8760 hours of annual operation.

8. Opacity monitoring [Code §3-3-260.]

a. Stack Emissions

On at least a semi-annual basis, Permittee shall conduct a visual opacity screen performed on each process and fuel-burning exhaust stack. If visible emission are observed, Permittee shall have a full Method 9 opacity test performed by a certified opacity observer, and shall provide a copy of the resulting report to the District within 10 days.

b. Open-area Fugitive Emissions

On at least a semi-annual basis, Permittee shall conduct a visual opacity screen performed on the open areas of the facility. If visible emission are observed, Permittee shall have a full Method 9 opacity test performed by a certified opacity observer, and shall provide a copy of the resulting report to the District within 10 days.

B. Recordkeeping [**Mandated by** 40 CFR §70.6(a)(3)]

1. Permittee shall maintain at the source a record of all measurements, including continuous monitoring-system-, monitoring-device-, and performance- testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required pursuant to any federally enforceable provision of this permit, recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports and records.
2. Permittee shall maintain records of the occurrence and duration of any start-up, shutdown or malfunction in the operation of the permitted facility or any air pollution control equipment.
3. Permittee shall maintain records of natural gas purchased.

C. Regular Compliance Reporting [**Mandated by** 40 CFR §§70.6(a)(3), 70.6(c)(4)]

In order to demonstrate compliance with the provisions of this permit, the Permittee shall submit a semi-annual report containing a summary of the information required to be recorded pursuant to this permit, which summary shall clearly show that Permittee has complied with the operational and emissions limitations under this permit. The report shall be submitted to the District within 30 days after the end of each calendar half. Appendix A of this permit is a form which may be used for the report.

D. Regular Compliance/Compliance Progress Certification [**Mandated by 40 CFR §§70.5(c)(8), 70.5(c)(9), 70.6(c)(4), 70.6(c)(5)**](Code 3-1-085.A)

Permittee shall annually submit to the Control Officer, and also the Administrator of US EPA, a certificate of compliance with the provisions of this permit. The certification shall:

1. Be signed by a responsible official, namely the president, secretary, treasurer, vice-president of the corporation, the director of manufacturing, or such other person as may be approved by the Control Officer as an administrative amendment to this permit;
2. Identify each term or condition of the permit that is the basis of the certification;
3. Verify the compliance status with respect to each such term or condition;
4. Verify whether compliance with respect to each such term or condition has been continuous or intermittent;
5. Identify the permit provision, or other, compliance mechanism upon which the certification is based; and
6. Be postmarked within thirty (30) days of the start of each calendar year.

7. Other Reporting Obligations

- A. Deviation Reporting Requirement (Code §3-1-083.A.3.b.) **[Mandated by 40 CFR §70.6(a)(3)(iii)(B), 70.6(g)]**

Permittee shall report any deviation from the requirements of this permit along with the probable cause for such deviation, and any corrective actions or preventative measures taken to the District within fifteen days of the deviation unless earlier notification is required by the provisions of Section 9.P. of this permit.

- B. Annual emissions inventory [Code §§3-1-103, 3-7-590.C.1.]

Since this source would be subject to an ADEQ permitting requirement, Permittee shall complete and submit to the District an annual emissions inventory, disclosing actual emissions for the preceding calendar year. The submittal shall be made on a form provided by the District. The inventory is due by the latter of March 31, or ninety (90) days after the form is furnished by the District.

8. Fee Payment **[Mandated by 40 CFR §70.6(a)(7), 70.9]**

As an essential term of this permit, an annual permit fee shall be assessed by the District and paid by Permittee in accord with the provisions of Code Chapter 3, Article 7 generally, and Code §3-1-081.A.9. specifically. The annual permit fee shall be due on or before the anniversary date of the issuance of an individual permit, or formal grant of approval to operate under a general permit. The District will notify the Permittee of the amount to be due, as well as the specific date on which the fee is due.

9. General Conditions

- A. Term **[Mandated by 40 CFR §70.6(a)(2)]** (Code §3-1-089)

This permit shall have a term of five (5) years, measured from the date of issuance.

- B. Basic Obligation **[Mandated by 40 CFR §§70.4(b)(15), 70.6(a)(6)(i), 70.6(a)(6)(ii), 70.7.b]** (Code §3-1-081.)

1. The owner or operator ("Permittee") of the facilities shall operate them in compliance with all conditions of this permit, the Pinal County Air Quality Control District ("the District") Code of Regulations ("Code"), and consistent with all State and Federal laws, statutes, and codes relating to air quality that apply to these facilities. Any permit noncompliance is grounds for enforcement action; for a permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application and may additionally constitute a violation of the Clean Air Act (1990).

2. All equipment, facilities, and systems used to achieve compliance with the terms and conditions of this permit shall at all times be maintained and operated in good working order.
- C. Duty to Supplement Application [*Mandated by 40 CFR §§70.5(b), 70.6(a)(6)(v)*] (Code §§3-1-050.H, 3-1-081.A.8.e, 3-1-110)
- Even after the issuance of this permit, a Permittee, who as an applicant who failed to include all relevant facts, or who submitted incorrect information in an application, shall, upon becoming award of such failure or incorrect submittal, promptly submit a supplement to the application, correcting such failure or incorrect submittal. In addition, Permittee shall furnish to the District within thirty days any information that the Control Officer may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit and/or the Code.
- D. Right to Enter [*Mandated by 40 CFR §70.6(c)(2)*] (Code § 3-1-132)
Authorized representatives of the District shall, upon presentation of proper credentials, be allowed:
1. to enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of this permit;
 2. to inspect any equipment, operation, or method required in this permit; and
 3. to sample emissions from the source.
- E. Transfer of Ownership [*Mandated by 40 CFR §70.7(d)(4)*]
- This permit may be transferred from one person to another by notifying the District at least 30 days in advance of the transfer. The notice shall contain all the information and items required by Code § 3-1-090. The transfer may take place if not denied by the District within 10 days of the receipt of the transfer notification.
- F. Posting of Permit (Code §3-1-100)
- Permittee shall firmly affix the permit, an approved facsimile of the permit, or other approved identification bearing the permit number, upon such building, structure, facility or installation for which the permit was issued. In the event that such building, structure, facility or installation is so constructed or operated that the permit cannot be so placed, the permit shall be mounted so as to be clearly visible in an accessible place within a reasonable distance of the equipment or maintained readily available at all times on the operating premises.
- G. Permit Revocation for Cause [*Mandated by 40 CFR §70.6(a)(6)(iii)*] (Code §3-1-140)
- The Director of the District ("Director") may issue a notice of intent to revoke this permit for cause pursuant to Code §3-1-140, which cause shall include occurrence of any of the following:
1. The Director has reasonable cause to believe that the permit was obtained by fraud or material misrepresentation;
 2. Permittee failed to disclose a material fact required by the permit application form or a regulation applicable to the permit;
 3. The terms and conditions of the permit have been or are being violated.
- H. Certification of Truth, Accuracy, and Completeness [*Mandated by 40 CFR §§70.5(a)(2), 70.6(a)(3)(iii)(B)*] [*Federally enforceable - Code §§3-1-083.A.5, 3-1-175 (as amended 10/12/95) approved as SIP Elements at 61 FR 15717 (4/9/96)*]
- Any application form, report, or compliance certification submitted pursuant to the Code shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under Chapter 3 of the Code shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the

document are true, accurate, and complete.

I. Renewal of Permit [**Mandated by 40 CFR §§70.5(a)(1)(iii), 70.7(c)**](Code §3-1-050.C)

Expiration of this permit will terminate the facility's right to operate unless either a timely application for renewal has been submitted in accordance with §§3-1-050, 3-1-055 and 3-1-060, or a substitute application for a general permit under §3-5-490. For purposes of a Class I permit renewal, a timely application shall be submitted at least 6 months, but not greater than 18 months prior to the date of the permit expiration.

J. Severability [**Mandated by 40 CFR §70.6(a)(5)**]

Pursuant to Code § 3-1-081.A.7., the provisions of this permit are severable, and if any provision of this permit is held invalid the remainder of this permit shall not be affected thereby.

K. Permit Shield [**Mandated by 40 CFR §70.6(f)**] (Code § 3-1-102.)

Subject to the following schedule of exclusions², compliance with the terms of this permit shall be deemed compliance with any applicable requirement identified in this permit. The permit-shield exclusions include:

1. PGCAQCD Rule §7-3-1.3 OPEN BURNING;
2. PGCAQCD Rule §7-3-4.1 INDUSTRIAL - CARBON MONOXIDE EMISSIONS.
3. Items listed in Section 10 of this permit as not being federally enforceable.

L. Permit Revisions [**Mandated by 40 CFR §70.7(d), 70.7(e)**] (Code Chapter 3, Article 2)

1. This permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
2. The permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control officer may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
3. Permit amendments, permit revisions, and changes made without a permit revision shall conform to the requirements in Article 2, Chapter 3, of the Code.
4. Revision to Obtain Authority to Reconstruct [**Federally enforceable - 40 CFR 63.42(c)**] Code §3-1-040.D.

Prior to commencing a reconstruction, as defined below, Permittee shall apply for and obtain a revision to this permit, which revised permit shall include a final and effective case-by-case determination pursuant to the provisions of 40 CFR 63.43 such that the emissions from the reconstructed facility will be controlled to a level no less stringent than the maximum achievable control technology emission limitation for new sources.

For purposes of this subsection, "reconstruction" is defined as the replacement of components at an existing process or production unit that in and of itself emits or has that potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP, whenever:

- a. The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable process or production unit; and

² See the Technical Support Document for an explanation of the exclusions.

- b. It is technically and economically feasible for the reconstructed major source to meet the applicable maximum achievable control technology emission limitation for new sources established under 40 CFR Part 63, Subpart B.
- M. Permit Re-opening [**Mandated by** 40 CFR §§70.6(a)(6)(iii), 70.7(g), 70.7(g)] (Code §3-1-087.)
 - 1. This permit shall be reopened if:
 - a. Additional applicable requirements under the Clean Air Act (1990) become applicable to this source, and on that date, this permit has a remaining term of three or more years. Provided, that no such reopening under this subparagraph is required if the effective date of the newly applicable requirement is later than the date on which this permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to Code §3-1-089.C.
 - b. The Control Officer determines that it contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of it;
 - c. The Control Officer determines that it needs to be revised or revoked to assure compliance with the applicable requirements; or
 - d. The EPA Administrator finds that cause exists to terminate, modify, or revoke and reissue this permit.
 - 2. If this permit must be reopened or revised, the District will notify the permittee in accord with Code §3-1-087.A.3.
- N. Record Retention [**Mandated by** 40 CFR §70.6(a)(3)(ii)(B)] (Code §3-1-083.A.2.b)

Permittee shall retain for a period of five (5) years all documents required under this permit, including reports, monitoring data, support information, calibration and maintenance records, and all original recordings or physical records of required continuous monitoring instrumentation.
- O. Scope of License Conferred [**Mandated by** 40 CFR §70.6(a)(6)(iv)] (Code §3-1-081.)

This permit does not convey any property rights of any sort, or any exclusive privilege.
- P. Excess Emission Reports; Emergency Provision [**Mandated by 40 CFR §70.6(g)**] (Code §3-1-081.E, Code §8-1-030)
 - 1. To the extent Permittee may wish to offer a showing in mitigation of any potential penalty, underlying upset events resulting in excess emissions shall reported as follows:
 - a. The permittee shall report to the Control Officer any emissions in excess of the limits established by this permit. Such report shall be in two parts:
 - i. Notifications by telephone or facsimile within 24 hours or the next business day, whichever is later, of the time when the owner or operator first learned of the occurrence of excess emissions, including all available information required under subparagraph b. below.
 - ii. Detailed written notification within 3 working days of the initial occurrence containing the information required under subparagraph b. below.
 - b. The excess emissions report shall contain the following information:
 - i. The identity of each stack or other emission point where the excess emissions occurred.

- ii. The magnitude of the excess emissions expressed in the units of the applicable limitation.
 - iii. The time and duration or expected duration of the excess emissions.
 - iv. The identity of the equipment from which the excess emissions occurred.
 - v. The nature and cause of such emissions.
 - vi. If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions.
 - vii. The steps that were or are being taken to limit the excess emissions. To the extent this permit defines procedures governing operations during periods of start-up or malfunction, the report shall contain a list of steps taken to comply with this permit.
 - viii. To the extent excess emissions are continuous or recurring, the initial notification shall include an estimate of the time the excess emissions will continue. Continued excess emissions beyond the estimated date will require an additional notification.
2. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
3. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of the following subparagraph are met.
4. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During the period of emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - d. The permittee submitted notice of the emergency to the Control Officer by certified mail or hand delivery within 2 working days of the time when emissions limitations were exceeded due to emergency. The notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

10. Additional provisions applicable to Title V Sources (Code §3-1-081.B.2)

Subject to the following specific exclusions, all terms and conditions of this permit are enforceable by the Administrator and citizens under the Clean Air Act. The exclusions include:

- A. Section 1. Introduction

B. Section 9.F Posting of Permit

~~C. Section 12 Emission Inventory Table~~11. **Equipment** [*Mandated by* 40 CFR §70.6(c)(3)(ii)]

a. Equipment for which emissions are allowed by this permit are as follows:

| ID | NAME | MANUFACTURER | MODEL | YEAR | SIZE |
|----------------|--|---------------------------------|---------------------------|-----------------|-----------------------|
| 004 | Seed Receiving Hopper | NA-Home built | NA | 1987 | 6 TONS/HR |
| 005 | Elevator | Universal | Model D | NA | NA |
| 006 | Rotary Dryer | LT Kincer | NA | 1990 | 6 tons/hr |
| 007 | Elevator | Universal | Model D | NA | NA |
| 008 | Surge Bin | NA-Home built | NA | NA | NA |
| 009 | Scale and Charger | LT Kincer | NA | 1990 | 6 tons/hr |
| 010 | Delinter (Delinting Drum) | LT Kincer | NA | 1990 | 6 tons/hr |
| 011 | Pit Hopper | NA-Home built | NA | NA | NA |
| 012 | Elevator | Universal | Model D | NA | NA |
| 013 | Buffing Reels (#1-4) | LT Kincer | NA | 1990 | 6 tons/hr |
| 014 | Elevator | Universal | Model D | NA | NA |
| 015 | Hot Air Burner | NA | NA | NA | 2.5 mmbtu/hr |
| 016AB | Rotary Dryer Cyclones - 2ea | Kimball-Bushard | 1D-3D | NA | 42" |
| 017 | Surge Bin Cyclone | Kimball-Bushard | 1D-3D | NA | 52" |
| 018AB | Buffing Reel Cyclones - 2ea | Kimball-Bushard | 1D-3D | NA | 42" |
| 019AB | Buffing Reel Baghouse - 2ea | Kimball-Bushard | 96AVS72 | | 72-bag |
| 019 | Buffing Reel Baghouse | Kimball-Bushard | 96AUS75 | | NA |
| 020 | Lint Tank | NA | NA | NA | NA |
| 021AB C | Gravity Table Cyclones - 3ea | Kimball-Bushard | 1D-3D | NA | 42" |
| 022 | 4-Valve Bag Packer Hot Water Soak Box Cyclone | Kimball-Bushard | 2D-2D | NA | 38" |
| 023AB CD | Treated Hot Water Seed Dryer Cyclones - 4ea | Kimball-Bushard | 2D-2D | NA | 38" |
| 024 | Chemical Mixing Tank | NA | NA | NA | NA |
| 025AB | Clipper Cleaner Cyclone - 2ea | Kimball-Bushard | 1D-3D | NA | 42" |
| 026 | Valve Bag Packer | Taylor Products Inc. | AFSR-C-TE-3938 | 1990 | 20 tons/hr |
| 027 | Bagging Bin | NA-Home built | NA | NA | NA |
| 028 | Elevator | Universal | Model D | NA | NA |
| 029 | Vibro Conveyor | Louis M. Carter (LMC) | NA | NA | NA |
| 030AB | Treated Seed Dryer - 2ea | Gustafson | 12X48 HX DM 200793 | 1994 | 6 tons/hr each |

| | | | | | |
|-------|--|------------------------------------|-------------------------------------|-----------------------|-----------------------------|
| 031 | Seed Treater Box Dumper | Gustafson NA-Home Built | 12X48 HX DM 200593 NA | 1994 NA | 20 tons/hr NA |
| 032 | Elevator | Universal | Model D | NA | NA |
| 033 | Holding Bin | NA-Home built | NA | NA | NA |
| 034 | Elevator | Universal | Model D | NA | NA |
| 035 | Vibro Conveyor | Louis M. Carter (LMC) | NA | NA | NA |
| 036 | Gravity Table | Louis M. Carter (LMC) | 641-9320 | 1991 | 12 tons/hr |
| 037 | Surge Bin | NA-Home built | NA | NA | NA |
| 039 | Elevator | Universal | Model D | NA | NA |
| 040 | Clipper Cleaner | Bluffton Agri Industrial | CP0010-12 A4225 | 1990 | 12 tons/hr |
| 041 | Cull Seed Tank | NA | NA | NA | NA |
| 042 | Delinter/Pit Hopper Cyclone | NA | 1D-3D | 1999 | 38" |
| 043 | Hot Air Burner | NA | NA | NA | 2.6 mmbtu/hr |
| 044 | Weigh Belt cyclone Hot Air Burner | NA | 1D-3D | 1999 | 38" 2.6 mmbtu/hr |
| 045 | Surge Tank Hot Water Soak System | NA | NA | NA | NA |
| 046 | Weigh Belt Elevator | NA | NA | NA | NA |
| 047 | Holding Bin | NA-Home Built | NA | NA | NA |
| 048 | Box Filler | NA | NA | NA | NA |
| 100A | 1 st stage Gin Line Dryer | Samuel Jackson | HG-4-1404 Sidekick | 2008 | 4 MMBtu/hr |
| 100 B | 2 nd stage Gin Line Dryer | Samuel Jackson | HG-4-1404 Sidekick | 2008 | 4 MMBtu/hr |
| 101 | Module Feeder/Suction Tube | Cherokee | NA | 2008 | NA |
| 102 | Incline Cleaner | NA | NA | NA | 1920 lb/hr |
| 104A | Gin Line Champ Cleaners | NA | NA | NA | 1920 lb/hr |
| 104B | Moss Lint Cleaner | NA | NA | NA | 1920 lb/hr |
| 104C | Battery Condenser | NA | NA | NA | 1920 lb/hr |
| 105 | Overflow Separator | NA | NA | NA | NA |
| 106AB | Module Feeder/Suction Tube Cyclones (2ea) | Kimball-Bushard | 1D-3D | NA | 44" |
| 106 C | Overflow Separator Cyclones (1 ea) | Kimball-Bushard | 1D-3D | NA | 44" |
| 107AB | Lint Cleaner Cyclones (2ea) | Kimball-Bushard | 1D-3D | NA | 38" |
| 108AB | Battery Condenser Cyclones (2ea) | Kimball-Bushard | 1D-3D | NA | 38" |
| 109AB | 1 st Stage gin line dryer/cleaner cyclones (2 ea) | Kimball-Bushard | 1D-3D | NA | 38" |
| 110AB | 2nd Stage gin line dryer/cleaner cyclones (2 ea) | Kimball-Bushard | 1D-3D | NA | 38" |

| | | | | | |
|----------------|-----------------------------------|----------------------------|------------------|---------------|----------------|
| 120 | Delinter Plant Loading Hopper | NA | NA | NA | NA |
| 122AB | Delinter Plant Drum (2 each) | L.T. Kincer | | 1997 | 4000 lb/hr |
| 124 | Clipper Cleaner | Clipper Manufacturing | X2948D | NA | 4000 lb/hr |
| 125 | Gravity Table | LMC Manufacturing | 541-8635 | NA | 4000 lb/hr |
| 126 | Bag Packer Box Filling | NA | NA | NA | NA |
| 127 | Dryer A Cyclone | Kimball-Bushard | 1D-3D | NA | 46" |
| 128 | Dryer B Cyclone | Kimball-Bushard | 1D-3D | NA | 46" |
| 129 | Clipper/Cleaner Cyclone | Kimball-Bushard | 1D-3D | NA | 52" |
| 130 | Gravity Table Cyclone | Kimball-Bushard | 1D-3D | NA | 48" |
| 131 | Bagger Cyclone | Kimball-Bushard | 2D-2D | NA | 22" |
| 150 | Emergency Generator | Cummins | DFEG 60 Hz | 2008 | 350 kW |
| 200 | Infeed Hopper | NA-Home Built | NA | NA | NA |
| 201 | Slurry Tank | NA-Home Built | NA | NA | NA |
| 202 | Treating Drum | DEMCO | BEM-18P-SW-X1 | NA | NA |
| 203 | Dryer Drum | NA | NA | NA | NA |
| 204 | Vibro Conveyor | Louis M Carter (LMC) | NA | NA | NA |
| 205 | Packet Elevator | Universal | Model D | NA | NA |
| 206 | Treated Seed Bin | NA-Home Built | NA | NA | NA |
| 207 | Valve Bag Packer | Taylor Products, Inc | AFSR-C-TE 3938 | 1990 | 1 ton/hr |
| 208 | Treating and Packaging Baghouse | CAMCORP, Inc | 12TR10X156 | 2006 | 156-bag |

b. Insignificant Activities:

Any activity that is not otherwise subject to any applicable requirement and which meets the following requirements or belongs to one of the following categories:

- Electric hot water heaters for the hot water baths in the main delinting plant and Foundation Delinter;
- Seed drying, distribution and storage for the Foundation delinting hot water soak system;
- Electric heater to supply dry, heated air to the treatment drying drum;
- Fugitive HCL losses from the storage trailer, truck/trailer loading and unloading, and piping distribution;
- Fuzzy cotton seed storage bays;
- Portable bagging stations located inside the treatment and packing building to bag small quantities or low volume of treated product;
- All vehicular traffic on paved/unpaved plant roads;
- Seed treatment chemical storage, loading and unloading by truck;
- Normal landscaping, building maintenance or janitorial activities;
- Gasoline storage tanks with a capacity of 500 gallons or less;
- Diesel and fuel oil storage tanks with a capacity of 40,000 gallons or less;
- Batch mixers with rated capacity of 5 cubic feet or less;

- Hand-held or manually operated equipment used for aerosol can spray painting, buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding or turning of ceramic art work, precision parts, leather, metals, fiber board, masonry, carbon, glass or wood, but not including sand blasting;
- Powder coating;
- Internal combustion engine driven compressors, IC engine driven electrical generator sets and IC driven water pumps of less than 325 horsepower, used only for emergency replacement or standby service and whose annual operating hours never exceed 72;
- Lab equipment used exclusively for chemical and physical analyses;
- Any other activity which accounts for less than 1% of the source's total existing emissions of conventional air pollutants or less than 200 pounds per year of regulated pollutants, whichever is less.

12. Emission Inventory Table

| EMISSION POINTS | CONTAMINANTS (TPY) | | | | | | |
|-------------------------|--------------------|------------|-------------|------------|-------------|-------------|-------------|
| | PM-10 | PM-2.5 | NOX | CO | VOC | SO2 | HCL |
| Delinting | 3.75 | 3.00 | | | | | 10.9 |
| Dryers | 0.02 | 0.02 | 0.60 | 0.50 | 0.03 | 0.004 | |
| Mixing Tank/Treater | 1.93 | 1.55 | | | 0.53 | | |
| Foundation Gin/Delinter | 0.34 | 0.27 | | | | | |
| Emergency Generator | 0.26 | 0.26 | 3.72 | 0.8 | 0.3 | 0.24 | |
| TOTAL | 6.3 | 5.1 | 4.32 | 1.3 | 0.86 | 0.24 | 10.9 |

Appendix A

Semi-annual Report

Permit ~~V20625-A03~~V20645.000

Abstract

This constitutes a semi-annual report, documenting emissions and use of emission-generating materials during the subject reporting period.

Facility - Monsanto **AG Products Company**
15790 S. Highway 87, Eloy, AZ

Reporting Period - January to June __ or July to December __ Year ____

Material report

Plant operation - _____ hours

HCl usage - _____ lb HCl/ton seed

Fuzzy Seed Processed - _____ tons.

Cotton Seed Produced - _____ tons.

Natural Gas Purchased - _____ therms. (From bill)

Volatile Organic Compound Emissions - _____ pounds.

Were the allowable operation hours as determined by the requirements listed in §5.C.1 exceeded during this period? Yes _ No _

Fuel/Generator report

Sulfur in Diesel - _____ percent

Were the verifications for diesel fuel from the supplier maintained as required in section §6.A.6 of this permit?
Yes _____ No _____

Were the standards in §5.G.1 exceeded during the reporting period? YES _____ NO _____

Operation of Emergency Generator during the reporting period - _____ hours

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, that the statements and information in this report are true, accurate and complete.

Signed _____

Printed Name _____

Title _____

Date _____

Mail to - Pinal County Air Quality Control District
PO Box 987
Florence, AZ 85132