

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

**TECHNICAL SUPPORT MEMORANDUM
FOR PROPOSED SYNTHETIC MINOR PERMITTING ACTION**

Permit No. 7308-SM

TO: File

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

FROM: N. Olivia Achuko *Olivia Achuko*
Environmental Engineer 3/23/23

SUBJECT: **AT&T Corporation (AT&T)**
Synthetic Minor Permit No. 7308-SM for Operations at 725 13th Street NW,
Washington DC

DATE: March 23, 2023

This Technical Support Memorandum has been prepared to document the basis for a facility-wide synthetic minor operating permit for the following:

Applicant and Permittee:

AT&T Corporation (AT&T)
PO Box 5095, Room 4W200M
San Ramon, CA 94583

Facility Location:

AT&T Corporation (AT&T)
725 13th Street NW
Washington, DC 20005

Application Signatory per 20 DCMR 200.13:

Don Harris, Assistant Secretary

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FACILITY DESCRIPTION AND BACKGROUND INFORMATION:

AT&T Corporation (“AT&T”) is located at 725 13th Street NW, Washington, DC 20005 (“the site”). The site contains three (3) reciprocating internal combustion engines (“RICE”) that drive emergency generators that are used to provide emergency power for the site’s telecommunications operations. These units were all previously permitted under Title V Permit No. 049, issued May 24, 2017. The generator sets are listed in the table below:

Unit ID and Installation Year	Generator Output/ Engine Output	Description
Emergency Generator 1, Installed 1998	1,600 kWe/ 2,340hp	One diesel-fired emergency standby generator set, not subject to the New Source Performance Standards (Non-NSPS).
Emergency Generator 2, Installed 1998	1,600 kWe/ 2,340 hp	One diesel-fired emergency standby generator set, not subject to the New Source Performance Standards (Non-NSPS).
Emergency Generator 3, Installed 2011	1,750 kWe/ 2,561 hp	One diesel-fired emergency standby generator set, subject to NSPS Subpart III.

On November 11, 2021, the Air Quality Division (AQD) of the Department of Energy and Environment (“the Department”) received, via its online permit application system, an application filing, signed November 10, 2021, for a synthetic minor permit for the facility. Additional information in support of AT&T’s application was received by email from Sean McFarlane on September 21, 2022. The proposed permitting action accompanying this Technical Support Memorandum addresses this application.

In the former Title V permit, the facility was identified as having one 13,800-gallon underground storage tank for diesel fuel and three 300-gallon diesel tanks that were considered “miscellaneous/insignificant activities”. However, because none of these units emit oxides of nitrogen (NO_x), and are otherwise not subject to permitting requirements, they are therefore not included in this synthetic minor permit.

DISCUSSION OF PROPOSED SYNTHETIC MINOR LIMITATIONS

In the application, as revised, the applicant requested an operational limit of a combined fuel usage of 95,275 gallons per year for all three units (EG-1, EG-2, and EG-3) combined, and a 61,500 gallons per year maximum for EG-3, specifically. Any fuel usage by EG-3 would be considered to be part of the 95,275 gallons allowed for the three units combined. In addition, to ensure that 20 DCMR 805 did not apply, each generator set is to be limited to fewer than 500 hours per year of operations. As demonstrated in the emissions summary below, these limits, incorporated into Conditions III(a)(2)(A) and III(b)(2)(A) of the permit, will ensure that emissions are maintained below the District’s major source threshold of 25 tons per year of NO_x,

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which is the only pollutant that would have exceeded one of the District’s major source thresholds if no restrictions were placed on the operations, and therefore the potential to emit, of the facility were taken. These permit conditions are being adopted pursuant to 20 DCMR 200.6 and 200.7.

With the establishment of the operational limits in Conditions III(a)(2)(A) and III(b)(2)(A), along with associated monitoring and record keeping requirements, and a requirement to report exceedances of these operational limits found in Condition I(c)(3)(B), the operational limits are enforceable as a practical matter, and pursuant to 20 DCMR 200.6 and 200.7, this facility qualifies for synthetic minor status.

It should be noted that the previous Title V permit that covered this facility (No. 047, issued May 24, 2017) also had limitations to keep the emissions of the facility below the major source threshold for NOx. At the time, the District did not have a synthetic minor program, so such limits (in this case, to avoid applicability of Non-attainment New Source Review) were included in a Title V permit. These limits were different from those contained in this draft permit, specifically limiting the emissions and operating hours of EG-1 and EG-2. Based on updated emission calculations and facility operational requirements, AT&T has requested to revise these limits to those proposed in this draft permit.

EMISSIONS SUMMARY:

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

FACILITY-WIDE EMISSIONS SUMMARY [TONS PER YEAR]		
Pollutants	Potential Emissions without 20 DCMR 200.6 and 200.7 Limits[‡]	Potential Emissions with 20 DCMR 200.6 and 200.7 Limits
Sulfur Dioxide (SO ₂)	0.021	0.012
Oxides of Nitrogen (NO _x)	35.29	22.50
Total Particulate Matter (PM Total) [†]	0.675	0.458
Volatile Organic Compounds (VOCs)	1.276	0.686
Carbon Monoxide (CO)	7.32	5.16
Total Hazardous Air Pollutants (HAPs)	0.020	0.017

[†] PM Total includes both filterable and condensable fractions.

[‡] These potential emissions reflect an assumption of 500 hours per year of operation, at maximum rated fuel usage for all three generator sets.

REGULATORY REVIEW:

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

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Federal and District Enforceable:

20 DCMR Chapter 1 - General Rules

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

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

40 CFR 51.212, 52.12, 52.30, 60.11, and 61.12 - Credible Evidence

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

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

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 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 1406 - Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

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

All stationary engines are subject to Chapter 2 permitting requirements, regardless of size. As such, all of the significant units at the facility are subject to Chapter 2 permitting requirements. All three of the generator engines were incorporated in the combined Chapter 2 and Chapter 3 Title V permit previously issued for the facility. All associated Chapter 2 requirements are being transferred to this synthetic minor permit, except where modified to reflect revised operating limits under 20 DCMR 200.6 and 200.7.

As discussed above, the applicant has requested operational limitations on fuel usage of 95,275 gallons per year for all three units (EG-1, EG-2, and EG-3) combined, and a 61,500 gallons per year maximum for EG-3, specifically. Any fuel usage by EG-3 would be considered to be part of the 95,275 gallons allowed for the three units combined. These limits are being established pursuant to 20 DCMR 200.6 and 200.7.

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The only other equipment on the site that has been identified to emit any level of air pollutants is three (3) 300-gallon aboveground storage tanks and one (1) 13,800 gallon underground storage tank, each for the storage of ULSD fuel. These units are insignificant emitters and are not subject to permitting under 20 DCMR 200.

It should be noted that previous limits taken in previous permits to avoid applicability of 20 DCMR 204 (Non-attainment New Source Review) have been revised in form, changing limits from operating hour limits to fuel usage limits, but are maintaining the minor source status of the facility and continuing to avoid what could have been a “significant” increase in emissions from the installation of EG-1 and EG-2 when originally installed. For further information on the history of these limits, see the Fact Sheet and Statement of Basis for Title V Permit No. 049, dated March 28, 2017.

20 DCMR Chapter 3 – Operating Permits and Acid Rain Programs:

As discussed above in the “Discussion of Proposed Synthetic Minor Limitations”, 20 DCMR Chapter 3 will no longer be applicable upon the issuance of this permit with its limits established pursuant to 20 DCMR 200.6. The acid rain portions of 20 DCMR Chapter 3 are not, and have never been, applicable to the facility.

20 DCMR Chapter 5 – Source Monitoring and Testing:

Throughout the permit, appropriate monitoring, testing, and record keeping requirements have been established to ensure that all emission and operational limits in the permit are enforceable as a practical matter. These requirements are established under the authority of Chapter 5. Of particular note, the permit requires monitoring of fuel usage to ensure that the fuel usage limits contained in the permit as synthetic minor limitations are not exceeded.

20 DCMR Chapter 6 – Particulates

Several sections of Chapter 6 are applicable to this facility. Section 600 is not applicable to the emergency generators as they do not meet the definition of “fuel burning equipment” (20 DCMR 199). Sections 604 (Open Burning) and 605 (Control of Fugitive Dust) are standard requirements included in all synthetic permits. Section 606 covers visible emissions requirements. Specifically, 20 DCMR 606.1 is applicable to the generators. It was also noted in the permit that, as a result of a call for a state implementation plan revision (“SIP Call”) from the U.S. Environmental Protection Agency (“EPA”), it is likely that 20 DCMR 606 will be revised in the near future. The permit indicates that, when the rule is changed, the new rule will supersede the requirements currently listed in the permit.

20 DCMR 801: Sulfur Content of Fuel Oils:

This regulation limits fuel oil sulfur content to 1% by weight in all circumstances. There are more stringent requirements for commercial fuel oil, but the only portion of 20 DCMR 801 applicable to the emergency engines is the 1% sulfur content limit. This requirement is streamlined with the more stringent requirements found in 40 CFR 63.6604(b) for the non-NSPS engines and 40 CFR 60.4207(b) for the NSPS engine.

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40 CFR 60, Subpart III – Standards of Performance for Stationary Compression Ignition

Internal Combustion Engines:

The EG-3, 1750 kW diesel emergency generator set is subject to 40 CFR 60, Subpart III. 40 CFR 60, Subpart III applies to stationary compression ignition internal combustion engines (CI-ICE) that: 1) are model year of 2007 or later, 2) commenced construction after July 11, 2005 and were manufactured after April 1, 2006, or 3) were modified or reconstructed after July 11, 2005.

EG-3 was installed in 2011 and is an emergency CI-ICE subject to 40 CFR 60, Subpart III. The applicable regulations are incorporated throughout Condition III(a) of the permit.

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

Subpart ZZZZ of 40 CFR 63 regulates/monitors 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 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 PTE 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.

Subpart ZZZZ is applicable to existing, new, or reconstructed stationary reciprocating internal combustion engines, located at area sources of HAPs. All three generator engines at the site meet these applicability criteria¹. “New”, with respect to engines with a site rating of more than 500 brake horsepower (bhp), is defined as those engines that commenced construction on or after December 19, 2002. “Existing”, with respect to these engines, is defined as those engines that commenced construction or reconstruction before December 19, 2002. See 40 CFR 63.6590 for further information on this subject.

The two 1,600 kWe emergency generator sets (EG-1 and EG-2) were installed in 1998 and are therefore considered “existing” rather than “new” with respect to this regulation. As such, they are fully subject to this regulation and all related requirements are incorporated into Condition III(b) of the permit.

The newer engine, EG-3, is also subject to Subpart ZZZZ, but because it is “new” (installed in 2011), the only requirement placed on it by Subpart ZZZZ is to comply with NSPS Subpart III, per 40 CFR 63.6590(c)(1). As such, although Subpart ZZZZ applies, the requirements of Subpart ZZZZ are not cited in the permit for EG-3, but rather NSPS Subpart III requirements are cited.

¹ Note that any of these generator engines could potentially claim an exemption under 40 CFR 63.6585(f), but those emergency engines exempt from 40 CFR 63, Subpart ZZZZ as well as the NSPS standards under 40 CFR 60, Subparts III and JJJJ, are not authorized to operate for non-emergency situations in the District. As such, the applicant has not claimed any of these exemptions.

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PROCEDURE FOR SUBMITTING COMMENTS OR 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 District shall grant such a request if it is deemed appropriate. The venue, date, and time for any public hearing will be announced in the D.C. Register and on the Department's website.

COMMENT PERIOD:

Beginning Date: xxx, 20xx

Ending Date: xxxx, 20xx

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

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Air Quality Division
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Washington DC 20002
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