

Policy: Calculating Potential to Emit for Emergency Backup Power Generators

Policy When determining the Potential to Emit (PTE) for an emergency backup power generator, **the District shall include emissions resulting from emergency operation of 100 hours per year**, in addition to the permitted limit for reliability-related and testing operation.

Applicability This assumption of 100 hours per year of emergency operation will be **used to determine the applicability of District permitting regulations**, such as New Source Review and Title V Major Facility Review. It will **not be used to determine the amount of emissions offsets required** for a project that triggers New Source Review. Emissions offsets represent ongoing emission reductions that continue every year, year after year, in perpetuity. As such, offsets are intended to counterbalance emissions that will occur every year, year after year, on a regular and predictable basis, to ensure Reasonable Further Progress towards attainment of the applicable ambient air quality standards. Accordingly, the PTE that a facility needs to offset is only its potential for such regular and predictable emissions – not any emissions that will only occur infrequently when emergency conditions arise.

In addition, **this policy does not apply to emergency fire pump engines**. The assumptions about potential emergency usage are different for emergency engines used to fight fires as compared to emergency engines use to provide backup power. The length of time that a facility may have to operate without grid power during any given year could be significantly longer than the amount of time it would take to put out a fire.

Finally, **this policy does not apply for purposes of the Toxics New Source Review requirements of District Reg. 2-5**. Pursuant to Reg. 2-5-111, Reg. 2-5 does not apply to emissions from emergency use of emergency standby engines.

Effective date This policy is effective when signed by the director and will not be applied retroactively to previous permitting actions. For existing permitted emergency generators, the policy will be implemented for the next permit application.

Policy: Calculating Potential to Emit for Emergency Backup Power Generators

Who is affected

This policy applies for calculating the PTE of emergency backup power generators for purposes of determining the applicability of District permitting regulations. Facilities with one or more such generators are subject to the policy. Such facilities should presume that each of their generators will experience 100 hours per year of emergency operation when calculating their PTE for purposes of determining the applicability of the permitting regulations in Reg. 2 – including the District’s New Source Review regulations (Reg. 2, Rule 2) and Title V Major Facility Review regulations (Reg. 2, Rule 6).

The permitting regulations covered by this policy include the “small facility” offsets provisions in Reg. 2-2-302.1. Reg. 2-2-302.1 provides that for facilities with a PTE of less than 35 TPY, (i) offsets are required only at a 1:1 ratio (as opposed to a 1.15:1 ratio for larger facilities); and (ii) the APCO will provide the offsets from the District’s Small Facility Banking Account (SFBA), subject to certain restrictions. Some facilities with emergency backup power generators may have been permitted in the past without taking any emergency operation into account, which may have kept their PTE below 35 TPY and rendered them eligible to take advantage of the SFBA. With 100 hours of emergency operation included, some of these facilities may have a PTE above 35 TPY, rendering them ineligible for SFBA credit. In such cases, the next time the facility applies for a permit, it will not be eligible for the “small facility” offsets provisions in Reg. 2-2-302.1, but will instead be subject to Reg. 2-2-302.2. Per Reg. 2-2-302.2, if such a facility has previously received credits from the SFBA, the owner/operator will be required to reimburse the SFBA for all credits received from the SFBA for each pollutant where the PTE exceeds 35 TPY, and it will have to provide any additional offsets for that pollutant at a 1.15:1 ratio.

This policy also applies for calculating a facility’s PTE for purposes of determining whether it is required to obtain a Title V permit or a Synthetic Minor Operating Permit (SMOP) under Reg. 2-6. Some facilities have been permitted in the past assuming 500 hours per year of emergency operation. For these facilities, their PTE will be lower using the presumption of 100 hours per year under this policy. If their PTE is reduced below the Title V applicability thresholds, they may no longer need a Title V permit or SMOP.

Note that certain District regulations include specific provisions that exempt emergency operation, including Reg. 2, Rule 5. This policy does not apply in situations covered by a specific regulatory exemption. This policy also does not apply for determining the amount of a facility’s cumulative increase that must be offset.

Policy: Calculating Potential to Emit for Emergency Backup Power Generators

Rationale

100 hours represents a reasonable worst-case assumption regarding the amount of time during any given year that a facility could have to operate without outside power, which would necessitate emergency operation of the facility's backup generator(s).

Emergency backup power generators are used to provide power in emergency situations where a facility loses its external power supply from the power grid. By its very nature, such emergency operation is unplanned and infrequent, and when it does occur it is impossible to predict how long it will last. Although it is foreseeable that an emergency backup power generator may have to operate to respond to emergency conditions at some point during its useful life, it is not possible to predict with any specificity exactly how frequently such operations will occur, or for what duration. 100 hours is a reasonable worst-case assumption of the longest a facility may need to operate on backup power in any given year in the event of a major power outage.

This presumption of 100 hours per year of emergency operation is consistent with EPA's approach to calculating the PTE of such generators. EPA has recognized that emergency operations are unpredictable, and that they will be variable in duration but will probably not last more than one day (24 hours) per emergency event. Notwithstanding this likelihood that emergency conditions would not exceed 24 hours, EPA has suggested using a highly conservative assumption of 500 hours per year of emergency operation. EPA reasoned that even with this highly conservative number, most facilities with only a single generator will remain below the agency's "major source" regulatory applicability thresholds. But EPA also made clear that different presumptions may be appropriate based on other considerations.

The District has found that 100 hours per year is a more appropriate presumption, for several reasons. For one, 500 hours – nearly 21 straight days – is an overestimate of the amount of time that any facility would reasonably be expected to have to operate without grid power, even in an extended emergency. For another, EPA's analysis focused on small facilities with a single generator and whether a 500-hour presumption was sufficiently low to keep such facilities from exceeding the "major source" thresholds. 500 hours may be sufficiently low for this purpose for facilities with only a single generator, but it leads to unintended consequences for larger facilities that may have multiple generators, or generators in conjunction with

Policy: Calculating Potential to Emit for Emergency Backup Power Generators

other emitting sources. It is therefore more appropriate to use an alternative presumption – as specifically contemplated by EPA – to provide a more realistic estimate of reasonable worst-case emergency operations. 100 hours per year is a more appropriate presumption for this purpose.

This presumption is appropriate for calculating emergency backup power generators' PTE when determining whether a facility is subject to District permitting regulations. This is because the District generally looks to a facility's highest potential emissions in any given year to determine whether the facility should be subject to a particular regulation, even if the emissions will not reach that level in every year of operation. But the presumption is not appropriate for calculating the amount of emissions that need to be offset under Regs. 2-2-302 and 2-2-303. Offsets are required to counterbalance emissions that occur consistently and continuously every year, and thus hinder the region's ability to attain and maintain applicable ambient air quality standards on an ongoing basis. It is therefore appropriate to offset emissions from testing and reliability-related operation, which will occur year in and year out – but not emissions from emergency operation, which by their very nature will not occur at all during most years of a generator's life. Thus, in applying Reg. 2-2-606 and Reg. 2-2-607 to determine the cumulative increase that a facility must offset, emissions from an emergency backup power generator will be calculated based on its testing and reliability-related operation only, and not any emergency operation.


Prohibition of limit on emergency operation

In implementing this policy, the Air District will not allow an owner/operator to accept a permit condition to limit emergency operation to less than 100 hours per year to reduce a source's PTE. The District does not impose limits on emergency operations because of the need to maintain flexibility to respond to emergency situations; and because such limits would not be practically enforceable in any event because if an emergency arises, most facilities would continue to operate to mitigate the emergency notwithstanding of the threat of District enforcement action for exceeding a permit limit. An owner/operator may reduce a generator's PTE by accepting lower limits on testing and reliability-related operation or by installing an emissions control device, but not through accepting a limit on emergency operation.

Policy: Calculating Potential to Emit for Emergency Backup Power Generators

Contact Greg Stone, Extension 4745

Approval

Name & Title	Signature	Date
Pamela Leong, Director of Engineering		6/3/2019