

# Fact Sheet



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

This Fact Sheet serves to address the changes specific to this Minor Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on November 26, 2019.

Permit Number: **R30-05100005-2019**  
Application Received: **April 17, 2020**  
Plant Identification Number: **03-054-05100005**  
Permittee: **Kentucky Power Company**  
Facility Name: **Mitchell Plant**  
Mailing Address: **1 Riverside Plaza, Columbus, Ohio 43215-2373**

Permit Action Number: *MM01*      Revised: *December 8, 2020*

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Physical Location:                      Cresap/Moundsville, Marshall County, West Virginia  
UTM Coordinates:                      516.00 km Easting • 4409.00 km Northing • Zone 17  
Directions:                                From Charleston take Interstate 77 North to Exit 179. Travel north on  
US Route 2 approximately 70 miles to Cresap. Facility is located on  
Route 2 approximately nine (9) miles south of Moundsville, WV.

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### Facility Description

The Mitchell Plant is a fossil fuel fired electric generation facility and operates under Standard Industrial Classification (SIC) code 4911. The facility consists of two (2) coal-fired steam generators with a rated design capacity of 7020 mmBtu/hr each, (2) emergency diesel driven fire pumps 230 hp each, (2) diesel driven emergency generators with a rated design capacity of 3,727 and 3,004 bhp, one (1) oil-fired auxiliary boiler with a rated design capacity of 663 mmBtu/hr, various supporting operations such as coal and ash handling, limestone handling, and various tanks with insignificant emissions. The facility has the potential to operate seven (7) days per week, twenty-four (24) hours per day and fifty-two (52) weeks per year.

This modification was requested to add a 464 bhp / 300 kW Landfill Leachate Collection Sump Emergency Diesel Driven Generator LF DEG (2019 Cummings C300DQDAC model) and a 600-gal diesel fuel tank LF DEGT for the emergency generator.

**Emissions Summary**

This modification results in the following emission increases:

Regulated Pollutants	Emission change (TPY)
Carbon Monoxide (CO)	0.08
Nitrogen Oxides (NO <sub>x</sub> )	1.34
Particulate Matter (PM <sub>2.5</sub> )	0.01
Particulate Matter (PM <sub>10</sub> )	0.01
Total Particulate Matter (TSP)	0.01
Sulfur Dioxide (SO <sub>2</sub> )	0.03
Volatile Organic Compounds (VOC)**	0.30
Total HAPs	0.01

**Title V Program Applicability Basis**

With the proposed changes associated with this modification, this facility maintains the potential to emit 4,761.69 tpy of CO; 36,393.72 tpy of NO<sub>x</sub>; 3,173.31 tpy of PM<sub>10</sub>; 89,746.88 tpy of SO<sub>2</sub>; 564.18 tpy of VOC; 12,337 tpy of HCl; 1,071 tpy of HF; 48.45 tpy of Selenium; and 13.37 tpy of Beryllium. 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, Kentucky Power Company's Mitchell Plant 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:	45CSR16	Standards of Performance for New Stationary Sources
	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for HAPs
	40 C.F.R. 60 Subpart IIII	NSPS for Compression Ignition IC Engines
	40 C.F.R. 63, Subpart ZZZZ	NESHAPs MACT for Stationary RICEs
State Only:	none	

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> )
N/A		

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**

As the result of this minor modification, the following changes were done to the permit:

1. Emission Units Table 1.1 – added new 464 BHP Landfill Leachate Collection Sump Diesel Emergency Generator LF DEG and a 600-gal Diesel Fuel Tank LF DEGT for the emergency generator.
2. Section 8.0 – added applicable requirements for the new Landfill Leachate Collection Sump Emergency Diesel Driven Generator LF DEG.

Emergency Generator LF DEG is subject to requirements of the 40 C.F.R. 60 Subpart III. 40 C.F.R. §60.4200 states that “provisions of Subpart III are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE)”, and 40 C.F.R. §60.4200(a)(2) states that Subpart III applies to “owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are:

- (i) Manufactured after April 1, 2006, and are not fire pump engines”

Based on the above applicability information, requirements of 40 C.F.R. 60 Subpart III are applicable to the Emergency Generator LF DEG. Below is the 40 C.F.R. 60 Subpart III applicability table for the engine:

**40 C.F.R. 60 Subpart III Applicability Table for the Emergency Generators LF DEG**

Engine	Type	Displacement (l/cyl)	Model Year / Year Installed	Design Capacity (Bhp)
LF DEG	CI Emergency Generator	6.8 (<10 l/cyl)	2019 / April 2020	464

The engine is certified as a 40 C.F.R. 60 Subpart III engine, and it is equipped with a non-resettable hour meter. There are 2 existing certified engines (EG-1 and EG-2) subject to this Subpart as well, with the applicable 40 C.F.R. 60 Subpart III requirements already included in Section 8.0 of the permit, but since those engines have a higher capacity, not all the requirements apply to the new engine (emission standards are different, testing frequency is different). The new engine is subject to emission standards per 40 C.F.R. §§60.4202(a)(2) and 60.4205(b) (applicable condition was added under section 8.1.5(a)), non-resettable hour meter installation per 40 C.F.R. §60.4209 (existing condition 8.2.1),

engine operating and maintenance requirement 40 C.F.R. §60.4206 (existing condition 8.1.6), diesel fuel requirement 40 C.F.R. §60.4207(b) (existing condition 8.1.7), compliance demonstration (applicable testing condition 40 C.F.R. §60.4211(g)(2) was added under section 8.1.8(c)(1)), emergency engine operating conditions in 40 C.F.R. §60.4211(f) (existing requirement 8.1.9; revised to remove sections 40 C.F.R. §§60.4211(f)(2)(ii) and (iii), because they were vacated according to EPA guidance), recordkeeping requirement 40 C.F.R. §60.4214(b) (existing condition 8.4.4) and new reporting requirement 40 C.F.R. §60.4214(d) (added under condition 8.5.2), applicable to the new engine and to the existing engines EG-1 and EG-2.

Emergency Generator LF DEG is also subject to the requirements of 40 C.F.R. 63 Subpart ZZZZ. Below is the 40 C.F.R. 63 Subpart ZZZZ applicability table for the engine:

**40 C.F.R. 63 Subpart ZZZZ applicability Table for the Emergency Generator LF DEG**

Engine	Ignition / Type	Source of HAPs	Year Constructed / Installed	Design Capacity (Bhp)
LF DEG	CI Emergency Generator	Major source	April 2020 (new)	464

Per 40 C.F.R. §63.6590(a)(2)(ii), this CI engine is considered new (major source unit constructed on or after June 12, 2006). Therefore, per 40 C.F.R. §§63.6590(c)(6) and (7), it is only subject to 40 C.F.R. 60 Subpart III requirements. Condition 8.1.14 was added to include the 40 C.F.R. §§63.6590(c)(6) and (7) applicability language.

There are no applicable requirements for the new 600-gal diesel fuel tank LF DEGT (see Non-Applicability Determinations section below).

**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. 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.** Diesel fuel storage tank LF DEGT contains liquids with a maximum true vapor pressure of less than 3.5 kPa and have a storage capacity of less than 75 cubic meters (or 19,813 gallons). Therefore, it does not meet the applicability criteria under §60.110b, and the NSPS does not apply.

**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: Not Applicable for minor modifications.  
 Ending Date: N/A

### **Point of Contact**

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

Natalya V. Chertkovsky-Veselova  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
304/926-0499 ext. 41250  
natalya.v.chertkovsky@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.