ATTACHMENT A

Johnson Controls Battery Group, Inc.
Operation and Maintenance Plan
Three-Process Operation
and Chemset/Curing Chamber No. 6
Revised May 2011

EU No. 002, COS Line No. 1 - Stack No. 134A

1. Baghouse Manufacturer: Ruemelin
2. Model Name and Number: 4120
3. Flow Rate: 13,747 dscfm
4. Efficiency Rating at Design Capacity: 99+%
5. Pressure Drop: 0-7 inches H_2O
6. Air to Cloth Ratio: 3.8 to 1
7. Bag Material: Polyester
8. Bag Cleaning Conditions: Mechanical Shaking
9. Exhaust Temperature: Ambient
10. Stack Height Above Ground: 38 feet
11. Exit Diameter: 3 feet
12. Maximum Production Rate: 190 batteries/hour

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

Daily
1. Check and record each exhaust for visible emissions.
2. Check and record all baghouse pressure drops.
3. Report any moisture in or malfunction of the gauges.

Biweekly
1. Empty all hoppers
2. Inspect slide gates on hoppers
3. Check drums to ensure replacement.

Monthly
1. Check and record baghouse air flow.
2. Inspect all ductwork and connections for leaks or cracks.
3. Inspect fan belts and check belt tension.
4. Check bag shaker cycle.
5. Lubricate blower bearings.
6. Record motor ampere load.

Quarterly
1. Check bags using black light leak tests unless broken bag detectors are installed.
2. Check doors seals and latches for leaks.

Annually
1. Calibrate magnahelic gauges.

EU No. 018, COS Line No. 2 - Stack No. 198

1. Baghouse Manufacturer: American Air Filter
2. Model Name and Number: AAF 12-216-3464
3. Flow Rate: 15,056 dscfm
4. Efficiency Rating at Design Capacity: 99+%
5. Pressure Drop: 0-7 inches H_2O
6. Air to Cloth Ratio: 3.8 to 1
7. Bag Material: Polyester
8. Bag Cleaning Conditions: Pulse, 70 psi minimum
9. Exhaust Temperature: Ambient
10. Stack Height Above Ground: 38 feet
11. Exit Diameter: 3 feet
12. Maximum Production Rate: 190 batteries/hour

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

Daily
1. Check and record each exhaust for visible emissions.
2. Check and record all baghouse pressure drops.
3. Report any moisture in or malfunction of the gauges.

Weekly
1. Empty hopper
2. Check all ducts and all connections of baghouse dust collection hopper

Monthly
1. Check and record each baghouse air flow.
2. Check cleaning air pressure.
3. Check air filters to verify traps are properly blowing down.
4. Check pulse valves for proper operation.
5. Inspect all ductwork and connections for leaks or cracks.
6. Inspect fan belts and check belt tension.
7. Lubricate blower bearings.

Quarterly
1. Check bags using black light leak tests unless broken bag detectors are installed.
2. Check doors seals and latches for leaks.

Annually
1. Calibrate photohelic gauges.

EU No. 050, COS Line No. 3 and EU No. 052, COS Line No. 4 - Stack No. 204

1. Baghouse Manufacturer: American Air Filter
2. Model Name and Number: AAF 312-288-4618 Model B
3. Flow Rate: 23,946 dscfm
4. Efficiency Rating at Design Capacity: 99+%
5. Pressure Drop: 0-7 inches H_2O
6. Air to Cloth Ratio: 3.8 to 1
7. Bag Material: Polyester
8. Bag Cleaning Conditions: Pulse, 70 p.s.i. minimum
9. Exhaust Temperature: Ambient
10. Stack Height Above Ground: 38 feet
11. Exit Diameter: 3.3 3 feet
12. Maximum Production Rate: COS Line No. 3 260 batteries/hr
    COS Line No. 4 260 batteries/hr

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

Daily
1. Check and record each exhaust for visible emissions.
2. Check and record all baghouse pressure drops.
3. Report any moisture in or malfunction of the gauges.

Biweekly
1. Empty hopper
2. Check all ducts and all connections of baghouse dust collection hopper

Monthly
1. Check and record each baghouse air flow.
2. Check cleaning air pressure.
3. Check air filters to verify traps are properly blowing down.
4. Check pulse valves for proper operation.
5. Inspect all ductwork and connections for leaks or cracks.
6. Inspect fan belts and check belt tension.
7. Lubricate blower bearings.

Quarterly
1. Check bags using black light leak tests unless broken bag detectors are installed.
2. Check doors seals and latches for leaks.

Annually
1. Calibrate photohelic gauges.

EU No. 039, Heat Seal Vents

No Control Device

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

Monthly
1. Check blowers for proper operation.
2. Check filters.

EU No. 051, Stackers - Stack No. 351

1. Baghouse Manufacturer: Seneca 195-FMTHS-12
2. Flow Rate: 14,420 DSCFM
3. Efficiency Rating at Design Capacity: 99+%
4. Pressure Drop: 0-6 inches H_2O
5. Air to Cloth Ratio: 3.9:1
6. Exhaust Temperature: Ambient
7. Stack Height Above Ground: 50 feet
8. Exit Diameter: 2.5 feet
9. Maximum Production Rate: 24,000 plates/hr/stacker, 48,000 plates/hr total

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

Daily
1. Check and record each exhaust for visible emission.
2. Check and record all baghouse pressure drops.
3. Report any moisture in or malfunction of the gauges.

Weekly
1. Empty hopper
2. Check all ducts and all connections of baghouse dust collection hopper

Monthly
1. Check and record each baghouse air flow.
2. Check cleaning air pressure.
3. Check air filters to verify traps are properly blowing down.
4. Check pulse valves for proper operation.
5. Inspect fan belts and check belt tension.
6. Lubricate blower bearings.

Quarterly
1. Check bags using black light leak tests unless broken bag detectors are installed.

Annually
1. Calibrate photohelic gauges.

EU No. 047, Chemset/Curing Chamber No. 6 - Stack No. 367

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 emissions.

Monthly
1. Check ductwork for visible leaks and cracks.

EU No. 048, Heater No. 10 for Chemset/Curing Chamber No. 6 – Stack No. 368

No Control Device

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

Semi-annually
1. Check stack for the presence of visible emissions and note any unusual occurrences.
2. Visual inspection of flame and burner.
3. Check ductwork for leaks or cracks.