



**TECHNICAL REVIEW AND EVALUATION  
OF APPLICATION FOR  
AIR QUALITY PERMIT NO. 63108**

**MAID RITE FEEDS**

**I. INTRODUCTION**

This renewal Class II Air Quality Control Permit is issued to Willcox Feeds Inc. dba Maid Rite Feeds for the operation of an animal feed manufacturing facility located in Willcox, Arizona. This permit renews and supersedes Operating Permit No. 41631.

**A. Company Information**

1. Facility Name: Willcox Feeds Inc. dba Maid Rite Feeds
2. Facility Location: 225 S. Railroad Ave.  
Willcox, Cochise County, AZ 85643
3. Mailing Address: P.O. Box 220  
Willcox, AZ 85643

**B. Attainment Classification**

The facility is located in an area that is attainment for all pollutants.

**II. PROCESS DESCRIPTION**

The facility consists of the following processing operations:

**A. Bulk Grain Receiving and Distribution**

The bulk grain receiving system receives whole grains, soft feeds (soybean meal, wheat middling's, whole cotton seed, etc.), and minerals (salt, calcium, di-phosphate, etc.) by rail. The railcars are unloaded using a portable unloader/screw conveyor. The material is loaded into trucks or trailers and transported to one of the three unloading pits onsite.

**B. Mineral Supplements Manufacturing**

Maid Rite blends custom mineral supplements for use in dairies and feedyards. Typical ingredients include ground corn, ground grain screenings, bloodmeal, dried distillers grain, barley, split hull pellets, extruded soymeal, and grain screening pellets, salt, limestone (calcium carbonate), sodium bicarbonate, dicalcium phosphate, magnesium oxide, prilled urea and potassium chloride. Bulk material is received by trailer from Maid Rite's rail unloading or by truck, unloaded into the receiving pit and is conveyed by an enclosed screw conveyor to a bucket elevator (Commodity Receiving Leg). The leg discharges through steel spouting into one of twenty bulk storage bins. The ingredients are weighed, and blended in a mixer. The batch is then discharged to either a bagger or a conveyed to the Supplement Product Leg.

**C. Bulk Grain Storage and Shipping**

The bulk grain system is used to provide long term storage of grain as well as to load railcars and/or trucks with grain commodities grown locally for shipment. The material is unloaded into the receiving pit and is conveyed by an enclosed screw conveyor to a bucket elevator. The leg discharges into one of six bulk storage bins. Four bins have a capacity of 50,000 tons and provide long term bulk storage. The 50 ton and the 20 ton bins are used as day or working bins.

**D. Grain Processing Operations**

The grain processing system provides two functions. It provides bulk long term storage of grain for internal use or in distribution locally. The second function process grain using the following processes: grinding, rolling, cleaning and dehulling. This product is either bagged or shipped by truck.

**III. EMISSIONS**

**A. Facility-wide Emissions**

The facility-wide emissions are calculated for the following operating limitations:

Rail unloading: 32,850 tons per year (tpy)

Truck unloading: 32,850 tpy

Mineral supplement blending: 72,000 tpy

Bulk Grain system: 30,000 tpy

**Grain processing system**

Bulk storage and loading: 20,500 tpy

Grain grinding: 3,500 tpy,

Grain rolling: 2,000 tpy,

Cleaning: 2,000 tpy

Dehulling: 500 tpy.

**Table 1: Potential Emissions**

<b>Pollutant</b>	<b>Emissions (tons per year)</b>
<b>PM</b>	13.14
<b>PM<sub>10</sub></b>	4.49
<b>PM<sub>2.5</sub></b>	0.35
<b>VOC</b>	0.10

**B. Minor NSR Applicability**

There are no changes to the facility since the issuance of Permit No. 41631, and thus no change in the facility emissions. Therefore, this permit is not subject to minor NSR requirements.

**IV. APPLICABLE REGULATIONS**

Table 2 displays the applicable requirements along with a explanation of why the requirement is applicable.

**Table 2: Verification of Applicable Regulations**

<b>Unit</b>	<b>Control Device</b>	<b>Rule</b>	<b>Verification</b>
Animal Feed Manufacturing Facility	N/A	A.A.C. R18-2-730  40 CFR 63 Subpart DDDDDDD	Animal Feed Manufacturing Facility is subject to A.A.C. R18-2-730, Standards of Performance for Unclassified Sources  National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63 Subpart DDDDDDD apply to animal feed manufactures that use material containing chromium or manganese.
Fugitive dust sources	Water Trucks Dust Suppressants	A.A.C. R18-2 Article 6 A.A.C. R18-2-702	These standards are applicable to all fugitive dust sources at the facility.
Abrasive Blasting	Wet blasting; Dust collecting equipment; Other approved methods	A.A.C. R-18-2-702 A.A.C. R-18-2-726	These standards are applicable to any abrasive blasting operation.
Spray Painting	Enclosures	A.A.C. R18-2-702 A.A.C. R-18-2-727	This standard is applicable to any spray painting operation.
Demolition/renovation operations	N/A	A.A.C. R18-2-1101.A.8	This standard is applicable to any asbestos related demolition or renovation operations.
Mobile sources	None	A.A.C. R18-2-801	These are applicable to off-road mobile sources, which either move while emitting air pollutants or are frequently moved during the course of their utilization.

**V. PREVIOUS PERMIT CONDITIONS**

Permit No. 41631 was issued on April 27, 2011, for operation of this facility. Table 3 below illustrates if a section in Permit No. 41631 was revised, kept, or deleted.

**Table 3: Permit No. 41631**

Section No.	Determination			Comments
	Revised	Keep	Delete	
Attachment "A"	X			General Provisions - Revised to represent most recent template language.
Attachment "B"				
Section I			X	This requirement for installation permit is no longer necessary.
Condition II.A.1	X			This requirement for opacity monitoring is revised to include Alternative Method-082 (Digital Camera Operating Technique).
Condition II.A.2		X		The requirement to operate and maintain all equipment according to manufacturer's specifications is retained.
Condition II.A.3		X		The requirement to maintain logs of all emission related maintenance activities performed on the emissions units is retained.
Conditions II.B.1 to 3		X		The general recordkeeping and compliance certification requirements are retained.
Section III		X		The requirements for the animal feed manufacturing facility are retained.
Section IV		X		The requirements for fugitive dust sources are retained.
Section V		X		The requirements for mobile sources are retained.
Section VI		X		The requirements for other periodic activities are retained.

## VI. MONITORING REQUIREMENTS

### A. Animal Feed Manufacturing Facility

1. The Permittee is required to maintain records of the amount of material processed monthly by each operation. At the end of each month, the Permittee must calculate and record rolling 12- month total of material processed by each operation.
2. A certified EPA Reference Method 9 observer is required conduct a monthly survey of visible emissions emanating from the applicable emission sources. If the opacity of the emissions observed appears to exceed the standard, the observer must conduct a certified EPA Reference Method 9 observation. If the observation shows a Method 9 opacity reading in excess of the standard, the Permittee is required to initiate appropriate corrective action to reduce the opacity below the standard. The Permittee is required keep records of the initial survey, any EPA Reference Method 9 observations performed and any corrective

action performed.

3. In all areas of the facility where materials containing chromium or manganese are stored, used, or handled, the Permittee is required to perform housekeeping measures to minimize excess dust.
4. The Permittee must store any raw materials containing chromium or manganese in closed containers.
5. The Permittee must cover the mixer where materials containing chromium or manganese are added at all times when mixing is occurring, except when the materials are being added to the mixer.
6. For the bulk loading process where materials containing chromium or manganese are loaded into trucks or railcars, the Permittee is required to lessen fugitive emissions by reducing the distance between the loadout spout and the vehicle being loaded. The Permittee is required to perform monthly inspections for the devices used to minimize emissions.

**B. Fugitive Dust**

1. The Permittee is required to keep record of the dates and types of dust control measures employed.
2. The Permittee is required to show compliance with the opacity standards by having a Method 9 certified observer perform monthly survey of visible emission from fugitive dust sources. The observer is required to conduct a 6-minute Method 9 observation if the results of the initial survey appear on an instantaneous basis to exceed the applicable standard.
3. The Permittee is required to keep records of the name of the observer, the time, date, and location of the observation and the results of all surveys and observations.
4. The Permittee is required to keep records of any corrective action taken to lower the opacity of any emission point and any excess emission reports.

**C. Periodic Activities**

1. The Permittee is required to record the date, duration and pollution control measures of any abrasive blasting project.
2. The Permittee is required to record the date, duration, quantity of paint used, any applicable MSDS, and pollution control measures of any spray painting project.
3. The Permittee is required to maintain records of all asbestos related demolition or renovation projects. The required records include the "NESHAP Notification for Renovation and Demolition Activities" form and all supporting documents.

**D. Mobile Sources**

The Permittee is required to keep records of all emission related maintenance performed on the mobile sources.

**VII. COMPLIANCE HISTORY**

There were 6 facility inspections, including review of reports, since the issuance of Permit No. 41631. No cases were generated as result of these inspections.

**VIII. AMBIENT AIR IMPACT ANALYSIS**

Maid Rite Feeds had performed an air quality impact analysis for PM<sub>10</sub> using AERMOD at the time of Permit No. 41631. The maximum modeled concentration of the pollutant was within the National Ambient Air Quality Standards (NAAQS). Since the facility had no changes in the emission sources, no modeling analysis was required for this permit.

**IX. LIST OF ABBREVIATIONS**

A.A.C.	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
AQD	Air Quality Division
CO	Carbon Monoxide
HAP	Hazardous Air Pollutant
hr	Hour
NAAQS	National Ambient Air Quality Standard
NO <sub>x</sub>	Nitrogen Oxide
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter Nominally less than 10 Micrometers
PTE	Potential-to-Emit
SO <sub>2</sub>	Sulfur Dioxide
TPY	Tons per Year
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound