West Virginia Department of Environmental Protection Division of Air Quality





# For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-07900072-2024** Application Received: **July 11, 2023** Plant Identification Number: **03-54-079-00072** Permittee: **Toyota Motor Manufacturing, West Virginia, Inc.** Facility Name: **Buffalo Plant** Mailing Address: **P.O. Box 600, Buffalo, WV 25033** 

Physical Location: UTM Coordinates: Directions: Buffalo, Putnam County, West Virginia413.518 km Easting • 4,272.153 km Northing • Zone 17The facility is located directly east of West Virginia State Route 62, approximately one mile south of Buffalo, WV.

# **Facility Description**

Toyota Motor Manufacturing, West Virginia, Inc.'s (TMMWV) Buffalo Plant is primarily engaged in the manufacturing of automotive engines and automotive transmissions. The plant contains machining, assembly, engine testing, and support operations. To support these operations, the plant is equipped with heating, ventilation, and air conditioning units as well as various storage tanks (e.g., gasoline, motor oil, etc.). NAICS: 336350, SIC Code: 3714

# **Emissions Summary**

Plantwide Emissions Summary [Tons per Year]				
<b>Regulated Pollutants</b>	Potential Emissions	2022 Actual Emissions		
Carbon Monoxide (CO)	90.93	47.26		
Nitrogen Oxides (NO <sub>X</sub> )	70.96	18.63		
Particulate Matter (PM <sub>2.5</sub> )	47.85	11.82		
Particulate Matter (PM <sub>10</sub> )	47.85	21.04		
Total Particulate Matter (TSP)	47.85	21.04		
Sulfur Dioxide (SO <sub>2</sub> )	4.13	0.01		
Volatile Organic Compounds (VOC)	226.91	91.73		

PM<sub>10</sub> is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2022 Actual Emissions
VOC HAPs	1.80	0.15
PM HAPs	0.23	None

Some of the above HAPs may be counted as PM or VOCs.

# **Title V Program Applicability Basis**

This facility has the potential to emit 226.91 tpy of VOCs. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Toyota Motor Manufacturing, West Virginia, Inc. is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

# Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	To Prevent and Control Particulate Air Pollution from
		Combustion of Fuel in Indirect Heat Exchangers.
	45CSR6	Control of Air Pollution from Combustion of Refuse.
	45CSR7	To Prevent and Control Particulate Matter Air
		Pollution from Manufacturing Processes and
		Associated Operations.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	NSR Permit Requirements.
	45CSR16	Standards of Performance for New Stationary Sources.
	45CSR§21-19	Regulation to Prevent and Control Air Pollution from
		the Emission of Volatile Organic Compounds:
		Coating of Miscellaneous Metal Parts.

	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating Permit Requirements.
	45CSR34	Emission Standards for Hazardous Air Pollutants.
	40 C.F.R. Part 60 Subpart JJJJ	Standards of Performance for Stationary Spark
		Ignition Internal Combustion Engines.
	40 C.F.R. Part 61	Asbestos inspection and removal.
	40 C.F.R. Part 63 Subpart ZZZZ	National Emission Standards for Hazardous Air
		Pollutants for Stationary Reciprocating Compressor
		Engines.
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances.
State Only:	45CSR4	No objectionable odors.
	45CSR§21-40	Regulation to Prevent and Control Air Pollution from
		the Emission of Volatile Organic Compounds: Other
		Facilities that Emit Volatile Organic Compounds
		(VOC).

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

# **Active Permits/Consent Orders**

Permit or Consent Order Number	Date of Issuance
R13-2062Q	December 05, 2022
G60-D005G	February 14, 2023

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

# **Determinations and Justifications**

This Title V operating permit renewal incorporates the changes made with the issuance of the general permit G60-D005G. The operation of a new emergency generator, GEN-Carb, was permitted under G60-D005G.

The following changes have been made to the Title V operating permit:

- 1. Section 1.0. Emission Units and Active R13, R14, and R19 Permits
  - a. With the issuance of R13-2062O, the AT Hybrid Transaxle Components process was added to the Project #18 source. This revision to the Emission Units Table was not carried into the Title V permit and, therefore, has been incorporated into this renewal permit.
  - b. With the issuance of G60-D005F and R13-2062P, the emergency engine GEN-AT HT was permitted and the existing emergency engine DG-5031 was transferred from the NSR permit to the general permit. It appears when these revisions were incorporated into the operating permit's [R30-07900072-2019 (MM03)] table of Authorized Emergency Generators Permitted under G60-D005, the area and fuel type of the engines were transposed. Therefore, the following corrections have been made to the table:
    - i. DG-5031 is an emergency generator for Building 100 and is fueled by No. 2 Fuel Oil.
    - ii. GEN-AT HT is an emergency generator for the AT Heat Treatment area and is fueled by pipeline quality natural gas.
  - c. The emergency generator GEN-Carb has been added to the table of Authorized Emergency Generators Permitted under G60-D005. GEN-Carb was permitted under G60-D005G to provide emergency electricity for the carburizing equipment in the event of a power outage. The engine is subject to further requirements in Sections 7.0. and 9.0. of this operating permit.
- 2. Section 2.0. General Conditions
  - a. In Condition 2.1.3., the reference to 45CSR§30-2.12. has been replaced with 45CSR§30-2.39 which defines "Secretary".
  - b. Section 2.17., which previously contained emergency requirements, has been removed from the permit and replaced with "Reserved." as the requirements for emergencies and affirmative defense were removed from 45CSR30.
- 3. Section 3.0. Facility-Wide Requirements
  - a. In Condition 3.4.2., the reference to Appendix A has been revised to Appendix B of R13-2062. [See Section 9.a. of this Fact Sheet.]
  - b. 45CSR\$30-8 has been revised and no longer requires the submission of certified emissions statements. Condition 3.5.4. has been updated accordingly.
  - c. The requirements of Conditions 3.5.7. and 3.5.8.a.1. have been removed from the operating permit, and the conditions have been marked as "Reserved." due to the removal of the sections of 45CSR30 that related to emergencies and affirmative defense.
  - d. Due to revisions in 45CSR§30-5.1.c.3.C.2., "telefax" has been updated to email in Condition 3.5.8.a.2.

- e. Condition 3.5.10. contains the requirement of A.8.k. of R13-2062Q which requires the permittee to submit a report containing all the records required under A.8. The following changes have been made to this condition:
  - i. References to Conditions 3.1.9. and 5.4.6. have been added to this requirement. These conditions contain the recordkeeping requirements of A.8.1. and A.8.m., respectively.
  - The references to Conditions 5.4.2. and 5.4.3. have been removed from this requirement. These conditions contain the R13-2062Q recordkeeping requirements of A.8.e. and A.8.f., respectively. Conditions 5.4.2. and 5.4.3. are no longer applicable and have been removed from the operating permit. [See Section 4.a. of this Fact Sheet.]

Additionally, the reference to Appendix A has been revised to Appendix B of R13-2062 in this condition. [See Section 9.a. of this Fact Sheet.]

- 4. Section 5.0. Combustion Operations, Testing, and Heat Treatment
  - a. Conditions 5.4.2. and 5.4.3. have been marked as "Reserved." in this renewal permit. These conditions contained the recordkeeping requirements of A.8.e. and A.8.f. from R13-2062Q and previously demonstrated compliance with the requirements for the use of No. 2 Fuel oil to fuel the emergency generator DG-5031. The requirements for the use of No. 2 Fuel oil were previously contained in Condition 5.1.3. of the operating permit but were removed with the application for R13-2062P and R30-07900072-2019 (MM03) which transferred DG-5031 from the NSR permit to the general permit G60-D005F. Therefore, the recordkeeping requirements of Conditions 5.4.2. and 5.4.3. are no longer applicable and have been removed from this operating permit.
- 5. Section 7.0. Emergency Generators
  - a. With the issuance of the General Permit G60-D005G, the new emergency generator GEN-Carb was permitted. The generator is subject to emission limits for nitrogen oxides, carbon monoxide, and volatile organic compounds. These limits have been added to the Emission Limits table of Condition 7.1.1. and the total of the emission limits has been updated accordingly. GEN-Carb is also subject to the applicable requirements of Conditions 7.1.2. through 7.1.7, the recordkeeping requirements of Conditions 7.4.1. through 7.4.3., and the reporting requirements of Condition 7.5.1.
  - b. Condition 5.1.1. of the General Permit G60-D defines an emergency generator. This applicable requirement has been added to the operating permit as Condition 7.1.2. The conditions and any corresponding references previously included in Section 7.1. have been renumbered accordingly.
- 6. Section 8.0. 40 C.F.R. 63 Subpart ZZZZ Requirements for Emergency Generators and 2 Fire Pumps
  - a. Subpart ZZZZ has been revised since the previous permit renewal. Accordingly, the following changes have been made to Section 8.0.:
    - i. References to emergency demand response have been removed from 40 C.F.R. §63.6640(f) and, therefore, have been removed from Condition 8.1.5.
    - ii. The provisions of 40 C.F.R. §§63.6640(f)(2)(ii) and (iii) have been vacated and, therefore, have been removed from Condition 8.1.5.
    - iii. The reference to 40 C.F.R. §§63.6640(f)(2)(ii) and (iii) has been removed from Condition 8.4.4. of the operating permit.

- 7. Section 9.0. 40 C.F.R. 60 Subpart JJJJ Requirements for Emergency Generators
  - a. The emergency engine GEN-AT HT is a spark ignition (SI) internal combustion engine (ICE). GEN-AT HT was initially permitted under the general permit G60-D005F and was added to the operating permit with the minor modification R30-07900072-2019 (MM03). With G60-D005F, the compression ignition (CI) ICE DG-5031 was also transferred to the general permit from the facility's NSR permit. During the operating permit revision, GEN-AT HT seems to have been mistakenly identified as a CI ICE as well, and Section 10.0. was added to the operating permit with the standards of 40 C.F.R. Part 60 Subpart IIII which are applicable to CI ICEs. This has been corrected in the renewal permit as follows:

Construction of GEN-AT HT commenced after June 12, 2006; the manufacture date of the emergency engine is after January 01, 2009; and the engine has a maximum engine power greater than 25 HP. Therefore, GEN-AT HT is subject to 40 C.F.R. Part 60 Subpart JJJJ via 40 C.F.R. §60.4230(a)(4)(iv).

GEN-AT HT is a 4-stroke, rich burn SI ICE with a rating of 460 HP. The engine is fueled by pipeline quality natural gas. GEN-AT HT is also a certified emergency engine for the emission standards of Table 1 to Subpart JJJJ of Part 60. Therefore, GEN-AT HT is subject to the applicable requirements of 9.1.2. through 9.1.8.; the monitoring requirement of 9.2.1.; the recordkeeping requirements of 9.4.1. and 9.4.2.; and the reporting requirements of 9.5.1. and 9.5.2.

b. The general permit G60-D005G was issued on February 14, 2023. This revision permitted the operation of the emergency SI engine GEN-Carb to be used for facility's carburizing equipment in the event of a power outage. Construction of GEN-Carb commenced after June 12, 2006; the manufacture date of the emergency engine is after January 01, 2009; and the engine has a maximum engine power greater than 25 HP. Therefore, Gen-Carb is subject to 40 C.F.R. Part 60 Subpart JJJJ via 40 C.F.R. §60.4230(a)(4)(iv).

GEN-Carb is a 4-stroke, rich burn SI ICE with a rating of 460 HP. The engine is fueled by pipeline quality natural gas. GEN-Carb is certified to meet the applicable emission standards of Table 1 to Subpart JJJJ of Part 60. Therefore, GEN-Carb is subject to the applicable requirements of Conditions 9.1.2. through 9.1.8.; the monitoring requirement of 9.2.1.; the recordkeeping requirements of 9.4.1. and 9.4.2.; and the reporting requirements of 9.5.1. and 9.5.2.

- c. Subpart JJJJ has been revised since the previous permit renewal. Accordingly, the following changes have been made to Section 9.0.:
  - i. References to emergency demand response have been removed from 40 C.F.R. §60.4243(d) and, therefore, have been removed from Condition 9.1.5.
  - ii. The provisions 40 C.F.R. §§60.4243(d)(2)(ii) and (iii) have been vacated. Therefore, paragraphs b.2. and b.3. have been removed from Condition 9.1.5.
  - iii. In accordance with 40 C.F.R. §60.4245(a)(3), the reference to 40 C.F.R. Part 90 has been removed from Condition 9.4.2.c. The provisions of Part 90 have been moved, and applicable requirements to the facility are now found in 40 C.F.R. Part 1054.
  - iv. In Condition 9.5.1., the references and reporting requirements related to 40 C.F.R. §§60.4243(d)(2)(ii) and (iii) have been removed.

- 8. Section 10.0. 40 C.F.R. 60 Subpart IIII Requirements for Emergency Generator
  - a. The requirements of 40 C.F.R. Part 60 Subpart IIII have been removed from this operating permit. The emergency engine GEN-AT HT is a SI ICE and, therefore, is not subject to the standards of Subpart IIII which apply to CI ICEs. (See 7.a. of this Fact Sheet.)
- 9. Appendix A
  - a. The Certification of Data Accuracy form found in Appendix B of the NSR permit was previously included as Appendix A of the operating permit. This form has not been included in this operating permit renewal. References to the form or the operating permit's Appendix A have been updated to Appendix B of R13-2062.

### **Non-Applicability Determinations**

The following requirements have been determined not to be applicable to the subject facility due to the following:

- 40 C.F.R. Part 60 Subpart Kb Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984 – Per 40 C.F.R. §60.110b(a), this subpart applies to volatile organic liquid storage vessels with a capacity greater than or equal to 75 cubic meters (19,813 gallons). As each storage vessel at the facility has a capacity less than 19,813 gallons, Subpart Kb is inapplicable to the facility.
- 40 C.F.R. Part 64 Compliance Assurance Monitoring (CAM) The emission units at the facility do not have pre-control device potential emissions which exceed Title V major source thresholds. Therefore, per 40 C.F.R. §64.2(a)(3), the facility is not subject to CAM.

#### **Request for Variances or Alternatives**

None.

#### **Insignificant Activities**

Insignificant emission unit(s) and activities are identified in the Title V application.

#### **Comment Period**

Beginning Date: December 21, 2023 Ending Date: January 22, 2024

#### **Point of Contact**

All written comments should be addressed to the following individual and office:

Sarah Barron West Virginia Department of Environmental Protection Division of Air Quality 601 57<sup>th</sup> Street SE Charleston, WV 25304 304/926-0499 ext. 41915 sarah.k.barron@wv.gov

#### **Procedure for Requesting Public Hearing**

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a

request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

# **Response to Comments (Statement of Basis)**

Not applicable.