

STATEMENT OF BASIS

Y-Tec Keylex Toyotetsu Alabama, Inc. (YKTA) – OSP-3 Metal Parts Manufacturing Facility
MTMUS Campus, Huntsville, Limestone County, Alabama
Facility Permit No. 7-08-P424-Z001
Initial Issuance

DESCRIPTION OF PERMITTING ACTION

In September 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 Y-Tec Keylex Toyotetsu Alabama, Inc. (YKTA) metal parts manufacturing facility located at 9000 Greenbrier Parkway #84 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

YKTA constructed, owns, and operates the metal parts manufacturing facility on the MTMUS Campus and provides products for use by the main assembly plant (MTMUS JV Facility) on the Campus. YKTA operates under SIC 3465 (Automotive Stampings) and NAICS 336370 (Motor Vehicle Metal Stamping). YKTA emits pollutants associated with use of VOC-containing materials (e.g., rust preventative oil, cleaning materials); surface coating operations controlled by a thermal oxidizer; natural gas combustion in emission control equipment, boilers / oven burners, and HVAC units; and diesel fuel combustion in emergency engines.

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 three (3) PSD permits being issued by DNREM to MTMUS for the Metal Parts Manufacturing facility (OSP-3) in December of 2018. These permits covered coating operations and miscellaneous natural gas combustion. At the time of initial PSD permitting, the entity that would ultimately construct, own, and operate the metal parts manufacturing facility 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) volatile organic compounds (VOCs) was greater than 250 tons per year (TPY). Particulate matter (PM), carbon monoxide (CO), and nitrogen oxides (NO_x) potential emissions were also estimated to exceed the 10 TPY (for PM_{2.5}), 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_x, 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 COHRAR 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 YKTA underwent reevaluation of NO_x BACT limitations.
- The number of HVAC units and respective burner ratings were updated for the YKTA 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 two (2) of the permits held by the Metal Parts Manufacturing Facility, which is also referred to as OSP-3.

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

- Revision of one (1) PSD Permit for xxx and update of OSP-3 designation and permit number as referenced in MTMUS-AA-1 above).
- YKTA Added a cooling tower and shot blasting operation.
- Issuance of one (1) new PSD Permit for an emergency engine that was reassigned from the main assembly plant to YKTA.

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 YKTA, and the PSD permit was reissued to "Y-Tec Keylex Toyotetsu Alabama, Inc. (YKTA) – OSP-3."

As-Built Permitting Effort and YTKA Revision Request #1 (MTMUS-CC-AB, YKTA-RR-1 - August 2024):

- Identification of the E-coat boiler as the only combustion source covered by NESHAP Subpart DDDDD and provisions were added to incorporate specific requirements of Subpart DDDDD for the boiler.
- Elimination of one permit due to only one coating line being installed for both the Toyota and Mazda lines. The remaining permit for the combined coating line was adjusted to combine the limitations originally split between two permits.
- Update of CO limit on the E-Coat exhaust based on more accurate data as obtained through emissions testing.
- Update of the VOC content limitation on the rust preventative oil based on required technical specifications.
- Incorporation of two (2) emergency generator engines and one (1) emergency fire pump engine not captured in original permitting, addition of language requiring operation and maintenance of the engines in accordance with manufacturer instructions, removal of limitation on number of engines that could be operated for maintenance/testing in a day, and removal of language rescinded from NESHAP ZZZZ.
- 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 YKTA 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.

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- Additionally, DNREM initiated review of the PSD permit associated with YKTA's HVAC units and proposed removal of provisions that did not apply to the YKTA facility as constructed. This consisted of removing language related to applicability of PSD-BACT limitations for the HVAC units.

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, YKTA independently does not have PTEs that would classify the facility as major for Title V and would on its own be considered a true minor source.

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 applicability determinations and any required BACT analyses or AQIAs performed. YKTA independently does not have a PTE which would classify the facility as major for PSD and would on its own be considered a true minor source.

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 MMMM for Surface Coating of Miscellaneous Metal Parts and Products; Subpart DDDDD for Industrial, Commercial, and Institutional Boiler and Process Heaters; and Subpart ZZZZ for Stationary Reciprocating Internal Combustion Engines.

DNREM APPLICABLE REGULATIONS

Visible Emissions (COH APC RAR, Chapter 6.1): The natural gas combustion sources and emergency engines 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.

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WORK PRACTICES

Emissions from the E-Coat Tank and associated oven 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.

YKTA 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.

YKTA is limited to the use of natural gas as a fuel in the combustion equipment (except for the emergency engines and gasoline engines) and is required to utilize good work practices to reasonably minimize emissions of NO_x and other pollutants from the natural gas combustion equipment. Periodic maintenance of each burner is required as recommended by the manufacturer, at a minimum.

YKTA is limited to the use of low-sulfur diesel fuel (15 ppm) in the emergency engines and must operate and maintain the engines in accordance with the manufacturers' recommendations and limit each engine's start-up time and time spent in idle. YKTA 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.

YKTA is in compliance with these requirements.

MONITORING REQUIREMENTS

YKTA 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.

YKTA is required to track all natural gas and diesel fuel usage. The emergency engines are required to be equipped with non-resettable hour meters.

YKTA 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.

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YKTA is in compliance with these requirements to date.

REPORTING

As a source applicable to Title V, YKTA 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 YKTA, 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 M, YKTA is required to submit performance test reports and semi-annual monitoring reports electronically to EPA via the Compliance and Emissions Data Reporting Interface (CEDRI).

YKTA is in compliance with the reporting requirements to date.

RECORDKEEPING

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

YKTA 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 monthly visible emissions observations; sulfur content of diesel fuel; emergency engine maintenance and hours of operation; and compliance with applicable emissions limitations.

YKTA is compliant with these requirements to date.

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PUBLIC NOTICE

The issuance of YKTA'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 YKTA will meet the requirements of all federal and City of Huntsville rules and regulations, as described. Therefore, I recommend that the Title V MSOP be issued to YKTA 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.

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