

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

CHAPTER 2 TECHNICAL SUPPORT MEMORANDUM

TO: Stephen S. Ours, P.E. *SSO*
Chief, Permitting Branch

FROM: John Nwoke *JN*
Environmental Engineer

SUBJECT: **Naval Research Laboratory
Permit No. 6106-R1 to Operate One GTA 28 Natural Gas-Fired Emergency
Generator Set at Building 149**

DATE: April 25, 2017

BACKGROUND

On April 4, 2016, the Air Quality Division (AQD) of the Department of Energy and Environment (the Department) received applications to operate several emergency generators from the Naval Research Laboratory (NRL), one of which includes the GTA 28 natural gas-fired emergency generator.

The GTA 28 natural gas-fired emergency generator was initially permitted to operate in 2008 under Permit No. 6106 in Building 149 at NRL, located at 4555 Overlook Avenue SW, Washington, DC. The emergency generator is powered by a 770 hp Cummins natural gas-fired. The engine was manufactured in August 2007 and reportedly installed in 2008.

REGULATORY REVIEW

The following review is not a full review of all air quality regulations applicable to this generator set, but is rather a discussion of regulations whose applicability or requirements were not immediately obvious and therefore warrant documentation of AQD's applicability evaluations.

40 CFR 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines:

On April 5, 2017 Stephen Ours and John Nwoke held a telephone conversation with Lionel Vega to clarify the AQD's position on the regulatory requirements imposed by Subpart JJJJ of 40 CFR 63. Indications were that the subject emergency generator was subject to Subpart JJJJ pursuant to 40 CFR 60.4230(a)(4)(i), consequently NRL needed to take action, after its review of the regulation, to ensure that the generator was in compliance with that regulation.

However, following that discussion, Mr. Ours contacted EPA Region III staff who forwarded the query to Melanie King in the EAP Office of Air Quality Planning and Standards (OAQPS) to clarify the requirements of 40 CFR 60.4230. Ms. King indicated that 40 CFR 60.4230(a)(4)(iv) is intended to cover all emergency engines with a maximum power that is greater than 25 hp while

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emergency engines less than or equal to 25 hp are covered under 40 CFR 60.4230(a)(4)(iii). Under this interpretation, 40 CFR 60.4230(a)(4)(i) would not be applicable to this engine at NRL.

Based on Ms. King's interpretation that 40 CFR 60.4230(a)(4)(iv) is the relevant section for this 770 hp engine, 40 CFR 60, Subpart JJJJ is not applicable because the unit was manufactured before January 1, 2009.

40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:

This emergency engine meets the applicability criteria for this regulation. Based on the description in 40 CFR 63.6590(a)(2)(iii), because the unit is at an area source of hazardous air pollutants (HAPs) and it commenced construction after June 12, 2006, the unit is classified as a "New Stationary RICE". Furthermore, pursuant to 40 CFR 63.6590(c), because the unit is a new stationary RICE located at an area source, no requirements other than those imposed by 40 CFR 60, Subpart JJJJ are applicable to the unit.

As discussed above, 40 CFR 60, Subpart JJJJ is not applicable to the unit, therefore no requirements are imposed on the unit, despite being subject to 40 CFR 63, Subpart ZZZZ.

DISCUSSION

AQD does not allow any engines classified as "emergency engines" to operate in non-emergency situations unless they are subject to the emission standards in either 40 CFR 60, Subpart IIII or JJJJ or the maintenance requirements in 40 CFR 63, Subpart ZZZZ. Following the partial RICE rule vacatur in *Delaware v. EPA* (see the April 15, 2016 EPA memo from Peter Tsirigotis to EPA Regional Air Enforcement Managers and EPA Regional Air Directors at <https://www.epa.gov/sites/production/files/2016-06/documents/ricevacaturguidance041516.pdf>), any operation during low voltage or frequency events is considered non-emergency operation. Additionally, it can be advantageous for a permittee to be authorized to operate in other non-emergency situations on an occasional basis, as authorized in the aforementioned standards.

This matter was discussed with Lionel Vega of NRL on April 10, 2017 and two options were presented to NRL. The first option would be to have a permit that did not contain any of the requirements of 40 CFR 63, Subpart ZZZZ, but which would allow for no non-emergency operation except for limited maintenance operation. The second option was that AQD would permit non-emergency operation similar to that allowed for unit subject to Subpart ZZZZ, but that AQD would include requirements similar to those found in Subpart ZZZZ in the permit, using AQD's authority to include appropriate requirements in permits under 20 DCMR 201.

On April 11, 2017 and again on April 25, 2017, Mr. Vega confirmed by email that NRL was choosing the second option. As such, AQD is including requirements similar to those found in 40

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CFR 63, Subpart ZZZZ in the permit, but is citing 20 DCMR 201 as the authority to include those requirements in the permit.

Publication of the permit action was planned for March 24, 2017 in the D.C. Register. Public comment for the permit action will be solicited through April 24, 2017.

CONCLUSIONS

Consistent with the above discussion, AQD is publishing a draft permit in the D.C. Register and the Department's website on May 5, 2017. Public comment on the proposed permit action will be solicited through June 5, 2017. If there are no adverse public comments, I recommend issuance of the permit to NRL following completion of the public review period. If comments are received during the public review period, they will be addressed before any final action is taken on the permit application.

SSOJCN