



**TECHNICAL REVIEW AND EVALUATION  
OF APPLICATION FOR  
AIR QUALITY PERMIT No. 75791**

**I. INTRODUCTION**

This synthetic minor Class II operating permit is for the operation of a cotton gin owned by Yuco Gin Inc. II. The facility is located at 7474 E. Highway 95 in Yuma. Permit #75791 renews and supersedes Permit #60368.

**A. Company Information**

Facility Name: Baker Gin

Mailing Address: 7474 E. Hwy 95 Yuma, AZ 85365

Facility Location: 7474 E. Hwy 95 Yuma, AZ 85365

**B. Attainment Classification**

Yuco Gin Inc. II, Baker Gin is located in an area which is non-attainment for particulate matter less than 10 micrometers (PM<sub>10</sub>) and attainment for all other criteria pollutants.

**II. PROCESS DESCRIPTION**

- A.** Raw cotton arrives at the ginning facility in a 16,000 to 20,000 module block which yields approximately 13 modules. The modules are assigned a number and is stored on the gin yard until ginning is scheduled. The large module is then taken by truck and emptied at the suction slab where it is fed into the incoming separator. The separator uses gravity from an air flow to remove heavier objects, such as green bolls, rocks, etc, to fall into a 55 gallon trash drum.

The cotton is then fed into the tower dryers and the stick cleaners where additional larger sized objects are removed. After the stick cleaner, the cotton moves to another tower dryer to further dry the cotton. The dried cotton is then fed through a series of cleaners to remove additional debris. The cotton then flows into the gin stands through the distributor conveyor, which removes the seed and other debris from the cotton lint. From the gin, the cotton lint is fed into another lint cleaner, which uses saws to remove smaller trash particles. The particles moved to the mote cleaner and mote press.

From the lint cleaner, the cotton lint moves through underground pipes to the battery condenser and into a lint slide which feeds the press. The press compacts lint into a 500 lb bale. Bales are wire tied and are then moved to a yard outside.

There are three heaters used at the facility, which have a combined heat input of 12 MMBtu/hr.

**B. Control Devices**

The particulate matter emissions from the gin stands and lint cleaners are controlled using high-efficiency cyclones. Water trucks and water sprinklers are used as needed to keep the yard area and haul road/driveway particulate matter emissions to a minimum.

### III. LEARNING SITE EVALUATION

In accordance with ADEQ's Environmental Permits and Approvals near Learning Sites Policy, the Department is required to conduct an evaluation to determine if any nearby learning sites would be adversely impacted by the facility. Learning sites consist of all existing public schools, charter schools and private schools the K-12 level, and all planned sites for schools approved by the Arizona School Facilities Board. The learning sites policy was established to ensure that the protection of children at learning sites is considered before a permit approval is issued by ADEQ.

This permit renewal will not result in any increase in emissions as there are no changes to any equipment. Hence the facility is exempt from the learning sites evaluations.

### IV. COMPLIANCE HISTORY

Since the issuance of Permit No 60368 on October 21, 2014, the facility has been subject to two inspections and five report reviews. No air quality cases or violations were issued during the previous permit term.

### V. EMISSIONS

The facility has a potential-to-emit (PTE) more than the major source thresholds of particulate matter less than 10 micrometers (PM<sub>10</sub>). The facility has taken a voluntary limit on the amount of bales of cotton it will process per hour. These limits are 53,750 bales per year for Upland cotton and 21,500 bales per year of Pima cotton. The facility's controlled PTE is provided in Table-1 below:

**Table 1: Potential to Emit**

<b>Pollutant</b>	<b>Emissions (tons per year)</b>
PM <sub>10</sub>	90.9

### VI. MINOR NSR REVIEW

Since there are no changes to the process or the equipment during this permit renewal, minor NSR is not triggered.

### VII. APPLICABLE REGULATIONS

Table 2 identifies applicable regulations and verification as to why that standard applies.

**Table 2: Applicable Regulations**

Unit & year	Control Device	Rule	Discussion
Cotton gin process equipment	Cyclones	A.A.C. R18-2-729	This standard is applicable to all cotton ginning equipment.  The cotton gin also uses 3 heaters rated at 3, 3, and 6 MMBtu/hr. The heaters are direct fired and are considered an integral part of the ginning process. Therefore these are covered under the A.A.C. R18-2-729.
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.

**VIII. PREVIOUS PERMIT AND CONDITIONS****A. Previous Permit Conditions**

Table 3 compares the substantive conditions in Permit No. 60368 with the conditions in this renewal permit and cross-references the previous permit conditions to their location in the renewal permit

**Table 3: Previous Permit Conditions**

Section No.	Determination			Comments
	Revised	Keep	Delete	
Att. "A"	X			General Provisions: Revised to represent the most recent template language
Att. "B" Section I	X			Facility wide requirements: Revised to represent the most recent template language
Att "B" Section IV			X	Mobile Source Requirements removed
Att. "C"	X			Equipment List:

Section No.	Determination			Comments
	Revised	Keep	Delete	
				Revised to reflect the most recent equipment operating at the facility and to include equipment information provided.

**IX. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS**

**A. Facility Wide**

1. Along with the semiannual compliance certification, the Permittee is required to submit reports of all recordkeeping, monitoring and maintenance required by the permit.
2. The Permittee is required to maintain, on-site, records of the manufacturer's specifications for all equipment listed in the permit.
3. The Permittee is required to maintain a record of the daily number of bales processed and calculate the monthly total and rolling 12-month totals of the number of bales of Upland and Pima Cotton processed.
4. All records shall be retained for a period of five years from the date of generation.

**B. Cotton Gin Requirements**

1. The Permittee is required to show compliance with the opacity standards by having a Method 9 certified observer perform monthly surveys of visible emissions from the stacks of all equipment.

**C. 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 a 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.

**D. 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.

**X. LIST OF ABBREVIATIONS**

A.A.C.	.....	Arizona Administrative Code
hr	.....	hour
MMBtu	.....	Million British Thermal units
PM <sub>10</sub>	.....	Particulate Matter Nominally less than 10 Micrometers
tpy	.....	tons per year