



west virginia department of environmental protection

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**GENERAL PERMIT G65-D
ENGINEERING EVALUATION / FACT SHEET**

Class I General Permit G65-D (Prevention and Control of Air Pollution in regard to the Construction, Modification, Relocation, Administrative Update and Operation of an Emergency Generator)

The purpose of this proposed modification is to allow for the incorporation by reference of New Source Performance Standards 40CFR60 Subparts IIII and JJJJ and 40CFR63 Subpart ZZZZ.

The Secretary may develop and issue Class I and Class II general permits under 45CSR13 authorizing the construction, modification or relocation of a category of sources by the same owner or operator or involving the same or similar processes or pollutants upon the terms and conditions specified in the general permit.

ELIGIBILITY

All emergency generators installed for the purpose of allowing key systems to continue to operate without interruption during times of utility power outages are eligible for Class I General Permit registration except for:

- a. Any emergency generator which is a major source as defined in 45CSR14, 45CSR19 or 45CSR30;
- b. Any emergency generator subject to the requirements of 45CSR14, 45CSR15, 45CSR19, 45CSR25, 45CSR27, 45CSR30, 45CSR34;
- c. Any emergency generator which is located at a facility having other point source emissions;
- d. Any emergency generator whose estimated hours of operation exceeds 500 hours per year;
- e. Any emergency generator whose estimated emissions exceed six (6) pounds per hour AND ten (10) tons per year for more than one of the following pollutants: Nitrogen

Promoting a healthy environment.

- Oxides, Carbon Monoxide, Sulfur Dioxide, Volatile Organic Compounds (VOC), and Particulate Matter;
- f. Any emergency generator located in or which may significantly impact an area which has been determined to be a nonattainment area. Unless otherwise approved by the Secretary.
 - g. Any emergency generator which will require an individual air quality permit review process and/or individual permit provisions to address the emission of a regulated pollutant or to incorporate regulatory requirements other than those established by General Permit G65-D.
 - h. Any emergency generator which is/are part of an emergency demand response program.

All SIC or NAICS codes are eligible for registration under General Permit G65-D.

BACKGROUND INFORMATION

General Permit G65-D is for one (1) emergency generator installed for the purpose of allowing key systems to continue to operate without interruption during times of utility power outages and which meet the applicability requirements of General Permit G65-D.

There will be no future registrations, modifications, or administrative updates allowed to registrations issued under previous versions in the G65 series. If a registrant wishes to modify an existing registration under General Permit G65, it must be done so under General Permit G65-D.

General Permit G65-D will replace General Permit G65-C that was issued on May 21, 2009. This general permit is being updated to reflect the most current regulatory standards for these units. The only changes to General Permit G65-C are to allow for the incorporation by reference of New Source Performance Standards 40CFR60 Subparts IIII and JJJJ and 40CFR63 Subpart ZZZZ. These specific federal regulations address requirements for reciprocating internal combustion engines. Incorporating these regulations by reference allows this General Permit to remain viable as these regulations are amended.

General Permit G65-D terms and conditions are the same for all facilities that receive a registration to General Permit G65-D. Each General Permit G65-D registration will address only those emission units and air pollution control devices specific to the emergency generator.

General Permit G65-D will undergo public notice prior to being issued. The public notice will appear in the *Charleston Gazette*, *Dominion Post* (Morgantown), *Herald Dispatch* (Huntington), *Intelligencer* (Wheeling), *Parkersburg News*, *Exponent/Telegram* (Clarksburg), *Journal* (Martinsburg), *Herald Record* (Doddridge County), *Wetzel Chronicle* (Wetzel County), *Moundsville Daily Echo* (Marshall County), and *The State Register* consistent with other General Permit public notices.

EMISSION SOURCES AND G65-D GENERAL PERMIT ELIGIBILITY

Emission units at eligible sites may include one (1) emergency generator. Any emergency generator which is/are part of an emergency demand response program is not eligible. There may be other small storage tanks located at the site for the storage of fuel for the emergency generator. These units shall be listed in the registration application and will be included in the issued registration document. Additionally, VOC and HAP emissions from fugitive venting may occur at these facilities and must be accounted for in the registration application.

Air pollution control and emission reduction devices may include:

- Post-combustion catalytic control technologies for reciprocating internal combustion engines: Rich-burn engine with Nonselective Catalytic Reduction (NSCR); Lean-burn engine with Selective Catalytic Reduction (SCR); Lean-burn engine with Catalytic Oxidation

Any engine that qualifies as a nonroad engine is not eligible for registration.

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Sources of emissions at eligible facilities may include RICEs and storage tanks. An estimate of the maximum potential emissions of regulated air pollutants must be submitted with each General Permit G65-D registration application.

Applicants are required to submit emission estimates and supporting calculations for each emission point and for the fugitive emissions at the facility. These emissions will be reviewed by the assigned DAQ permit engineer to determine if the registrant meets the requirements of General Permit G65-D prior to recommending whether or not the general permit registration should be issued. Each General Permit G65-D registration application must include the basis of the emission calculations used to determine the potential emissions (i.e. manufacturer's data, AP-42, USEPA Tanks, etc.).

SOURCE AGGREGATION DETERMINATION

Applicants for the General Permit G65-D registration will be required to complete the Single Source Determination form which is part of the General Permit G65-D application. This completed form will allow the DAQ to make a determination as to whether or not the facility is a single source.

“Building, structure, facility, or installation” is defined as all the pollutant emitting activities which belong to the same industrial grouping, are located on one or more contiguous and adjacent properties, and are under the control of the same person.

REGULATORY APPLICABILITY

The following state and federal regulations may apply to sources requesting registration under General Permit G65-D:

State Regulations:

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

As provided in 45CSR13, The Secretary may develop and issue Class I general permits under this rule authorizing the construction, modification or relocation of a category of sources by the same owner or operator or involving the same or similar processes or pollutants upon the terms and conditions specified in the general permit. For eligible applicants and/or registrants, Class I General Permit registration satisfies the construction, modification, relocation and operating permit requirements of 45CSR13. General Permit G65-D sets forth reasonable conditions that enable eligible applicants and/or registrants to establish enforceable permit limits.

45CSR22 Air Quality Management Fee Program

45CSR22 applies to all registrants which are minor sources and no NSPS or MACT applies. The affected registrants will be subject to the fee schedule set forth in 45CSR22. They are also required to keep their Certificate to Operate status current.

G65-D Registration Fee Amount: \$250 (Construction, Modification, and Relocation)
 \$300 (Class II Administrative Update)

Federal Regulations:

40CFR60 Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines)

Subpart IIII sets forth non-methane hydrocarbon (NMHC), hydrocarbon (HC), nitrogen oxides (NO_x), carbon monoxide (CO), and particulate matter (PM) emission limits, fuel requirements, installation requirements, and monitoring requirements based on the year of installation of the subject internal combustion engine. The provisions for stationary compression ignition (CI) internal combustion engines for owners or operators of this Subpart have been incorporated by reference in General Permit G65-D, Section 5.0. This specific federal regulation addresses requirements for CI internal combustion engines. Incorporating this regulation by reference allows this General Permit to remain viable as these regulations are amended.

40CFR60 Subpart JJJJ (Standards of Performance for Stationary Spark Ignition Internal Combustion Engines)

Subpart JJJJ sets forth nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compound (VOC) emission limits, fuel requirements, installation requirements, and monitoring requirements based on the year of installation of the subject internal combustion engine. The provisions for stationary spark ignition (SI) internal combustion engines for owners or operators of this subpart have been incorporated by reference in General Permit G65-D, Section 5.0. This specific federal regulation addresses requirements for SI internal combustion engines. Incorporating this regulation by reference allows this General Permit to remain viable as these regulations are amended.

40CFR63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines)

Subpart ZZZZ establishes emission limitations and operating standards for hazardous air pollutants (HAPs) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This Subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations. EPA's most recent amendments to 40 CFR Part 63, Subpart ZZZZ were issued on January 15, 2013 and published in the Federal Register on January 30, 2013.

WVDEP DAQ has delegation of the area source air toxics provisions of this Subpart requiring Generally Achievable Control Technology (GACT). The provisions of this Subpart have been included incorporated by reference in General Permit G65-D, Section 5.0. This specific federal regulation addresses requirements for reciprocating internal combustion engines. Incorporating this regulation by reference allows this General Permit to remain viable as these regulations are amended.

REGULATORY NON-APPLICABILITY

The following state and federal regulations were reviewed but do not apply to sources covered by General Permit G65-D:

45CSR14 (Permits for Construction and Major Modification of Major Stationary Sources for the Prevention of Significant Deterioration of Air Quality)

The G65-D applicability criterion excludes facilities that meet the definition of a major source as defined in 45CSR14 from being eligible for the general permit.

45CSR19 (Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution which Cause or Contribute to Nonattainment)

The G65-D applicability criterion excludes facilities that meet the definition of a major source as defined in 45CSR19 from being eligible for the general permit.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

Small amounts of non-criteria regulated hazardous air pollutants such as benzene, toluene, and formaldehyde may be emitted when natural gas is combusted in reciprocating engines.

AIR QUALITY IMPACT ANALYSIS

Air dispersion modeling may be performed when the Director finds existing circumstances and/or submitted data provide cause for an assessment to be made concerning whether a specific emergency generator may interfere with attainment or maintenance of an applicable ambient air quality standard or cause or contribute to a violation of an applicable air quality increment from any proposed General Permit Registration action. Factors to be considered when determining whether an ambient air assessment would be made include:

- a. Existing air quality of the area
- b. Topographic or meteorological factors
- c. Maximum emissions
- d. Siting criteria


DEVELOPMENT OF GENERAL PERMIT G65-D

General Permit G65-D was developed for singular emergency generators located at facilities with no other point source emissions. The only changes to General Permit G65-C are to allow for the incorporation by reference of New Source Performance Standards 40CFR60 Subparts IIII and JJJJ and 40CFR63 Subpart ZZZZ. These specific federal regulations address requirements for reciprocating internal combustion engines. Incorporating these regulations by reference allows this General Permit to remain viable as these regulations are amended.

For affected facilities subject to federal air regulations, those sections of General Permit G65-D were developed based on the language from the federal regulations. For emission sources that are not subject to federal requirements, those sections of the general permit were developed based on language that is currently being used in 45CSR13 construction and modification permits to control air pollution of emergency generators with the intention of providing consistent requirements across the industry group.

RECOMMENDATION TO DIRECTOR

General Permit G65-D meets all requirements of applicable state and federal regulations. Therefore, it is recommended that General Permit G65-D should be issued.



Jerry Williams, P.E.
Engineer

MAR 8, 2018

Date