



**TECHNICAL REVIEW AND EVALUATION
OF APPLICATION FOR
AIR QUALITY PERMIT No. 78010**

I. INTRODUCTION

Glenbar Gin operates for about 3 months every year to sell cotton to textile mills. The facility has the potential to emit (PTE), without the controls or operating limitations specified in this permit, criteria pollutant emissions in excess of major source thresholds and thus, has taken a limit of 35,000 bales of cotton per year to stay below such thresholds. Therefore, a Class II Synthetic Minor Permit is required under Arizona Administrative Code (A.A.C.) R18-2-302.B.2. This Class II Synthetic Minor Permit No. 78010, authorizes Glenbar Investment Group Inc., for the continued operation of their cotton ginning facility, which is located on 9845 W. Highway 70, Pima, Graham County, AZ 85543. Permit No. 78010 renews and supersedes Permit No. 60625.

A. Company Information

Facility Name: Glenbar Gin
Mailing Address: P.O. Drawer 459
Pima, AZ 85543
Facility Location: 9845 W. Highway 70
Pima, Graham County, AZ 85543

B. Attainment Classification

The facility is located in an attainment area for criteria pollutants.

II. PROCESS DESCRIPTION

A. Cotton Gin Process

Glenbar Gin has the capacity to process 20 bales of cotton per hour. Cotton is brought to the facility in modules and is fed through a module feeder. The cotton is then conveyed to an incoming separator for breaking up the clumps. It is subjected to three basic conditioning processes – drying, cleaning and extracting. After going through this conditioning system twice, the cotton is distributed to the ginning and lint handling system. The lint is sent to the lint cleaners where the fiber is combed to remove motes. Motes are baled and sent to storage while the cotton fiber is pulled. Moisture is added before the cotton goes to a press box to be pressed, bagged and shipped to a warehouse.

B. Air Pollution Control Devices

Particulate matter is the primary air pollutant emitted from cotton ginning. It is composed of lint, dust, fine leaves and other trash. The facility has a total of 24 cyclones installed throughout its cotton ginning process. These control devices remove trash and dust in the

cotton gin process as mentioned above. The trash and dust from each step enters the top of each cyclone and then spirals downward. Centrifugal force moves the trash and dust to the bottom of the cyclone. The cyclones reduce the cotton gin's particulate matter emissions.

III. COMPLIANCE HISTORY

Since the issuance of Permit No. 60625, no excess emissions have been reported. The facility had one routine inspection on April 14, 2015. In addition, the Permittee submitted one compliance certification through myDEQ on May 20, 2019.

IV. EMISSIONS

The facility has the potential to emit (PTE) the following criteria pollutant emissions as shown in the table below:

Table 1: Potential to Emit (PTE)

Pollutant	Emissions (tons per year)
NO _x	0.25
PM ₁₀	51.71
PM _{2.5}	51.71
CO	0.21
SO ₂	0.0015
VOC	0.013
Pb	-
HAPs	-

V. APPLICABLE REGULATIONS

Table 2 identifies applicable regulations:

Table 2: Applicable Regulations

Unit	Control Device	Rule	Discussion
Cotton Gin	Cyclones	A.A.C. R18-2-729	The cotton gin equipment at this facility is subject to A.A.C. R18-2-729 for Cotton Gins.
Tower Dryers & Humidaire Units	N/A	A.A.C. R18-2-730	The tower dryers and humidaire units at this facility are subject to A.A.C. R18-2-730 for Unclassified Sources.
Fugitive Dust	Water Trucks	A.A.C. R18-2-Article 6	The facility is subject to A.A.C. R18-2-Article 6 for any non-point source of fugitive dust.

Unit	Control Device	Rule	Discussion
Abrasive Blasting	Wet Blasting, Dust Collecting Equipment, Other Approved Methods	A.A.C. R-18-2-702, A.A.C. R-18-2-726	The facility is subject to A.A.C. R-18-2-702 and A.A.C. R-18-2-726 for any abrasive blasting operation.
Spray Painting	Enclosures	A.A.C. R18-2-702 A.A.C. R-18-2-727	The facility is subject to A.A.C. R-18-2-702 and A.A.C. R-18-2-727 for any spray painting operations.
Demolition/Renovation	N/A	A.A.C. R18-2-1101.A.12	The facility is subject to A.A.C. R18-2-1101.A.12 for any asbestos related demolition or renovation operations.

VI. PREVIOUS PERMIT AND CONDITIONS

A. Previous Permit Conditions

Table 3 compares the sections in Permit No. 60625 with the conditions in this renewal permit:

Table 3: Previous Permit Conditions

	Revised	Deleted	Comments
Attachment A, All Sections	X		Revised to represent the most recent template language.
Attachment B, Section I	X		Facility-Wide Requirements – Revised to include more details on opacity in regards to instantaneous surveys and six-minute observations.
Attachment B, Section III	X		Tower Dryers and Humidaire Units – Revised to make it clear that both the tower dryers and humidaire units are subject to A.A.C. R18-2-730 for Unclassified Sources. The title of this section was also edited.
Attachment B, Section V		X	Mobile Source Requirements – Deleted to represent the most recent template language.
Attachment C, Equipment List	X		Revised to include new and old equipment pieces.

VII. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

A. Facility-Wide Requirements

1. Along with the annual 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 or an Operation and Maintenance Plan for all equipment listed in the permit.

B. Cotton Gin Requirements

1. The Permittee is required to have a Certified Method 9 observer conduct a survey of visible emissions emanating from the cotton gin equipment every two (2) weeks.
2. The Permittee is required to record the emissions being observed, date, time and the results of all surveys made, as well as the name of the observer. If the opacity of the emissions observed appears to exceed the standard, then the observer is required to conduct a Certified EPA Reference Method 9 observation and record the results. In the event that opacity exceeds the limit, the Permittee will take and record corrective action to bring the opacity below the standard, record the results of the observation, and report it as an excess emission.

C. Tower Dryers and Humidaire Units Requirements

1. The Permittee is required to have a Certified Method 9 observer conduct a survey of visible emissions emanating from the tower dryers and humidaire units every two (2) weeks.
2. The Permittee is required to record the emissions being observed, date, time and the results of all surveys made, as well as the name of the observer. If the opacity of the emissions observed appears to exceed the standard, then the observer is required to conduct a Certified EPA Reference Method 9 observation and record the results. In the event that opacity exceeds the limit, the Permittee will take and record corrective action to bring the opacity below the standard, record the results of the observation, and report it as an excess emission.

D. Fugitive Dust Requirements

1. The Permittee is required to keep records of the dates on which dust control measures were employed.
2. The Permittee is required to have a Certified Method 9 observer conduct a survey of visible emissions emanating from any non-point source of fugitive dust in the facility every two (2) weeks.
3. The Permittee is required to record the emissions being observed, date, time and the results of all surveys made, as well as the name of the observer. If the opacity of the emissions observed appears to exceed the standard, then the observer is required to conduct a Certified EPA Reference Method 9 observation and record the results. In the event that opacity exceeds the limit, the Permittee will take and record corrective action to bring the opacity below the standard, record the results of the observation, and report it as an excess emission.

E. Other Periodic Activities Requirements

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, and quantity of paint used, any applicable Material Safety Data Sheets (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.

VIII. LIST OF ABBREVIATIONS

A.A.C.	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
Btu/ft ³	British Thermal Units per Cubic Foot
Btu/hr	British Thermal Units per Hour
CFR	Code of Federal Regulations
CO	Carbon Monoxide
HAP	Hazardous Air Pollutant
hp	Horsepower
lb/hr	Pound per Hour
NO _x	Nitrogen Oxides
PM	Particulate Matter
PM ₁₀	Particulate Matter Nominally less than 10 Micrometers
SO _x	Sulfur Oxides
VOC	Volatile Organic Compound