# RENEWABLE OPERATING PERMIT APPLICATION
# AI-001: ADDITIONAL INFORMATION

*This information is required by Article II, Chapter 1, Part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.*

| | SRN: P008 | Section Number (if applicable): |
|---|---|---|

1. Additional Information ID
**AI-**PLANS

**Additional Information**

2. Is This Information Confidential? ☐ Yes ☒ No

Attached please find the plans associated wtih 40 CFR 63 subpart 6V.

## Background

The BTA facility located at 4750 Dickman Road Battle Creek, MI is subject to the requirement to develop and implement a control device monitoring plan under 40CFR63.11496(f)(3)(i)(A-E). The Battle Creek facility manufactures cathode materials for use in rechargeable batteries. The cathode material contains the following metal HAP: cobalt, nickel and manganese. The Battle Creek facility currently employs both baghouses and cartridge style dust collectors to control metal Hazardous Air Pollutants (HAP) emissions from the manufacturing process.

The facility is comprised of two Chemical Manufacturing Process Units (CMPUs). Line #1 and Line #2 are the CMPU designations. Each line is supported by baghouses and cartridge dust collectors for the control of metal HAP emissions from the process. Baghouses are employed exclusively for control of metal HAP emissions from the blending and product pack out unit operations. Cartridge style dust collectors are employed for control of HAP emissions from the RHK Kilns.

## Description of Control Devices

**Table 1**

| Device Designation | CMPU # | Manufacturer | Model Number | Filter Type | Model Number Filter Cloth |
|---|---|---|---|---|---|
| A1-BF-010 | A1 | Hosakawa Micron | SP-36-8 | GORETEX | GORETEX#4427 |
| A1-BF-020 | A1 | Hosakawa Micron | SP-36-8 | GORETEX | GORETEX#4427 |
| A1-BF-030 | A1 | Hosakawa Micron | SP-12-8 | GORETEX | GORETEX#4427 |
| A1-BF-210 | A1 | Hosakawa Micron | SP-36-8 | GORETEX | GORETEX#4427 |
| A1-BF-720 | A1 | Hosakawa Micron | SP-6-4(K) | POLYESTER | QP825 |
| A2-BF-010 | A2 | Hosakawa Micron | SP-36-8 | GORETEX | GORETEX#4427 |
| A2-BF-020 | A2 | Hosakawa Micron | SP-36-8 | GORETEX | GORETEX#4427 |
| A2-BF-030 | A2 | Hosakawa Micron | SP-12-8 | GORETEX | GORETEX#4427 |
| A2-BF-015 | A2 | Hosakawa Micron | SP-36-8 | GORETEX | GORETEX#4427 |
| A2-BF-720 | A2 | Hosakawa Micron | SP-6-4(K) | POLYESTER | QP825 |
| DC-961 | A1 | Donaldson Torit | DFE 4-16 | Thermo-Web | Thermo-Web |
| DC-962 | A1 | Donaldson Torit | DFE 2-8 | Ultra-Web | Ultra-Web |
| DC-963 | A2 | Donaldson Torit | DFE 3-24 | Thermo-Web | Thermo-Web |
| DC-964 | A2 | Donaldson Torit | DFE 3-12 | Ultra-Web | Ultra-Web |
| DC-965 | A2 | Donaldson Torit | DFE 3-24 | Thermo-Web | Thermo-Web |
| DC-966 | A2 | Donaldson Torit | DFE 3-12 | Ultra-Web | Ultra-Web |

## Engineering and or Performance Testing Evaluation of the Devices

The Baghouses require Performance Testing per 40CFR63.11496(f) through the requirements specified in 40CFR63.11410(g). This testing has been completed for the primary dust collectors supporting the process equipment. Records and test reports associated with this testing is maintained within the facility record.

## Operation and Maintenance Plan

The Battle Creek facility will follow the manufacturer's recommendations and operating manuals for the operation and maintenance of the baghouses. The operating manuals are maintained updated by the Facility Supervisor.

The Preventive Maintenance Plan is also managed by the Facility Supervisor through the utilization of BASF's SAP based maintenance planning tool. Manufacturer's recommendations for preventative maintenance have been assessed by the Facility Supervisor, Operations Manager and Environmental Specialist. The assessment was the basis for the development and implementation of the preventive maintenance schedule for the equipment. Through that schedule, equipment specific PM's were developed, assigned and entered the SAP planning tool.

The equipment specific PM's are assigned to maintenance staff and are expected to be completed as assigned. The completed PM's are then filed in the system with hard copies maintained as a back-up for the facility record. All assigned and completed PM's must be maintained on site for a minimum of five (5) years.

The devices have installed a Continuous Monitoring System (CMS) for the purposes of collecting data for pressure drop readings for the baghouses and cartridge dust collectors. This system records a pressure drop reading every 15 seconds of operation of the equipment. Data from the accumulated pressure drop readings are then evaluated on a 15-minute block average. The 15-minute block average is used to determine compliance with the pressure drop ranges established by the manufacturer and referenced in this plan. In addition, the baghouses and cartridge dust collectors have Bag Leak Detection Systems (BLDS) for determining the breakthrough of the filter media. The BLDS have a manufacturer's certified particle sensitivity of 0.00044 grains per actual cubic foot. The system will alarm at the HMI panel associated with the facility PLC control system.

Should the system indicate excessive loading or a leak the plant staff will be alerted via the panel alarm. Staff will inspect the device and determine corrective measures. Should the corrective measures require longer than three (3) hours to correct equipment will be shut down in a safe and orderly fashion to facilitate investigation and repair. A more detailed discussion of responses to BLDS alarms is contained in the BLDS Monitoring Plan.

The CMS for the dust collectors and cartridge dust collectors for the purposes of monitoring pressure drop will also employ an alarm system designed to alert staff when the pressure drop approaches a low and/or high-level set point alarm See Table #2. Staff will use a similar process as described for the BLDS for the investigation and resolution of an alarm for the control devices.

## Table #2 - Operating/Monitoring Parameters for Baghouses and Scrubber Systems

| **Device Designation** | **CMPU #** | Manufacturer's Recommend Pressure Drop Range or Minimum |
|---|---|---|
| A1-BF-010 | A1 | 0.1-8-inch h20 |
| A1-BF-020 | A1 | 0.1-8-inch h20 |
| A1-BF-030 | A1 | 0.1-8-inch h20 |
| A1-BF-210 | A1 | 0.1-8-inch h20 |
| A1-BF-720 | A1 | 0.1-8-inch h20 |
| A2-BF-010 | A2 | 0.1-8-inch h20 |
| A2-BF-020 | A2 | 0.1-8-inch h20 |
| A2-BF-030 | A2 | 0.1-8-inch h20 |
| A2-BF-015 | A2 | 0.1-8-inch h20 |
| A2-BF-720 | A2 | 0.1-8-inch h20 |
| DC-961 | A1 | 1.0 to 7.0 inch WC |
| DC-962 | A1 | 1.0 to 7.0 inch WC |
| DC-963 | A2 | 1.0 to 7.0 inch WC |
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| A1-BF-210 | A1 | 0.1-8-inch h20 |
| A1-BF-720 | A1 | 0.1-8-inch h20 |
| A2-BF-010 | A2 | 0.1-8-inch h20 |
| A2-BF-020 | A2 | 0.1-8-inch h20 |
| A2-BF-030 | A2 | 0.1-8-inch h20 |
| A2-BF-015 | A2 | 0.1-8-inch h20 |
| A2-BF-720 | A2 | 0.1-8-inch h20 |
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