

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

**FACT SHEET AND STATEMENT OF BASIS
FOR PROPOSED PERMITTING ACTION
UNDER 20 DCMR 300 (TITLE V-OPERATING PERMIT PROGRAM)**

This “Fact Sheet and Statement of Basis” has been prepared pursuant to 20 DCMR 303.1(c) and 40 CFR 70.7(a)(5).

PERMIT NO. 037-R1

APPLICANT AND PERMITTEE:

Events DC
Walter E. Washington Convention Center
801 Mount Vernon Place NW
Washington, DC 20001

FACILITY LOCATION:

Walter E. Washington Convention Center
801 Mount Vernon Place NW
Washington, DC 20001

FACILITY DESCRIPTION AND BACKGROUND:

Events DC is a quasi-governmental entity (semi-public company) that administers the Walter E. Washington Convention Center as well as other venues in the District of Columbia such as RFK Stadium, Nationals Park, and the Carnegie Library. The Walter E. Washington Convention Center is a 2.3 million square foot conventions and meetings facility located at 801 Mount Vernon Place NW. The Carnegie Library is adjacent to the convention center, but no longer has any significant emission sources, but the insignificant units at that site are considered to be part of the facility for air permitting purposes. Events DC is covered under Standard Industrial Classification (SIC) Code 6512 and NAICS Code 321120.

Title V Permit No. 037 was previously issued to Trigen-Pepco Energy Services for operation of the Convention Center’s central plant on April 30, 2013. Trigen-Pepco Energy Services’ contract ended and operation of the central plant became the responsibility of Events DC, the owners. An administrative amendment to the Title V permit (Permit No. 037-A1) was issued on January 30, 2014, transferring the permit to Events DC.

This current permitting action is intended to address several permit applications received from Events DC over the last several years since that previous administrative amendment.

Pursuant to sections 303.5(d) of Title 20 of the District of Columbia Municipal Regulations (20 DCMR), Events DC submitted an application to modify Title V Permit No. 037-A1 by incorporating three more recently issued Chapter 2 permits, for two fire pump engines and an emergency generator. Events DC also requested to modify the testing requirements for the boilers to remove the low-emitting pollutants, lead and volatile organic compounds (VOC) from

Fact Sheet and Statement of Basis
Events DC, Walter E. Washington Convention Center
Draft Chapter 3 Permit No. 037-R1
July 29, 2021
Page 2

Condition III(a)(3)(A). In reference to the above request, Air Quality Division (AQD) has received two letters dated December 16, 2015 and December 11, 2015 from Events DC, Walter E. Washington Convention Center as follows:

(1) A December 16, 2015 letter was a request to incorporate three Chapter 2 permits issued on July 1, 2015 for two fire pump engines and an emergency generator into the Title V Permit No. 37-A1; and the two fire pumps and the emergency generator are included on this draft permit as Condition III(d) and (e) respectively.

(2) A December 11, 2015 letter requested a revision to the Compliance Assurance Monitoring (CAM) plan incorporated into the permit by removing a requirement to continuously monitor the temperature at the outlet of the catalyst bed (data used to ensure that urea injection begins at the appropriate time) and to replace such monitoring with hourly manual monitoring. Additionally, Events DC also requested that AQD remove the low-emitting pollutants, lead and volatile organic compounds (VOC), from Condition III(a)(3)(A) of Permit No. 037-A1, in order to relieve the facility of unnecessary boiler testing requirements.

Subsequently, on May 15, 2017 Events DC submitted a letter to notify AQD of the installation of new temperature monitoring equipment on the SCR system to meet the CAM plan provision in Condition III(c) of Permit No. 037-A1.

On June 13, 2017 AQD received a letter from Events DC requesting to rescind the SCR CAM plan amendment request that Events DC submitted on December 11, 2015. Note that, Events DC did not rescind the request for the removal of the low-emitting pollutants, lead and volatile organic compounds (VOC) from Condition III(a)(3)(A) of Permit No. 037-A1. In this permitting action, AQD has accepted the Events DC request to remove lead and VOC emission limits from Condition III(a)(3)(A) of Permit No. 037-A1 as they are unnecessary and not consistent with the requirements of similar permits issued to other facilities in the District.

On October 3, 2017, Event DC submitted a renewal application for the facility's Title V operating permit. The renewal application includes all of the above requests (as revised) that Event DC has submitted, except that Events DC indicated that there is no longer a need to incorporate Chapter 2 permit No. 6956, issued on July 1, 2015, for the operation of a diesel fired emergency generator at the Carnegie Library. The generator at the Carnegie Library was removed from the facility in August 2017 and therefore is not included in the Renewal Title V Permit application submitted on October 3, 2017.

The central plant uses boilers to provide space heating for the convention center. The generators at the central plant provide emergency electricity to critical life and safety equipment at the Walter E. Washington Convention Center. They have also historically been permitted to generate electricity to meet electric demand during other high demand periods when electric costs are high (i.e., for on-site "peak-shaving"), although it has not participated in such a program for several years.

Fact Sheet and Statement of Basis

Events DC, Walter E. Washington Convention Center

Draft Chapter 3 Permit No. 037-R1

July 29, 2021

Page 3

At the time the renewal application was submitted, Events DC intended to retain authority to operate the generators as non-emergency electric generators as previously permitted. However, while performing the permit review, the Air Quality Division (“AQD”) of the Department of Energy and Environment (“the Department”) identified a previously overlooked requirement in 40 CFR 63, Subpart ZZZZ, that required that non-emergency engines of this type have an installed oxidation catalyst to reduce emissions of hazardous air pollutants (HAPs). In lieu of installing this oxidation catalyst, Events DC opted to reclassify the engines as emergency units (which effectively reflected how they have been used in recent years). This was confirmed by an email from the responsible official, Hootan Kaboli, to Stephen Ours of AQD on February 18, 2021. The revised permit reflects this change in status.

EQUIPMENT SUMMARY:

The following is a table of the significant emissions units at the facility:

Emission Unit ID and Location	Emission Unit Name	Description
Boiler #1 & Boiler #2	Boiler #1 & Boiler #2	Two 30.0 million BTU per hour Unilux Model ZF-3000W boilers with Gordon-Piatt model F20.0-GO 400 burners
Engine #1, Engine #2, Engine #3, and Engine #4 ¹	Engine #1, Engine #2, Engine #3, and Engine #4	Four 1,501 hp Mitsubishi Model S12H-PTA diesel internal combustion engines for emergency electricity generation. Each engine is equipped with a Steuler SCR Catalyst. The engines are non-NSPS units installed in 2002.
Two Fire Pumps ²	South and North Emergency Fire Pumps	Two (2) Identical 177 kWm (237 hp) Emergency Fire Pumps, John Deere diesel-fired engines. Non-NSPS, Installed in 2002. Chapter 2 Permit Nos. 6954 & 6955 for these units are being incorporated into this permit.

In addition to the above equipment, the facility maintains the following insignificant/miscellaneous units:

- Six 0.399 MMBTU/hr hot water heaters;
- Two 4.5 MMBTU/hr mild weather boilers;
- Two 1 MMBTU/hr boilers at the Carnegie Library;
- 57 pieces of natural gas-fired kitchen equipment;
- Two 6,000 gallon No. 2 fuel oil storage tanks; and
- Air conditioning and refrigeration operations.

¹ These emergency engines were previously permitted for peak shaving use, but are now being permitted only for emergency use.

² These two fire pumps are being incorporated into the Title V permit for this facility for the first time, with this permitting action.

Fact Sheet and Statement of Basis

Events DC, Walter E. Washington Convention Center

Draft Chapter 3 Permit No. 037-R1

July 29, 2021

Page 4

EMISSIONS SUMMARY:

The following is an estimate of the overall potential emissions from the facility:

Plantwide Emissions Summary (tons per year)	
Pollutant	Potential Emissions
Sulfur Dioxide (SO ₂)	9.34
Oxides of Nitrogen (NO _x)	51.15
Total Particulate Matter (PM Total) – includes both filterable and condensable fractions	3.99
Volatile Organic Compounds (VOCs)	6.08
Carbon Monoxide (CO)	23.17
Total Hazardous Air Pollutants (HAPs)	0.64

It should be noted that the potential to emit calculation of the four engines assumes that the engines operate a maximum of 500 hours per year, and that of that 500 hours, 100 hours is during startup operation when the catalyst bed is not yet up to the required operating temperature, and therefore the selective catalytic reduction (SCR) system is not active.

It should also be noted that the Permittee calculated its potential to emit from the boilers based on a maximum usage of No. 2 fuel oil in each boiler of 720 hours per 12 month rolling period. As such, this has been incorporated in the permit as an enforceable limit contained in Condition III(a)(2)(C) of the permit.

BASIS OF 20 DCMR CHAPTER 3 (TITLE V) APPLICABILITY:

Events DC at the Walter E. Washington Convention Center (plus insignificant activities at the adjacent Carnegie Library) has the potential to emit 51.15 tons per year of oxides of nitrogen (NO_x). This exceeds the major source threshold in the District of 25 tons per year. As such, pursuant to 20 DCMR 300.1(a), the source is subject to Chapter 3 and must obtain an operating permit in accordance with that regulation and Title V of the federal Clean Air Act.

LEGAL AND FACTUAL BASIS FOR DRAFT PERMIT CONDITIONS:

The conditions contained in the Title V operating permit are based on underlying requirements of 20 DCMR as well as various federal regulations promulgated pursuant to the federal Clean Air Act. The regulations that are the basis of each condition are cited in the permit, except that conditions added to make another condition, with a direct underlying regulation, enforceable as a practical matter may, in some cases, not have a specific citation. These latter, un-cited conditions generally consist of monitoring, record keeping, and reporting requirements authorized under 20 DCMR 500.1.

The permit has been developed to incorporate the requirements of all applicable requirements as defined in 20 DCMR 399.1 along with additional conditions necessary to make all such requirements enforceable as a practical matter.

Fact Sheet and Statement of Basis

Events DC, Walter E. Washington Convention Center

Draft Chapter 3 Permit No. 037-R1

July 29, 2021

Page 5

It should also be noted that this permit is being issued pursuant to the District's authority under 20 DCMR Chapter 2 as well as Chapter 3. When the permit is issued for public review, the public notice will reflect this fact.

REGULATORY REVIEW:

This facility has been found to be subject to the requirements of the following regulations (except as specified in the notes and discussion below):

Federal and District Enforceable:

- 20 DCMR Chapter 1 - General Rules
- 20 DCMR Chapter 2 - General and Non-Attainment Area Permits
- 20 DCMR Chapter 3 - Operating Permits and Acid Rain Programs
- 20 DCMR 500 - Records and Reports
- 20 DCMR 502 - Sampling, Tests, and Measurements.
- 20 DCMR 600 - Fuel-Burning Particulate Emission.
- 20 DCMR 604 - Open Burning
- 20 DCMR 605 - Control of Fugitive Dust
- 20 DCMR 606 - Visible Emissions
- 20 DCMR 774 - Architectural and Industrial Maintenance Coatings
- 20 DCMR 800 - Control of Asbestos.
- 20 DCMR 801 - Sulfur Contents of Fuel Oils
- 20 DCMR 803 - Sulfur Process Emissions
- 20 DCMR 805 - Reasonably Available Control Technology for Major Stationary Sources of the Oxides of Nitrogen
- 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
- 40 CFR 63, Subpart JJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources
- 40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines (RICE)
- 40 CFR 51.212, 52.12, 52.30, 60.11, and 61.12 - Credible Evidence
- 40 CFR 82, Subpart G - Protection of Stratospheric Ozone (Federally enforceable only except through Title V) (*Note: AQD did not make a positive determination that this regulation was applicable to the facility, but included it as a standard requirement in the permit.*)
- 40 CFR 82, Subpart H - Halon Emissions Reduction (Federally enforceable only except through Title V) (*Note: AQD did not make a positive determination that this regulation was applicable to the facility, but included it as a standard requirement in the permit.*)

District Enforceable Only:

- 20 DCMR 402 – Chemical Accident Prevention (*Note: AQD did not make a positive determination that this regulation was applicable to the facility, but included it as a standard*

Fact Sheet and Statement of Basis

Events DC, Walter E. Washington Convention Center

Draft Chapter 3 Permit No. 037-R1

July 29, 2021

Page 6

requirement in the permit.)

20 DCMR 900 - Engine idling.

20 DCMR 901 - Vehicular exhaust emissions.

20 DCMR 902 - Lead Content of Gasoline.

20 DCMR 903 - Odorous or other nuisance air pollutants.

20 DCMR Chapter 2 - General and Non-Attainment Area Permits

The 30.0 MMBTU/hr boilers and all of the emergency engines at the facility are stationary sources that have the potential to emit air pollutants, and are therefore subject to 20 DCMR Chapter 2 permitting requirements. There are a number of other units at the facility with heat input ratings below 5 MMBTU/hr, and these units are included in the Title V permit as insignificant activities, but they are not subject to 20 DCMR Chapter 2 because their heat input ratings make them exempt pursuant to 20 DCMR 200.14.

As part of this permit action, two permits issued under the authority of 20 DCMR Chapter 2 since the last Title V permit update are being incorporated into the Title V permit:

- Permit Nos. 6954 and 6955 for two 177 kWm (237hp) diesel fired emergency fire pumps at the Walter E. Washington Convention Center. These permits were issued on July 1, 2015 and are incorporated in the Title V Permit as Condition III(c).

Additionally, it should be recalled that the four engines use for electric generation (Engine Nos. 1 through 4) were subject to Non-attainment New Source Review (NNSR) at the time of their installation. As a result, they were required to install an add-on selective catalytic reduction (SCR) system. Although the units are no longer classified as non-emergency engines, the requirements of that original NNSR determination remain in effect and the facility must retain and continue to maintain and properly operate their SCR system. These requirements remain in the Title V permit.

20 DCMR 805 - Reasonably Available Control Technology for Major Stationary Sources of the Oxides of Nitrogen

This regulation is applicable to the 30.0 MMBTU/hr boilers at the site (see 20 DCMR 805.1(a)(1)), and requires annual combustion adjustments pursuant to 20 DCMR 805.5(a) and 805.8. These requirements have been incorporated into Condition III(a) of the permit.

This regulation is not applicable to the emergency engines as they are not permitted to operate 500 hours or more per 12 month rolling period. See the regulatory exemption at 20 DCMR 805.1(c)(2) and permit Conditions III(b)(2)(A) and III(c)(2)(A).

40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

Certain combustion units are subject to NSPS Subpart Dc. Applicability for NSPS for boilers is

Fact Sheet and Statement of Basis

Events DC, Walter E. Washington Convention Center

Draft Chapter 3 Permit No. 037-R1

July 29, 2021

Page 7

based on unit size and age. The boilers must have heat input ratings greater than 10 MMBTU/hr and less than 100 MMBTU/hr, and must have been installed after June 9, 1989. Both criteria for age and size must be met for applicability of 40 CFR 60.40c – Subpart Dc to be triggered. The facility has two 30.0 MMBTU/hr dual fuel boilers in operation. These boilers were installed in 2002. These units meet both the size and age limitations, therefore, Subpart Dc is applicable to these units. The applicable requirements of Subpart Dc have been incorporated in the permit for these units in Condition III(a).

No other boilers or other “steam generating units” at the facility have heat input ratings greater than or equal to 10 MMBTU/hr, so no other units are subject to Subpart Dc.

40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

This regulation does not apply to any of the emergency engines as they were installed in 2002, prior to the effective date of the regulation.

40 CFR 63, Subpart JJJJJ - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

Because the two 30.0 MMBTU/hr boilers use fuel oil, the requirements of this NESHAP are applicable. Specifically, the facility is required to submit an initial notification of applicability to the EPA, perform biennial boiler tune-ups (the requirement for which was changed to annual tune-ups in the permit due to a similar requirement in 20 DCMR 805, but which requires annual tune-ups), and to have performed a one-time energy assessment. All of these requirements have been included in the permit.

40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines (RICE)

Subpart ZZZZ of 40 CFR 63 regulates HAPs such as acetaldehyde, acrolein, benzene, toluene, xylene, cadmium, chromium, lead, etc., through surrogate compounds such as formaldehyde, CO and/or VOC. A facility that emits or has the PTE of 10 tons/year of any single HAP or 25 tons/year of any combination of HAPs, is considered a major source of HAPs. Any source that is not a major source is an area source of HAPs. Because this facility does not have the potential to emit more than 10 tons/year of a single HAP or an aggregate of more than 25 tons of total HAPs, it is not a major source; it is an area source.

This regulation applies to all of the emergency engines at the facility. The applicable requirements of Subpart ZZZZ have been incorporated into the relevant sections of the permit (Conditions III(b) and (c)).

40 CFR 64 - Compliance Assurance Monitoring (CAM)

CAM was determined to no longer be applicable to the facility. It was previously considered applicable as the four engines, controlled by a selective catalytic reduction system (SCR) were

operated as a single system for peak shaving purposes. Now that the facility is no longer operated in peak shaving service, AQD does not believe that the engines (now classified as emergency engines) should be treated as a single system. The pre-control potential to emit from any one engine is not large enough to trigger CAM applicability. However, it should be noted that, in order to ensure that the SCR (required to remain in place due to a previous Non-attainment New Source Review determination) is properly operated and maintained, and remains effective, most requirements of the previous CAM plan have been moved into the requirements of Condition III(b) of the permit. This is required to ensure that the emission limits are enforceable as a practical matter.

Greenhouse Gas (GHG) Requirements:

Because Chapter 3 (Title V) was triggered by other pollutants, no evaluation was made to determine if the facility would trigger Title V applicability under the GHG Tailoring Rule. No modifications have been made to the source that would trigger Prevention of Significant Deterioration (PSD) applicability. Other than this requirement, there are no other applicable requirements related to GHGs at this time, therefore none were included in the permit.

COMPLIANCE HISTORY:

The Department has not identified any air quality violations or initiated any enforcement action against the facility for the last three years.

Additionally, no air quality violations are identified in the U.S. Environmental Protection Agency (EPA) Enforcement and Compliance History Online (ECHO) database over the last three (3) years, as of the time of this writing.

COMMENT PERIOD:

Beginning Date: August 6, 2021
Ending Date: September 7, 2021

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

Stephen S. Ours, P.E.
Chief, Permitting and Enforcement
Department of Energy and Environment
Air Quality Division
1200 First Street NE, 5th Floor
Washington DC 20002

PROCEDURE FOR REQUESTING PUBLIC HEARING:

During 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 Department shall grant such a request if it is deemed appropriate. The venue, date, and time for any public hearing shall be announced in the District Register and a daily newspaper.

POINT OF CONTACT FOR INQUIRIES:


Abraham T. Hagos
Environmental Engineer
Department of Energy and Environment
Air Quality Division
1200 First Street NE, 5th Floor
Washington DC 20002
(202) 535-1354

REVIEWS:

Prepared by:


Abraham T. Hagos
Environmental Engineer

Approved by:


Stephen S. Ours, P.E.
Chief, Permitting Branch

SSO\ATH

