PETITION FOR VARIANCE
BEFORE THE HEARING BOARD OF THE
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

AMENDED

PETITIONER: El Segundo Energy Center LLC

CASE NO: 5097-11

FACILITY ID: 115663

FACILITY ADDRESS: 301 Vista Del Mar
[location of equipment/site of violation; specify business/corporate address, if different, under Item 2, below]

City, State, Zip: El Segundo, CA 90245

1. TYPE OF VARIANCE REQUESTED (more than one box may be checked; see Attachment A, Item 1, before selecting)

☐ INTERIM ☒ SHORT ☐ REGULAR ☐ EMERGENCY ☐ *EX PARTE* EMERGENCY

2. CONTACT: Name, title, company (if different than Petitioner), address, and phone number of persons authorized to receive notices regarding this Petition (no more than two authorized persons).

George Piantka	Elizabeth Vargas
Senior Director, Environmental	Environmental Specialist
4950 Avenida Encinas	301 Vista Del Mar
Carlsbad, CA 92008	El Segundo, CA 90245
☎ (760) 930-1505 and (760) 707-6833	☎ (310) 615-6331 and 310-321-8405
Fax	*Fax*
E-mail George.Piantka@nrg.com	*E-mail* Elizabeth.Vargas@nrg.com

3. RECLAIM Permit ☒ Yes ☐ No FID: 115663

Title V Permit ☒ Yes ☐ No FID: 115663

Persons with disabilities may request this document in an alternative format by contacting the Clerk of the Board at 909-396-2500 or by e-mail at clerkofboard@aqmd.gov.

If you require disability-related accommodations to facilitate participating in the hearing, contact the Clerk of the Board at least five (5) calendar days prior to the hearing.

[ALL DOCUMENTS FILED WITH CLERK'S OFFICE BECOME PUBLIC RECORD]

4. **GOOD CAUSE:** Explain why your petition was not filed in sufficient time to issue the required public notice. (Required only for Emergency and Interim Variances; see Attachment A, Item 4)

Not applicable.

5. Briefly describe the type of business and processes at your facility.

The El Segundo Energy Center (ESEC) is a major natural-gas–fired power generation facility. It is a two-unit, rapid-response combined-cycle, dry-cooled plant located in the City of El Segundo in Los Angeles County. The facility provides efficient and flexible electricity generation to support the Los Angeles region.

6. List the equipment and/or activity(s) that are the subject of this petition (see Attachment A, Item 6, Example #1). **Attach copies of the Permit(s) to Construct and/or Permit(s) to Operate for the subject equipment. For RECLAIM or 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.**

Equipment/Activity	Application/ Permit No.	RECLAIM Device No.	Date Application/Plan Denied (if relevant)*
Gas Turbine, Unit No. 5, Natural Gas, Siemens, Model SGT6-5000F Rapid-Response, Combined Cycle, 2250 MMBTU/HR at 68 Degrees F, with Dry Low-NOx Combustors with: Generator, Heat Recovery Steam, Unfired Turbine, Steam, 67.7 MW Generator, 222.5 MW	G74288 / 627769	D67	

*Attach copy of denial letter

7. Briefly describe the activity or equipment, and why it is necessary to the operation of your business. A schematic or diagram may be attached, in addition to the descriptive text.

A short variance is requested for El Segundo Unit 5 to allow the gas turbine (Device D67) to operate for up to 10 hours on March 16–17 following generator exciter outage and maintenance. After this work, North American Electric Reliability Corporation (NERC) requires performance testing at multiple load points, beginning with full-speed no-load (FSNL) and progressing to minimum load, 60% load, and full load. Each load step will be maintained for less than three hours. Additionally, Unit 5 (Device D67) may undergo more than 2 start-ups per day during the NERC-required performance testing sequence at multiple loads.

During FSNL and minimum-load operation, catalyst temperatures are not expected to reach levels necessary for effective emissions control. To ensure uninterrupted completion of the required NERC testing sequence including any potential need to repeat load steps or return to lower loads, a variance is needed for the full testing period. This testing is necessary to safely return the unit to service and to meet NERC reliability requirements.

8. Is there a regular maintenance and/or inspection schedule for this equipment? Yes ☒ No ☐

If yes, how often: Annually Date of last maintenance and/or inspection: March 1-15, 2025

Describe the maintenance and/or inspection that was performed..

[YOU MAY ATTACH ADDITIONAL PAGES IF NECESSARY]

ESEC conducts annual source tests for NH3 per permit condition D29.8 and conducts source tests for SOx, VOC, PM2.5, and PM10 at least once every three years per permit condition D29.9. Previous testing indicates that the equipment is operating properly and remains in compliance with existing permit conditions.

9. List all District rules, and/or permit conditions [indicating the specific section(s) and subsection(s)] from which you are seeking variance relief (if requesting variance from Rule 401 or permit condition, see Attachment A). Briefly explain how you are or will be in violation of each rule or condition (see Attachment A, Item 9, Example #2).

Rule	Explanation
Rule 203(b)	Rule 203(b) states that the equipment shall not be operated contrary to the conditions specified in the permit to operate. During the NERC-required performance testing sequence, ESEC Unit 5 (Device D67) will operate at full-speed no-load (FSNL) and minimum load where catalyst temperatures are too low for effective emissions control. During these periods, several permit conditions (including NOx, CO, and VOC limits and associated monitoring requirements) will be violated. Additionally, the unit may undergo 2 more start-ups per day during the NERC-required performance testing sequence at multiple loads, which would result in permit condition violations that limit the unit to 2 start-ups per day.
Rule 203(b)	Rule 230(b) prohibits a Title V facility from operating any emissions unit in violation of any federally enforceable permit term or condition. Operation at FSNL and minimum load will result in temporary exceedances of federally enforceable emission limits (e.g., BACT and Subpart KKKK NOx) and monitoring deviations (e.g., SO_2 CEMS validity), constituting a violation without a variance.
Rule 3002(c)(1)	Rule 3002(c)(1) requires Title V facilities to operate in full compliance with all permit terms and conditions, including emission limits, monitoring, recordkeeping, reporting, NSPS standards, and CEMS requirements. During FSNL and minimum-load NERC testing, NOx, CO, and VOC emissions will exceed permit limits and CEMS validity may be affected, resulting in noncompliance with Title V permit conditions.
Rule 2004(f)(1)	Rule 2004(f)(1) requires RECLAIM (or RECLAIM-equivalency) units to maintain fully functional CEMS meeting uptime, calibration, and data-validity requirements. Low-load operation may cause NOx CEMS data to fall outside valid ranges, affecting compliance with required averaging and monitoring criteria.
Rule 1703(a)(2) – PSD-BACT (Conditions: A63.2, A99.7, A99.8, A99.9, A195.8, A195.9, A195.10)	Rule 1703(a)(2) requires PSD-BACT for affected pollutants. During FSNL and minimum-load operation, catalyst temperatures will be below effective activation ranges; NOx, CO, and VOC emissions will temporarily exceed BACT-level limits specified in these conditions. Start-up count may also exceed the permit limit of 2 start-ups per day during the NERC-required performance testing sequence at multiple loads. The unit may undergo 2 more start-ups per day during the NERC-required performance testing sequence.
Rule 1303(a)(1), Rule 1303(a)(2) (Conditions: A195.8, A195.9, A195.10, K40.4)	Rule 1303 requires BACT for new/modified sources. Low-load testing will cause NOx and CO exceedances due to insufficient catalyst temperature, resulting in temporary noncompliance with BACT requirements embedded in these permit conditions.
Rule 407 (CO) (Conditions: A99.7, A99.8, A99.9, A195.8; D82.4)	Rule 407 establishes CO limits. During FSNL and minimum load, incomplete combustion and cold catalyst conditions will cause elevated CO emissions above permitted limits. Condition D82.4 requires installation/operation of a CO CEMS; during the variance period, recorded concentrations and mass rates may exceed limits and/or produce out-of-range data.

[YOU MAY ATTACH ADDITIONAL PAGES IF NECESSARY]

Rule 2005 / Rule 2012 (Condition: D82.5 – NOx CEMS)	Condition D82.5 requires installation/operation of a NOx CEMS compliant with Rule 2012 requirements. During FSNL/minimum-load operation, NOx concentrations corrected to 15% O_2 may exceed permit/BACT/NSPS limits and may also affect CEMS validity/averaging compliance.
Permit Conditions (Device D67)- A63.2, A99.7, A99.8, A99.9, A195.8, A195.9, A195.10, A327.1, A433.1, B61.2, C1.10, C1.11, D12.10, D29.8, D29.9, D82.4, D82.5, E193.2, K40.4, K67.5	These conditions specify emission limits, BACT/NSPS compliance, CEMS requirements (CO under D82.4, NOx under D82.5), operating parameters, and Title V obligations. During FSNL/minimum-load testing, NOx, CO, and VOC emissions will temporarily exceed permitted limits. Start-up count may also exceed the permit limit of 2 start-ups per day during the NERC-required performance testing sequence at multiple loads. The unit may undergo 2 more start-ups per day during the NERC-required performance testing sequence.

10. Are the equipment or activities subject to this request currently under variance coverage? Yes ☐ No ☒

Case No.	Date of Action	Final Compliance Date	Explanation

11. Are any other equipment or activities at this location currently (or within the last six months) under variance coverage? Yes ☐ No ☒

Case No.	Date of Action	Final Compliance Date	Explanation

12. Were you issued any Notice(s) of Violation or Notice(s) to Comply concerning this equipment or activity within the past year? Yes ☐ No ☒

If yes, you must attach a copy of each notice.

13. 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, you should be prepared to present details at the hearing.

14. Explain why it is beyond your reasonable control to comply with the rule(s) and/or permit condition(s). Provide specific event(s) and date(s) of occurrence(s), if applicable.

Maintenance on the generator exciter is scheduled for March 16, 2026. Once that work is completed, the unit is required to undergo NERC-mandated testing before it can return to service. This testing must occur immediately after the maintenance and must be performed at several different load levels.
During FSNL and minimum-load operation, the catalyst will not reach the temperatures needed for effective emission control. Because both the maintenance and the required testing sequence must occur as scheduled, compliance with the applicable District rule(s) during these low-load periods is beyond ESEC's reasonable control.

[YOU MAY ATTACH ADDITIONAL PAGES IF NECESSARY]

15. When and how did you first become aware that you would not be in compliance with the rule(s) and/or permit condition(s)? Provide specific event(s) and date(s) of occurrence(s).

On Tuesday, February 10, 2026 ESEC was made aware that the NERC-mandated testing to return Unit 5 (Device D67) to service requires testing at multiple loads, w th potentially multiple start-ups, including testing with no load (full speed no load, FSNL) and then stepping to minimum load, 60% load, and full load. ESEC does not expect catalyst temperatures to be achieved at FSNL and minimum load to effectively control emissions to BACT limits for normal operations.

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

ESEC has taken the steps necessary to finalize the schedule on February 10, 2026 to complete the required testing in the minimum required time and start-ups to minimize the period the catalyst temperatures are not effectively controlling emissions.

17. What would be the harm to your business during **and/or after** the period of the variance if the variance were not granted?

Economic losses: Estimated $93,000 per day.

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, layoffs, and/or similar impacts).

If the variance request were denied, then it would cause a complete loss of financial value. Since the unit would not be allowed to be synchronized it would be unavailable to provide any energy, capacity or ancillary services, the value of which in 2026 is estimated at $34M.

18. Can you curtail or terminate operations in lieu of, or in addition to obtaining a variance? Please explain.

Curtailing or terminating operations is not feasible. As a power-generating facility, the unit must remain available to supply electricity to the grid and support system reliability. Stopping operations during this period would limit the facility's ability to meet its power-supply obligations.

In addition, the unit cannot return to service without completing the required post-maintenance NERC testing. That testing must be performed immediately after the exciter maintenance and requires operation at several load levels, including FSNL and minimum load. Because both the testing and the facility's obligation to provide power must be met, curtailing operations is not a viable alternative to obtaining a variance.

19. Estimate excess emissions, if any, on a daily basis, including, if applicable, excess opacity (the percentage of total opacity above 20% during the variance period). If the variance will result in no excess emissions, insert "N/A" here and skip to No. 20.

Pollutant	(A) Total Estimated Excess Emissions (lbs/day)	(B) Reduction Due to Mitigation (lbs/day)	(C)* Net Emissions After Mitigation (lbs/day)
NOx	214 (for 10-hour event, with 2 additional start-ups)	---	214 (for 10-hour event, with 2 additional start-ups)
CO	15 (for 10-hour event)	---	15 (for 10-hour event)

* Column A minus Column B = Column C

Excess Opacity:_____%

20. Show calculations used to estimate quantities in No. 19 or explain why there will be no excess emissions.

The excess-emission estimates were developed using the unit's start-up NOx mass emission limit and the expected fuel-firing rate during the test conditions, the corresponding fuel-heating value conversion, the partial effectiveness of the NOx and CO emission controlled equipment as temperature in the exhaust increases. The excess emissions are calculated based on the difference between the partial control estimates and the permitted NOx and CO emission limits provided in the Facility's operating Permit. These inputs were used to calculate total emissions for the duration of the required testing period.

Attachment 1 provides the detailed emission calculations.

21. Explain how you plan to reduce (mitigate) excess emissions during the variance period to the maximum extent feasible, or why reductions are not feasible.

Excess emissions cannot be fully avoided during the additional start-up or during the FSNL and minimum-load portions of the required NERC testing, but they will be minimized to the extent feasible. The unit will only operate at these low-load conditions for the minimum amount of time needed to complete each test step, and load will be increased as soon as safely possible so that catalyst temperatures can return to normal operating levels.
All other emission controls and monitoring systems will remain in service throughout the variance period, and the unit will operate in a stable and controlled manner to avoid unnecessary emissions. Because the low-load operation is limited, temporary, and required for the post-maintenance testing sequence, no additional mitigation measures are technically feasible beyond minimizing the duration of these specific test conditions.

22. How do you plan to monitor or quantify emission levels from the equipment or activity(s) during the variance period, and to make such records available to the District? **Any proposed monitoring does not relieve RECLAIM facilities from applicable missing data requirements.**

Emissions during the variance period will be monitored using the facility's existing continuous monitoring and recordkeeping systems. The unit's CEMS will remain in full operation throughout the testing period, providing continuous measurements of NOx, CO, and O_2. Fuel usage will also be recorded so that emissions based on fuel-specific factors can be quantified as needed.

All operating data, CEMS records, and fuel-use information collected during the variance period will be maintained and made available to the District upon request. These records will allow the District to verify actual emissions and confirm that the unit operated only as necessary to complete the required testing.

[YOU MAY ATTACH ADDITIONAL PAGES IF NECESSARY]

23. How do you intend to achieve compliance with the rule(s) and/or permit condition(s)? Include a detailed description of any equipment to be installed, modifications or process changes to be made, permit conditions to be amended, etc., dates by which the actions will be completed and an estimate of total costs.

Compliance will be achieved once the required exciter maintenance and the associated NERC testing sequence are completed. No equipment modifications or process changes are necessary, as the unit's emission control systems function properly under normal operating conditions. The only period of non-compliance may occur during any additional start-up and during the brief FSNL and minimum-load testing steps, where catalyst temperatures are inherently too low for effective control.
The exciter maintenance is scheduled for March 16, 2026, and the NERC testing will be performed immediately afterward. Once the testing is complete and the unit is returned to normal operating load, the catalyst will reach its effective temperature range and the unit will resume full compliance with all applicable rule and permit limits.
Because the variance request is limited to this short, mandatory testing period and no equipment changes are required, no additional capital costs are anticipated beyond the planned maintenance activities.

24. State the date you are requesting the variance to begin: March 16, 2026; and the date by which you expect to achieve final compliance: March 17, 2026.

If the regular variance is to extend beyond one year, you **must** include a **Schedule of Increments of Progress**, specifying dates or time increments for steps needed to achieve compliance. See District Rule 102 for definition of Increments of Progress (see Attachment A, Item 24, Example #3).

List Increments of Progress here: N/A

25. List the names of any District personnel with whom facility representatives have had contact concerning this variance petition or any related Notice of Violation or Notice to Comply.

_____ Ext. _____

_____ Ext. _____

If the petition was completed by someone other than the petitioner, please provide their name and title below.

Eduardo Jimenez	Yorke Engineering, LLC	Senior Scientist
Name	Company	Title

The undersigned, under penalty of perjury, states that the above petition, including attachments and the items therein set forth, is true and correct.

Executed on February 27, 2026, at City of Industry, California

George Piantka	George Piantka
Signature	Print Name

Title: Senior Director, Environmental

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26. SMALL BUSINESS and TABLE III SCHEDULE A FEES: To be eligible for reduced fees for small businesses, individuals, or entities meeting small business gross receipts criterion [see District Rule 303(h)], you must complete the following:

Declaration Re Reduced Fee Eligibility

1. The petitioner is
   a) ☐ an individual, or
   b) ☐ an officer, partner or owner of the petitioner herein, or a duly authorized agent of the petitioner authorized to make the representations set forth herein.

If you selected 1a, above, skip item 2.

2. The petitioner is
   a) ☐ a business that meets the following definition of Small Business as set forth in District Rule 102:

   SMALL BUSINESS means a business which is independently owned and operated and meets the following criteria, or if affiliated with another concern, the combined activities of both concerns shall meet these criteria:

   (a) the number of employees is 10 or less; **AND**

   (b) the total gross annual receipts are $500,000 or less **or**

   (iii) the facility is a not-for-profit training center.

   -OR-

   b) ☐ an entity with total gross annual receipts of $500,000 or less.

3. Therefore, I believe the petitioner qualifies for reduced fees for purpose of filing fees and excess emission fee calculations, in accordance with Rule 303(h).

I declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, at _____, California

_____ _____

Signature Print Name

Title _____

[YOU MAY ATTACH ADDITIONAL PAGES IF NECESSARY]

El Segundo Energy Center LLC – Petition for Short Variance

Attachment 1 - Estimated Excess Emissions

FACILITY ID: 115663
CASE NO: 5097-11

Gas Turbine, Unit No. 5: Device ID: 67 (FSNL, Without Control)

Equipment Rating	2250	MMBTU/hr
Load	15	%
1 mmcf	1050	MMBTU
Duration	3	hours
NOx PPM	9	ppm
NOx Emission Factor	0.0334	lb/mmbtu
NOx Emission Factor	35.07	lb/mmcf
CO PPM	4	ppm
CO Emission Factor	0.009	lb/mmbtu
CO Emission Factor	9.45	lb/mmcf
NOx Emissions	34	lbs
CO Emissions	9	lbs

Gas Turbine, Unit No. 5: Device ID: 67 (FSNL, With Control)

Equipment Rating	2250	MMBTU/hr
Load	15	%
1 mmcf	1050	MMBTU
Duration	3	hours
NOx PPM	2	ppm
NOx Emission Factor	0.0074	lb/mmbtu
NOx Emission Factor	7.77	lb/mmcf
CO PPM	2	ppm
CO Emission Factor	0.0045	lb/mmbtu
CO Emission Factor	4.725	lb/mmcf
NOx Emissions	7	lbs
CO Emissions	5	lbs

Gas Turbine, Unit No. 5: Device ID: 67 (Additional Start-ups)

Additional Start-ups	2	Start-ups
Max Start-up NOx Mass Emission Limit	56	lbs/Start-up
NOx Emissions	112	lbs

Gas Turbine, Unit No. 5: Device ID: 67 (Excess Emissions)

NOx Emissions	214	lbs
CO Emissions	15	lbs

Gas Turbine, Unit No. 5: Device ID: 67 (mid load, Without Control)

Equipment Rating	2250	MMBTU/hr
Load	30	%
1 mmcf	1050	MMBTU
Duration	3	hours
NOx PPM	9	ppm
NOx Emission Factor	0.0334	lb/mmbtu
NOx Emission Factor	35.07	lb/mmcf
CO PPM	4	ppm
CO Emission Factor	0.009	lb/mmbtu
CO Emission Factor	9.45	lb/mmcf
NOx Emissions	68	lbs
CO Emissions	18	lbs

Gas Turbine, Unit No. 5: Device ID: 67 (mid load, With Control)

Equipment Rating	2250	MMBTU/hr
Load	27	%
1 mmcf	1050	MMBTU
Duration	3	hours
NOx PPM	2	ppm
NOx Emission Factor	0.0074	lb/mmbtu
NOx Emission Factor	7.77	lb/mmcf
CO PPM	2	ppm
CO Emission Factor	0.0045	lb/mmbtu
CO Emission Factor	4.725	lb/mmcf
NOx Emissions	13	lbs
CO Emissions	8	lbs

Gas Turbine, Unit No. 5: Device ID: 67 (Pmin, Without Control)

Equipment Rating	2250	MMBTU/hr
Load	60	%
1 mmcf	1050	MMBTU
Duration	4	hours
NOx PPM	3	ppm
NOx Emission Factor	0.0111	lb/mmbtu
NOx Emission Factor	11.655	lb/mmcf
CO PPM	2	ppm
CO Emission Factor	0.0045	lb/mmbtu
CO Emission Factor	4.725	lb/mmcf
NOx Emissions	60	lbs
CO Emissions	24	lbs

Gas Turbine, Unit No. 5: Device ID: 67 (Pmin, With Control)

Equipment Rating	2250	MMBTU/hr
Load	58	%
1 mmcf	1050	MMBTU
Duration	4	hours
NOx PPM	2	ppm
NOx Emission Factor	0.0074	lb/mmbtu
NOx Emission Factor	7.77	lb/mmcf
CO PPM	2	ppm
CO Emission Factor	0.0045	lb/mmbtu
CO Emission Factor	4.725	lb/mmcf
NOx Emissions	39	lbs
CO Emissions	23	lbs

El Segundo Energy Center LLC – Petition for Short Variance

FACILITY ID: 115663
CASE NO: 5097-11

Facilities Affected – Requested for Variance

SCAQMD ID No.	*FACILITY NAME*	*ADDRESS*
115663	El Segundo Energy Center	301 Vista Del Mar, El Segundo, CA 90245

Equipment and/or activities subject to this petition

Facility ID	Permit #/AN	Equipment	Activity
115663	G74288 / 627769	D67	Gas Turbine, Unit No. 5, Natural Gas, Siemens, Model SGT6-5000F Rapid-Response, Combined Cycle, 2250 MMBTU/HR at 68 Degrees F, with Dry Low-NOx Combustors with: Generator, Heat Recovery Steam, Unfired Turbine, Steam, 67.7 MW Generator, 222.5 MW

El Segundo Energy Center LLC – Petition for Short Variance

FACILITY ID: 115663
CASE NO: 5097-11
List of Rules and/or Permit Conditions for the Variance Relief

List all District rules, and/or permit conditions [indicating the specific section(s) and subsection(s)] from which you are seeking variance relief (if requesting variance from Rule 401 or permit condition, see Attachment A). Briefly explain how you are or will be in violation of each rule or condition (see Attachment A, Item 9, Example #2).

Rule and/or Permit Condition	Explanation
Rule 203(b)	Rule 203(b) states that the equipment shall not be operated contrary to the conditions specified in the permit to operate. During the NERC-required performance testing sequence, ESEC Unit 5 (Device D67) will operate at full-speed no-load (FSNL) and minimum load where catalyst temperatures are too low for effective emissions control. During these periods, several permit conditions (including NOx, CO, and VOC limits and associated monitoring requirements) will be violated.
Rule 203(b)	Rule 230(b) prohibits a Title V facility from operating any emissions unit in violation of any federally enforceable permit term or condition. Operation at FSNL and minimum load will result in temporary exceedances of federally enforceable emission limits (e.g., BACT and Subpart KKKK NOx) and monitoring deviations (e.g., SO_2 CEMS validity), constituting a violation without a variance.
Rule 3002(c)(1)	Rule 3002(c)(1) requires Title V facilities to operate in full compliance with all permit terms and conditions, including emission limits, monitoring, recordkeeping, reporting, NSPS standards, and CEMS requirements. During FSNL and minimum-load NERC testing, NOx, CO, and VOC emissions will exceed permit limits and CEMS validity may be affected, resulting in noncompliance with Title V permit conditions.
Rule 2004(f)(1)	Rule 2004(f)(1) requires RECLAIM (or RECLAIM-equivalency) units to maintain fully functional CEMS meeting uptime, calibration, and data-validity requirements. Low-load operation may cause NOx CEMS data to fall outside valid ranges, affecting compliance with required averaging and monitoring criteria.
Rule 1703(a)(2) – PSD-BACT (Conditions: A63.2, A99.7, A99.8, A99.9, A195.8, A195.9, A195.10)	Rule 1703(a)(2) requires PSD-BACT for affected pollutants. During FSNL and minimum-load operation, catalyst temperatures will be below effective activation ranges; NOx, CO, and VOC emissions will temporarily exceed BACT-level limits specified in these conditions.
Rule 1303(a)(1), Rule 1303(a)(2) (Conditions: A195.8, A195.9, A195.10, K40.4)	Rule 1303 requires BACT for new/modified sources. Low-load testing will cause NOx and CO exceedances due to insufficient catalyst temperature, resulting in temporary noncompliance with BACT requirements embedded in these permit conditions.
Rule 407 (CO) (Conditions: A99.7, A99.8, A99.9, A195.8; D82.4)	Rule 407 establishes CO limits. During FSNL and minimum load, incomplete combustion and cold catalyst conditions will cause elevated CO emissions above permitted limits. Condition D82.4 requires installation/operation of a CO CEMS; during the variance period, recorded concentrations and mass rates may exceed limits and/or produce out-of-range data.

El Segundo Energy Center LLC – Petition for Short Variance

FACILITY ID: 115663
CASE NO: 5097-11

Rule 2005 / Rule 2012 (Condition: D82.5 – NOx CEMS)	Condition D82.5 requires installation/operation of a NOx CEMS compliant with Rule 2012 requirements. During FSNL/minimum-load operation, NOx concentrations corrected to 15% O_2 may exceed permit/BACT/NSPS limits and may also affect CEMS validity/averaging compliance.
Permit Conditions (Device D67)- A63.2, A99.7, A99.8, A99.9, A195.8, A195.9, A195.10, A327.1, A433.1, B61.2, C1.10, C1.11, D12.10, D29.8, D29.9, D82.4, D82.5, E193.2, K40.4, K67.5	These conditions specify emission limits, BACT/NSPS compliance, CEMS requirements (CO under D82.4, NOx under D82.5), operating parameters, and Title V obligations. During FSNL/minimum-load testing, NOx, CO, and VOC emissions will temporarily exceed permitted limits.

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
GAS TURBINE, UNIT NO.5, NATURAL GAS, SIEMENS, MODEL SGT6-5000F RAPID-RESPONSE, COMBINED CYCLE, 2,250 MMBTU/HR AT 68 DEGREES F, WITH DRY LOW-NOX COMBUSTORS WITH A/N: 627769 GENERATOR, HEAT RECOVERY STEAM, UNFIRED TURBINE, STEAM, 67.7 MW	D67	C75	NOX: MAJOR SOURCE**	CO: 2 PPMV NATURAL GAS (4) [RULE 1703(a)(2) - PSD-BACT, 10-7-1988]; CO: 2000 PPMV NATURAL GAS (5) [RULE 407, 4-2-1982]; NOX: 2 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; *RULE 1303(a)(1) -BACT, 12-6-2002;* RULE 1703(a)(2) - PSD-BACT, 10-7-1988]; NOX: 15 PPMV NATURAL GAS (8) [40CFR 60 Subpart KKKK, 3-20-2009]; PM: 0.01 GRAINS/SCF NATURAL GAS (5) [RULE 475, 10-8-1976; *RULE 475, 8-7-1978*]; PM: 0.1 GRAINS/SCF NATURAL GAS (5A) [RULE 409, 8-7-1981]; PM: 11 LBS/HR NATURAL GAS (5B) [RULE 475, 10-8-1976; *RULE 475, 8-7-1978*]; SO2: (9) [40CFR 72 - Acid Rain Provisions, 11-24-1997]; SOX: 0.06 LBS/MMBTU NATURAL GAS (8) [40CFR 60 Subpart KKKK, 3-20-2009]; VOC: 2 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; *RULE 1303(a)(1)-BACT, 12-6-2002*]	A63.2, A99.7, A99.8, A99.9, A195.8, A195.9, A195.10, A327.1, A433.1, B61.2, C1.10, C1.11, D12.10, D29.8, D29.9, D82.4, D82.5, E193.2, K40.4, K67.5

* (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: INTERNAL COMBUSTION					
GENERATOR, 222.5 MW					
CO OXIDATION CATALYST, UNIT NO. 5, BASF, 290 CUBIC FEET OF TOTAL CATALYST VOLUME A/N: 470653	C75	D67 C76			
SELECTIVE CATALYTIC REDUCTION, UNIT NO. 5, CORMETECH, MODEL CM21HT, WITH 2,050 CUBIC FEET OF TOTAL CATALYST VOLUME, WIDTH: 25 FT ; HEIGHT: 70 FT ; LENGTH: 24 FT 3 IN WITH A/N: 470653 AMMONIA INJECTION, GRID	C76	C75 S78		NH3: 5 PPMV NATURAL GAS (4) [RULE 1303(a)(1)-BACT, 5-10-1996; *RULE 1303(a)(1) -BACT, 12-6-2002*]	A195.11, D12.11, D12.12, D12.13, E179.5, E179.6, E193.2
STACK, NO. 5, HEIGHT: 210 FT ; DIAMETER: 20 FT 11 IN A/N: 627769	S78	C76			

* (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate
(3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
(5) (5A) (5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
(7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
(9) See App B for Emission Limits (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

A. Emission Limits

A63.2 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
PM10	Less than or equal to 6935 LBS IN ANY ONE MONTH
SOX	Less than or equal to 1065 LBS IN ANY ONE MONTH
VOC	Less than or equal to 4930 LBS IN ANY ONE MONTH

The operator shall calculate the monthly emissions for VOC, PM10, and SOx, using the equation below and the following emission factors: VOC 2.93 lb/mmcf; PM10 4.66 lb/mmcf; and SOx 0.71lb/mmcf

Monthly Emissions, lb/month = X * (EF)

where X = monthly fuel usage, mmcf/month; and EF = emission factor indicated above

For the purpose of this condition, the limits shall be based on the emissions from a single turbine.

[**RULE 1303(b)(2)-Offset, 5-10-1996;** RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D67, D68]

A99.7 The 2.0 PPM NOX emission limit(s) shall not apply during start-up and shutdown periods. Start-up periods shall not exceed 60 minutes for each start-up. Shutdown periods shall not exceed 60 minutes for each shutdown. The turbine shall be limited to a maximum of 2 start-ups per day. The turbine shall be limited to a maximum of 200 start-ups per year. Written records of start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer.

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

For the purposes of this condition, the beginning of start-up occurs at initial fire in the combustor and the end of start-up occurs when the BACT levels are achieved. If during start-up the process is aborted and the turbine is restarted, then the start-up and restart will count as one start-up, provided the total time for the start-up does not exceed 60 minutes. The operator shall maintain records in a manner approved by the District to demonstrate compliance with this condition.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 12-4-2015]

[Devices subject to this condition : D67, D68]

A99.8 The 2.0 PPM CO emission limit(s) shall not apply during start-up and shutdown periods. Start-up periods shall not exceed 60 minutes for each start-up. Shutdown periods shall not exceed 60 minutes for each shutdown. The turbine shall be limited to a maximum of 2 start-ups per day. The turbine shall be limited to a maximum of 200 start-ups per year. Written records of start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer.

For the purposes of this condition, the beginning of start-up occurs at initial fire in the combustor and the end of start-up occurs when the BACT levels are achieved. If during start-up the process is aborted and the turbine is restarted, then the start-up and restart will count as one start-up, provided the total time for the start-up does not exceed 60 minutes. The operator shall maintain records in a manner approved by the District to demonstrate compliance with this condition.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988]

[Devices subject to this condition : D67, D68]

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

A99.9 The 2.0 PPM VOC emission limit(s) shall not apply during start-up and shutdown periods. Start-up periods shall not exceed 60 minutes for each start-up. Shutdown periods shall not exceed 60 minutes for each shutdown. The turbine shall be limited to a maximum of 2 start-ups per day. The turbine shall be limited to a maximum of 200 start-ups per year. Written records of start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer.

For the purposes of this condition, the beginning of start-up occurs at initial fire in the combustor and the end of start-up occurs when the BACT levels are achieved. If during start-up the process is aborted and the turbine is restarted, then the start-up and restart will count as one start-up, provided the total time for the start-up does not exceed 60 minutes. The operator shall maintain records in a manner approved by the District to demonstrate compliance with this condition.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D67, D68]

A195.8 The 2.0 PPMV CO emission limit(s) is averaged over 60 minutes at 15 percent O2, dry basis.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988]

[Devices subject to this condition : D67, D68]

A195.9 The 2.0 PPMV NOX emission limit(s) is averaged over 60 minutes at 15 percent O2, dry basis.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 12-4-2015]

[Devices subject to this condition : D67, D68]

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EL SEGUNDO ENERGY CENTER LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

A195.10 The 2.0 PPMV VOC emission limit(s) is averaged over 60 minutes at 15 percent O2, dry basis.

[**RULE 1303(a)(1)-BACT, 5-10-1996;** RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D67, D68]

A195.11 The 5 PPMV NH3 emission limit(s) is averaged over 60 minutes at 15 percent O2, dry basis. The operator shall calculate and continuously record the NH3 slip concentration using the following:.

NH3 (ppmv) = [a-b*c/1EE+06]*1EE+06/b; where

a = NH3 injection rate (lb/hr)/17 lb/lb-mol

b = dry exhaust gas flow rate (scf/hr)/385.3 scf/lb-mol

c = change in measured NOx across the SCR, (ppmvd at 15 percent O2)

The operator shall install and maintain a NOx analyzer to measure the SCR inlet NOx ppmv accurate to plus or minus 5 percent calibrated at least once every twelve months.

The NOx analyzer shall be installed and operated within 90 days of initial start-up.

The operator shall use the above described method or another alternative method approved by the Executive Officer.

The ammonia slip calculation procedures described above shall not be used for compliance determination or emission information without corroborative data using an approved refernce method for the determination of ammonia.

[**RULE 1303(a)(1)-BACT, 5-10-1996;** RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 2012, 5-6-2005**]

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[Devices subject to this condition : C76, C80]

A327.1 For the purpose of determining compliance with District Rule 475, combustion contaminant emissions may exceed the concentration limit or the mass emission limit listed, but not both limits at the same time.

[RULE 475, 10-8-1976; RULE 475, 8-7-1978]

[Devices subject to this condition : D67, D68]

A433.1 The operator shall comply at all times with the 2.0 ppm 1-hour BACT limit for NOx, except as defined in condition A99.7 and for the following scenario:

Operating Scenario	Maximum Hourly Emission Limit	Operational Limit
Start-up	56 lb/hr	NOx emissions not to exceed 56 lbs total per start-up per turbine. Each turbine shall be limited to 200 start-ups per year, with each start-up not to exceed 60 minutes

For the purposes of this condition, the beginning of start-up occurs at initial fire in the combustor and the end of start-up occurs when the BACT levels are achieved. If during start-up the process is aborted and the turbine is restarted, then the start-up and restart will count as one start-up, provided the total time for the start-up does not exceed 60 minutes. The operator shall maintain records in a manner approved by the District to demonstrate compliance with this condition.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 12-4-2015]

[Devices subject to this condition : D67, D68]

FACILITY PERMIT TO OPERATE
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SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

B. Material/Fuel Type Limits

B61.2 The operator shall not use natural gas containing the following specified compounds:

Compound	Range	grain per 100 scf
H2S	greater than	0.25

This concentration limit is an annual average based on monthly samples of natural gas composition or gas supplier documentation. The gaseous fuel sample shall be tested using District Method 307-91 for total sulfur calculated as H2S

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D67, D68]

C. Throughput or Operating Parameter Limits

C1.10 The operator shall limit the heat input to no more than 51,130 MM Btu in any one day.

For the purpose of this condition, heat input shall be defined as the total heat input to a single turbine.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D67, D68]

FACILITY PERMIT TO OPERATE
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SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

C1.11 The operator shall limit the fuel usage to no more than 11,124 MM cubic feet in any one calendar year.

For the purpose of this condition, fuel usage shall be defined as the total natural gas usage of a single turbine.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

[RULE 1401, 9-1-2017; **RULE 2005, 12-4-2015**]

[Devices subject to this condition : D67, D68]

C157.1 The operator shall install and maintain a pressure relief valve with a minimum pressure set at 50 psig.

[RULE 402, 5-7-1976]

[Devices subject to this condition : D30]

D. Monitoring/Testing Requirements

D12.10 The operator shall install and maintain a(n) flow meter to accurately indicate the fuel usage of the turbine.

The operator shall also install and maintain a device to continuously record the parameter being measured.

[**RULE 1303(b)(2)-Offset, 5-10-1996;** RULE 1303(b)(2)-Offset, 12-6-2002; **RULE 2012, 2-5-2016**]

[Devices subject to this condition : D67, D68]

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SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D12.11 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the total hourly throughput of injected ammonia.

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

The ammonia injection rate shall remain between 1 gallon per hour and 75 gallons per hour

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 5-6-2005]**

[Devices subject to this condition : C76, C80]

D12.12 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the in the exhaust at the inlet to the SCR reactor.

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

The temperature shall remain between 400 degrees F and 750 degrees F

The catalyst temperature shall not exceed 750 degrees F during the start-up period.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 5-6-2005]**

[Devices subject to this condition : C76, C80]

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SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

D12.13 The operator shall install and maintain a(n) pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed in inches of water column.

The operator shall also install and maintain a device to continuously record the parameter being measured.

The measuring device or gauge shall be accurate to within plus or minus 5 percent. It shall be calibrated once every 12 months.

The pressure drop across the catalyst shall remain between 1 inch of water column and 4 inches of water column

The pressure drop across the catalyst shall not exceed 4 inches of water during the start-up period.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 5-6-2005]**

[Devices subject to this condition : C76, C80]

D29.8 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NH3 emissions	District method 207.1	1 hour	Outlet of the SCR serving this equipment

FACILITY PERMIT TO OPERATE
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SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

The test shall be conducted and the results submitted to the AQMD within 45 days after the test date. The AQMD shall be notified of the date and time of the test at least 7 days prior to the test.

The test shall be conducted annually. If an annual source test is failed, four consecutive quarterly source tests must demonstrate compliance with ammonia emission limits prior to resuming annual source tests. The NOx concentration, as determined by the CEMS, shall be simultaneously recorded during the ammonia slip test. If the CEMS is inoperable, a test shall be conducted to determine the NOx emissions using District Method 100.1 measured over a 60 minute averaging time period.

The test shall be conducted to determine compliance with the Rule 1303 BACT concentration limit.

If the equipment is not operated in any given quarter, the operator may elect to defer the required testing to a quarter in which the equipment is operated.

[**RULE 1135, 7-19-1991;** RULE 1135, 11-2-2018; **RULE 1303(a)(1)-BACT, 5-10-1996;** RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D67, D68]

D29.9 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
SOX emissions	AQMD Laboratory Method 307-91	Not Applicable	Fuel sample
VOC emissions	District Method 25.3	1 hour	Outlet of the SCR serving this equipment
PM10 emissions	District Method 5	4 hours	Outlet of the SCR serving this equipment

FACILITY PERMIT TO OPERATE
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SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

PM2.5	EPA Method 201A and 202	District-approved averaging time	Outlet of the SCR serving this equipment

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

The test(s) shall be conducted at least once every three years for SOx, VOC, PM2.5, and PM10.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the test shall measure the fuel flow rate (CFH), the flue gas flow rate, and the turbine generating output in megawatts (MW).

The test shall be conducted in accordance with AQMD approved test protocol. The protocol shall be submitted to the AQMD engineer no later than 45 days before the proposed test date and shall be approved by the AQMD before the test commences. The test protocol shall include the proposed operating conditions of the turbine during the tests, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The test shall be conducted when this equipment is operating at 100 percent load.

The test shall be conducted for compliance verification of the BACT VOC 2.0 ppmv limit.

For natural gas fired turbines only, VOC compliance shall be demonstrated as follows: a) Stack gas samples are extracted into Summa canisters maintaining a final canister pressure between 400-500 mm Hg absolute, b) Pressurization of canisters is done with zero gas analyzed/certified to contain less than 0.05 ppmv total hydrocarbon as carbon, and c) Analysis of canisters are per EPA method TO-12 (with preconcentration) and temperature of canisters when extracting samples for analysis is not below 70 deg F

The use of this alternative method for VOC compliance determination does not mean that it is more accurate than AQMD method 25.3, nor does it mean that it may be used in lieu of AQMD method 25.3 without prior approval except for the determination of compliance with the VOC BACT level of 2.0 ppmv calculated as carbon for natural gas fired turbines. The test results shall be reported with two significant digits.

FACILITY PERMIT TO OPERATE
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SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

For the purpose of this condition, alternative test methods may be allowed for each of the above pollutants upon concurrence of AQMD and EPA

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 1303(b)(2)-Offset, 5-10-1996;** RULE 1303(b)(2)-Offset, 12-6-2002; **RULE 1703(a)(2) - PSD-BACT, 10-7-1988**]

[Devices subject to this condition : D67, D68]

D82.4 The operator shall install and maintain a CEMS to measure the following parameters:

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

CO concentration in ppmv

Concentrations shall be corrected to 15 percent oxygen on a dry basis.

The CEMS shall be installed and operated to measure the CO concentration over a 15 minute averaging time period.

The CEMS shall convert the actual CO concentrations to mass emission rates (lb/hr) using the equation below and record the hourly emission rates on a continuous basis.

CO Emission Rate, (lb/hr) = K Cco Fd[20.9/(20.9-%O2)][(Qg * HHV)/1000000], where

K = 7.267 EE-8 (lb/scf)/ppm

Cco = Average of four consecutive 15 min avg CO concentrations, ppm

Fd = 8710 dscf/MMBTU natural gas

%O2 = Hourly avg % by volume O2, dry basis, corresponding to Cco

Qg = Fuel gas usage during the hour, scf/hr

HHV = Gross high heating value of fuel gas, BTU/scf

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 218, 5-14-1999]

[Devices subject to this condition : D67, D68]

D82.5 The operator shall install and maintain a CEMS to measure the following parameters:

FACILITY PERMIT TO OPERATE
EL SEGUNDO ENERGY CENTER LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

NOX concentration in ppmv

Concentrations shall be corrected to 15 percent oxygen on a dry basis.

The CEMS shall be installed and shall comply with the requirements of Rule 2012.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 12-4-2015; RULE 2012, 2-5-2016]

[Devices subject to this condition : D67, D68]

E. Equipment Operation/Construction Requirements

E144.1 The operator shall vent this equipment, during filling, only to the vessel from which it is being filled.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 402, 5-7-1976]

[Devices subject to this condition : D30]

E179.5 For the purpose of the following condition number(s), continuously record shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour.

Condition Number D 12-11

Condition Number D 12-12

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 1703(a)(2) - PSD-BACT, 10-7-1988]**

[Devices subject to this condition : C76, C80]

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SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

E179.6 For the purpose of the following condition number(s), continuously record shall be defined as measuring at least once every month and shall be calculated based upon the average of the continuous monitoring for that month.

Condition Number D 12-13

[**RULE 1303(a)(1)-BACT, 5-10-1996;** RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 1703(a)(2) - PSD-BACT, 10-7-1988**]

[Devices subject to this condition : C76, C80]

E193.2 The operator shall upon completion of construction, operate and maintain this equipment according to the following specifications:

In accordance with all air quality mitigation measures stipulated in the final California Energy Commission decision for the 00-AFC-14C project

[CA PRC CEQA, 11-23-1970]

[Devices subject to this condition : D67, D68, C76, C80]

K. Record Keeping/Reporting

K40.4 The operator shall provide to the District a source test report in accordance with the following specifications:

FACILITY PERMIT TO OPERATE
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SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Source test results shall be submitted to the District no later than 60 days after the source test was conducted.

Emission data shall be expressed in terms of concentration (ppmv) corrected to 15 percent oxygen (dry basis), mass rate (lbs/hr), and lbs/MM Cubic Feet. In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains per DSCF.

All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (DSCFM) and dry actual cubic feet per minute (DACFM).

All moisture concentration shall be expressed in terms of percent corrected to 15 percent oxygen.

Source test results shall also include the oxygen levels in the exhaust, fuel flow rate (CFH), the flue gas temperature, and the generator power output (MW) under which the test was conducted.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 1303(b)(2)-Offset, 5-10-1996;** RULE 1303(b)(2)-Offset, 12-6-2002; **RULE 1703 - PSD Analysis, 10-7-1988; RULE 2005, 12-4-2015]**

[Devices subject to this condition : D67, D68]

K67.5 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Natural gas fuel use after CEMS certification

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D67, D68]