I. FACILITY INFORMATION

DDP Specialty Electronic Materials US, Inc. is located at 1500 John Tipton Blvd, Pennsauken, Camden County, NJ 08110 and consists of a rigid foam board insulation manufacturing plant. The facility is owned and operated by DDP Specialty Electronic Materials US, Inc.

The facility is a non-major facility that has elected to maintain a Title V operating permit. It has the potential to emit 17.2 tons per year of volatile organic compounds to the atmosphere.

This permit does not contain any hazardous air pollutants since no HAP are emitted at a rate greater than the reporting thresholds at N.J.A.C. 7:27-17.9.

II. AREA ATTAINMENT CLASSIFICATION

The Federal Clean Air Act (CAA) sets National Ambient Air Quality Standards (NAAQS) for six common air pollutants. These commonly found air pollutants (also known as "criteria pollutants") are particulate matter, ground-level ozone, carbon monoxide (CO), sulfur dioxide (SO2), nitrogen dioxide (NO2), and lead. The US Environmental Protection Agency (USEPA) also classifies areas as “attainment” or “nonattainment” for each criteria pollutant, based on the magnitude of an area's problem. Nonattainment classifications are used to specify what air pollution reduction measures an area must adopt, and when the area must reach attainment. Currently, the entire State of New Jersey is designated as nonattainment for the 8-hour ozone NAAQS. New Jersey is designated attainment for all other pollutants. For nonattainment classification refer to https://www.epa.gov/green-book/green-book-national-area-and-county-level-multi-pollutant-information.

III. BACKGROUND AND HISTORY

The equipment that emits air contaminants from this facility include: a pour head controlled by a carbon adsorption system; two zone heaters; two trim saws controlled by a particulate filter baghouse and a carbon adsorption system; two shiplap saws controlled by a particulate filter baghouse and a carbon adsorption system; a Bemis cutter controlled by a particulate filter baghouse and a carbon adsorption system; cross cut saws controlled by a cartridge particulate filter; two compactors controlled by a particulate filter baghouse and a carbon adsorption system; cavity cut saws controlled by a particulate filter baghouse and a carbon adsorption system; two ovens; an offline Bemis cutter controlled by a cartridge particulate filter; and packaging conveyors.

All baghouse and cartridge filters are operated with a minimum 99% control efficiency for particulate emissions. All carbon adsorption systems are operated with a minimum 95% control efficiency for volatile organic compound emissions.

Table 1 - Operating Permit Revision History (located at the end of this document) provides a summary of all the changes that have been incorporated into the operating permit through seven-day notice changes, administrative amendments, minor modifications, or significant modifications since the approval of the initial operating permit or the most recent renewal thereof. Please refer to the attached explanation sheet for the structure and configuration of conditions of approval, included in the Facility Specific Requirements section of this permit.

This is a Permit Renewal and includes the following changes:

1. Added reportable PM-2.5 emissions for all emission units.

2. Updated FC section of compliance plan.

3. Updated language of existing requirements for completeness.

4. Revised monitoring frequency for baghouse CD4 from "1-hour block average" to "continuously".

The changes made during this permitting action result in allowable annual emissions changes as follows: Reportable PM-2.5 emissions were added to the permit consistent with changes in the rules. There were no other changes to the air contaminant emission rates.

IV. BASIS FOR MONITORING AND RECORDKEEPING REQUIREMENTS

The facility's operating permit includes monitoring, recordkeeping and reporting requirements that are sufficient to demonstrate the facility's continued compliance with the applicable requirements consistent with the following:

1. Provisions to implement the testing and monitoring requirements of N.J.A.C. 7:27-22.18, the recordkeeping and reporting requirements of N.J.A.C. 7:27-22.19, and all emissions monitoring and analysis procedures or compliance assurance methods required under the applicable requirements, including any procedures and methods promulgated pursuant to 40 CFR 64; and

2. Where the applicable requirement does not require direct periodic monitoring of emissions, the Department requires periodic monitoring of surrogate parameters sufficient to yield reliable data from the relevant time period that are representative of the facility's compliance with the permit.

   For the pour head and curing ovens in emission unit U2, the facility monitors the total material transferred (tons per year - TPY) of blowing agent and fire retardant, natural gas usage, and hours of operation as the surrogate for the long-term (TPY) emission limits for VOC, NOx, CO, TSP, PM-10, and PM-2.5. Raw materials and total material transferred (pounds per minute - lb/min) are monitored as surrogates for the short-term (pounds per hour - lb/hr) emission limits for VOC, NOx, CO, TSP, PM-10, and PM-2.5.
   The pour head is equipped with a carbon adsorption system permitted as control device CD3. Control device CD3 is monitored for the time between replacement of carbon.
   For the cutting operations in emission unit U3, the facility monitors the total material transferred (TPY) of blowing agent and fire retardant, and hours of operation for VOC, TSP, PM-10, and PM-2.5. Raw materials and total material transferred (lb/min) are monitored as surrogates for the short-term (lb/hr) emission limits for VOC, TSP, PM-10, and PM-2.5.
   The cutting operations are equipped with a particulate filter baghouse permitted as control device CD2, a carbon adsorption system permitted as control device CD3, and a cartridge particulate filter permitted as CD4.
   Control devices CD2 and CD4 are monitored for pressure drop. Control device CD3 is monitored for the time between replacement of carbon.

3. In some cases, direct periodic monitoring of emissions and/or surrogate parameters is not required due to one or more of the following:

   - Equipment size and capacity limitations,
   - Subject equipment being permitted at the maximum rated capacity,
   - There is no specific state or Federal standard that applies to this piece of equipment,
   - Not a pollutant of concern for this piece of equipment,
   - Agreements with EPA on the frequency of testing and monitoring for combustion sources.

V. APPLICABLE STATE AND FEDERAL RULES

The facility is subject to New Jersey Air Pollution Control Regulations, codified in N.J.A.C. 7:27-1 through 34, as applicable. A complete text of these regulations is available at:
http://www.nj.gov/dep/aqm/rules27.html

The facility is also subject to Federal regulations listed below.

MACT Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

The Greenhouse Gas (GHG) emissions from this facility are 1,219 TPY CO2e and there is no GHG emissions increase. This renewal is not subject to PSD rules at 40 CFR 52.21.

VI. FACILITY'S COMPLIANCE STATUS

The Responsible Official at the facility has certified that the facility currently meets all applicable requirements of the Federal Clean Air Act and the New Jersey Air Pollution Control Act. Based on this certification, the Department's evaluation of the information included in the facility's application, and a review of the facility's compliance status, the Department has concluded that this air pollution control operating permit should be approved.

The facility has submitted a timely and complete application to renew their operating permit and an application shield is in effect.

This operating permit also includes a permit shield, pursuant to the provisions of N.J.A.C. 7:27-22.17. A permit shield provides that compliance with the relevant conditions of the operating permit shall be deemed compliance with the specific applicable requirements that are in effect on the date of issuance of the draft operating permit, and which form the basis for the conditions in the operating permit.

Also, prior to the expiration of the five-year period, the facility will be required to apply for a renewal of this operating permit, at which time the Department will evaluate the facility and issue a public notice with its findings.

VII. EXEMPT ACTIVITIES

The facility's operating permit does not include exempt activities such as office and interior maintenance activities, maintenance shop activities, food preparation facilities, cafeterias and dining rooms, etc. A complete list of exempt activities, as allowed by the Operating Permit rule, can be found at N.J.A.C. 7:27-22.1.

Table 1 - Operating Permit Revision History

Permit Activity Number	Type of Revision	Description of Revision	Final Action Date
BOP180001	Administrative Amendment	The following changes were made to the operating permit during this amendment process: 1. Effective November 1, 2018, The Dow Chemical Company will be transferring ownership to DDP Specialty Electronic Materials US, Inc. 2. Several contacts were updated, including Air Permit Information Contact and Fees/Billing Contact being changed to Ed Kaminski and the Responsible Official remaining Robert Buchler.	11/1/2018
BOP170002	Minor Modification	This operating permit includes the following changes: 1. Thomas Ruddy replaces Charles Hoffman as a contact in the Facility Profile (General). 2. Curing emissions from product stored in the warehouse and outdoor storage were added to FG2. 3. The change adds a Potential to Emit (PTE) of 8.795 tons per year of VOC emissions. 4. There are no changes to the compliance plan as a result of this modification.	12/4/2017
BOP170001	Minor Modification	This minor modification includes the requirements for adjusting the recordkeeping frequency of the carbon adsorption unit (Control Device CD3, Emission Units U2 and U3, OS Summary) VOC control efficiency to be consistent with the periodic monitoring frequency. Also, the minimum allowable pressure drop of the cartridge particulate filter (Control Device CD4, Emission Unit U3, OS Summary) has been reduced from 0.5 to 0.3 inches w.c. consistent with actual measured pressure drop when using a full set of clean filters.	4/3/2017
BOP160001	Minor Modification	This minor modification includes the requirements for changing raw materials and emission rates for the testing of new formulations in Emission Unit U2 OS Summary and Operating Scenarios OS14-OS16 and Emission Unit 3 OS Summary and Operating Scenarios OS15-OS20 and OS24-OS26. This modification will not affect annual emission limits, since the test formulations have lower emission rates than normal production.	2/22/2017

BOP150002	Minor Modification	This minor modification includes the requirements for adding offline bemis with a 48 ft/min capacity (E17, Emission Unit U3, Operating Scenario OS27), packaging conveyors with 30 ft/min capacity (E18, Emission Unit U4, Operating Scenario 1), and a cartridge particulate filter (CD4) for the cross cut saws (E11) and offline bemis (E17). Also, Emission Point PT9 was added for the emissions from the cross cut saws (E11) and offline bemis (E17), Emission Point PT10 was added for the emissions from the packaging conveyors (E18), and Emission Point PT7, the roof vent, was removed. The bemis cutter (E10) is now being controlled by a baghouse particulate filter (CD2) and activated carbon adsorber (CD3).	10/26/2015

FACILITY NAME (FACILITY ID NUMBER)
BOP050001

Activity Number assigned by the Department

New Jersey Department of Environmental Protection
Facility Specific Requirements

Emission Unit Number assigned by the Facility

Brief description of emission unit

Emission Unit: **U40 Sewage Sludge Incinerators**
Operating Scenario: **OS Summary** **OR** **OS2 Fluidized Bed Incinerator**

OS Summary lists all rules and requirements that apply to an emission unit. An emission unit may contain one or more pieces of equipment and corresponding operating scenarios.

OSX denotes the operating scenario number and lists the rules and requirements that apply to a scenario. An operating scenario represents various ways (or scenarios) a piece of equipment is permitted to operate.

Item Number

Description of applicable requirement

Monitoring method to ensure compliance

Recordkeeping to show facility's compliance

Actions and submittals required for the facility

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
3	The permittee shall conduct an annual performance test for each pollutant in Table 2 of 40CFR62 Subpart LLL between 11 and 13 calendar months after the previous performance test or within 60 days of a process change. [40 CFR 62.16000(a)]	Other: Conduct the performance test using the test methods, averaging methods and minimum sampling volumes or durations as specified in 40CFR62 Subpart LLL and according to the testing, monitoring and calibration requirements specified in 40 CFR 62.16015(a). [40 CFR 62.16000(a)].	Other: (1) Maintain records of the results of initial, annual and any subsequent performance tests conducted to determine compliance with the emission limits and standards and/or to establish operating limits, as applicable. [40 CFR 62.16025(e)].	Submit a report: Annually to the Administrator and to the Department. The permittee shall submit an annual compliance report as specified in 40 CFR 62. [40 CFR 62.16000(d)]

Rule citation for applicable requirement

Rule citation for monitoring requirement

Rule citation for recordkeeping requirement

Rule citation for submittal/ action requirement

Explanation Sheet for Facility Specific Requirements