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

RECEIVED
SEP 25 2018
Air Protection Branch

EPD Use Only

Date Received: SEP 25 2018 Application No. 26734

FORM 1.00: GENERAL INFORMATION

1. Facility Information

Facility Name: Ballard Contractors
AIRS No. (if known): 04-13- -
Facility Location: Street: 192-198 E Warrenton Road
City: Warrenton Georgia Zip: 30828 County: Warren
Is this facility a "small business" as defined in the instructions? Yes: ☒ No: ☐

2. Facility Coordinates

Latitude: 33 ° 24' 23" **NORTH** Longitude: 82 ° 38' 30" **WEST**
UTM Coordinates: 347.338 **EAST** 3697.577 **NORTH** **ZONE** 17S

3. Facility Owner

Name of Owner: Ballard Contractors
Owner Address Street: 12268 Lavender Road
City: Moundville State: Alabama Zip: 35474

4. Permitting Contact and Mailing Address

Contact Person: Lauren Corbett Title: Project Manager
Telephone No.: (205) 333-9200 Ext. Fax No.: (205) 333-0595
Email Address: lauren@ballardcontractors.com
Mailing Address: Same as: Facility Location: ☐ Owner Address: ☒ Other: ☐
If Other: Street Address: N/A
City: State: Zip:

5. Authorized Official

Name: Michael Ballard Title: President
Address of Official Street: 12268 Lavender Road
City: Moundville State: Alabama Zip: 35474

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: Michael Ballard Date: 09/20/18

6. **Reason for Application: (Check all that apply)**

☒ New Facility (to be constructed)

☐ Existing Facility (initial or modification application)

☐ Permit to Construct

☐ Permit to Operate

☐ Change of Location

☐ Permit to Modify Existing Equipment: Affected Permit No.: _____

☐ Revision of Data Submitted in an Earlier Application

Application No.: _____

Date of Original Submittal: _____

7. **Permitting Exemption Activities (for permitted facilities only):**

Have any exempt modifications based on emission level per Georgia Rule 391-3-1-.03(6)(i)(3) been performed at the facility that have not been previously incorporated in a permit?

☒ **No** ☐ **Yes, please fill out the SIP Exemption Attachment** (See Instructions for the attachment download)

8. **Has assistance been provided to you for any part of this application?**

☐ **No** ☐ **Yes, SBAP** ☒ **Yes, a consultant has been employed or will be employed.**

If yes, please provide the following information:

Name of Consulting Company: Layton Environmental Engineering LLC

Name of Contact: Ken Layton

Telephone No.: (205) 951-3700 Fax No.: (205) 951-5544

Email Address: ken@laytonee.com

Mailing Address: Street: 1900 Crestwood Blvd., Suite 114

City: Irondale State: Alabama Zip: 35210

Describe the Consultant's Involvement:

Preparation of Air Permit Application

9. **Submitted Application Forms:** Select only the necessary forms for the facility application that will be submitted.

No. of Forms	Form
1	2.00 Emission Unit List
N/A	2.01 Boilers and Fuel Burning Equipment
N/A	2.02 Storage Tank Physical Data
N/A	2.03 Printing Operations
N/A	2.04 Surface Coating Operations
N/A	2.05 Waste Incinerators (solid/liquid waste destruction)
1	2.06 Manufacturing and Operational Data
1	3.00 Air Pollution Control Devices (APCD)
N/A	3.01 Scrubbers
1	3.02 Baghouses & Other Filter Collectors
N/A	3.03 Electrostatic Precipitators
1	4.00 Emissions Data
1	5.00 Monitoring Information
1	6.00 Fugitive Emission Sources
N/A	7.00 Air Modeling Information

10. **Construction or Modification Date**

Estimated Start Date: 11/01/2018

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"?

☒ No ☐ Yes

12. New Facility Emissions Summary

Criteria Pollutant	New Facility	
	Potential (tpy)	Actual (tpy)
Carbon monoxide (CO)	N/A	N/A
Nitrogen oxides (NOx)	N/A	N/A
Particulate Matter (PM) (filterable only)	96.90	4.85
PM <10 microns (PM10)	28.03	1.40
PM <2.5 microns (PM2.5)	3.29	0.165
Sulfur dioxide (SO_2)	N/A	N/A
Volatile Organic Compounds (VOC)	N/A	N/A
Greenhouse Gases (GHGs) (in CO2e)	N/A	N/A
Total Hazardous Air Pollutants (HAPs)	0.0085	0.00043
Individual HAPs Listed Below:		
Arsenic	0.001	0.00005
Beryllium	0.00003	0.000001
Cadmium	0.0000048	0.0000002
Chromium	0.0014	0.00005
Lead	0.0003	0.000015
Manganese	0.0051	0.00025

13. Existing Facility Emissions Summary N/A

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 CO2e)				
Total Hazardous Air Pollutants (HAPs)				
Individual HAPs Listed Below:				

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"?

☐ No ☐ Yes

12. New Facility Emissions Summary

Criteria Pollutant	New Facility	
	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 CO2e)		
Total Hazardous Air Pollutants (HAPs)		
Individual HAPs Listed Below:		
Nickel	0.0096	0.00005
Selenium	0.00022	0.00001

13. Existing Facility Emissions Summary N/A

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 CO2e)				
Total Hazardous Air Pollutants (HAPs)				
Individual HAPs Listed Below:				

14. 4-Digit Facility Identification Code:

SIC Code: ~~3531~~ 3273 SIC Description: Concrete Plant

NAICS Code: ~~327320~~ NAICS Description: Concrete Plant

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.

Concrete Batch Plant

Aggregate and sand are delivered to the site by truck, stored on the ground, and conveyed to separate storage bins. Emissions from aggregate and sand transfer are uncontrolled. Cement is delivered to the site, via truck and pneumatically transferred to an elevated cement silo. Emissions from the cement transfer operation are controlled by a dust collector. Aggregate, sand and cement from the elevated storage bins/silo are feed by an auger to the weight hopper which combines the proper amount of each material. Emission from the weight hopper are controlled by a dust collector. The weighed material, along with water is loaded into a cement truck, mixed and taken to the job site. Emissions are uncontrolled.

16. Additional information provided in attachments as listed below:

Attachment A - Flow Diagram

Attachment B - Location Map

Attachment C - Emission Calculations

Attachment D -

Attachment E -

Attachment F -

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

☒ Plot plan/map of facility location or date of previous submittal: See Attachment B

☒ Flow Diagram or date of previous submittal: See Attachment A

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:**

Stormwater

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

Ballard Contractors request a production limit of 600,000 cubic yards of concrete per year.

B.

Form 2.00

Facility Name: Ballard Contractors **Date of Application:** 09/21/2018

FORM 2.00 – EMISSION UNIT LIST

Emission Unit ID	Name	Manufacturer and Model Number	Description
CBP	Concrete Batch Plant	CEMCO / Model #275	Concrete Batch Plant Consisting of Aggregate Storage Bin, Sand Storage Bin, Cement Storage Silo w/ Dust Collector, Weight Hopper w/ Dust Collector, and Truck Loading/Mixing

C.

Form 2.06

Facility Name: Ballard Contractors **Date of Application:** 09/21/2018

FORM 2.06 – MANUFACTURING AND OPERATIONAL DATA

Normal Operating Schedule: 8.0 hours/day 1.5 days/week 25 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: N/A

Dates of Annually Occurring Shutdowns: N/A

PRODUCTION INPUT FACTORS

Emission Unit ID	Emission Unit Name	Const. Date	Input Raw Material(s)	Annual Input	Hourly Process Input Rate		
					Design	Normal	Maximum
CBP	Concrete Batch Plant	11/01/18	Aggregate	27,750 tons	254.4 tph	92.5 tph	92.5 tph
			Sand	19,350 tons	177.4 tph	64.5 tph	64.5 tph
			Cement	8,250 tons	75.6 tph	27.5 tph	27.5 tph
			Water	3,753 tons	34.4 tph	12.51 tph	12.51 tph

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
CBP	Concrete	59103	300	275	100	100	cy/hr

D.

Form 3.00

Facility Name: Ballard Contractors **Date of Application:** 09/21/2018

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	
CDC	CBP	Baghouse	11/01/18	CEMCO/WAM R01 Silo Top	No	68	68	1500
HDC	CBP	Baghouse	11/01/18	CEMCO/WAM Cement Weigh Batcher	No	68	68	150

Facility Name: Ballard Contractors **Date of Application:** 09/21/2018

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	
CDC	A. PM	>99.9	>99.9	20.075	AP-42 Table 11.12-2	0.027	AP-42 Table 11.12-2	<3.0
	B. PM_{10}	>99.9	>99.9	12.925	AP-42 Table 11.12-2	0.0094	AP-42 Table 11.12-2	
	C. $PM_{2.5}$	>97.5	>97.5	0.048	Engineering Est.	0.0012	AP-42 Table 11.12-2 Background Document	
	D. HAPs							
	1. Arsenic	>99.7	>99.7	0.000046	AP-42 Table 11.12-8	0.00000012	AP-42 Table 11.12-8	
	2. Beryllium	>97.3	>97.3	0.00000049	AP-42 Table 11.12-8	0.000000013	AP-42 Table 11.12-8	
	3. Cadmium	>88.4	>88.4	0.0000064	AP-42 Table 11.12-8	0.00000074	AP-42 Table 11.12-8	
	4. Chromium	>88.4	>88.4	0.0000069	AP-42 Table 11.12-8	0.0000008	AP-42 Table 11.12-8	
	5. Lead	>98.5	>98.5	0.00002	AP-42 Table 11.12-8	0.0000003	AP-42 Table 11.12-8	
	6. Manganese	>99.9	>99.9	0.0056	AP-42 Table 11.12-8	0.0000032	AP-42 Table 11.12-8	
	7. Nickel	>99.7	>99.7	0.00048	AP-42 Table 11.12-8	0.0000012	AP-42 Table 11.12-8	
	8. Selenium	>99.7	>99.7	0.00084	AP-42 Table 11.12-8	0.000002	AP-42 Table 11.12-8	
HDC	A. PM	99.0	99.0	0.754	AP-42 Table 11.12-2	0.0075	Engineering Est.	<3.0
	B. PM_{10}	99.0	99.0	0.44	AP-42 Table 11.12-2	0.0044	Engineering Est.	
	C. $PM_{2.5}$	95.0	95.0	0.057	AP-42 Table 11.12-3 Background Document	0.0029	Engineering Est.	

E.

Form 3.02

Facility Name: Ballard Contractors **Date of Application:** 09/21/2018

FORM 3.02 – BAGHOUSES & OTHER FILTER COLLECTORS

APCD ID	Filter Surface Area (ft^2)	No. of Bags	Inlet Gas Dew Point Temp. (°F)	Inlet Gas Temp. (°F)	Bag or Filter Material	Pressure Drop (inches of water)	Cleaning Method	Gas Cooling Method	Leak Detection System Type
CDC	264	N/A	UK	68	Spun Polyester	<3.0	Pulse Jet	N/A	N/A
HDC	25	N/A	UK	68	Spun Polyester	<3.0	Pulse Jet	N/A	N/A

Attach a physical description, dimensions and drawings for each baghouse and any additional information available such as particle size, maintenance schedules, monitoring procedures and breakdown/by-pass procedures. Explain how collected material is disposed of or utilized. Include the attachment in the list on Form 1.00 *General Information*, Item 16

F.

Form 4.00

Facility Name: Ballard Contractors **Date of Application:** 09/21/2018

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
CBP	CDC	CDC1	A. PM	0.027	0.027	0.0041	0.0817	AP-42, Table 11.12-2
			B. PM_{10}	0.0094	0.0094	0.0014	0.0281	AP-42, Table 11.12-2
			C. $PM_{2.5}$	0.0012	0.0012	0.0002	0.0036	AP-42, Chapter 11.12, Background Document
			D. HAPs					
			1. Arsenic	0.00000012	0.00000012	0.000000018	0.00000035	AP-42, Table 11.12-8
			2. Beryllium	0.00000013	0.000000013	0.000000002	0.00000004	AP-42, Table 11.12-8
			3. Cadmium	0.0000074	0.00000074	0.00000011	0.000022	AP-42, Table 11.12-8
			4. Chromium	0.0000008	0.0000008	0.00000012	0.000024	AP-42, Table 11.12-8
			5. Lead	0.0000003	0.0000003	0.000000045	0.000009	AP-42, Table 11.12-8
			6. Manganese	0.0000032	0.0000032	0.00000048	0.0000097	AP-42, Table 11.12-8
			7. Nickel	0.0000012	0.0000012	0.00000017	0.0000035	AP-42, Table 11.12-8
			8. Selenium	0.000002	0.000002	0.0000003	0.000006	AP-42, Table 11.12-8
			9. Total	0.0000083	0.0000083	0.0000013	0.000025	AP-42, Table 11.12-8
CBP	HDC	HDC1	A. PM	0.7536	0.7536	0.1130	2.2608	AP-42, Table 11.12-2
			B. PM_{10}	0.4396	0.4396	0.660	1.3188	AP-42, Table 11.12-2
			C. $PM_{2.5}$	0.0572	0.0572	0.0086	0.1715	AP-42, Chapter 11.12, Background Document

Facility Name: Ballard Contractors **Date of Application:** 09/21/2018

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
CBP	N/A	AT	A. PM	0.6383	0.6383	0.0957	1.9148	AP-42 Table 11.12-2
			B. PM_{10}	0.3053	0.3053	0.0458	0.9158	AP-42 Table 11.12-2
			C. $PM_{2.5}$	0.0397	0.0397	0.006	0.1191	AP-42 Chapter 11.12, Background Document
CBP	N/A	ST	A. PM	0.1355	0.1355	0.0203	0.4064	AP-42 Table 11.12-2
			B. PM_{10}	0.0639	0.0639	0.0096	0.1916	AP-42 Table 11.12-2
			C. $PM_{2.5}$	0.0083	0.0083	0.0012	0.0249	AP-42 Chapter 11.12, Background Document
CBP	N/A	TL	A. PM	30.745	30.745	4.6118	92.235	AP-42 Table 11.12-2
			B. PM_{10}	8.525	8.525	1.2788	25.575	AP-42 Table 11.12-2
			C. $PM_{2.5}$	0.99	0.99	0.1485	2.97	AP-42 Chapter 11.12, Background Document
			D. HAPs					
			1. Arsenic	0.00034	0.00034	0.00005	0.001	AP-42 Table 11.12-8
			2. Beryllium	0.0000067	0.0000067	0.000001	0.00002	AP-42 Table 11.12-8
			3. Cadmium	0.00000094	0.00000094	0.00000014	0.0000028	AP-42 Table 11.12-8
			4. Chromium	0.00031	0.00031	0.000047	0.00094	AP-42 Table 11.12-8
			5. Lead	0.0001	0.0001	0.000015	0.0003	AP-42 Table 11.12-8
			6. Manganese	0.0017	0.0017	0.00025	0.005	AP-42 Table 11.12-8
			7. Nickel	0.00033	0.00033	0.000049	0.00098	AP-42 Table 11.12-8
			8. Selenium	0.000072	0.000072	0.000011	0.00021	AP-42 Table 11.12-8
			9. Total	0.00284	0.00284	0.00043	0.0085	AP-42 Table 11.12-8

G.

Form 5.00

Facility Name: Ballard Contractors **Date of Application:** 09/21/2018

FORM 5.00 MONITORING INFORMATION

Emission Unit ID/ APCD ID	Emission Unit/APCD Name	Monitored Parameter		Monitoring Frequency
		Parameter	Units	
CDC	Concrete Batch Plant	Opacity (V.E.)	Percent Opacity	Daily or whenever cement silo is being filled
HDC	Concrete Batch Plant	Opacity (V.E.)	Percent Opacity	Daily

Comments:

H.

Form 6.00

Facility Name: Ballard Contractors **Date of Application:** 09/21/2018

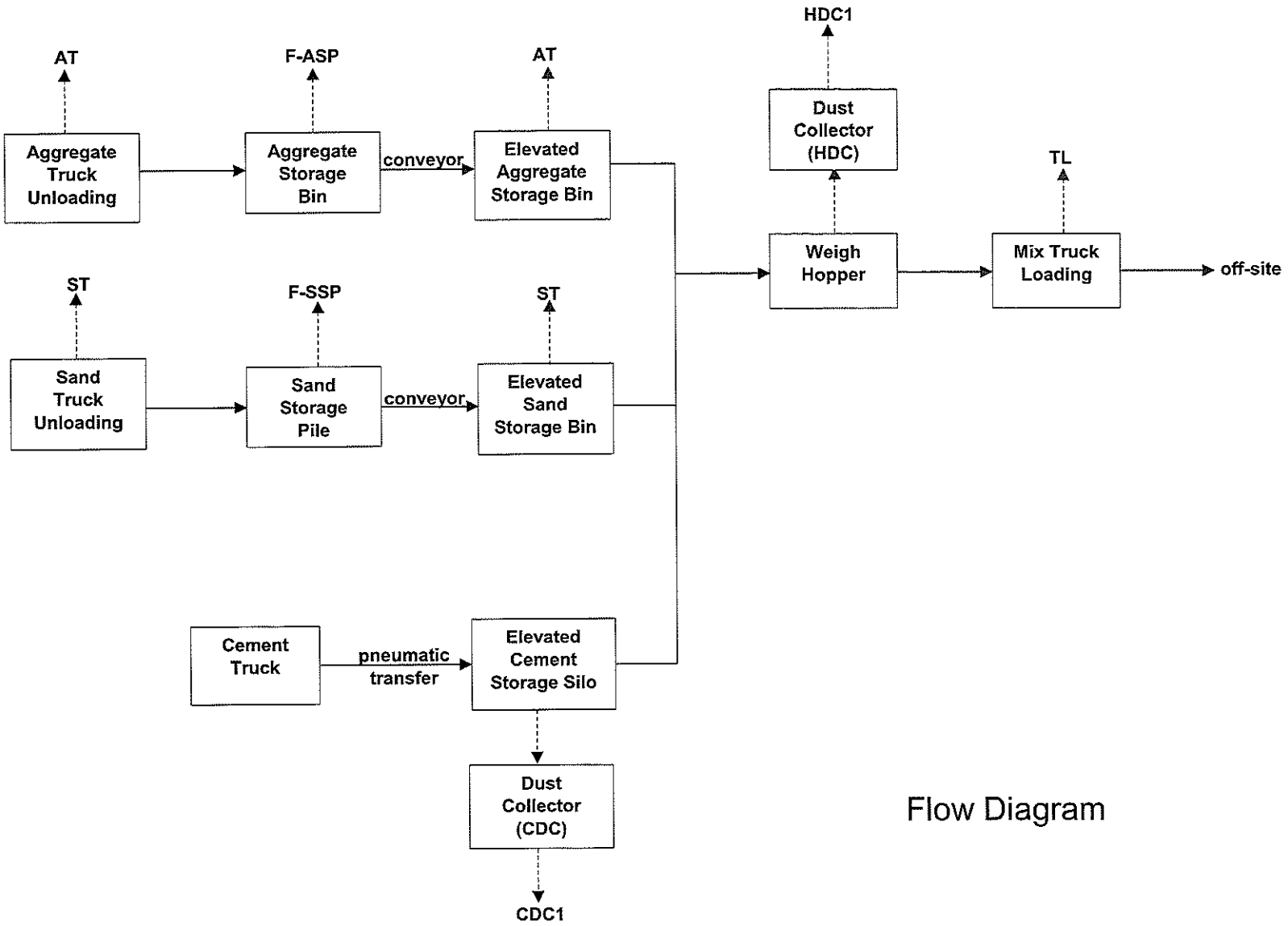
FORM 6.00 – FUGITIVE EMISSION SOURCES

Fugitive Emission Source ID	Description of Source	Emission Reduction Precautions	Pot. Fugitive Emissions	
			Amount (tpy)	Pollutant
ASP	Aggregate Storage Pile	Wet Suppression (if necessary)	0.09	PM
			0.032	PM_{10}
			0.005	$PM_{2.5}$
SSP	Sand Storage Pile	Wet Suppression (if necessary)	0.016	PM
			0.0057	PM_{10}
			0.0009	$PM_{2.5}$
UPR	Unpaved Roads	Wet Suppression (if necessary)	7.26	PM
			2.07	PM_{10}
			0.207	$PM_{2.5}$

I.

Attachment A

Flow Diagram



Flow Diagram

J.

Attachment B

Location Map (Plot Plan)