Appendix O&M

Operation and Maintenance Plans for Particulate Control

Appendix O&M: Operation and Maintenance Plans for Particulate Control
[Rule 62-296.700(6), F.A.C.]

a. Process Parameters:

EU No.	002	012, 119 – 121	004, 009, 117	007, 118, 129
Manufacturer	Dustex	Dustex	Dustex	Dustex
Model No.	6216-16-40	4507-4-7	4507H-3-7	4507H-4-7
Design Flow Rate	100,000 ACFM	3,000 ACFM	1,970 ACFM	2,730 ACFM
Efficiency Rating at Design	99+%	99+%	99+%	99+%
Pressure Drop	0-20 inches of water	0-12 inches of water	0-12 inches of water	0-12 inches of water
Air to Cloth Ratio	6.2:1	3.2:1	2.8:1	3.0:1
Bag Weave	Felt	Spun Bonded	Spun Bonded	Spun Bonded
Bag Material	Polyester	Polyester	Polyester	Polyester
No. of Filters	640	28	21	28
Rows	40 x 16	4 x 7	3 x 7	4 x 7
Bag Cleaning Conditions	Pulse Jet; Air Pressure 125 psig max.	Pulse Jet; Air Pressure 90 psig max.	Pulse Jet; Air Pressure 90 psig max.	Pulse Jet; Air Pressure 90 psig max.
Gas Temperature	Ambient	Ambient	Ambient	Ambient
Stack Height above Ground	75 feet	125 feet	EU 004 – 34 feet EU 009 – 95 feet EU 117 – 18 feet	EU 007 – 10 feet EU 018 – 12 feet EU 129 – 129 feet
Exit Diameter	5 1/2 x 5 1/2	14 1/4 x 10 3/4	12 3/4 x 9 3/4	14 1/4 x 10 3/4
Process Controlled by Collection System	Railcar/Truck Unloading	Silo Loading	Conveyor Transfer Points	Conveyor Transfer Points

b. Observations, checks and operations apply to this source and shall be conducted on the schedule specified:

Daily

1. Check and record Pressure Drop.
2. Check for visible emissions from source and associated emission points.
3. Check evacuation effectiveness.
4. Check and record air supply pressure
5. Walk through system listening for proper operation (audible leaks, proper fan and motor functions, bag cleaning systems, etc.)
6. Check fan for dust emissions.

Monthly

1. Check solenoids and diaphragm valves.
2. Check fan bearings.
3. Check door seals.
4. Check all lubrication.
5. Check dampers for proper operation.

Quarterly

1. Check floor plates.
2. Inspect fans for corrosion and material build-up.
3. Inspect baffle plates for wear.
4. Thoroughly inspect bags.
5. Inspect paint condition.
6. Check screw conveyor flighting.
7. Check all bolts.
8. Check all welds.
9. Check dampers for proper seating.
10. Check the alignment of clean air pipes.
11. Check the bag tension.
12. Check the bag seating.

Emission Unit Nos. 003 and 013 – Shiploading Operation (C13 to C14) and Shiphold Loading (C14 to telescopic chute)

a. Process Parameters:

1. Source Designator: C13 to C14 and C14 to telescopic chute
2. Baghouse Manufacturer: General Electric
3. Model Name and Number: R-08-128-108
4. Design Flow Rate: 9,000 DSCFM
5. Efficiency Rating at Design Capacity: 99+%
6. Pressure Drop: 0" - 8" w.g.
7. Air to Cloth Ratio: 4.8 to 1.0
8. Bag Weave: Felt
9. Bag Material: Teflon Coated Polyester, 16 oz.
10. Number of Filters: 128
11. Rows: 8
12. Bag Cleaning Conditions: Pulse-Jet; Air Pressure: 90 psig minimum
13. Gas Temperatures: Inlet and outlet (minimum): Ambient
14. Stack Height Above Ground: 33 ft.
15. Exit Diameter: 3 ft.
16. Exit Velocity: 24 f.p.s.
17. Water Vapor Content: Ambient
18. Process Controlled by Collection System: C13 to C14 and C14 to telescopic chute.
19. Material Handling Rate: 2,300 TPH maximum
20. Operation Schedule: 6,570 hrs./year

b. Observations, checks and operations apply to this source and shall be conducted on the schedule specified and records kept on the same:

Daily

1. Check and record pressure drop.
2. Check for visible emissions from source and associated emission points.
3. Check evacuation effectiveness.
4. Check and record air supply pressure.
5. Walk through system listening for proper operation (audible leaks, proper fan and motor functions, bag cleaning systems, etc.)
6. Check fan for dust emissions.

Monthly

1. Check solenoids and diaphragm valves.
2. Check the dust suppression system to ensure proper operation.
3. Check fan bearings.
4. Check door seals.
5. Unplug hopper if necessary. Check rotary valves.
6. Check all lubrication.
7. Check duct condition (inlet and outlet).
8. Check dampers for proper operation.

9. Check Screw Conveyor, Motor, and Discharge Valves for proper operation.

Quarterly

1. Check floor plates.
2. Inspect fans for corrosion and material build-up.
3. Inspect baffle plates for wear.
4. Thoroughly inspect bags.
5. Check ducts for dust build-up.
6. Inspect paint condition.
7. Check screw conveyor flighting.
8. Check all bolts.
9. Check all welds.
10. Inspect hopper for wear.
11. Check dampers for proper seating.
12. Check the alignment of clean air pipes.
13. Check the bag tension.
14. Check the bag seating.

Emission Unit No. 005 – C12 Transfer Point A (C12 to C13)

a. Process Parameters:
   1. Source Designator: C12 Conveyor Transfer Point A
   2. Baghouse Manufacturer: General Electric
   3. Model Names and Number: BVT, HZ, 5-25-81
   4. Design Flow Rate: 3,000 ACFM
   5. Efficiency Rating at Design Capacity: 99+%
   6. Pressure Drop: 0" - 8" of water
   7. Air to Cloth Ratio: 2.5:1
   8. Bag Weave: Spun Bonded
   9. Bag Material: Polyester
   10. Number of filters: 25
   11. Number of rows: 5
   12. Bag Cleaning Conditions: Pulse Jet; Air pressure 90 psig maximum
   13. Gas Temperatures Inlet and Outlet: Ambient
   14. Stack Height Above Ground: 32 ft.
   15. Exit Size: 10 1/8 in. x 9 3/4 in.
   16. Exit Velocity: Fan outlet velocity 4,376 FPM
   17. Water Vapor Content: Ambient
   18. Process Controlled by Collection System: C12 to C13 transfer point
   19. Material Handling Rate: 2300 tons per hour
   20. Operation Schedule: 6570 hrs./year

b. The following observations, checks and operations apply to this source and shall be conducted on the schedule specified and records kept on the same:

Daily
   1. Check and record pressure drop
   2. Check for visible emissions from source and associated points.
   3. Check evacuation effectiveness
   4. Check and record air supply pressure
   5. Walk through system listening for proper operation (audible leaks, proper fan and motor functions, bag cleaning system, etc.).
   6. Check fan for dust emissions

Monthly
   1. Check solenoids and diaphragm valves.
   2. Check the dust suppression system to ensure proper operation.
   3. Check fan bearings.
   4. Check door seals.
   5. Check all lubrication.
   6. Check duct condition (inlet and outlet).
   7. Check dampers for proper operation.

Quarterly

1. Check floor plates.
2. Inspect fans for corrosion and material build-up.
3. Inspect baffle plates for wear.
4. Thoroughly inspect bags.
5. Check ducts for dust build-up.
6. Inspect paint condition.
7. Check all bolts.
8. Check all welds.
9. Check dampers for proper seating.
10. Check the alignment of clean air pipes.
11. Check the bag tension.
12. Check the bag seating.

Emission Unit No. 006 – C30 Transfer Point C (C30 to C12)

a. Process Parameters:

1. Source Designator: C30 Transfer Point C
2. Baghouse Manufacturer: General Electric
3. Model Names and Number: BVT, HZ, 5-25-81
4. Design Flow Rate: 3,000 ACFM
5. Efficiency Rating at Design Capacity: 99+%
6. Pressure Drop: 0" - 8" of water
7. Air to Cloth Ratio: 2.5:1
8. Bag Weave: Spun Bonded
9. Bag Material: Polyester
10. Number of filters: 25
11. Number of rows: 5
12. Bag Cleaning Conditions: Pulse Jet; Air pressure 90 psig maximum
13. Gas Temperatures Inlet and Outlet: Ambient
14. Stack Height Above Ground: 8 ft.
15. Exit Diameter: Discharge size of fan - 10 1/8 in. x 9 3/4 in.
16. Exit Velocity: Fan outlet velocity 4,376 FPM
17. Water Vapor Content: Ambient
18. Process Controlled by Collection System: C30 to C12 transfer point
19. Material Handling Rate: 2300 tons per hour
20. Operation Schedule: 6570 hrs./year

b. The following observations, checks and operations apply to this source and shall be conducted on the schedule specified and records kept on the same:

Daily

1. Check and record pressure drop
2. Check for visible emissions from source and associated points.
3. Check evacuation effectiveness
4. Check and record air supply pressure
5. Walk through system listening for proper operation (audible leaks, proper fan and motor functions, bag cleaning system, etc.).
6. Check fan for dust emissions

Monthly

1. Check solenoids and diaphragm valves.
2. Check the dust suppression system to ensure proper operation.
3. Check fan bearings.
4. Check door seals.
5. Check all lubrication.
6. Check duct condition (inlet and outlet).
7. Check dampers for proper operation.

Quarterly

1. Check floor plates.
2. Inspect fans for corrosion and material build-up.
3. Inspect baffle plates for wear.
4. Thoroughly inspect bags.
5. Check ducts for dust build-up.
6. Inspect paint condition.
7. Check all bolts.
8. Check all welds.
9. Check dampers for proper seating.
10. Check the alignment of clean air pipes.
11. Check the bag tension.
12. Check the bag seating.

Emission Unit No. 008 – Material Handling and Storage Silos

a. Process Parameters:

1. Source Designator: Material Handling and Storage Silos
2. Baghouse Manufacturer: Mikro-Pulsaire
3. Model Name and Number: Model 49S-8-20
4. Design Flow Rate: 3565 ACFM (3540 scfm)
5. Efficiency Rating at Design Capacity: <0.02 grains/dscf
6. Pressure Drop: 0" – 6" of water
7. Air to Cloth Ratio: 6.5:1
8. Bag Weave: Felt
9. Bag Material: Polyester
10. Bag Cleaning conditions, pulse air pressure: 100 psig
11. Gas Flow Rate: 3200 ACFM
12. Gas temperatures inlet and outlet: Ambient - 130 °F.
13. Stack Height above ground: 97 ft.
14. Exit Diameter: 12 in. x 12 in.
15. Exit Velocity: 59.5 f.p.s.
16. Water Vapor Content: Ambient
17. Process controlled by collection system: material handling
18. Material Handling Rate: 120 tons per hour
19. Operation Schedule: 2,500 hours per year.

b. The following observations, checks and operations apply to this source and shall be conducted on the schedule specified:

Daily

1. Check and record pressure drop
2. Check for visible emissions from source and associated points.
3. Check evacuation effectiveness
4. Check and record air supply pressure
5. Walk through system listening for proper operation (audible leaks, proper fan and motor functions, bag cleaning system, etc.).
6. Check fan for dust emissions

Monthly

1. Check solenoids and diaphragm valves.
2. Check the dust suppression system to ensure proper operation.
3. Check fan bearings.
4. Check door seals.
5. Check all lubrication.
6. Check duct condition (inlet and outlet).
7. Check dampers for proper operation.

Quarterly

1. Check floor plates.

2. Inspect fans for corrosion and material build-up.
3. Inspect baffle plates for wear.
4. Thoroughly inspect bags.
5. Check ducts for dust build-up.
6. Inspect paint condition.
7. Check all bolts.
8. Check all welds.
9. Check dampers for proper seating.
10. Check the alignment of clean air pipes.
11. Check the bag tension.
12. Check the bag seating.

Emission Unit No. 100 – Truck and Railcar Unloading Station No.2 and Transfer Points (C2, C3, C4, C7, C11, C94) in Storage Building Nos. 1 and 2

No Control Device

The following observations, checks and operations apply to this source and shall be conducted on the schedule specified:

Weekly

1. Check and record each exhaust for visible emission.

Monthly

1. Check conveyor transfer systems and bucket elevator for visible leaks and cracks.

Emission Unit No. 102 – Truck Unloading Station No. 1 and Transfer Point (C82 to C83)

No Control Device

The following observations, checks and operations apply to this source and shall be conducted on the schedule specified:

Weekly

1. Check and record each exhaust for visible emission.

Monthly

1. Check the conveyor transfer systems for visible leaks and cracks.

Emission Unit No. 103 – Transfer Points (C83, C84 and C104) in Storage Building No. 3

No Control Device

The following observations, checks and operations apply to this source and shall be conducted on the schedule specified:

Weekly

1. Check and record each exhaust for visible emission.

Monthly

1. Check the conveyor transfer systems for visible leaks and cracks.