OPERATION AND MAINTENANCE PLAN

The following observations, checks and operations apply to each emission unit and shall be conducted on the schedule specified below. Records of inspection, maintenance and performance parameter data shall be retained for a minimum of three years and shall be made available to the Environmental Protection Commission of Hillsborough County upon request.

Daily (if in operation that day)

1. Check and record the pressure drop.
2. Observe stack (visual).
3. Walk through system listening for proper operation (audible leaks, proper fan and motor functions, bag cleaning systems, etc.).
4. Note any unusual occurrence in the process being ventilated.
5. Observe all indicators on control panel.
6. Check reverse air pressure.
7. Assure that dust is being removed from system.

Weekly (if in operation that week)

1. Inspect screw conveyor and air lock bearings for lubrication.
2. Check packing glands.
3. Operate all damper valves (isolation, by-pass, etc.).
4. Check bag cleaning sequence to see that all valves are opening and closing properly.
5. Check pressure drop indicating equipment for plugged lines.
6. Check compressed air lines and filters.

Monthly (if in operation that month)

1. Check cleaning mechanism moving parts.
2. Inspect fans for corrosion and material build-up.
3. Check all drive belts for wear and tension.
4. Check all hoses and clamps.
5. Check accuracy of all indicating equipment.
6. Inspect housing for corrosion.

Quarterly (if in operation that quarter)

1. Thoroughly inspect bags.
2. Observe damper valves for proper seating.
3. Check gaskets on all doors.
4. Inspect paint.

Annually (if in operation that year)

1. Check all bolts.
2. Check welds.
3. Inspect hopper for wear.

EU 001 - Ship Unloading

Shipunloader VASS/45.000/600/E	
Source Designators:	**BH-S**
Type:	Baghouse
Manufacturer:	Van Aalst-Son Bulk Handling
Model:	Compact filters type 13.0
Design Flow Rate:	24,720 DSCFM
Efficiency Rating at Design:	99.5%
Baghouse Pressure Drop:	0″ - 6" H_2O normal conditions
Air to Media Ratio:	3.9:1
Media Type:	Bag polyester
Media Specification:	Polyester needle felt
Gas Temp:	inlet: ambient outlet: ambient
Bag Cleaning Conditions:	pulse
Bag Cleaning Cycle:	continuous pulse rate 0.2 second duration, delay 20 seconds
Stack Height Above Ground:	26.25 ft.
Exit Dimensions:	5" x 12"
Exit Velocity:	82.4 fps
Water Vapor Content:	zero
Process Controlled by Collection System:	Ship unloader filter/receiver
Material Handling Rate:	770 tons per hr
Operation Schedule:	3,750 hrs/yr

EU 002 - Dome No. 1

Dome No. 1	
Source Designators:	**BH1-A**
Type:	Baghouse
Manufacturer:	MAC
Model:	96LST196
Design Flow Rate:	12,360 DSCFM during loading; 6180 DSCFM during unloading
Efficiency Rating at Design:	99.5%
Baghouse Pressure Drop:	0″ – 6" H_2O normal conditions
Air to Media Ratio:	5.0:1
Media Type:	Bag
Media Specification:	16 oz/sq yd Dacron Polyester
Gas Temp:	inlet: ambient outlet: ambient
Bag Cleaning Conditions:	timer and on-demand
Bag Cleaning Cycle:	pulse every 15 seconds, 0.1 seconds pulse duration
Stack Height Above Ground:	120 feet
Exit Dimensions:	24" diameter
Exit Velocity:	3934 fpm during loading; 1967 fpm during unloading
Water Vapor Content:	ambient
Process Controlled by Collection System:	Dome Filling and Unloading
Material Handling Rate:	770 tons per hr
Operation Schedule:	Limited to 1,250 hours per year for actively loading and 2,200 hours per year for unloading

003 - Transfer System No. 1

Transfer System No. 1- Convey Unit CU/225/E	
Source Designators:	**BH1-B**
Type:	Baghouse
Manufacturer:	Van Aslst-Son Bulk Handling
Model:	Compact filters type 13.0
Design Flow Rate:	221 DSCFM
Efficiency Rating at Design:	99.5%
Baghouse Pressure Drop:	0″ - 6" H_2O normal conditions
Air to Media Ratio:	3.9:1
Media Type:	Bag polyester
Media Specification:	Polyester needle felt
Gas Temp:	inlet: ambient outlet: ambient
Bag Cleaning Conditions:	pulse
Bag Cleaning Cycle:	continuous pulse rate 0.2 second duration, delay 20 seconds
Stack Height Above Ground:	29.5 ft.
Exit Dimensions:	6" diameter
Exit Velocity:	3.68 fps
Water Vapor Content:	zero
Process Controlled by Collection System:	Feed hopper of convey system and bleed air of pressure pots
Material Handling Rate:	250 tons/hr
Operation Schedule:	8,745 hours/year

004 - Outload Silo No. 1

Outload Silo No. 1	
Outload Silo No. 1	
Source Designators:	**BH1-C**
Type:	Baghouse
Manufacturer:	MAC
Model:	96LST81
Design Flow Rate:	2,154 DSCFM
Efficiency Rating at Design:	99.5%
Baghouse Pressure Drop:	0″ - 6" H_2O normal conditions
Air to Media Ratio:	2.1:1
Media Type:	Bag
Media Specification:	16 oz/sq yd Dacron Polyester
Gas Temp:	inlet: ambient outlet: ambient
Bag Cleaning Conditions:	timer and on-demand
Bag Cleaning Cycle:	pulse every 15 seconds, 0.1 seconds pulse duration
Stack Height Above Ground:	90 feet
Exit Dimensions:	19" diameter
Exit Velocity:	1094 fpm
Water Vapor Content:	ambient
Process Controlled by Collection System:	Silo Filling
Material Handling Rate:	250 tons/hour
Operation Schedule:	8,745 hours/year

005 - Outload Truck/Railcar Spout No. 1

Outload Truck/Railcar Spout No. 1	
Source Designators:	**BH-1D**
Type:	Baghouse (bin vent dust collector located on loading spout apparatus)
Manufacturer:	DCL
Model:	CFM330
Design Flow Rate:	2000 DSCFM
Efficiency Rating at Design:	99.5%
Baghouse Pressure Drop:	0″ - 6" H_2O
Air to Media Ratio:	6.1:1
Media Type:	Cartridge
Media Specification:	Spun Bonded Polyester
Gas Temp:	inlet: ambient outlet: ambient
Bag Cleaning Conditions:	timer and on-demand
Bag Cleaning Cycle:	pulse every 6 seconds, 0.15 seconds pulse duration
Stack Height Above Ground:	20 feet
Exit Dimensions:	11.0" x 12.75"
Exit Velocity:	2062 fpm
Water Vapor Content:	ambient
Process Controlled by Collection System:	Truck/Rail Loadout
Material Handling Rate:	400 tons/hour
Operation Schedule:	8,745 hours/year

005 - Emergency Truck Loading System

Emergency Truck Loading System	
Source Designators:	**BH-1X**
Type:	Baghouse
Manufacturer:	Diversified Storage Systems
Model:	Bazooka Tube 1200
Design Flow Rate:	1500 DSCFM
Efficiency Rating at Design:	99.5%
Baghouse Pressure Drop:	0″ - 9" H_2O
Air to Media Ratio:	6:1
Media Type:	Cartridge
Media Specification:	Spun Bonded Polyester
Gas Temp:	inlet: ambient outlet: ambient
Bag Cleaning Conditions:	Timed pulse jet
Bag Cleaning Cycle:	pulse every 28 seconds, 1 second pulse duration
Stack Height Above Ground:	15 feet
Exit Dimensions:	0.6 square feet
Exit Velocity:	2500 fpm
Water Vapor Content:	ambient
Process Controlled by Collection System:	Emergency Truck Loading
Material Handling Rate:	90 tons/hour
Operation Schedule:	70 hours/year