

Emissions Summary

This modification results in the following emission changes:

Regulated Pollutants	Change in PTE (tpy)	New PTE (tpy)
CO	-0.46	11,340.91
NO _x	+0.34	9,542.28
PM ₁₀	+0.22	2,402.14
VOC	+0.33	195.75
SO ₂	+0.22	76,553.52

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 76,554 tons per year of SO₂, 9,542 tons per year of NO_x, 11,341 tons per year of CO, 2,402 tons per year of PM₁₀, 196 tons per year of VOC, and 190 tons per year of HAPs. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, Virginia Electric and Power Company's Mt. Storm Power Station 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.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:

45CSR13	Permits For Construction, Modification, Relocation And Operation Of Stationary Sources Of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, And Procedures For Evaluation
45CSR16	Standards of Performance for New Stationary Sources Pursuant to 40 CFR Part 60
45CSR30	Requirements For Operating Permits
45CSR34	Emission Standards For Hazardous Air Pollutants
40 C.F.R. 60, Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
40 C.F.R.60 Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
40 C.F.R. 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

State Only:

NA

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

The active permits/consent orders affected by this modification are as follows:

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
G60-D116A	January 17, 2025	

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 significant modification (SM02) is for the addition of seven (7) internal combustion emergency engines and removal of three emergency generators SW-EG-1, SW-EG-2, and SW-EG-3. General Permit G60-D116 was issued on December 6, 2023 and authorized the construction of seven (7) emergency engines on site and removal of three existing emergency generators. G60-D116A was issued on January 17, 2025 and amended the underlying information in G60-D116 for the emission unit LV-EG-1 diesel-fired emergency generator due to a change from a Caterpillar Model D400 GC to a Kohler Model 400REOZJC. G60-D116A superseded and replaced G60-D116.

Changes to the permit include but are not limited to the following:

Note: COA means citation of authority in the following discussion.

1) Title V Boilerplate changes

- Condition 3.1.6. – Revised the COA to the current version of the WV Code.
- Condition 3.3.1. – Revised the COA to the current version of the WV Code.
- Condition 3.3.1.b. – Added “If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit shall be revised in accordance with 45CSR§30-6.4 or 45CSR§30-6.5 as applicable.”

2) Section 1.1. - The following changes have been made to the Emission Units Table:

- Added the information below.

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/Modified	Design Capacity	Control Device
LP-EG-1	MS94	Emergency Diesel Generator (Caterpillar Model D100 GC)	2024	161 hp	N
LV-EG-1	MS95	Emergency Diesel Generator (Kohler Model 400REOZJC)	2025	617 hp	N

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed/Modified	Design Capacity	Control Device
SW-EG-8	MS90	Propane-fuel emergency generator (Kohler 4SRB Model # 400REZXD)	2024	472 hp	N
SW-EG-9	MS91	Propane-fuel emergency generator (Kohler 4SRB Model # 400REZXD)	2024	472 hp	N
SW-EG-10	MS92	Propane-fuel emergency generator (Kohler 4SRB Model # 400REZXD)	2024	472 hp	N
SW-EG-11	MS93	Propane-fuel emergency generator (Kohler 4SRB Model # 400REZXD)	2024	472 hp	N
MTST-00-FP-ENG-1	MS59	Diesel Fire Pump Clarke/John Deere JU6H-UFADX8	2024*	305 bhp	N

*Note: For MTST-00-FP-ENG-1: This fire pump was replaced with a new fire pump of the same model. The only change to the table was for the year installed

- Removed Emission units SW-EG-1, SW-EG-2, SW-EG-3

3) **Section 1.2.** – Added G60-D116A to the table.

4) **Section 8.0.**

Section 8.0. has been revised to add the new emergency engines permitted under General Permit Registration G60-D116A to the G60-D General Permit, listed in Item 2 above, and to remove the three emergency engines SW-EG-1, SW-EG-2, and SW-EG-3. The new emergency generator engines SW-EG-8 through 11 are spark ignition (SI) engines subject to the requirements of 40 CFR 60 Subpart JJJJ while the new emergency generator engines LP-EG-1 and LV-EG-1 and the emergency fire pump engine MTST-00-FP-ENG-1 are compression ignition (CI) engines subject to 40 CFR 60 Subpart IIII. The only requirement in 40 CFR 63 Subpart ZZZZ applicable to each of these new emergency engines except for LV-EG-1 is that the engines must meet the requirements of 40 CFR 60 Subpart JJJJ for the SI engines and 40 CFR 60 Subpart IIII for the CI engines in order to meet the requirements of 40 CFR 63 Subpart ZZZZ. LV-EG-1 is only subject to the initial notification §63.6645(f) of Subpart ZZZZ but must comply with §63.6640(f) to satisfy the definition under §63.6675 for an emergency stationary RICE. The General Permit G60-D requirements, the 40 CFR 60 Subpart JJJJ requirements and most of the 40 CFR 60 Subpart IIII applicable to the new emergency engines were already contained in the current permit. Therefore, most of the revisions are to add the new engines to the existing requirements and to update the COAs. The following specific revisions have been made:

- Added emission points MS90-MS95 to the Section Title and removed MS80-MS82 from the Section Title.
- Condition 8.1.1.
 - 8.1.1.a. - Added G60-D116 introductory language and updated the table to reflect the G60-D116A registration.
 - 8.1.1.b. – Revised the emissions table to add CO emission standards for MTST-00-FP-ENG-1 and MTST-00-FP-ENG-3 as added in the current version of 40 CFR 60 Subpart IIII. Rearranged the emissions table and added the LP-EG-1 and LV-EG-1 emission standards along with a footnote indicating from where the emission standards were taken (*the existing “NMHC + NO_x” and the “PM” emissions for MTST-00-FP-ENG-1 and MTST-00-FP-ENG-1 did not change*).

- Updated the COA to add G60-D116 and the new Emission Units LP-EG-1, LV-EG-1, SW-EG-8, SW-EG-9, SW-EG-10, SW-EG-11 and to remove SW-EG-1, SW-EG-2, SW-EG-3 and added §60.4205(b).
- Conditions 8.1.2., 8.1.8., 8.1.9., 8.1.10., 8.3.1., 8.4.4. - 8.4.7., 8.5.2. – Updated the COA to add G60-D116 and the new Emission Units LP-EG-1, LV-EG-1, SW-EG-8, SW-EG-9, SW-EG-10, SW-EG-11 and to remove SW-EG-1, SW-EG-2, SW-EG-3.
- Condition 8.1.3. – Replaced SW-EG-1 through 7 with SW-EG-4 through 11. Also updated the COA to add the new Emission Units SW-EG-8, SW-EG-9, SW-EG-10, SW-EG-11 and to remove SW-EG-1, SW-EG-2, SW-EG-3.
- Conditions 8.1.4., 8.1.5., 8.1.7., 8.4.1., 8.4.2., 8.4.3. – Updated the COA to add the new Emission Units SW-EG-8, SW-EG-9, SW-EG-10, SW-EG-11 and to remove SW-EG-1, SW-EG-2, SW-EG-3.
- Condition 8.1.6. – Updated the language to the current version of 40 CFR 60 Subpart JJJJ and updated the COA to add the new Emission Units SW-EG-8, SW-EG-9, SW-EG-10, SW-EG-11 and to remove SW-EG-1, SW-EG-2, SW-EG-3.
- Condition 8.1.11. – Revised the language to add LP-EG-1, SW-EG-8, SW-EG-9, SW-EG-10, SW-EG-11 and to remove SW-EG-1, SW-EG-2, SW-EG-3. Also updated the COA to add G60-D116 and the new Emission Units LP-EG-1, SW-EG-8, SW-EG-9, SW-EG-10, SW-EG-11 and to remove SW-EG-1, SW-EG-2, SW-EG-3.
- Condition 8.1.12. – Added “and diesel emergency generators LP-EG-1 and LV-EG-1” to the introductory language. Also updated the language to the current version of 40 CFR 60 Subpart IIII and updated the COA to add G60-D116 and the new Emission Units LP-EG-1, LV-EG-1.

Since LV-EG-1 is rated above 500 HP and the engine must comply with the requirements of 40 CFR §63.6640(f) in order to be defined as an emergency RICE under 40 CFR Subpart ZZZZ, the COA has further been revised to add condition 4.1.2.g. of G60-D, 45CSR34 and 40 CFR §§63.6640(f), (f)(1), (f)(2), (f)(2)(i) and (f)(3). The following language “* *Note: 4.1.2.g., 45CSR34 and the requirements from 40 CFR §63.6640.(f) are applicable to LV-EG-1 only*” has been added at the end of the COA.

- Conditions 8.1.13., 8.1.14., 8.1.15.- Updated the COA to add G60-D116 and the new Emission Units LP-EG-1, LV-EG-1.
- Condition 8.1.14. – Updated the language to the current version of 40 CFR 60 Subpart IIII and updated the COA to add G60-D116 and the new Emission Units LP-EG-1, LV-EG-1.
- Condition 8.1.15. – Updated the language to the current version of 40 CFR 60 Subpart IIII and updated the COA to add G60-D116 and the new Emission Units LP-EG-1, LV-EG-1.
- Condition 8.1.16. – Identified the emergency pump engines by adding “MTST-00-FP-ENG-1 and MTST-00-FP-ENG-3” and added diesel emergency generator engines “LP-EG-1 and LV-EG-1” in this condition. Also updated the COA to add G60-D116 and the new Emission Units LP-EG-1, LV-EG-1.
- Condition 8.1.17. - Added LP-EG-1 at the end of 8.1.17.a. and added LV-EG-1 at the end of 8.1.17.b Also updated the COA to add G60-D116 and the new Emission Units LP-EG-1, LV-EG-1.

- Condition 8.5.1. - Updated the language to the current versions of 40 CFR 60 Subpart IIII and Subpart JJJJ. Also updated the COA to add the new Emission Units LP-EG-1, LV-EG-1, SW-EG-8, SW-EG-9, SW-EG-10, SW-EG-11 and to remove SW-EG-1, SW-EG-2, SW-EG-3.
- Conditions 8.5.3., 8.5.4. and 8.5.5 – Added these new requirements as added in the current versions of 40 CFR 60 Subparts IIII and JJJJ.

5) 40 CFR Part 60 Subpart JJJJ - *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*

- The emergency generator engines, SW-EG-8 through 11 are new 4-stroke rich burn (4SRB) spark ignition (SI) engines manufactured after January 1, 2009. The engines are fueled by liquefied petroleum gas (LPG) and are each rated at 427 HP. Thus, the engines are subject to the standards of this subpart and to the emission standards of 40 CFR §60.4231(c). The engines are certified by the manufacturer to meet the emission standards of 40 CFR §60.4231(c). The permittee is not subject to the performance testing requirements unless the engines are not operated and maintained according to the manufacturer's emission-related written instructions. Therefore, the performance testing requirements are not included in the permit.

6) 40 CFR Part 60 Subpart IIII - *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*

- The emergency generator engines, LP-EG-1, LV-EG-1, and the emergency fire pump engine MTST-00-FP-ENG-1 are new compression ignition (CI) engines manufactured after July 7, 2005. The engines use diesel fuel and are rated at 161 HP, 617 HP and 305 HP respectively. Thus, the engines are subject to the standards of this subpart and to the emission standards of 40 CFR §§60.4205(b) and (c). The LP-EG-1, LV-EG-1 engines are certified by the manufacturer to meet the emission standards of 40 CFR §60.4205(b) and the MTST-00-FP-ENG-1 fire pump engine is certified by the manufacturer to meet the emission standards of 40 CFR §60.4205(c). The permittee is not subject to the performance testing requirements unless the engines are not operated and maintained according to the manufacturer's emission-related written instructions. Therefore, the performance testing requirements are not included in the permit.

7) 40 CFR Part 63 Subpart ZZZZ - *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*

- The internal combustion engines for the emergency generators SW-EG-8 through SW-EG-11 are new 4SRB emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which meet the criteria in 40 CFR §63.6590(c)(4) and (6). Therefore, pursuant to 40 CFR §63.6590(c) *Stationary RICE subject to Regulations under 40 CFR Part 60*, they must meet the requirements of 40 CFR Part 63 by meeting the requirements of 40 CFR Part 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under 40 CFR Part 63.
- The internal combustion engines for the emergency generator LP-EG-1 and emergency fire pump MTST-00-FP-ENG-1 are new compression ignition emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which meet the criteria in 40 CFR §§63.6590(c)(6) and (7). Therefore, pursuant to 40 CFR §63.6590(c) *Stationary RICE subject to Regulations under 40 CFR Part 60*, they must meet the requirements of 40 CFR Part 63 by meeting the requirements of 40 CFR Part 60 Subpart IIII, for Compression ignition engines. No further requirements apply for such engines under 40 CFR Part 63.
- Pursuant to 40 CFR §63.6590(b)(1)(i), since the diesel emergency generator, LV-EG-1 is a new emergency stationary RICE with a site rating of more than 500 brake HP located at a major source

of HAP emissions, it is not subject to 40 CFR 63, Subpart ZZZZ except for the initial notification requirements and the requirements of 40 CFR §63.6645(f). However, pursuant to the definition for “Emergency stationary RICE” in 40 CFR §63.6675, the engine must comply with the requirements specified in 40 CFR §63.6640(f). Condition 8.5.2. requires compliance with the notification requirements of 40 CFR 63 Subpart ZZZZ. The requirements of 40 CFR §63.6640(f) are included in the permit in Condition 8.1.12. as described under Item 4 above.

Non-Applicability Determinations

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

40 CFR Part 64 Compliance Assurance Monitoring – The emergency generator engines nor the emergency fire pump engine are equipped with add on control devices and do not meet the applicability requirements of §64.2(a)(2) or (a)(3).

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: February 25, 2025
Ending Date: March 27, 2025

Point of Contact

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

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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.