

**PETITION FOR VARIANCE
BEFORE THE HEARING BOARD OF THE
BAY AREA AIR QUALITY MANAGEMENT DISTRICT**



PETITIONER

Name: [Quality Investment Properties Santa Clara, LLC](#)

Check One: Sole Proprietor Partnership Corporation
 Government Non-Profit (specify) _____

Mailing Address: [2807 Mission College Blvd. Santa Clara, CA 95054](#)

Phone number: [\(404\) 354-6573](#)

Email Address: paul.carver@qtsdatacenters.com

Name, title, and phone number of person(s) authorized to receive notices (no more than two):

[Paul Carver, VP of Facilities Operations – Engineering, \(404\) 354-6573](#)

Briefly describe the type of business or organization/agency activity:

[Data center facility authorized to operate emergency generators.](#)

Are you a Small Business as defined in Health and Safety Code Section 42352.5(b)?

Yes No

Are you a public agency providing an “essential public service” as defined in Health and Safety Code Section 42352?

Yes No

VARIANCE REQUEST

Type of Variance Requested:

If you are selecting Interim Variance, you must also select a Short or Regular Variance to follow.

Interim Short Regular Emergency Product Group

Good Cause: (Required only for Emergency and Interim Variances Explain why this Petition was not filed in sufficient time to issue the required public notice.)

OPERATION

Briefly describe the type of equipment or process that is the subject of this variance petition, and why it is necessary to your operation. Attach copies of the Permit(s) to Construct and/or Permit(s) to Operate for the subject equipment. For Title V facilities, attach only the relevant sections of the Facility Permit showing the equipment or process and conditions that are subject to this Petition. You must bring the entire Facility Permit to the hearing:

Three emergency generators (S2, S3, and S4) require a replacement of their control panels and Programmable Logic Control (PLC) Systems. For each emergency generator, their existing control panels and PLC systems have reached the end of their usable life and their components are no longer available from the manufacturer. Therefore, it is necessary to upgrade to avoid component failure. An additional 7 hours per emergency generator for maintenance and testing is requested to perform the controller and PLC unit replacement. The project is estimated to take place between 10/28/2024-11/22/2024. A temporary generator will be brought onsite to support the building in place of S2, S3, and S4 as each generator is taken out of service for the maintenance to be performed. The temporary generator will be a Portable Equipment Registration Program (PERP) certified unit and operated in accordance with BAAQMD 2-1-105 and CARB Rule 2453(m)(4)(E)(2). The temporary generator will run for approximately 3 hours (1 hour per generator) to confirm operational ability but will only run beyond that for power outages should they occur during the project timeline.

REGULATORY REQUIREMENTS

List all District Regulations, rules, and permit conditions that are the subject of this variance request. Identify all applicable subsections:

Plant ID 19010 Permit to Operate Condition #22805 as it applies to S2, S3, S4.

1. Operating for reliability-related activities is limited to 5 hours per year per engine [Basis: "Regulation 2-5].

INFORMATION FOR VARIANCE FINDINGS

Is there a regular maintenance and/or inspection schedule for this equipment?

Yes No

If yes, how often: Once per month

Date of last maintenance and/or inspection: 9/23/2024

Was there any indication of problems with the subject equipment?

Yes No

Were you issued any Notice(s) of Violation or Notice(s) to Comply concerning the equipment or activity that are the subject of this variance request within the past year?

Yes No

If yes, attach a copy of each notice.

Have you received any complaints from the public regarding the operation of the subject equipment or activity within the last six months?

Yes No

If yes, be prepared to present detailed testimony about the nature of these complaints at the hearing.

Has this matter been the subject of previous variance requests?

No

If yes, provide date of hearing, type of variance, and Hearing Board decision:

Explain why it is beyond your reasonable control to comply with the regulations and permit conditions that will be the subject of this variance:

The current facility permit allows for five hours of runtime annually for the S2, S3, and S4 generators. However, in order to properly replace the control panel and PLC units, a maximum of 7 hours per emergency generator is required. Therefore, a variance is required in order to upgrade these components in a safe and controllable environment.

If you are seeking a product variance, briefly describe how you attempted to locate, research, or develop a product that is in compliance with District rules and regulations:

N/A

When and how did you first become aware that you are not (or will not be) in compliance with the regulations, rules and/or permit conditions?

In 2022 an uptime assessment was performed and noted that the controls and PLC systems were nearing the end of their useful life. The emergency generator manufacturer (Cummins) no longer manufactures the parts formerly installed – therefore an entire replacement project for the control panel and PLC system is required to maintain generator functionality. QTS recently determined the additional run time requirement through conversations and planning with the maintenance vendor.

List the date(s) and action(s) you have taken since that time to achieve compliance:

The QTS team reviewed the permit conditions that would be impacted by the need for testing the emergency generators and engaged internal leadership 9/4/2024. QTS then investigated internal testing and maintenance needs in addition to vendor requirements to test the emergency generators once new parts are installed. The team escalated to BAAQMD upon confirmation that the permit limits would be exceeded with the planned project on 10/8/2024.

What would be the harm to your business, agency or organization if the variance is not granted?

Economic losses [See Below](#)

Number of employees laid off, if any: [N/A](#)

Provide detailed information regarding economic losses, if any (anticipated business closure, breach of contracts, hardship on customers, employees or the public, and/or similar impacts):

[The failure of control panel and PLC system equipment would cause a loss of functionality of the emergency generators, which would then not be able to operate in an emergency situation. This would result in a loss of electrical power to our customers, possibly create safety concerns, and pose significant harm to our business's functionality. Many of QTS's customers are hospitals, emergency service providers, financial institutions, and small businesses, all of whom rely on assured continued services during emergency situations. Replacement of the control panel and PLC systems will enhance the emergency generator set reliability.](#)

Can you curtail or terminate any operations in lieu of seeking a variance?

Yes (provide brief explanation)

No

Will any emissions occurring during the variance period result in odor, dust or smoke?

[No.](#)

If yes, identify the type and amount of these emissions; what you can do to monitor and mitigate those emissions; and, the likely impact on the surrounding community.

Will any emissions occurring during the variance period result in excess opacity (total opacity above ___%)? (Check on percentage opacity considered "excess")

[No.](#)

If yes, identify the type and amount of these emissions; the likely duration of the excess opacity during the variance period; and, what you can do to monitor and mitigate those emissions.

Estimate all other excess emissions that will occur on a daily basis during the variance period. Excess emissions are those that exceed rule and permit condition limits.

QTS estimates approximately 7 hours of run time per generator – the schedule for testing has not yet been established, therefore it is conservatively estimated that one generator will undergo all 7 hours of testing in one day. The chart below provides the emissions of one generator per day, and the facility total emissions (each generator operating 7 hours per day, for one day during the project duration). Based on the short duration of the project, additional mitigation efforts outside of minimizing run time for testing have not been pursued.

Table 1:

Pollutant	Individual Generator Excess Emissions (lb/day)	Project Total Excess Emissions (lb)
NO _x	199.800	599.40
CO	45.788	137.36
VOC	5.828	17.48
PM _{2.5} /PM ₁₀	5.869	17.61
SO ₂	5.869	17.62
Benzene	0.101	0.303
Toluene	0.043	0.129
Xylenes	0.016	0.047
Formaldehyde	0.011	0.032
Acetaldehyde	0.004	0.013
Acrolein	0.001	0.004
Naphthalene	0.000	0.001
Total HAP	0.007	0.022

Show calculations used to estimate quantities of excess emissions or explain why there will be no excess emissions:

Calculations were completed assuming 7 hours of maintenance and testing for each emergency generator with a variable load distribution of 1 hour at 25% load, 2 hours at 50% load, 3 hours at 75% load, and 1 hour at 100% load. Total days of variance were assumed to be 25, starting on October 28, 2024 and finishing on November 22, 2024.

Emissions by day are listed below in Table 1. It is conservatively estimated that one generator will undergo all 7 hours of testing in one day.

Briefly describe the measures that will be taken to mitigate excess emissions to the maximum extent feasible during the variance period, or explain why mitigation measures are not feasible:

QTS will minimize the number of hours of testing and maintenance to minimum required for testing to guarantee the generator is functioning as required. The generator will be operated at varying loads. Further mitigation efforts are not economically feasible based on the short duration of the project.

How do you plan to monitor or quantify emissions levels from the equipment or operations during the variance period?

By tracking load and operating hours for each run required during maintenance and testing for each emergency generator.

Will you provide information regarding emissions during the variance period in a manner and frequency as requested by the District?

Yes No

COMPLIANCE

How do you intend to achieve compliance with the regulations and permit conditions that are the subject of the variance? Briefly describe any necessary process changes; equipment to be installed; or modifications to equipment or your facility. Identify whether authority to construct or a permit amendment will be necessary. Include dates by which you estimate actions will be completed and an estimate of total costs.

Equipment changes include only the control panels and PLC systems for three emergency generators. No additional changes to the process or equipment will be made. Neither an authority to construct nor a permit amendment will be necessary. These changes will be completed by 11/22/2024. QTS will operate in compliance

immediately following the project end date and will continue to minimize annual hours of operation according to permit conditions.

List any operating conditions or increments of progress, if any, that you propose to include in the variance order. If the variance is to extend beyond one year, you must propose increments of progress:

Variance will be completed by 11/22/2024, and no increments of progress are expected.

State the date you are requesting the variance to begin: 10/28/2024

State the date on which you will achieve final compliance: 11/22/2024

List the names of any District staff with whom you or any of your staff or representatives have had contact concerning this variance petition or any related Notice of Violation or Notice to Comply. Include name, title and phone number:

John Marvin, Air Quality Program Manager, Compliance & Enforcement Division,

(415) – 749-5190

If this Petition was completed by someone other than the petitioner, provide their name and title:

The following verification must be signed by the owner, manager, director, or other responsible party of the plant, business, factory, agency or organization requesting the variance:

I, the undersigned, hereby declare under penalty of perjury, under the laws of the State of California, that I have read the foregoing Petition, including attachments, and that their contents are true and correct.

Dated: 10/11/2024, at (location) QTS Santa Clara.

Print name: Paul Carver

Signature: *Paul A Carver*

Title: VP of Facilities Operations – Engineering