

## **STATEMENT OF BASIS**

DaikyoNishikawa USA, Inc. (DNUS) – OSP-4 Plastics Shop  
MTMUS Campus, Huntsville, Limestone County, Alabama  
Facility Permit No. 7-08-P425-Z001  
Initial Issuance

### **DESCRIPTION OF PERMITTING ACTION**

In August 2022, the City of Huntsville Department of Natural Resources and Environmental Management (DNREM) received an application for initial issuance of a Title V Major Source Operating Permit (MSOP) for the DaikyoNishikawa USA, Inc. (DNUS) plastics shop located at 9000 Greenbrier Parkway #95 in Huntsville, Limestone County, AL 35756. The facility is an on-site support facility (On-Site Partner or OSP) located on the Mazda Toyota Manufacturing U.S.A., Inc., (MTMUS) automotive manufacturing campus (“MTMUS Campus” or “Campus”) approximately four (4) miles west of the Huntsville, Alabama, airport. The Campus is generally bounded on the east by Powell Road and fields (near the intersection of the railroad tracks and Old US Hwy 20), the north by fields (near the intersection of Powell Road), the west by fields (near the intersection of Limestone Creek), and on the south by Old US Highway 20.

### **BACKGROUND**

DNUS constructed, owns, and operates the plastics shop on the MTMUS Campus and molds manufacturers plastic parts for use at the main assembly plant (MTMUS JV Facility) on the Campus. DNUS operates under SIC 3711 (Motor Vehicles and Passenger Car Bodies) and NAICS 336111 (Automobile Manufacturing) and 336112 (Light Truck and Utility Vehicle Maintenance). DNUS emits pollutants associated with injection and slush molding of plastic parts; coating operations; natural gas combustion in emission control equipment, oven burners and HVAC units; and diesel fuel combustion in an emergency fire pump engine.

All activities conducted on the MTMUS Campus support the manufacturing of automobiles only on the MTMUS Campus and are located on property under the common control of MTMUS. Therefore, DNREM considers the entire MTMUS Campus to be a single source of air pollution for purposes of Prevention of Significant Deterioration (PSD) of Air Quality applicability determinations and any required Best Available Control Technology (BACT) analyses or Air Quality Impact Analyses (AQIAs) performed.

### **PERMITTING HISTORY**

The original permitting effort for the entire MTMUS Campus in 2018 resulted in seven (7) PSD permit being issued by DNREM to MTMUS for the Plastics Shop in December of 2018. These permits covered coating operations, miscellaneous usage of Volatile Organic Compounds (VOCs), and natural gas combustion in emission control equipment and HVAC units at the facility. At the time of initial PSD permitting, the entity that would ultimately construct, own, and operate the Plastics Shop had not yet been determined.

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As previously stated, for regulatory applicability purposes, the main assembly plant and all on-site support facilities are under the common control of MTMUS and are considered one major stationary emission source for the purposes of PSD applicability and any required BACT analyses or AQIAs performed. In the initial permitting process, the MTMUS Campus was deemed a major source under PSD since the potential to emit (PTE) VOCs was greater than 250 tons per year (TPY). Particulate matter (PM), carbon monoxide (CO), and nitrogen oxides (NO<sub>x</sub>) potential emissions were also estimated to exceed the 10 TPY (for PM<sub>2.5</sub>), 100 TPY, and 40 TPY de minimis levels, respectively. BACT was required to be installed and/or implemented on all significant sources of VOC, PM, CO, NO<sub>x</sub>, and greenhouse gases (GHGs) in accordance with the City of Huntsville Air Pollution Control Rules and Regulations (COHRAR) Section 3.5.4. Therefore, all significant sources of these pollutants underwent BACT analyses, and limitations and good work practices were incorporated into the permits issued to the various facilities on the MTMUS Campus as applicable.

In accordance with COHRAR Sections 3.5.5 through 3.5.9., an AQIA was performed and submitted with the initial application for construction of the Campus, and the impact of the Campus potential emissions on air quality, visibility, soils, and vegetation was assessed. The predicted ambient impacts of the source were projected to be in the immediate area of the source and were relatively minor, so no discernible impacts were expected. As the Campus was to be located less than 100 km (at 58.6 km) from the nearest Class I area (Sipsey Wilderness in northwest Alabama), the facility was also evaluated to determine if it would adversely affect visibility in this area in accordance with COH APC RAR Section 3.5.10. Reports from the Federal Land Manager (FLM) indicated there was no need for further evaluation.

*MTMUS Campus Revision Request #1 (MTMUS-RR-1, November 2019):*

- HVAC burners at DNUS underwent reevaluation of NO<sub>x</sub> BACT limitations.
- The number of HVAC units and respective burner ratings were updated for the DNUS facility.

*MTMUS Campus Administrative Amendments (MTMUS-AA-1, March 2020):*

The on-site support facilities on the MTMUS Campus were originally referred to as On-Site Suppliers (OSSs). MTMUS elected to change reference to these facilities to On-Site Partners (OSPs). In addition, DNREM elected to restructure the permit numbering system for the OSPs to better group together the permits associated with each individual entity. These changes were accomplished under MTMUS-AA-1 for the OSP permits that were not undergoing revisions associated with the Campus revision request that follows, and this was the case for six (6) of the permits held by the Plastics Shop, which is also referred to as OSP-4.

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### *MTMUS Campus Revision Request #2 (MTMUS-RR-2, July 2020):*

DNUS added a natural gas combustion source (jig cleaning)

### *Name Change from MTMUS to Each OSP (August & September 2020)*

Once the owner of the OSP facilities were selected to construct and operate the support facilities on the Campus, applications by these entities were made for a change in ownership, and the permits were reissued in the entities' names. Application was made by DNUS, and the PSD permit was reissued to "DaikyoNishikawa USA, Inc. (DNUS) – OSP-4."

### *DNUS Revision Request #1 (DNUS-RR-1, September 2021):*

Issuance of one (1) new PSD permit for inclusion of two (2) touch-up coating booths (with air drying process) to operate on an as-needed basis to achieve quality requirements. No combustion sources were associated with this equipment.

### *DNUS Revision Request #2 (DNUS-RR-2, October 2021):*

Revision of four (4) PSD permits to redefine the coating-line controlled zones (by thermal oxidation). Zones were limited to the clearcoat booths and curing ovens.

### *As-Built Permitting Effort and DNUS Revision Requests #3 & #4 (MTMUS-CC-AB, DNUS-RR-3, DNUS-RR-4 - August 2024):*

- Revision of two (2) PSD permits to remove "waterborne option" language, as only waterborne lines were installed.
- Voidance of two (2) PSD permits associated with a "solvent borne option," as only waterborne lines were installed.
- RTO limits
- Revision of two (2) PSD permits to indicate a shared thermal oxidizer between two lines as opposed to one oxidizer for each line.
- Revision of one (1) PSD permit to remove an interior parts spray booth and curing oven source and a plastic parts wiping solvent source that were not installed.
- Revision of two (2) PSD permits to make small corrections to two VOC limits.
- Issuance of one (1) new PSD permit for an emergency fire pump engine that was installed at the facility during original construction but not capture in initial permitting or earlier revisions.

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- While DNREM was compiling information from various other facilities on the MTMUS Campus to complete the Campus-wide as-built permitting effort (MTMUS-CC-AB), a review was conducted of the DNUS HVAC equipment numbers and specifications. This was done to ensure the as-built HVAC burner ratings and number of units were accurately being accounted for in the PTE estimates.
- Additionally, DNREM initiated review of the PSD permit associated with DNUS's Miscellaneous Natural Gas Sources (including HVAC) (7-08-P391-Z407) and proposed amendment to / removal of provisions as appropriate to the DNUS facility as constructed. This consisted of removing language related to applicability of PSD-BACT limitations for residential-sized HVAC units and National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for Hazardous Air Pollutant (HAP) Emissions from Industrial, Commercial, and Institutional Boilers and Process Heaters (Subpart DDDDD), as none of the natural-gas fired sources are subject to Subpart DDDDD.

### **FEDERAL APPLICABLE REGULATIONS**

*Title V:* All activities conducted on the MTMUS Campus support the manufacturing of automobiles only on the MTMUS Campus and are located on property under the common control of MTMUS. The MTMUS Campus as a whole is considered to be a single source of air pollution for the purposes of Title V. However, DNUS independently does have the PTE that would classify the facility as major for Title V.

*Prevention of Significant Deterioration (PSD) of Air Quality:* All activities conducted on the MTMUS Campus support the manufacturing of automobiles only on the MTMUS Campus and are located on property under the common control of MTMUS. The MTMUS Campus as a whole is considered to be a single source of air pollution for purposes of PSD of Air Quality applicability determinations and any required BACT analyses or AQIAs performed. However, DNUS independently does have the PTE that would classify the facility as major for PSD.

*New Source Performance Standards (NSPS):* The facility is subject to NSPS Subpart IIII for Stationary Compression Ignition Internal Combustion Engines.

*National Emissions Standards for Hazardous Air Pollutants (NESHAP):* The facility is subject to:

- NESHAP Subpart PPPP for Surface Coating of Plastic Parts
- NESHAP Subpart ZZZZ for Stationary Reciprocating Internal Combustion Engines.

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**DNREM APPLICABLE REGULATIONS**

Visible Emissions (COH APC RAR, Chapter 6.1): The natural gas combustion sources and emergency fire pump engine are subject to visible emission (VE) limitations.

Particulate Emissions (COH APC RAR, Chapter 6.4): The combustion sources are subject to the fuel burning equipment particulate matter (PM) emission limitations in Section 6.3.1.

**WORK PRACTICES**

Emissions from the primary spray booths and associated ovens are required to be directed to the thermal oxidizer, and the thermal oxidizer is required to be operated at or above a temperature established from emissions testing to maintain the permitted destruction efficiency determined by the testing.

DNUS is required to implement a work practice plan for the use of HAP-containing materials to minimize organic HAP emissions and is required to utilize good work practices to minimize VOC emissions from VOC-containing materials.

DNUS is required to inspect/monitor dry filtration systems for proper operation on a regular basis and implement corrective action upon finding an operating parameter to be outside the normal range.

DNUS is limited to the use of natural gas as a fuel in the combustion equipment (except for the emergency fire pump engine) and is required to utilize good work practices to reasonably minimize emissions of NO<sub>x</sub> and other pollutants from the natural gas combustion equipment. Periodic maintenance of each burner is required as recommended by the manufacturer, at a minimum.

DNUS is limited to the use of low-sulfur diesel fuel (15 ppm) in the emergency fire pump engine and must operate and maintain the engine in accordance with the manufacturer's recommendations and limit the engine's start-up time and time spent in idle. DNUS is also required to implement a minimum maintenance schedule for oil changes and air cleaner, hose, and belt inspections. Good work practices to minimize diesel usage and handling are also required.

DNUS is in compliance with these requirements.

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### **MONITORING REQUIREMENTS**

DNUS is required to conduct compliance testing on the thermal oxidizer serving the main paint line and associated ovens at least every five (5) years to demonstrate compliance with the destruction efficiency limitation and is required to monitor the combustion temperature of the thermal oxidizer chamber.

DNUS is required to track all natural gas and diesel fuel usage. The emergency fire pump engine is required to be equipped with a non-resettable hour meter.

DNUS is required to observe each natural gas burner during operation at least once monthly for greater than normal visible emissions as determined from previous observations. Corrective actions are required upon observation of any visible emissions that are greater than normal.

DNUS is in compliance with these requirements to date.

### **REPORTING**

As a source applicable to Title V, DNUS has been required since starting operations to prepare and submit annual compliance certifications to both DNREM and EPA Region 4 indicating compliance status with all permit requirements, as well as semi-annual monitoring reports to DNREM detailing actual emissions, material and fuel usage.

Under the PSD permits issued to DNUS, it was required that the facility prepare and submit quarterly reports to DNREM in addition to fulfilling the Title V semi-annual monitoring report and annual compliance certification requirements. It is proposed in the Draft MSOP that the quarterly reporting requirement is dropped. The semi-annual monitoring reports and annual compliance certifications detail actual emissions, VOC-containing material usage, fuel usage, and compliance status with all permit requirements.

Per NESHAP Subpart P, DNUS is required to submit performance test reports and semi-annual monitoring reports electronically to EPA via the Compliance and Emissions Data Reporting Interface (CEDRI).

DNUS is in compliance with the reporting requirements to date.

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### **RECORDKEEPING**

Under the proposed MSOP, DNUS will be required to keep all records required by the MSOP for no less than five (5) years.

DNUS is required to keep records of emissions testing; thermal oxidizer combustion chamber operating temperature readings; thermal oxidizer bypasses, malfunctions, and associated corrective actions; VOC-containing material usage; fuel usage; emission calculations; a logbook of dry filter maintenance checks and monthly visible emissions observations; sulfur content of diesel fuel; emergency fire pump engine maintenance and hours of operation; and compliance with applicable emissions limitations.

DNUS is compliant with these requirements to date.

### **PUBLIC NOTICE**

The issuance of DNUS's initial MSOP requires a thirty-(30)-day public comment period and a forty-five-(45)-day EPA review period (tandem comment period and EPA review period requested).

### **RECOMMENDATION**

This Statement of Basis indicates that DNUS will meet the requirements of all applicable Federal regulations and COHRAR, as described. Therefore, I recommend that the Title V MSOP be issued to DNUS pending the full receipt of fees associated with this permitting effort and resolution of any comments received during the public comment and EPA review periods described above.

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Darlene Elliott, Director  
Department of Natural Resources and Environmental Management  
City of Huntsville