

24028

Cherokee

COMPLETE GINNING SOLUTIONS



October 19, 2016

RECEIVED

OCT 20 2016

Air Protection
Branch

State Of Georgia – D.N.R.

Ref: Letter Of Transmittal

To Whom It May Concern:

Cherokee Fabrication is building a new gin plant for South Georgia Cotton Gin LLC, located in Hazelhurst, GA. They currently have an existing cotton gin plant on site which will be decommissioned after this season. The new gin will be designed to process cotton at a rate of 80 to 90 finished lint bales per hour. They will process approximately 100,000 bales per year. We / they request the permit allow them to process up to 120,000 bales per year, as specified in the Permit-By-Rule.

Sincerely,

Greg Fiquett

RECEIVED

State of Georgia
Department of Natural Resources
Environmental Protection Division
Air Protection Branch



Atlanta Tradeport, Suite 120
1244 International Parkway
Atlanta, Georgia 30354-3906
404 388 7000

Oct 2 10 2008
Air Protection
Branch

Permit-by-Rule Application

Applic No. _____

1. PARENT COMPANY: Cotton Partners, LLC 2. FACILITY NAME: South Georgia Cotton Gin, LLC

3. FACILITY LOCATION: Street 438 Broxton Hwy.
City Hazelhurst, GA County Jeff Davis Zip 31539

4. CONTACT A Name T.M. Cartledge Title General Manager
Telephone 912-375-3921 Cell: 912-240-4661 Fax 912-375-4894

5. CONTACT B Name _____ Title _____
Telephone _____ Fax _____

6. CONTACT C Name _____ Title _____
Telephone _____ Fax _____

7. CONTACT D Name _____ Title _____
Telephone _____ Fax _____

8. MAILING ADDRESS 1 Company Name / Dept South Georgia Cotton Gin, LLC
Street / PO Box 438 Broxton Hwy.
City Hazelhurst State GA Zip 31539

9. MAILING ADDRESS 2 Company Name / Dept _____
Street / PO Box _____
City _____ State _____ Zip _____

10. MAILING ADDRESS 3 Company Name / Dept _____
Street / PO Box _____
City _____ State _____ Zip _____

11. FACILITY SIC CODE(S) 0724 12. FACILITY AIRS NUMBER: 04-13-

13. MAILING INFORMATION. In the table below, using the contact and mailing address information above, associate contacts and their mailing addresses for the correspondence types shown. Denote only one contact and address per correspondence type.

CORRESPONDENCE RELATING TO	CONTACT (A, B, C OR D)	MAILING ADDRESS (1, 2, OR 3)
Facility (mail that must reach the plant site)	A	1
Parent Company / Legal Owner (legal actions, etc.)	A	1
Permits (granted permits, permit amendments, etc.)	A	1
Permit Applications (blank forms, requests for additional information, etc.)	A	1
Surveys, Questionnaires (emission inventories, etc.)	A	1
Enforcement Actions (non-compliance letters, notices of violations, etc.)	A	1
Fees (fee manuals, fee forms, audit notices, etc.)	A	1
Monitoring (CEM certification applications, requests for monitoring/testing info)	A	1



Permit-by-Rule Application (Continued)

14. "PERMIT-BY-RULE"

	"PERMIT-BY-RULE" NO.	Permit-By-Rule Title
<input type="checkbox"/>	1	Fuel-burning equipment burning natural gas/LPG and/or distillate oil
<input type="checkbox"/>	2	Fuel-burning equipment burning natural gas/LPG and/or residual oil
<input type="checkbox"/>	3	On-Site Power Generation
<input type="checkbox"/>	4	Concrete and concrete products
<input type="checkbox"/>	5. (i) (II) I	New asphalt plants (which commenced construction or modification after June 11, 1973) permitted to burn natural gas/LPG and/or distillate oil
<input type="checkbox"/>	5. (i) (II) II	New and existing asphalt plants permitted to burn natural gas/LPG, distillate oil, and residual oil in any combination
<input type="checkbox"/>	5. (i) (II) III	New asphalt plants (which commenced construction or modification after June 11, 1973) permitted to burn natural gas/LPG and/or distillate oil only, which are located in the Atlanta ozone non-attainment area*.
<input type="checkbox"/>	5. (i) (II) IV	New and existing asphalt plants permitted to burn natural gas/LPG, distillate oil, and residual oil in any combination, which are located in the Atlanta ozone non-attainment area*.
X	6	Cotton ginning operations
<input type="checkbox"/>	7. (ii) (I)	Coating and/or gluing operations - 20,000 pounds per 12 consecutive month limit
<input type="checkbox"/>	7. (ii) (II)	Coating and/or gluing operations - 250 gallons per month limit
<input type="checkbox"/>	7. (ii) (III)	Coating and/or gluing operations - 3,000 gallons per rolling 12-month period limit
<input type="checkbox"/>	7. (ii) (IV)	Coating and/or gluing operations - tons of HAP and VOC usage limits
<input type="checkbox"/>	8	Printing Operations
<input type="checkbox"/>	9	Non-reactive mixing operations
<input type="checkbox"/>	10	Fiberglass molding and forming operations
<input type="checkbox"/>	11	Peanut / Nut shelling operations

15. DOES THE FACILITY HAVE A CURRENT AIR QUALITY PERMIT? X - YES - NO

Note: If the facility does not have a current air quality permit, contact the Stationary Source Permitting Program to determine if an SIP application needs to accompany this application.

IF YES, LIST ALL AIR QUALITY PERMITS AND AMENDMENTS TO THOSE PERMITS BELOW.

Permit Number	Effective Date	Amendment	Comments
0724-080-8926	1/10/2005		South Georgia Gin Co. - (This old plant will be replaced with new one)

16. RESPONSIBLE OFFICIAL'S SIGNATURE:

I certify, based on information and belief formed after reasonable inquiry, this facility will obtain Synthetic Minor status by complying with the requirements of the Permit-By-Rule stated above and by ensuring its potential emissions are below Title V major source thresholds.

Signature: *T.M. Cartledge*
 Name: T.M. CARTLEDGE
 Title: GENERAL MANAGER
 Date: 10/11/16

DO NOT WRITE IN THIS SPACE

Date Approved: _____

Reviewer: _____

* The Atlanta Ozone non-attainment area consists of the following counties: Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Paulding, and Rockdale.

17. ADDITIONAL COMMENTS:

State of Georgia
Department of Natural Resources
Environmental Protection Division
Air Protection Branch



Stationary Source Permitting Program
4244 International Parkway, Suite 120
Atlanta, Georgia 30354
404/363-7000
Fax: 404/363-7100

SIP AIR PERMIT APPLICATION

Date Received:	RECEIVED	EPD Use Only	Application No. <u>24028</u>
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OCT 20 2016

Air Protection Branch
FORM 1.00: GENERAL INFORMATION

1. Facility Information

Facility Name: South Georgia Cotton Gin LLC
AIRS No. (if known): 04-13-
Facility Location: Street: 438 Broxton Hwy.
City: Hazelhurst Georgia Zip: 31539 County: Jeff Davis
Is this facility a "small business" as defined in the instructions? Yes: No:

2. Facility Coordinates

Latitude: 31° 50' 60" NORTH Longitude: 82° 38' 12" WEST
UTM Coordinates: 31.850000 EAST -82.636722 NORTH ZONE 17 S

3. Facility Owner

Name of Owner: Cotton Partners LLC
Owner Address Street: 438 Broxton Hwy.
City: Hazelhurst State: GA Zip: 31539

4. Permitting Contact and Mailing Address

Contact Person: T.M. Cartledge Title: General Manager
Telephone No.: 912-375-3921 Cell: 912-240-4661 Ext. _____ Fax No.: 912-375-4894
Email Address: ceecart@yahoo.com
Mailing Address: Same as: Facility Location: Owner Address: Other:
If Other: Street Address: _____
City: _____ State: _____ Zip: _____

5. Authorized Official

Name: T.M. Cartledge Title: General Manager
Address of Official Street: 438 Broxton Hwy.
City: Hazelhurst State: GA Zip: 31539

This application is submitted in accordance with the provisions of the Georgia Rules for Air Quality Control and, to the best of my knowledge, is complete and correct.

Signature: *T.M. Cartledge* Date: 10/11/16

Estimated Start Date: ASAP

11. If confidential information is being submitted in this application, were the guidelines followed in the "Procedures for Requesting that Submitted Information be treated as Confidential"?

X No Yes

12. New Facility Emissions Summary

Criteria Pollutant	New Facility	
	Potential (tpy)	Actual (tpy)
Carbon monoxide (CO)	6.49	1.65
Nitrogen oxides (NOx)	3.86	0.98
Particulate Matter (PM) (filterable only)	42.68	29.93
PM <10 microns (PM10)	19.78	13.13
PM <2.5 microns (PM2.5)	3.79	2.10
Sulfur dioxide (SO ₂)	0.05	0.01
Volatile Organic Compounds (VOC)	0.43	0.11
Greenhouse Gases (GHGs) (in CO ₂ e)	9275.29	2352.94
Total Hazardous Air Pollutants (HAPs)		
Individual HAPs Listed Below:		

13. Existing Facility Emissions Summary

Criteria Pollutant	Current Facility		After Modification	
	Potential (tpy)	Actual (tpy)	Potential (tpy)	Actual (tpy)
Carbon monoxide (CO)				
Nitrogen oxides (NOx)				
Particulate Matter (PM) (filterable only)				
PM <10 microns (PM10)				
PM <2.5 microns (PM2.5)				
Sulfur dioxide (SO ₂)				
Volatile Organic Compounds (VOC)				
Greenhouse Gases (GHGs) (in CO ₂ e)				
Total Hazardous Air Pollutants (HAPs)				
Individual HAPs Listed Below:				

14. 4-Digit Facility Identification Code:

SIC Code: 0724 SIC Description: Cotton Ginning
 NAICS Code: 115111 NAICS Description: Cotton Ginning

15. Description of general production process and operation for which a permit is being requested. If necessary, attach additional sheets to give an adequate description. Include layout drawings, as necessary, to describe each process. References should be made to source codes used in the application.

The Cotton Gin will operate up to six months out of the year. See attachment A for description and attachment B for flow diagram.
 Note: The existing on-site gin plant will be decommissioned and the building used for storage.

16. Additional information provided in attachments as listed below:

- Attachment A - South Georgia Cotton Gin LLC Air Permit Process Description (3-pages)
- Attachment B - South Georgia Cotton Gin LLC Air Permit Flow Diagram
- Attachment C - _____
- Attachment D - _____
- Attachment E - _____
- Attachment F - _____

17. Additional Information: Unless previously submitted, include the following two items:

- X Plot plan/map of facility location or date of previous submittal: _____
- X Flow Diagram or date of previous submittal: See Attachment B

18. Other Environmental Permitting Needs:

Will this facility/modification trigger the need for environmental permits/approvals (other than air) such as Hazardous Waste Generation, Solid Waste Handling, Water withdrawal, water discharge, SWPPP, mining, landfill, etc.?

No Yes, please list below:

Per phone call from Greg Fiquett 11/17/16 HJG

19. List requested permit limits including synthetic minor (SM) limits.

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Facility Name: SOUTH GEORGIA COTTON GIN, LLC

Date of Application: 10-11-2016

FORM 2.00 – EMISSION UNIT LIST

Emission Unit ID	Name	Manufacturer and Model Number	Description
F1	TELESCOPE	SMITH 60E	TELESCOPE UNLOADING FAN
F2	FIRST STAGE A SIDE CLEANING	SMITH 80HP	#1A PULL FAN
F3	FIRST STAGE B SIDE CLEANING	SMITH 80HP	#1B PULL FAN
F4	SECOND STAGE A SIDE CLEANING	SMITH 80E	#2A PULL FAN
F5	SECOND STAGE B SIDE CLEANING	SMITH 80E	#2B PULL FAN
F6	#1 LINT CLEANING	SMITH 60C4 W/ WOOL WHEEL	#1 LINT CLEANER PULL FAN
F7	#2 LINT CLEANING	SMITH 60C4 W/ WOOL WHEEL	#2 LINT CLEANER PULL FAN
F8	#3 LINT CLEANING	SMITH 60C4 W/ WOOL WHEEL	#3 LINT CLEANER PULL FAN
F9	BATTERY CONDENSER A SIDE	SMITH 40BC	BATTERY CONDENSER PULL FAN A
F10	BATTERY CONDENSER B SIDE	SMITH 40BC	BATTERY CONDENSER PULL FAN B
F11	LINT CLEANER TRASH	SMITH 80E	LINT CLEANER TRASH FAN
F12	MOTE ROBBER	SMITH 60C4	MOTE ROBBER FAN
F13	MASTER TRASH SYSTEM	SMITH 60C4	MASTER TRASH FAN
B1A	#1A BURNER	CHEROKEE (10MMBtu)	#1A BURNER, FIRST STAGE PRE-CLEANING AND DRYING
B1B	#1B BURNER	CHEROKEE (10MMBtu)	#1B BURNER, FIRST STAGE PRE-CLEANING AND DRYING
B2A	#2A BURNER	CHEROKEE (6MMBtu)	#2A BURNER, SECOND STAGE PRE-CLEANING AND DRYING
B2B	#2B BURNER	CHEROKEE (6MMBtu)	#2B BURNER, SECOND STAGE PRE-CLEANING AND DRYING
HAB	HOT AIR BURNER	CHEROKEE PONY BURNER (1MMBtu)	HOT AIR BURNER, CIRRUS MOISTURE RESTORATION SYSTEM
MUB	MOISTURE UNIT BURNER	CHEROKEE BIG 10 MOISTURE UNIT (3MMBtu)	MOISTURE UNIT BURNER, CIRRUS MOISTURE RESTORATION SYSTEM

Facility Name: SOUTH GEORGIA COTTON GIN, LLC Date of Application: 10-11-2016

FORM 2.06 – MANUFACTURING AND OPERATIONAL DATA

Normal Operating Schedule: 22 hours/day 7 days/week 10 weeks/yr

Additional Data Attached? - No - Yes, please include the attachment in list on Form 1.00, Item 16.

Seasonal and/or Peak Operating Periods: SEP 15 - JAN 15

Dates of Annually Occurring Shutdowns: _____

PRODUCTION INPUT FACTORS

Emission Unit ID	Emission Unit Name	Const. Date	Input Raw Material(s)	Annual Input	Hourly Process Input Rate		
					Design	Normal	Maximum
F1	TELESCOPE		RAW COTTON	75000 TONS/YR	67.5 TONS/HR	56.25 TONS/HR	67.5 TONS/HR
F2	FIRST STAGE A SIDE CLEANING						
F3	FIRST STAGE B SIDE CLEANING						
F4	SECOND STAGE A SIDE CLEANING						
F5	SECOND STAGE B SIDE CLEANING						
F6	#1 LINT CLEANING						
F7	#2 LINT CLEANING						
F8	#3 LINT CLEANING						
F9	BATT COND A SIDE						
F10	BATT COND B SIDE						
F11	LINT CLEANER TRASH						
F12	MOTE ROBBER						
F13	MASTER TRASH						

PRODUCTS OF MANUFACTURING

Emission Unit ID	Description of Product	Production Schedule		Hourly Production Rate (Give units: e.g. lb/hr, ton/hr)			
		Tons/yr	Hr/yr	Design	Normal	Maximum	Units /HR
F1	COTTON GINNED	25000	1400	90	75	90	BALES /HR
F2, F3	COTTON GINNED						
F4, F5	COTTON GINNED						
F6, F7, F8	COTTON GINNED						
F9, F10	COTTON GINNED						
F11	COTTON GINNED						
F12	COTTON GINNED						
F13	COTTON GINNED						

Facility Name: SOUTH GEORGIA COTTON GIN, LLC

Date of Application: 10-11-2016

Form 3.00 – AIR POLLUTION CONTROL DEVICES - PART A: GENERAL EQUIPMENT INFORMATION

APCD Unit ID	Emission Unit ID	APCD Type (Baghouse, ESP, Scrubber etc)	Date Installed	Make & Model Number (Attach Mfg. Specifications & Literature)	Unit Modified from Mfg Specifications?	Gas Temp. °F		Inlet Gas Flow Rate (acfm)
						Inlet	Outlet	
C11	F1	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 60"	NO	80	80	9800
C21	F2	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 70"	NO	250	250	13000
C22	F2	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 70"	NO	250	250	13000
C31	F3	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 70"	NO	250	250	13000
C32	F3	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 70"	NO	250	250	13000
C41	F4	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 60"	NO	200	200	9600
C42	F4	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 60"	NO	200	200	9600
C51	F5	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 60"	NO	200	200	9600
C52	F5	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 60"	NO	200	200	9600
C61	F6	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 76"	NO	90	90	16000
C71	F7	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 76"	NO	90	90	16000
C81	F8	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 76"	NO	90	90	16000

Facility Name: SOUTH GEORGIA COTTON GIN, LLC

Date of Application: 10-11-2016

Form 3.00 - AIR POLLUTION CONTROL DEVICES - PART A: GENERAL EQUIPMENT INFORMATION

APCD Unit ID	Emission Unit ID	APCD Type (Baghouse, ESP, Scrubber etc)	Date Installed	Make & Model Number (Attach Mfg. Specifications & Literature)	Unit Modified from Mfg Specifications?	Gas Temp. °F		Inlet Gas Flow Rate (acfm)
						Inlet	Outlet	
C91	F9	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 78"	NO	80	80	16600
C92	F9	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 78"	NO	80	80	16600
C101	F10	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 78"	NO	80	80	16600
C102	F10	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 78"	NO	80	80	16600
C111	F11	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 68"	NO	80	80	12400
C112	F11	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 68"	NO	80	80	12400
C121	F12	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 74"	NO	80	80	14683
C131	F13	1D-3D HIGH EFFICIENCY CYCLONE		CHEROKEE 64"	NO	80	80	11000

Facility Name: SOUTH GEORGIA COTTON GIN, LLC

Date of Application: 10-11-2016

Form 3.00 – AIR POLLUTION CONTROL DEVICES – PART B: EMISSION INFORMATION

APCD Unit ID	Pollutants Controlled	Percent Control Efficiency		Inlet Stream To APCD		Exit Stream From APCD		Pressure Drop Across Unit (Inches of water)
		Design	Actual	lb/hr	Method of Determination	lb/hr	Method of Determination	
C11	PM					21.75	AP42	5
C11	PM10					9.0	AP42	5
C11	PM2.5					3.68	USDA	5
C21	PM					13.5	AP42	5
C21	PM10					4.5	AP42	5
C21	PM2.5					0.68	USDA	5
C22	PM					13.5	AP42	5
C22	PM10					4.5	AP42	5
C22	PM2.5					0.68	USDA	5
C31	PM					13.5	AP42	5
C31	PM10					4.5	AP42	5
C31	PM2.5					0.68	USDA	5
C32	PM					13.5	AP42	5
C32	PM10					4.5	AP42	5
C32	PM2.5					0.68	USDA	5

Facility Name: SOUTH GEORGIA COTTON GIN, LLC

Date of Application: 10-11-2016

Form 3.00 – AIR POLLUTION CONTROL DEVICES – PART B: EMISSION INFORMATION

APCD Unit ID	Pollutants Controlled	Percent Control Efficiency		Inlet Stream To APCD		Exit Stream From APCD		Pressure Drop Across Unit (Inches of water)
		Design	Actual	lb/hr	Method of Determination	lb/hr	Method of Determination	
C41	PM					9.0	AP42	5
C41	PM10					3.49	AP42	5
C41	PM2.5					0.30	USDA	5
C42	PM					9.0	AP42	5
C42	PM10					3.49	AP42	5
C42	PM2.5					0.30	USDA	5
C51	PM					9.0	AP42	5
C51	PM10					3.49	AP42	5
C51	PM2.5					0.30	USDA	5
C52	PM					9.0	AP42	5
C52	PM10					3.49	AP42	5
C52	PM2.5					0.30	USDA	5
C61	PM					43.5	AP42	5
C61	PM10					18.0	AP42	5
C61	PM2.5					1.43	USDA	5

Facility Name: SOUTH GEORGIA COTTON GIN, LLC

Date of Application: 10-11-2016

Form 3.00 – AIR POLLUTION CONTROL DEVICES – PART B: EMISSION INFORMATION

APCD Unit ID	Pollutants Controlled	Percent Control Efficiency		Inlet Stream To APCD		Exit Stream From APCD		Pressure Drop Across Unit (Inches of water)
		Design	Actual	lb/hr	Method of Determination	lb/hr	Method of Determination	
C71	PM					43.5	AP42	5
C71	PM10					18.0	AP42	5
C71	PM2.5					1.43	USDA	5
C81	PM					43.5	AP42	5
C81	PM10					18.0	AP42	5
C81	PM2.5					1.43	USDA	5
C91	PM					0.73	AP42	5
C91	PM10					0.26	AP42	5
C91	PM2.5					0.15	USDA	5
C92	PM					0.73	AP42	5
C92	PM10					0.26	AP42	5
C92	PM2.5					0.15	USDA	5
C101	PM					0.73	AP42	5
C101	PM10					0.26	AP42	5
C101	PM2.5					0.15	USDA	5

Facility Name: SOUTH GEORGIA COTTON GIN, LLC

Date of Application: 10-11-2016

Form 3.00 – AIR POLLUTION CONTROL DEVICES – PART B: EMISSION INFORMATION

APCD Unit ID	Pollutants Controlled	Percent Control Efficiency		Inlet Stream To APCD		Exit Stream From APCD		Pressure Drop Across Unit (Inches of water)
		Design	Actual	lb/hr	Method of Determination	lb/hr	Method of Determination	
C102	PM					0.73	AP42	5
C102	PM10					0.26	AP42	5
C102	PM2.5					0.15	USDA	5
C111	PM					10.5	AP42	5
C111	PM10					4.88	AP42	5
C111	PM2.5					0.34	USDA	5
C112	PM					10.5	AP42	5
C112	PM10					4.88	AP42	5
C112	PM2.5					0.34	USDA	5
C121	PM					13.5	AP42	5
C121	PM10					3.9	AP42	5
C121	PM2.5					0.75	USDA	5
C131	PM					46.28	AP42	5
C131	PM10					7.13	AP42	5
C131	PM2.5					1.29	USDA	5

Facility Name: SOUTH GEORGIA COTTON GIN, LLC

Date of Application:

10-11-2016

FORM 4.00 – EMISSION INFORMATION

Emission Unit ID	Air Pollution Control Device ID	Stack ID	Pollutant Emitted	Emission Rates					Method of Determination
				Hourly Actual Emissions (lb/hr)	Hourly Potential Emissions (lb/hr)	Actual Annual Emission (tpy)	Potential Annual Emission (tpy)		
F1	C11		PM	21.75	26.10	0.73	17.4	AP42	
F1	C11		PM10	9.00	10.80	0.30	7.2	AP42	
F1	C11		PM2.5	0.22	5.29	0.12	2.94	USDA	
F2	C21		PM	13.5	16.2	4.5	5.4	AP42	
F2	C21		PM10	4.5	5.4	1.5	1.8	AP42	
F2	C21		PM2.5	0.68	0.81	0.23	0.27	USDA	
F2	C22		PM	13.5	16.2	4.5	5.4	AP42	
F2	C22		PM10	4.5	5.4	1.5	1.8	AP42	
F2	C22		PM2.5	0.68	0.81	0.23	0.27	USDA	
F3	C31		PM	13.5	16.2	4.5	5.4	AP42	
F3	C31		PM10	4.5	5.4	1.5	1.8	AP42	
F3	C31		PM2.5	0.68	0.81	0.23	0.27	USDA	
F3	C32		PM	13.5	16.2	4.5	5.4	AP42	
F3	C32		PM10	4.5	5.4	1.5	1.8	AP42	
F3	C32		PM2.5	0.68	0.81	0.23	0.27	USDA	

Facility Name: SOUTH GEORGIA COTTON GIN, LLC

Date of Application:

10-11-2016

FORM 4.00 – EMISSION INFORMATION

Emission Unit ID	Air Pollution Control Device ID	Stack ID	Pollutant Emitted	Emission Rates				
				Hourly Actual Emissions (lb/hr)	Hourly Potential Emissions (lb/hr)	Actual Annual Emission (tpy)	Potential Annual Emission (tpy)	Method of Determination
F4	C41		PM	9.0	10.8	3.0	3.6	AP42
F4	C41		PM10	3.49	4.19	1.16	1.4	AP42
F4	C41		PM2.5	0.30	0.36	0.1	0.12	USDA
F4	C42		PM	9.0	10.8	3.0	3.6	AP42
F4	C42		PM10	3.49	4.19	1.16	1.4	AP42
F4	C42		PM2.5	0.30	0.36	0.1	0.12	USDA
F5	C51		PM	9.0	10.8	3.0	3.6	AP42
F5	C51		PM10	3.49	4.19	1.16	1.4	AP42
F5	C51		PM2.5	0.30	0.36	0.1	0.12	USDA
F5	C52		PM	9.0	10.8	3.0	3.6	AP42
F5	C51		PM10	3.49	4.19	1.16	1.4	AP42
F5	C51		PM2.5	0.30	0.36	0.1	0.12	USDA
F6	C61		PM	43.5	52.2	9.86	11.6	AP42
F6	C61		PM10	18.0	21.6	4.08	4.80	AP42
F6	C61		PM2.5	1.43	1.71	0.32	0.38	USDA
F7	C71		PM	43.5	52.2	9.86	11.6	AP42
F7	C71		PM10	18.0	21.6	4.08	4.80	AP42
F7	C71		PM2.5	1.43	1.71	0.32	0.38	USDA

Facility Name: SOUTH GEORGIA COTTON GIN, LLC

Date of Application:

10-11-2016

FORM 4.00 – EMISSION INFORMATION

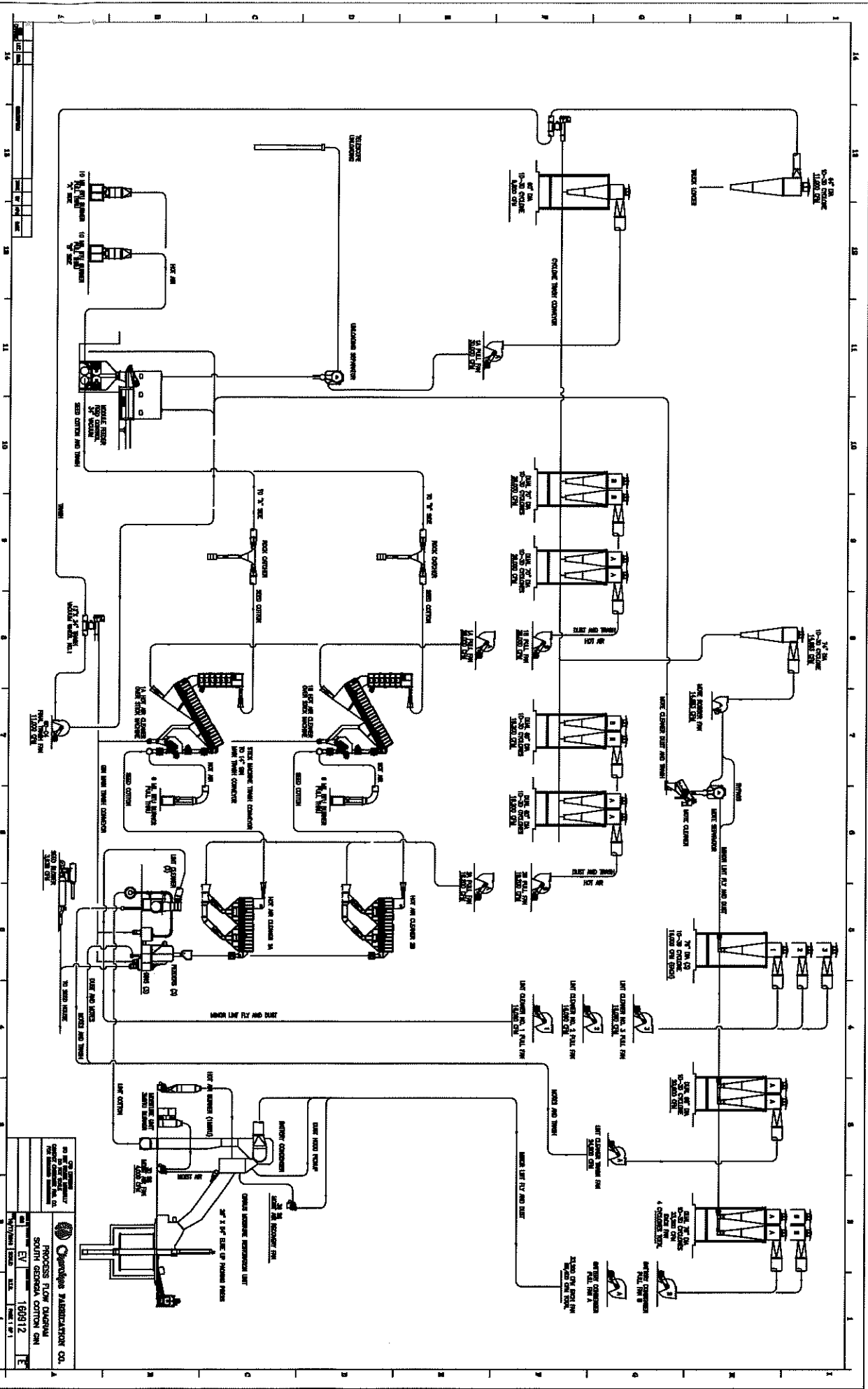
Emission Unit ID	Air Pollution Control Device ID	Stack ID	Pollutant Emitted	Emission Rates				Method of Determination
				Hourly Actual Emissions (lb/hr)	Hourly Potential Emissions (lb/hr)	Actual Annual Emission (tpy)	Potential Annual Emission (tpy)	
F8	C81		PM	43.5	52.2	9.86	11.6	AP42
F8	C81		PM10	18.0	21.6	4.08	4.80	AP42
F8	C81		PM2.5	1.43	1.71	0.32	0.38	USDA
F9	C91		PM	0.73	0.88	0.49	0.59	AP42
F9	C91		PM10	0.26	0.32	0.18	0.21	AP42
F9	C91		PM2.5	0.15	0.18	0.10	0.12	USDA
F9	C92		PM	0.73	0.88	0.49	0.59	AP42
F9	C92		PM10	0.26	0.32	0.18	0.21	AP42
F9	C92		PM2.5	0.15	0.18	0.10	0.12	USDA
F10	C101		PM	0.73	0.88	0.49	0.59	AP42
F10	C101		PM10	0.26	0.32	0.18	0.21	AP42
F10	C101		PM2.5	0.15	0.18	0.10	0.12	USDA
F10	C102		PM	0.73	0.88	0.49	0.59	AP42
F10	C102		PM10	0.26	0.32	0.18	0.21	AP42
F10	C102		PM2.5	0.15	0.18	0.10	0.12	USDA

FORM 4.00 – EMISSION INFORMATION

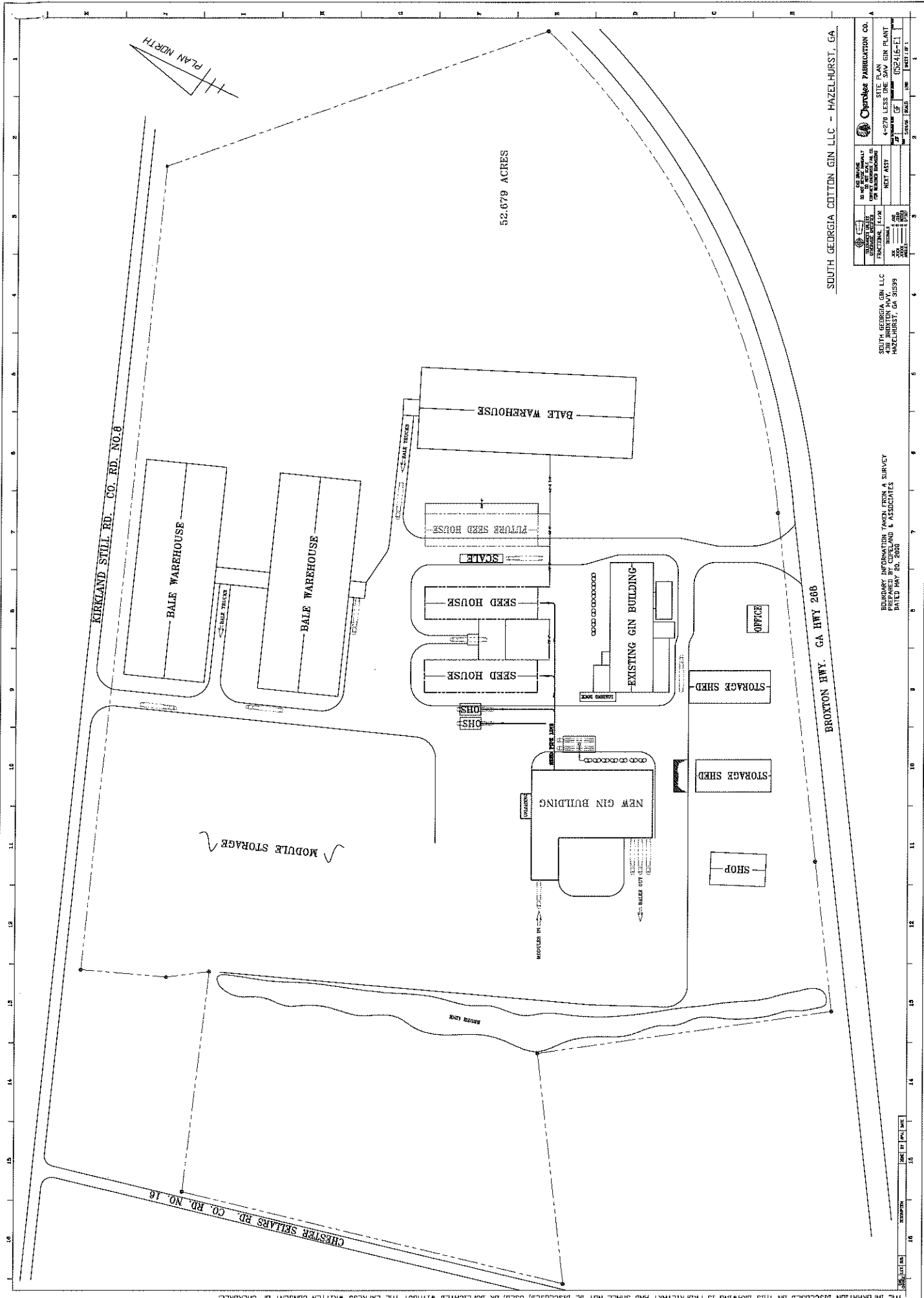
Emission Unit ID	Air Pollution Control Device ID	Stack ID	Pollutant Emitted	Emission Rates				
				Hourly Actual Emissions (lb/hr)	Hourly Potential Emissions (lb/hr)	Actual Annual Emission (tpy)	Potential Annual Emission (tpy)	Method of Determination
F11	C111		PM	10.5	12.6	7.0	8.4	AP42
F11	C111		PM10	4.88	5.85	3.25	3.9	AP42
F11	C111		PM2.5	0.34	0.41	0.23	0.27	USDA
F11	C112		PM	10.5	12.6	7.0	8.4	AP42
F11	C112		PM10	4.88	5.85	3.25	3.9	AP42
F11	C112		PM2.5	0.34	0.41	0.23	0.27	USDA
F12	C121		PM	13.5	16.2	9.0	10.8	AP42
F12	C121		PM10	3.9	4.68	2.6	3.12	AP42
F12	C121		PM2.5	0.75	0.90	0.5	0.60	USDA
F13	C131		PM	46.28	55.53	30.85	37.02	AP42
F13	C131		PM10	7.13	8.55	4.75	4.75	AP42
F13	C131		PM2.5	1.29	1.55	0.86	1.03	USDA

FORM 4.00 – EMISSION INFORMATION

Emission Unit ID	Air Pollution Control Device ID	Stack ID	Pollutant Emitted	Emission Rates					Method of Determination
				Hourly Actual Emissions (lb/hr)	Hourly Potential Emissions (lb/hr)	Actual Annual Emission (tpy)	Potential Annual Emission (tpy)		
BURNERS			NOx	1.76	1.76	0.98	3.86	AP42	
BURNERS			CO	2.96	2.96	1.65	6.49	AP42	
BURNERS			METHANE	0.08	0.08	0.05	0.18	AP42	
BURNERS			N2O	0.02	0.02	0.01	0.05	AP42	
BURNERS			VOC	0.19	0.19	0.11	0.43	AP42	
BURNERS			SO2	0.02	0.02	0.01	0.05	AP42	
BURNERS			PM	0.27	0.27	0.15	0.59	AP42	
BURNERS			LEAD	1.76E-05	1.76E-05	9.8E-06	3.89E-05	AP42	
BURNERS			TOC	0.39	0.39	0.22	0.85	AP42	



CHEMICAL PROCESSING DIVISION
 SOUTH GEORGIA COLLEGE
 PROCESS FLOW DIAGRAM
 SOUTH GEORGIA COLLEGE
 168912
 11/17/2018 10:00 AM
 11/17/2018 10:00 AM
 11/17/2018 10:00 AM

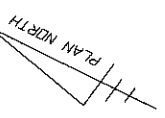


52.679 ACRES

KIRKLAND STILL RD. CO. RD. NO. 6

BROXTON HWY. GA HWY 260

CHESTER SELLARS RD. CO. RD. NO. 16



SOUTH GEORGIA COTTON GIN LLC - HAZELHURST, GA

<p>DATE OF REVISION NO. OF REVISION REVISIONS</p>	<p>DATE OF REVISION NO. OF REVISION REVISIONS</p>	<p>DATE OF REVISION NO. OF REVISION REVISIONS</p>	<p>DATE OF REVISION NO. OF REVISION REVISIONS</p>	<p>DATE OF REVISION NO. OF REVISION REVISIONS</p>
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SOUTH GEORGIA COTTON GIN LLC
 438 BRANTON HWY.
 HAZELHURST, GA 31539
 PREPARED BY CLEVELAND & ASSOCIATES
 DATED MAY 20, 2008

BOUNDARY INFORMATION TAKEN FROM A SURVEY
 PREPARED BY CLEVELAND & ASSOCIATES
 DATED MAY 20, 2008

THE INFORMATION DISCLOSED IN THIS DRAWING IS PROPRIETARY AND SHALL NOT BE DISCLOSED, USED, OR DUPLICATED WITHOUT THE EXPRESS WRITTEN CONSENT OF CHEROKEE.

Estimation of Annual PM, PM 10 and PM2.5 Emissions from Cotton Gin With High Efficiency Cyclones Using Emission Factors in Table 9.7-1 of EPA AP-42, 6/96, and USDA research published in the Journal of Cotton Science 2013

Facility Name: South Georgia Cotton Gin		Application No. :	Prepared by: Ira Burge, Cherokee Fabrication				Date: 10/14/2016			
Source ID No.	Source Description	SCC	PM Emission Factor, lbs/bale	PM ₁₀ Emission Factor, lbs/bale	PM _{2.5} Emission Factor, lbs/bale	Potential Annual Production Rate, bales/year	Actual Annual Production Rate, bales/year	Source of Emissions Factors		
								Potential PM Emissions, tons/year	Potential PM ₁₀ Emissions, tons/year	Potential PM _{2.5} Emissions, tons/year
F1	Unloading Fan	3-02-004-01	0.29	0.12	0.049	120,000	5,000	17.40	7.20	2.94
F2	No. 1A dryer and cleaning	3-02-004-20	0.36	0.12	0.018	60,000	50,000	10.80	3.60	0.54
F3	No. 1B dryer and cleaning	3-02-004-20	0.36	0.12	0.018	60,000	50,000	10.80	3.60	0.54
F4	No. 2A dryer and cleaning	3-02-004-21	0.24	0.093	0.008	60,000	50,000	7.20	2.79	0.24
F5	No. 2B dryer and cleaning	3-02-004-21	0.24	0.093	0.008	60,000	50,000	7.20	2.79	0.24
F6	No. 1A Lint Cleaner with high-efficiency cyclones	3-02-004-07	0.58	0.24	0.019	40,000	34,000	11.60	4.80	0.38
F7	No. 2A Lint Cleaner with high-efficiency cyclones	3-02-004-07	0.58	0.24	0.019	40,000	34,000	11.60	4.80	0.38
F8	No. 3A Lint Cleaner with high-efficiency cyclones	3-02-004-07	0.58	0.24	0.019	40,000	34,000	11.60	4.80	0.38
F11	First Stage Mote System	3-02-004-35	0.28	0.13	0.009	120,000	100,000	16.80	7.80	0.54
F9, F10	Battery Condenser with high-efficiency cyclones	3-02-004-08	0.039	0.014	0.0081	120,000	100,000	2.34	0.84	0.49
F13	Master Trash Fan	3-02-004-03	0.54	0.074	0.0093	120,000	100,000	32.40	4.44	0.56
F12	Cyclone robber system	3-02-004-30	0.18	0.052	0.01	120,000	100,000	10.80	3.12	0.60
F13	Mote Cleaner (PM10 from AP42, table 9.7-1)	3-02-004-36	0.077	0.021	0.0079	120,000	100,000	4.62	1.26	0.47
							Sum	155.16	51.84	8.30

Source of Emissions Factors				Hourly Emissions at Each APCD, FACTOR*75bph/NUMBER OF CYCLONES			Actual Hourly Emissions at Each APCD, FACTOR*90bph/NUMBER OF			PM	PM ₁₀	PM _{2.5}	
Source ID No.	Actual PM Emissions, tons/year	Actual PM ₁₀ Emissions, tons/year	Actual PM _{2.5} Emissions, tons/year	APCD	Actual PM Emissions, lbs/hr	Actual PM ₁₀ Emissions, lbs/hr	Actual PM _{2.5} Emissions, lbs/hr	Potential PM Emissions, lbs/hr	Potential PM ₁₀ Emissions, lbs/hr	Potential PM _{2.5} Emissions, lbs/hr			
F1	0.73	0.30	0.12	C11	21.75	9.00	3.68	26.10	10.80	4.41	AP42	AP42	USDA
F2	9.00	3.00	0.45	C21	13.50	4.50	0.68	16.20	5.40	0.81	AP42	AP42	USDA
F3	9.00	3.00	0.45	C31	13.50	4.50	0.68	16.20	5.40	0.81	AP42	AP42	USDA
F4	6.00	2.33	0.20	C41	9.00	3.49	0.30	10.80	4.19	0.36	AP42	AP42	USDA
F5	6.00	2.33	0.20	C51	9.00	3.49	0.30	10.80	4.19	0.36	AP42	AP42	USDA
F6	9.86	4.08	0.32	C61	43.50	18.00	1.43	52.20	21.60	1.71	AP42	AP42	USDA
F7	9.86	4.08	0.32	C71	43.50	18.00	1.43	52.20	21.60	1.71	AP42	AP42	USDA
F8	9.86	4.08	0.32	C81	43.50	18.00	1.43	52.20	21.60	1.71	AP42	AP42	USDA
F11	14.00	6.50	0.45	C111	10.50	4.88	0.34	12.60	5.85	0.41	AP42	AP42	USDA
F9, F10	1.95	0.70	0.41	C112	10.50	4.88	0.34	12.60	5.85	0.41			
				C91	0.73	0.26	0.15	0.88	0.32	0.18			
				C92	0.73	0.26	0.15	0.88	0.32	0.18	AP42	AP42	USDA
				C101	0.73	0.26	0.15	0.88	0.32	0.18			
				C102	0.73	0.26	0.15	0.88	0.32	0.18			
F13	27.00	3.70	0.47	C131	40.50	5.55	0.70	48.60	6.66	0.84	AP42	AP42	USDA
F12	9.00	2.60	0.50	C121	13.50	3.90	0.75	16.20	4.68	0.90	AP42	AP42	USDA
F13	3.85	1.05	0.40	C131	5.78	1.58	0.59	6.93	1.89	0.71	AP42	AP42	USDA
	116.11	37.74	4.61										

Source
ID No.

- F1 <http://www>. Unloading System PM2.5 Emission Factors and Rates for Cotton Gins: Method 201A Combination PM10 and PM2.5 Sizing Cyclones
- F2 <http://www>. First Stage Seed-Cotton Cleaning System PM2.5 Emission Factors and Rates for Cotton Gins: Method 201A Combination PM10 and PM2.5 Sizing Cyclones
- F3 <http://www>. First Stage Seed-Cotton Cleaning System PM2.5 Emission Factors and Rates for Cotton Gins: Method 201A Combination PM10 and PM2.5 Sizing Cyclones
- F4 <http://www>. Second Stage Seed-Cotton Cleaning System PM2.5 Emission Factors and Rates for Cotton Gins: Method 201A Combination PM10 and PM2.5 Sizing Cyclones
- F5 <http://www>. Second Stage Seed-Cotton Cleaning System PM2.5 Emission Factors and Rates for Cotton Gins: Method 201A Combination PM10 and PM2.5 Sizing Cyclones
- F6 <http://www>. First Stage Lint Cleaning System PM2.5 Emission Factors and Rates for Cotton Gins: Method 201A Combination PM10 and PM2.5 Sizing Cyclones
- F7 <http://www>. First Stage Lint Cleaning System PM2.5 Emission Factors and Rates for Cotton Gins: Method 201A Combination PM10 and PM2.5 Sizing Cyclones
- F8 <http://www>. First Stage Lint Cleaning System PM2.5 Emission Factors and Rates for Cotton Gins: Method 201A Combination PM10 and PM2.5 Sizing Cyclones
- F11 <http://www>. First Stage Mote System PM2.5 Emission Factors and Rates for Cotton Gins: Method 201A Combination PM10 and PM2.5 Sizing Cyclones
- F9, F10 <http://www>. Battery Condenser System PM2.5 Emission Factors and Rates for Cotton Gins: Method 201A Combination PM10 and PM2.5 Sizing Cyclones
- F13 <http://www>. Master Trash System PM2.5 Emission Factors and Rates for Cotton Gins: Method 201A Combination PM10 and PM2.5 Sizing Cyclones
- F12 <http://www>. Mote Cyclone Robber System PM2.5 Emission Factors and Rates for Cotton Gins: Method 201A Combination PM10 and PM2.5 Sizing Cyclones
- F13 <http://www>. Mote Cleaner System PM2.5 Emission Factors and Rates for Cotton Gins: Method 201A Combination PM10 and PM2.5 Sizing Cyclones

Estimation of Annual PM, PM 10 and PM2.5 Emissions from Cotton Gin With High Efficiency Cyclones
Using Emission Factors in Table 9.7-1 of EPA AP-42, 6/96, and USDA research published in the
Journal of Cotton Science 2013

UNIT ID	APCD ID	POLLUTANT	HOURLY ACTUAL (LB/HR)	HOURLY POTENTIAL (LB/HR)	ACTUAL ANNUAL (TPY)	POTENTIAL ANNUAL (TPY)	METHOD
F1	C11	PM	21.75	26.1	0.725	17.4	AP42
F1	C11	PM10	9	10.8	0.3	7.2	AP42
F1	C11	PM2.5	3.675	4.41	0.1225	2.94	USDA
F2	C21	PM	13.5	16.2	4.5	5.4	AP42
F2	C21	PM10	4.5	5.4	1.5	1.8	AP42
F2	C21	PM2.5	0.675	0.81	0.225	0.27	USDA
F2	C22	PM	13.5	16.2	4.5	5.4	AP42
F2	C22	PM10	4.5	5.4	1.5	1.8	AP42
F2	C22	PM2.5	0.675	0.81	0.225	0.27	USDA
F3	C31	PM	13.5	16.2	4.5	5.4	AP42
F3	C31	PM10	4.5	5.4	1.5	1.8	AP42
F3	C31	PM2.5	0.675	0.81	0.225	0.27	USDA
F3	C32	PM	13.5	16.2	4.5	5.4	AP42
F3	C32	PM10	4.5	5.4	1.5	1.8	AP42
F3	C32	PM2.5	0.675	0.81	0.225	0.27	USDA
F4	C41	PM	9	10.8	3	3.6	AP42
F4	C41	PM10	3.4875	4.185	1.1625	1.395	AP42
F4	C41	PM2.5	0.3	0.36	0.1	0.12	USDA
F4	C42	PM	9	10.8	3	3.6	AP42
F4	C42	PM10	3.4875	4.185	1.1625	1.395	AP42
F4	C42	PM2.5	0.3	0.36	0.1	0.12	USDA
F5	C51	PM	9	10.8	3	3.6	AP42
F5	C51	PM10	3.4875	4.185	1.1625	1.395	AP42
F5	C51	PM2.5	0.3	0.36	0.1	0.12	USDA
F5	C52	PM	9	10.8	3	3.6	AP42
F5	C52	PM10	3.4875	4.185	1.1625	1.395	AP42
F5	C52	PM2.5	0.3	0.36	0.1	0.12	USDA
F6	C61	PM	43.5	52.2	9.86	11.6	AP42
F6	C61	PM10	18	21.6	4.08	4.8	AP42
F6	C61	PM2.5	1.425	1.71	0.323	0.38	USDA
F7	C71	PM	43.5	52.2	9.86	11.6	AP42
F7	C71	PM10	18	21.6	4.08	4.8	AP42
F7	C71	PM2.5	1.425	1.71	0.323	0.38	USDA
F8	C81	PM	43.5	52.2	9.86	11.6	AP42
F8	C81	PM10	18	21.6	4.08	4.8	AP42
F8	C81	PM2.5	1.425	1.71	0.323	0.38	USDA
F9	C91	PM	0.73125	0.8775	0.4875	0.585	AP42
F9	C91	PM10	0.2625	0.315	0.175	0.21	AP42
F9	C91	PM2.5	0.151875	0.18225	0.10125	0.1215	USDA

UNIT ID	APCD ID	POLLUTANT	HOURLY ACTUAL (LB/HR)	HOURLY POTENTIAL (LB/HR)	ACTUAL ANNUAL (TPY)	POTENTIAL ANNUAL (TPY)	METHOD
F9	C92	PM	0.73125	0.8775	0.4875	0.585	AP42
F9	C92	PM10	0.2625	0.315	0.175	0.21	AP42
F9	C92	PM2.5	0.151875	0.18225	0.10125	0.1215	USDA
F10	C101	PM	0.73125	0.8775	0.4875	0.585	AP42
F10	C101	PM10	0.2625	0.315	0.175	0.21	AP42
F10	C101	PM2.5	0.151875	0.18225	0.10125	0.1215	USDA
F10	C102	PM	0.73125	0.8775	0.4875	0.585	AP42
F10	C102	PM10	0.2625	0.315	0.175	0.21	AP42
F10	C102	PM2.5	0.151875	0.18225	0.10125	0.1215	USDA
F11	C111	PM	10.5	12.6	7	8.4	AP42
F11	C111	PM10	4.875	5.85	3.25	3.9	AP42
F11	C111	PM2.5	0.3375	0.405	0.225	0.27	USDA
F11	C112	PM	10.5	12.6	7	8.4	AP42
F11	C112	PM10	4.875	5.85	3.25	3.9	AP42
F11	C112	PM2.5	0.3375	0.405	0.225	0.27	USDA
F12	C121	PM	13.5	16.2	9	10.8	AP42
F12	C121	PM10	3.9	4.68	2.6	3.12	AP42
F12	C121	PM2.5	0.75	0.9	0.5	0.6	USDA
F13	C131	PM	46.275	55.53	30.85	37.02	AP42
F13	C131	PM10	7.125	8.55	4.75	5.7	AP42
F13	C131	PM2.5	1.29	1.548	0.86	1.032	USDA

Fugitive Emission Source ID	Description of Source	Emission Reduction Precautions	Pot. Fugitive	
			Amount (tpy)	Pollutant
TLS	TRUCK LOADING SYSTEM	Trucks are loaded with Gin Trash inside a building. The sides of the building are sheeted down to within 7' of ground. The ends of the building are sheeted down except at the openings for the truck to enter and exit. The openings for the trucks are covered with Strip Curtian Doors. Monitor and take measures as necessary.		PM
OSR	ON SITE ROADS	Spray with Water Truck as necessary.		PM