# STATEMENT OF BASIS
## Title V Permit Renewal

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| **Facility Name:** | Solar Turbines Inc. |
| **Title V App. Number:** | APCD2020-APP-006524 |
| **Title V Permit Number:** | APCD2006-TVP-960991 |
| **Facility ID:** | APCD1976-SITE-01130 |
| **Equipment Address:** | 4200 Ruffin Road, San Diego, CA 92123 |
| **Facility Contact:** | Aleks Meyer |
| **Contact Phone:** | (858) 663-0894 |
| **Permit Engineer:** | Peter Ossowski |
| **Date:** | 6/3/2024 |
| **Senior Engineer:** | **Jim Swaney** |

### 1.0 Type of Action and Summary of Changes

The applicant requests issuance of a renewal Title V permit for Solar Turbines Inc. (Title V permit APCD2006-TVP-960991). The facility was originally subject to Title V permitting because District emission inventory showed actual emissions of NOx for this facility to be above the Title V major source threshold. At the time, all other actual pollutant emissions were lower than the Title V major source thresholds. The initial Title V permit application was submitted in 2006.

During the renewal process, the applicant requested the facility be reclassified as an Area Source of Hazardous Air Pollutants (HAPs) from previously being considered as a Major Source of HAPs. In the Emissions Inventories since this determination Actual HAP emissions have been below the Major Source Thresholds.

PTE of HAPs emission calculations for abrasive blasting, boilers, emergency engines, heaters, and test cells/thermal oxidizers were calculated at the device's capacity. The PTE of HAPs for coating operations drove the facility's PTE of HAPs above the Major Source Threshold. To enforce the facility's HAP emissions stay below the Major source threshold, a HAP emission rate limit was added to each coating permit to ensure the facility remains as an area source. The facility's PTE for any single HAP emission rate is below 10 tons per year and the total HAPs emission rate is below 25 tons per year with the proposed HAP emission rate limiting conditions for coating operations.

NESHAP 40 CFR Part 63 Subpart JJJJJJ now applies because the facility is moving from a Major Source to an area source; however, there are no area source requirements specified in Subpart JJJJJJ for natural gas boilers. No changes to the Title V permit will be made for this applicability change.

No control equipment will be removed, and no condition requirements will be removed. References to 40 CFR Part 63 Subpart DDDDD (Industrial, Commercial and Institutional Boilers and Process Heaters) and 40 CFR Part 63 Subpart MMMM (Surface Coating of Miscellaneous Metal Parts and Products) will be removed from the permit. The conditions that reference these federal requirements also reference District rules and will remain on the permit.

Since the last renewal Title V permit was issued, there has been one Title V application submitted. The modification to APCD2008-PTO-975790 (Test Cell 16-4) and APCD2008-PTO-020876 (Test Cells 16-1, 16-2, and 16-3). The modification clarified operation so that the test cells may be operated as needed. Specifically, Test Cell 16-1 and 16-4 will be allowed to supply electricity to the facility, grid, or load bank. Commercial profit will be prohibited by permit condition. Additionally, Test Cells 16-2 and 16-3 will be separated into separate permits. These test cells will not be connected to power generating equipment and no modifications to the equipment description (other than separating from existing permit) and permit conditions is requested.

## 2.0 History of Title V Applications and Modifications/Applications since previous Renewal:

The renewal application was received on 11/11/2020. The Title V permit expired on 11/13/2021. This renewal application was submitted at least 12 months but not more than 18 months prior to permit expiration, in accordance with Rule 1410. Therefore, the renewal application is timely.

The following table summarizes all previous applications at this facility affecting the Title V permit. For each application that is included in this action, an analysis and justification for meeting the indicated modification type is described later in sections 5, 10 and 11 of this report.

| Title V Application History Since Initial Title V Permit | | | | |
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| **Application Number** | **Title V Permit Number** | **Application Description** | **Equipment** | **Approved** |
| APCD1997-APP-960991 | APCD2006-TVP-960991 | Initial Title V Application | Turbine Test cells, boiler, abrasive blasting, coating, and emergency engines | Approved |
| APCD2003-APP-980320 | APCD2006-TVP-960991 | Administrative Amendment – retiring permits | Turbine Test cells, boiler, abrasive blasting, coating, and emergency engines | Approved |
| APCD2005-APP-982685 | APCD2006-TVP-960991 | Update to Administrative Information | Turbine Test cells, boiler, abrasive blasting, coating, and | Approved |

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| | | | emergency engines | |
| APCD2008-APP-987001 | APCD2006-TVP-960991 | Update to a more accurate fuel use calculations for con. No. 8 | Turbine Test cells | Approved |
| APCD2010-APP-001258 | APCD2006-TVP-960991 | Title V Renewal | Turbine Test cells, boiler, abrasive blasting, coating, and emergency engines | Approved |
| APCD2012-APP-001936 | APCD2006-TVP-960991 | Change of Responsible Official | Turbine Test cells, boiler, abrasive blasting, coating, and emergency engines | Approved |
| APCD2012-APP-001937 | APCD2006-TVP-960991 | Increased the annual NOx emissions from the test cells 158.3 to 183.2 tons per year (24.9 tons per year increase) and added 4 new test cells/pads and one new thermal Oxidizer | Turbine Test cells, abrasive blasting, and coating | Approved |
| APCD2013-APP-002678 | APCD2006-TVP-960991 | Added new boiler and changed Responsible Official | Turbine Test cells, boiler, abrasive blasting, coating, and emergency engines | Approved |
| APCD2013-APP-002789 | APCD2006-TVP-960991 | Amendment to reduce smoke emissions during some liquid and dual fuel engine tests | Turbine Test cells, boiler, abrasive blasting, coating, and emergency engines | Approved |
| APCD2015-APP-003948 | APCD2006-TVP-960991 | Change of Responsible Official | Turbine Test cells, boiler, abrasive blasting, coating, and emergency engines | Approved |
| APCD2015-APP-003950 | APCD2006-TVP-960991 | Added another storage hopper and blast pot for utilizing a non-ferrous abrasive (garnet). | Abrasive blasting | Approved |
| APCD2015-APP-004014 | APCD2006-TVP-960991 | Change of Responsible Official | Turbine Test cells, boiler, abrasive blasting, coating, and emergency engines | Approved |
| APCD2015-APP-004091 | APCD2006-TVP-960991 | Latest Title V Renewal | Turbine Test cells, boiler, abrasive blasting, coating, and emergency | Approved |

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| APCD2016-APP-004642 | APCD2006-TVP-960991 | Removed natural gas sulfur content record keeping | Turbine Test cells | Approved in previous renewal |
| APCD2016-APP-004667 | APCD2006-TVP-960991 | Administrative Amendment - name changes | Turbine Test cells, boiler, abrasive blasting, coating, and emergency engines | Approved in previous renewal |
| APCD2019-APP-005862 | APCD2006-TVP-960991 | New Responsible Official | Turbine Test cells, boiler, abrasive blasting, coating, and emergency engines | Approved in previous renewal |
| APCD2020-APP-006524 | APCD2006-TVP-960991 | Current Title V Renewal | Turbine Test cells, boiler, abrasive blasting, coating, and emergency engines | Current Renewal |
| APCD2021-APP-007013 | APCD2006-TVP-960991 | Split District Permit into 3 permits, one for each test cell and change of equipment description to clarify differing operations | Turbine Test cells | Current Renewal |

Since the previous renewal, the District has received applications from this facility as shown in the following table. These applications are submitted under the District's local permitting program and typically are associated with a corresponding Title V application to implement the same change to the Title V permit once the modified local permit is issued (see appendix A of the permit).

| **Application History for facility since most recent renewal** | | | | |
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| **Application Number** | **Affected Permit to Operate(s)** | **Description/Related Title V Application** | **Affected Emission Units** | **Outcome** |
| APCD2014-APP-003678 | APCD2022-PTO-004277, APCD2022-PTO-004278, APCD2017-PTO-002875, APCD2017-PTO-002877, APCD2017-PTO-002876, APCD2013-PTO-001529, APCD2008-PTO-975793, APCD2008-PTO-004256, APCD2008-PTO-975790, APCD2008-PTO-004252, APCD2008-PTO-020879, APCD2008- | Flare to facility use for any of existing test cells; modify standard conditions of existing PO's | All test cells and test pads at this site | Approved |

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| | PTO-020877, APCD2008-PTO-004258, APCD2008-PTO-004257, APCD2008-PTO-004255, APCD2008-PTO-020881, APCD2008-PTO-020882, APCD2008-PTO-004495, APCD2008-PTO-004253, APCD2008-PTO-004733, APCD2008-PTO-004496, APCD2008-PTO-975792, APCD2008-PTO-020880, APCD2008-PTO-003886, APCD2008-PTO-020876, APCD2008-PTO-004254, APCD2008-PTO-004015, and APCD2008-PTO-020875 | | | |
| APCD2012-APP-001941 | APCD2017-PTO-002876 and APCD2008-PTO-975793 | New Permit for Test Cell and Equipment Description Change-test cell's name was changed to match facilities naming convention | Test cells | Approved |
| APCD2012-APP-001942 | APCD2017-PTO-002877 | New Permit for Test Cell | Test cell | Approved |
| APCD2012-APP-001939 | APCD2017-PTO-002875 | New Permit for Test Cell | Test cell | Approved |
| APCD2021-APP-007010 | APCD2022-PTO-004277 | This modification will clarify operation so that the test cells may be operated as needed without incurring further notices of violation and separates the permit into 3 separate permits | Test cell | Approved |
| APCD2021-APP-007009 | APCD2008-PTO-020876 | This modification will clarify operation so that the test cells may be operated as needed without incurring further notices of violation and separates the permit into 3 separate permits | Test cell | Approved |
| APCD2021-APP-007012 | APCD2008-PTO-975790 | Modification will clarify operation so that the test cells may be operated as needed without incurring further notices of violation | Test cell | Approved |
| APCD2021-APP-007011 | APCD2022-PTO-004278 | This modification will clarify operation so that the test cells may be operated as needed without incurring further notices | Test cell | Approved |

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| | | of violation and separates the permit into 3 separate permits | | |

## 3.0 Facility Description

Solar Turbines manufactures and tests gas turbine engines at its Kearny Mesa facility. Operations include testing turbine engines and related components, abrasive blasting, coating and painting, welding and related combustion processes.

The primary air quality focus for this facility is combustion related emissions, most notably NOx and CO, from the facility's test cells/pads. Likewise, air quality requirements stem primarily from District rules specifically aimed at combustion sources. However, federal requirements are also part of the permit (these are often superseded in stringency by District requirements), and these include the regulations applicable to reciprocating internal combustion engines (RICE) under both the NSPS (40 CFR 60 Subparts IIII and JJJJ) and NESHAP (40 CFR 63 Subpart ZZZZ).

| Permit Number | Equipment Description |
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| APCD2006-PTO-003977 | Metal parts and products application station consisting of one (1) paint spray booth, Manufacturer: AFC Finishing Systems Model: SDD-DT-6354Dimensions: 63'L X 26'W x18'H,Fan rating: 82,000 cfm Air Replacement Heaters Rating: 6,048,000 BTU/hr Equipped with four (4) air supply lines for spray equipment, exhaust filters, removable partitioning wall and using a Rule 67.3 compliant application equipment cleaning station shared with Permits to Operate Nos. APCD2006-PTO-003977, APCD2006-PTO-978792 and APCD2006-PTO-050303 and using equipment including but not limited to an enclosed gun washer and a cleaning tank. For purposes of complying with the conditions below, the following equipment groups are defined: Equipment Group CO1: coating and adhesive operations including, but not limited to, coating application, adhesive application, and surface preparation, but excluding application equipment cleanup and solvent reclamation under Permits to Operate Nos. APCD2006-PTO-003977, APCD2006-PTO-978792 and APCD2006-PTO-050303.Equipment Group CO2: equipment cleanup and solvent reclamation under Permits to Operate Nos. APCD2006-PTO-003977, APCD2006-PTO-978792 and APCD2006-PTO-050303 and an unpermitted five gallon solvent still. |
| APCD2006-PTO-007750 | Abrasive blast room: 45' x 20' x 20' with floor type reclaim system; one 13.5 ton storage hopper for steel shot abrasives with elevator assembly and air wash separator; one 18 cft storage hopper for garnet abrasive with elevator assembly and air wash separator; one Schmidt, Model 6.5CF blast machine for steel shot abrasive with two ½" nozzles; one Schmidt, Model 6.5 CF blast machine for garnet abrasive, with one ½" nozzle; all equipment vented to a dust collecting system: Torit, Model HDFT 3-36, S/N IG627488-001, with 36 cartridge filters, rated at 99.99% control efficiency for 0.5 micron particles, 20,500 cfm. (82\#14844; 06/01\LKR\#976009; 8/2015/003868) |
| APCD2006-PTO-050303 | Two (2) metal coating application stations (i.e., zones) consisting of: one JBL paint spray booth, Model , #OWDDT-92-XWPDT-S, Dimensions: 27 feet wide x 30 feet high x 96 feet long (partitioned in the center to form two (2) 48 feet long booths or zones)Each zone equipped with four (4) 13,750 cfm exhaust fans with dry filters and one (1) natural gas fired WEATHER-RITE drying oven, Model No. TOT-230-VT, 3.267 MMBtu/hr input rating, operated at less than 194 degrees F using coating application methods specified in Rule 67.3; and a Rule 67.3 compliant application equipment cleaning station shared with Permit to Operate Nos. APCD2006-PTO-003977, APCD2006-PTO-978792 and APCD2006-PTO-050303 and using equipment including but not limited to an enclosed |

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| | gun washer and a cleaning tank. For purposes of complying with the conditions below, the following equipment groups are defined:Equipment Group CO1: coating and adhesive operations including, but not limited to, coating applications, adhesive application, and surface preparation, but excluding application equipment cleanup and solvent reclamation under Permit to Operate Nos. APCD2006-PTO-003977, APCD2006-PTO-978792 and APCD2006-PTO-050303.Equipment Group CO2: equipment cleanup and solvent reclamation under Permit to Operate Nos. APCD2006-PTO-003977, APCD2006-PTO-978792 and APCD2006-PTO-050303 and an unpermitted five gallon solvent still. |
| APCD2006-PTO-978792 | Two (2) metal coating application stations (i.e., zones) consisting of: one JBL paint spray booth, Model , #OWDDT-92-XWPDT-S, Dimensions: 27 feet wide x 30 feet high x 96 feet long (partitioned in the center to form two (2) 48 feet long booths or zones)Each zone equipped with four (4) 13,750 cfm exhaust fans with dry filters and one (1) natural gas fired WEATHER-RITE drying oven, Model No. TOT-230-VT, 3.267 MMBtu/hr input rating, operated at less than 194 degrees F using coating application methods specified in Rule 67.3; and a Rule 67.3 compliant application equipment cleaning station shared with Permit to Operate Nos. APCD2006-PTO-003977, APCD2006-PTO-978792 and APCD2006-PTO-050303 and using equipment including but not limited to an enclosed gun washer and a cleaning tank. For purposes of complying with the conditions below, the following equipment groups are defined:Equipment Group CO1: coating and adhesive operations including, but not limited to, coating applications, adhesive application, and surface preparation, but excluding application equipment cleanup and solvent reclamation under Permit to Operate Nos. APCD2006-PTO-003977, APCD2006-PTO-978792 and APCD2006-PTO-050303.Equipment Group CO2: equipment cleanup and solvent reclamation under Permit to Operate Nos. APCD2006-PTO-003977, APCD2006-PTO-978792 and APCD2006-PTO-050303 and an unpermitted five gallon solvent still. |
| APCD2008-PTO-003886 | TEST CELL #08: GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-004015 | TEST CELL #07 : GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-004252 | TEST CELL #01: GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-004253 | TEST CELL #02: GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-004254 | TEST CELL #03 : GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-004255 | TEST CELL #04: GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-004256 | TEST CELL #05 : GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-004257 | TEST CELL #06: GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO- | TEST CELL #09 : GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE |

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| 004258 | FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-004495 | TEST CELL #10 : GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-004496 | TEST CELL #11: GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. 950739 (980776-CCN-6/04) |
| APCD2008-PTO-004733 | TEST PAD 12: GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-020875 | TEST PAD #19: GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-020877 | TEST PAD #18: GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-020878 | TEST PAD #17: GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-020879 | TEST PAD #16: GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-020880 | TEST PAD #15: GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-020881 | TEST PAD #13: GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-020882 | TEST PAD #14: GAS TURBINE ENGINE USING GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-975791 | TURBINE TEST CELL/PAD, DESIGNATED #21, NATURAL GAS OR DISTILLATE FUEL; FIRED WITH AN INTERNAL COMBUSTION ENGINE LESS THAN 500 BHP TO START THE GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER, 15 MMBTU/HR. |
| APCD2008-PTO-975792 | TURBINE TEST CELL/PAD, DESIGNATED #22, NATURAL GAS OR DISTILLATE FUEL; FIRED WITH AN INTERNAL COMBUSTION ENGINE LESS THAN 500 BHP TO START THE GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER 15 MMBTU/HR. |
| APCD2008-PTO-976905 | THERMAL OXIDIZER, NATURAL GAS FIRED, WITH TWO LOW-NOX BURNERS, NORTH AMERICAN, MODEL 4796-20, 56.5 MM BTU/HR EACH (113 MM BTU/HR TOTAL). (976905 ALC 04/03) |
| APCD2008-PTO-976913 | THERMAL OXIDIZER, NATURAL GAS FIRED, WITH TWO LOW-NOX BURNERS, NORTH AMERICAN, MODEL 4796-20, 56.5 MM BTU/HR EACH (113 MM BTU/HR TOTAL). (976913 ALC 04/03) |
| APCD2013-PTO- | Test Cell/Pad #20: Gas Turbine using gaseous or distillate fuel; with an internal |

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| 001529 | combustion engine less than 500 BHP to start the gas turbine being tested; with a common flare, Maxon burner, 15 MMBtu/hr. |
| APCD2015-PTO-002260 | Natural gas-fired boiler; 5.978 MMBtu/hr, Fulton, Model VMP-W150LE, Serial Number PV587kk; equipped with a Webster Low Nox burner. |
| APCD2016-PTO-002572 | Thermal Oxidizer: Turner Envirologic, natural gas fired, 120 MMBtu/hr, S/N TO-830CX-F60R-C-3328, with two low-NOx burners, North American, Model 4796-20, 60 MMBtu/hr each. |
| APCD2008-PTO-975793 | TURBINE TEST CELL/PAD, DESIGNATED #23-B, NATURAL GAS OR DISTILLATE FUEL; FIRED WITH AN INTERNAL COMBUSTION ENGINE LESS THAN 500 BHP TO START THE GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER, 15 MMBTU/HR. |
| APCD2017-PTO-002875 | Test Cell/Pad #24: Gas Turbine using gaseous or distillate fuel; with an internal combustion engine less than 500 BHP to start the gas turbine being tested. |
| APCD2017-PTO-002876 | Test Cell/Pad #23-A: Gas Turbine using gaseous or distillate fuel; with an internal combustion engine less than 500 BHP to start the gas turbine being tested. |
| APCD2017-PTO-002877 | Test Cell/Pad #25: Gas Turbine using gaseous or distillate fuel; with an internal combustion engine less than 500 BHP to start the gas turbine being tested. |
| APCD2006-PTO-960542 | EMERGENCY ENGINE FIRE PUMP: CATERPILLAR DIESEL ENGINE, MODEL 3208, S/N 3Z11276, 255 BHP. (960542-CCN-1/98) 17CCR93115SJE01/06 |
| APCD2006-PTO-961078 | EMERGENCY ENGINE-GENERATOR SET: CATERPILLAR DIESEL ENGINE, MODEL 3406, S/N 4ZR01855, 600 BHP, DRIVING A 400 KW GENERATOR. (961078-CCN-1/98) 17CCR93115-SJE-01/06 |
| APCD2006-PTO-976907 | EMERGENCY STANDBY ENGINE: CATERPILLAR MODEL 3306, S/N 8JJ00351, 362 HP, DIESEL FIRED, DRIVING AN ELECTRICAL GENERATOR. TURBOCHARGED AND AFTERCOOLED. 976907-AFS-20AUG2001 17CCR93115SJE01/06 |
| APCD2008-PTO-020876 | TEST CELL #16-1: GASEOUS OR DISTILLATE FUEL TO TEST GAS TURBINE ENGINES AND/OR COMPONENTS INCLUDING, BUT NOT LIMITED TO, GENERATORS, COMPRESSORS, OR MECHANICAL DRIVES FOR PRODUCTION, RESEARCH, DEVELOPMENT, PERFORMANCE, ENDURANCE, OR ROUTINE PERIODIC MAINTENANCE TESTING OF THE GAS TURBINE ENGINE AND/OR COMPONENTS AND ELECTRICAL INFRASTRUCTURE OR SIMILAR TYPES OF TESTING THAT MAY INCIDENTALLY PRODUCE ELECTRICITY AS A BYPRODUCT TO BE DIRECTED TO THE FACILITY, GRID, OR A LOAD BANK; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER, 15 MMBTU/HR. |
| APCD2008-PTO-975790 | TEST CELL #16-4: GASEOUS OR DISTILLATE FUEL TO TEST GAS TURBINE ENGINES AND/OR COMPONENTS INCLUDING, BUT NOT LIMITED TO, GENERATORS, COMPRESSORS, OR MECHANICAL DRIVES FOR PRODUCTION, RESEARCH, DEVELOPMENT, PERFORMANCE, ENDURANCE, OR ROUTINE PERIODIC MAINTENANCE TESTING OF THE GAS TURBINE ENGINE AND/OR COMPONENTS AND ELECTRICAL INFRASTRUCTURE OR SIMILAR TYPES OF TESTING THAT MAY INCIDENTALLY PRODUCE ELECTRICITY AS A BYPRODUCT TO BE DIRECTED TO THE FACILITY, GRID, OR A LOAD BANK; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER, 15 MMBTU/HR. |
| APCD2022-PTO-004277 | TEST CELL #16-2: GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER, 15 MMBTU/HR. |
| APCD2022-PTO-004278 | TEST CELL #16-3: GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH A COMMON FLARE, MAXON BURNER, 15 MMBTU/HR. |

## 4.0 Compliance History

| Notice of Violation Number | Description | Status |
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| APCD2014-NOV-000371 | Fire pump engine usage exceeding the permitted use threshold when the engine turned on before the required power and the engine logs were not complete. | Closed – Paid |
| APCD2019-NOV-000086 | Solar Turbines had failed to perform the complete specified maintenance procedure on diesel engine APCD2006-PTO-0961078 in 2018, in violation of District Rules 12 and 1421, and 40 CFR 63.6625(1). Solar Turbines responded promptly to the NOV and described their actions to prevent future violations of the same nature. | Closed – Paid |
| APCD2021-NOV-000472 | Installing and operating gas turbine (Model: Taurus 60S, Serial Number (S/N): 0973T), rated at 5200 Kilowatt-electric (kWe) driving an electrical generator in Test Cell #16-4 without written authorization from the Air Pollution Control Officer. | Closed - NFA |
| APCD2023-NOV-000640 | Operating an abrasive blast room vented to a dust collecting system with 36 cartridge filters not rated at 99.99% control efficiency for 0.5 micron particles without first obtaining written authority from the San Diego Air Pollution Control District.<br>From 08/10/2022 through 07/25/2023, a total of 236 days, Solar Turbines operated their abrasive blast room with 36 filters with efficiencies below the required control efficiency of 99.99%. | Open - CAI |

## 5.0 Title V Applicability & Acid Rain

The Title V regulation applies to any stationary source that is a major stationary source as defined in Rule 1401(c)(26) or is subject to the acid rain provisions of Title IV of the federal Clean Air Act (CAA). Solar Turbines is a major source. The facility is not subject to Acid Rain provisions, as discussed below.

District emission inventory shows actual emissions of NOx for this facility to be approximately 62.8 tons/year in 2022. All other actual pollutant emissions are lower than the Title V major source thresholds. Potential to emit was determined to be above the Title V major source threshold(s) prior to submittal of the initial permit application in 2006. PTE for this renewal was determined to be above Title V major source thresholds for NOx and VOC.

The facility is not subject to the acid rain provisions under District Rule 1412 and Title IV of the Federal CAA, pursuant to 40 Code of Federal Regulation (CFR) §72.6(a). Under the Acid Rain Program, only an affected source (a term defined in Title IV of the Federal CAA,) is subject to Title V permitting pursuant to 40 CFR §70.3(a)(4). An affected source is a source that is listed in table 1, table 2, or table 3 of § 73.10(a) of chapter 1 of Title 40 or a utility unit. The power supplied to the grid is not sold to any utility power distribution system. This facility has no affected units and therefore is not an affected source and the Acid Rain Program does not apply to this source.

40 CFR 72.6 (a) (1-3)

## § 72.6 Applicability.

(a) Each of the following units shall be an affected unit, and any source that includes such a unit shall be an affected source, subject to the requirements of the Acid Rain Program:

(1) A unit listed in table 1 of § 73.10(a) of this chapter.

(2) A unit that is listed in table 2 or 3 of § 73.10 of this chapter and any other existing utility unit, except a unit under paragraph (b) of this section.

(3) A utility unit, except a unit under paragraph (b) of this section,

Additionally, this action incorporates the following modifications to the Title V permit under applications previously submitted. Each application was found to meet the requirements of the indicated application type as described below.

Application APCD2021-APP-007013 was submitted for a 502(b)(10) change to separate Test Cells 16-1, 16-2, and 16-3 into separate permits and to make modifications to Test Cell 16-1 and 16-4 to easily show (via equipment description) which Test Cells will and will not be connected to power generating equipment. The changes were evaluated under applications APCD2023-APP-007009-007012 (attached). The change meets the definition of a 502(b)(10) change since it by nature does not result in any emission change and therefore cannot have been a modification under Title I of the federal Clean Air Act or result in an exceedance of emissions allowed under the permit; it did not cause a violation of an applicable requirement; and does not affect monitoring, reporting, record keeping, or compliance certification requirements.

## 6.0 Potential to Emit and Actual Emissions

The following table shows the actual and potential emissions for the facility that are used to establish the major source status for Title V. For all pollutants except NOx and VOC, emissions are below major source thresholds.

| Title V Major Source Determination<br>Tons per Year: | | | | |
|---|---|---|---|---|
| Pollutant | Thresholds | Facility Actual Emissions | Facility Potential to Emit | Major Source |
| Highest Federal HAP | 10 | <10 | 8.1 | No |
| Sum of Federal HAPs | 25 | <25 | 24.4 | No |
| NOx | 25 | 62.8 | 183.3 | Yes |
| VOC | 25 | 9.6 | 50.2 | Yes |
| PM10 | 100 | 5.6 | 90.1 | No |
| SOx | 100 | 0.06 | 99.2 | No |
| CO | 100 | 27.1 | 79.1 | No |

NOx, CO, SOx and PM10 potential emissions are based on permit condition limits.
VOC potential emissions are based on permit condition fuel limits along with coating permit condition limits.
HAPs potential emissions are based on the devices running 8760 hours per year, with the except of the coating operations. HAPs potential emissions for the coating operations are derived from the permit condition limits above.
The actual emissions are from the District's 2022 emission inventory report.

## 7.0 40 CFR Part 64 CAM (Compliance Assurance Monitoring)

Monitoring, record keeping, and reporting requirements are included in both the broader initial section of the Title V permit, but also in the District permits comprising the emission units (EUs) of Appendix A. These include both applicable District requirements, but also applicable federal requirements.

Compliance Assurance Monitoring (CAM) applicability was considered for this renewal pursuant to 40 CFR Part 64. Because the major source thresholds decreased, all EUs were considered for CAM applicability. Since the last renewal cycle, all of the test cell permits were modified to allow the use of a flare control device. CAM does not apply because the control devices are not meant to achieve compliance with any such emissions limitation or standard. The flares are used purely when purging the fuel lines as a safety precaution (e.g. to ensure that no liquid droplets of propane or butane are in the line prior to testing another turbine) and the test cells have no other control devices. The coating operations do not have control devices for VOCs, therefore CAM does not apply to these sources. The abrasive blasting operations are equipped with filters for PM10 control, but the potential pre-control device emissions (88.6 tons PM10 per year) and post control device emissions are both below the amount required for a source to be classified as a major source. The emergency engines are operated for the sole purpose of providing electricity during periods of peak electrical demand or emergency situations and will be operated consistent with that purpose throughout the part 70 or 71 permit term. The owner or operator is required by permit conditions to provide historical operating data and relevant contractual obligations to document that this criterion is satisfied; and the actual emissions from the utility unit, based on the average annual emissions over the last three calendar years of operation are less than 50 percent of the amount in tons per year required for a source to be classified as a major source and are expected to remain so. Therefore, no units at this facility are subject to CAM.

## 8.0 Applicable Requirements

This section summarizes the major types of requirements for this facility. These types of requirements include facility-wide, and permit specific applicable requirements. Additionally for each emission unit, the rule that results in the primary emission limitation is listed.

General Facility-wide Applicable Requirements

| Regulation | Rule Citation | Title |
|---|---|---|
| SDCAPCD Reg. II | 10(a)<br>10(b) | Permits Required – (a) Authority to Construct<br>Permits Required – (b) Permit to Operate |
| SDCAPCD Reg. II | 19 | Provision of Sampling & Testing Facilities |
| SDCAPCD Reg. II | 19.3 | Emission Information |
| SDCAPCD Reg. II | 20, 20.1, 20.2, 20.3, 20.4 | New Source Review |
| SDCAPCD Reg. II | 21 | Permit Conditions |
| SDCAPCD Reg. II | 24 | Temporary Permit to Operate |
| SDCAPCD Reg. II | 25 | Appeals |
| SDCAPCD Reg. IV | 60 | Circumvention |
| SDCAPCD Reg. IV | 71 | Abrasive Blasting |
| SDCAPCD Reg. V | 98** | Breakdown Conditions: Emergency Variance |
| SDCAPCD Reg. VI | 101 | Burning Control |
| SDAPCD Reg. VIII | 131 | Stationary Source Curtailment Plan |
| 40 CFR Part 68 | Part 68 | Risk Management Plan (Natural Gas Storage) |
| 40 CFR Part 82 | Subpart B | Servicing of Motor Vehicle Air Conditioners |
| 40 CFR Part 82 | Subpart F | Recycling and Emissions Reducing |
| 40 CFR Part 89 | Part 89 | VOC Standards for Consumer Products |

Facility-wide Prohibitory & Other Requirements

| Regulation | Rule Citation | Title |
|---|---|---|
| SDCAPCD Reg. IV | 50 | Visible Emissions |
| SDCAPCD Reg. IV | 51 | Nuisance |
| SDCAPCD Reg. IV | 52 | Particulate Matter |
| SDCAPCD Reg. IV | 53 | Specific Contaminants |
| SDCAPCD Reg. IV | 62 | Sulfur Content of Fuels |
| SDCAPCD Reg. IV | 66.1 | Misc. Surface Coating Operations & other Processes Emitting VOC (not in SIP) |
| SDCAPCD Reg. IV | 67.0.1 | Architectural Coatings |
| SDCAPCD Reg. IV | 67.17 | Storage of Organic Materials Containing VOC |
| SDCAPCD Reg. IV | 67.3 | Metal Parts Coating |
| SDCAPCD Reg. IV | 67.6.1 | Cold Solvent Cleaning and Stripping Operations |
| SDCAPCD Reg. IV | 67.11 | Wood Products Coating |
| SDCAPCD Reg. IV | 67.17 | Open VOC Containers |
| SDCAPCD Reg. IV | 67.21 | Adhesive Material Application Operations |
| SDCAPCD Reg. IV | 69.2 | Industrial and Commercial Boilers, Process Heaters and Steam Generators |

| | | |
|---|---|---|
| SDCAPCD Reg. IV | 69.2.1 | Small Boilers, Process Heaters and Steam Generators |
| SDCAPCD Reg. IV | 69.2.2 | Medium Boilers, Process Heaters and Steam Generators |
| SDCAPCD Reg. IV | 69.4 | Stationary Internal Combustion Engines – RACT |
| SDCAPCD Reg. IV | 69.4.1 | Stationary Internal Combustion Engines – BARCT |
| SDCAPCD Reg. IV | 69.5.1 | Natural Gas-Fired Water Heaters |
| SDCAPCD Reg. XII | 1200* | Toxic Air Contaminants – New Source Review |
| SDCAPCD Reg. XII | 1206 | Asbestos Removal, Renovation, and Demolition |
| 40 CFR Part 60 | Subpart A | NSPS General Provisions |
| 40 CFR Part 60 | Subpart IIII | Stationary Compression Ignition Internal Combustion Engines NSPS |
| 40 CFR Part 61 | Subpart M | NESHAP - Asbestos |
| 40 CFR Part 63 | Subpart A | NESHAP General Provisions |
| 40 CFR Part 63 | Subpart ZZZZ | Reciprocating Internal Combustion Engines |
| 40 CFR Part 68 | Part 68 | Chemical Accident Prevention Provisions |
| 40 CFR Part 73 | Part 73 | Sulfur Dioxide Allowance System |
| 40 CFR Part 82 | Subpart F | Services of Other Air Conditioners |
| California Code of Regulations (CCR) Title 17 | 93115* | ATCM for Stationary Compression Ignition Engines |
| California Code of Regulations (CCR) Title 17 | 93116* | ATCM for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater |

**Not federally enforceable*
***Breakdowns/variances are not recognized by EPA and cannot grant relief from federal enforcement of requirements*

Permit Specific Applicable Requirements:

| SDAPCD Permit No. | Title V Permit No. | Permit Description | Applicable Rules |
|---|---|---|---|
| APCD2006-PTO-003977 | APCD2006-TVP-960991 | Paint Spray (2) Small Booth | SDAPCD Reg. IV, Rules 50, 51, 52, 53, 67.3, 67.17 |
| APCD2006-PTO-007750 | APCD2006-TVP-960991 | Abrasive Blasting | SDAPCD Reg. IV, Rules 50, 51, 52, 53 |
| APCD2006-PTO-050303 | APCD2006-TVP-960991 | Paint Spray (2) South Booth | SDAPCD Reg. IV, Rules 50, 51, 52, 53, 67.3, 67.17 |
| APCD2006-PTO-978792 | APCD2006-TVP-960991 | Paint Spray (2) North Booth | SDAPCD Reg. IV, Rules 50, 51, 52, 53, 67.3, 67.17, |
| APCD2008-PTO-003886 | APCD2006-TVP-960991 | Test Cell #8 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-004015 | APCD2006-TVP-960991 | Test Cell #7 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-004252 | APCD2006-TVP-960991 | Test Cell #1 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |

| | | | |
|---|---|---|---|
| APCD2008-PTO-004253 | APCD2006-TVP-960991 | Test Cell #2 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-004254 | APCD2006-TVP-960991 | Test Cell #3 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-004255 | APCD2006-TVP-960991 | Test Cell #4 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-004256 | APCD2006-TVP-960991 | Test Cell #5 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-004257 | APCD2006-TVP-960991 | Test Cell #6 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-004258 | APCD2006-TVP-960991 | Test Cell #9 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-004495 | APCD2006-TVP-960991 | Test Cell #10 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-004496 | APCD2006-TVP-960991 | Test Cell #11 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-004733 | APCD2006-TVP-960991 | Test Cell #12 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-020875 | APCD2006-TVP-960991 | Test Cell #19 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-020877 | APCD2006-TVP-960991 | Test Cell #18 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-020878 | APCD2006-TVP-960991 | Test Cell #17 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-020879 | APCD2006-TVP-960991 | Test Cell #16 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-020880 | APCD2006-TVP-960991 | Test Cell #15 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-020881 | APCD2006-TVP-960991 | Test Cell #13 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-020882 | APCD2006-TVP-960991 | Test Cell #14 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-975791 | APCD2006-TVP-960991 | Test Cell #21 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-975792 | APCD2006-TVP-960991 | Test Cell #22 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-976905 | APCD2006-TVP-960991 | Thermal Oxidizer (Dev Test) | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-976913 | APCD2006-TVP-960991 | Thermal Oxidizer (Prod Test) | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2013-PTO-001529 | APCD2006-TVP-960991 | Test Cell #20 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2015-PTO-002260 | APCD2006-TVP-960991 | Boiler | SDAPCD Reg. IV, Rules 50, 51, 53, 62, 69.2 |
| APCD2016-PTO-002572 | APCD2006-TVP-960991 | Thermal Oxidizer (T250) | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-975793 | APCD2006-TVP-960991 | Test Cell #23B | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2017-PTO-002875 | APCD2006-TVP-960991 | Test Cell #24 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2017-PTO-002876 | APCD2006-TVP-960991 | Test Cell #23A | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2017-PTO-002877 | APCD2006-TVP-960991 | Test Cell #25 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2006-PTO-960542 | APCD2006-TVP-960991 | IC Emergency Engine (Fire Pump) | SDAPCD Reg. IV, Rules 12, 50, 51, 52, 53, 69.4.1, 17 CCR 93115, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart ZZZZ |

| | | | |
|---|---|---|---|
| APCD2006-PTO-961078 | APCD2006-TVP-960991 | IC Emergency Engine (Computer) | SDAPCD Reg. IV, Rules 12, 50, 51, 52, 53, 69.4.1, 17 CCR 93115, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart ZZZZ |
| APCD2006-PTO-976907 | APCD2006-TVP-960991 | IC Emergency Engine (Maintenance) | SDAPCD Reg. IV, Rules 12, 50, 51, 52, 53, 69.4.1, 17 CCR 93115, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart ZZZZ |
| APCD2008-PTO-020876 | APCD2006-TVP-960991 | Test Cell #16-1 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2008-PTO-975790 | APCD2006-TVP-960991 | Test Cell #16-4 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2022-PTO-004277 | APCD2006-TVP-960991 | Test Cell #16-2 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |
| APCD2022-PTO-004278 | APCD2006-TVP-960991 | Test Cell #16-3 | SDAPCD Reg. IV, Rules 50, 51, 53, 62 |

Emission Limitations

| Solar Turbines Emission Limitations | |
|---|---|
| Pollutant | Primary Limiting Regulations* |
| NOx | 20.3 (Combustion Equipment) |
| SO2 | Rule 20.3; Rule 53; Rule 62 (Combustion Equipment) |
| VOC | Rule 20.3 (Coating Operations) |
| CO | N/A |
| PM10 | Rule 20.3; Rule 53 (Combustion Equipment) |
| Toxic Pollutants | Rule 20.3 (Coating Operations) |

Criteria pollutant limits from NSR limit emissions below major source or PSD thresholds with criteria pollutants that would be above PSD thresholds if there was no limit.
PM10 and SOx emissions are limited daily for NSR.
NOx emissions from test cells and associated combustion equipment are limited annually for NSR. VOC emissions from coating applications are limited annually for NSR.
Toxic Pollutants or HAPs from coating operations are limited annually for reclassification as an area source.

## 9.0 Permit Shield

A permit shield has been granted from enforcement action for the following requirements: Rules 52, 54, 68, and 69.3.

52. Shielding from Rule 52 was granted in the past because this rule does not apply to stationary internal combustion engines and gas turbines are a type of internal combustion engine

54. Shielding from Rule 54 was granted in the past because this rule does not apply to operations comprised exclusively of a combustion process where liquid fuels, gaseous fuels and corresponding combustion air are introduced. The monitoring of fuel usage and emissions for emissions threshold conditions are enforced by Rule 20.3.

68. Shielding from Rule 68 was granted in the past because any article, machine, equipment, facility, or other contrivance used exclusively for the testing of turbine engines or their

components is exempt from this rule. The monitoring of fuel usage and emissions for emissions threshold conditions are enforced by Rule 20.3.

69.3 Shielding from Rule 69.3 was granted in the past because any gas turbine engine when operated exclusively for research, development or testing of gas turbine engines or their components is exempt from this rule. The monitoring of fuel usage and emissions for emissions threshold conditions are enforced by Rule 20.3.

## 10.0 Permit Streamlining

The applicant did not request any Outdated SIP requirement Streamlining in the initial Title V permit.

Permit conditions require the use of Public Utility Commission (PUC) quality natural gas, propane, butane, or the following distillate fuels: Diesel Nos. 1 and 2, Fuel Oil Nos. 1 and 2, kerosene, Jet A, JP-4 and JP-5 fuels, or a mixture of these fuels. PUC quality fuels guarantees compliance with District Rule 53, and District Rule 62 for Sox emissions. The Standards for Gas Service in the State of California, prescribed by the Public Utilities Commission of the State of California in General Order 58A, states that: (a) no gas supplied by any gas utility for domestic, commercial or industrial purposes in this state shall contain more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet, and (b) no gas supplied by any gas utility for domestic, commercial, or industrial purposes shall contain more than five (5) grains of total sulfur per one hundred (100) standard cubic feet.

District Rule 62 requires that any gaseous fuel used contains no more than 10 grains of sulfur compounds, calculated as hydrogen sulfide, per 100 cubic feet of dry gaseous fuel (0.23 grams of sulfur compounds, calculated as hydrogen sulfide, per cubic meter of dry gaseous fuel), at standard conditions. Any liquid or solid fuel used contains no more than 0.5 percent sulfur by weight, or the equipment can be so operated as to achieve equivalent results, documented by the person by stack test to the satisfaction of the Air Pollution Control Officer. The requirement for PUC quality natural gas, propane, butane, or the following distillate fuels: Diesel Nos. 1 and 2, Fuel Oil Nos. 1 and 2, kerosene, Jet A, JP-4 and JP-5 fuels, or a mixture of these fuels is more stringent than this rule, so this requirement is met with the use of PUC quality natural gas, propane, butane, or the following distillate fuels: Diesel Nos. 1 and 2, Fuel Oil Nos. 1 and 2, kerosene, Jet A, JP-4 and JP-5 fuels, or a mixture of these fuels.

District Rule 53 requires that sulfur compounds, calculated as sulfur dioxide, discharged into the atmosphere from any single source of emissions do not exceed 0.05%, by volume, on a dry basis. Maximum grain loading of 10 gr/100 dscf results in SO2 emissions at 0.002% by volume, so requirements of District Rule 53 are met through use of PUC quality natural gas, propane, butane, or the following distillate fuels: Diesel Nos. 1 and 2, Fuel Oil Nos. 1 and 2, kerosene, Jet A, JP-4 and JP-5 fuels, or a mixture of these fuels.

## 11.0 Updates to the Title V Permit Incorporated into this Action

The following changes are being made to the emission unit specific permits as indicated below.

The following conditions are added to all permits at this site to ensure the facility remains as an area source:

1. Sum of Federal hazardous air pollutants (HAPs) emissions from the stationary source's permits under permit record ID, APCD2006-PTO-978792, APCD2006-PTO-050303, APCD2006-PTO-003977 under site record ID, APCD1976-SITE-01130 and any other site ID determined to be part of this stationary source, shall be less than 5 tons per consecutive twelve (12) month period. (Rule 21)
2. Hazardous air pollutant (HAP) emissions from this stationary source shall be calculated on a monthly basis no later than two months following the end of the month the calculation is for. These calculations shall be performed according to a protocol approved by the District and may incorporate the provisions of Rule 60.2. (Rules 21 and 60.2)

The modification to APCD2008-PTO-975790 (Test Cell 16-4) will clarify operation so that the test cells may be operated as needed. Additionally, Test Cells 16-2 and 16-3 will be separated into separate permits from APCD2008-PTO-020876 and conditions for Test Cell 16-1 will be modified to clarify operation. These test cells will not be connected to power generating equipment and no modifications to the equipment description (other than separating from existing permit) and permit conditions is requested.

Operation of turbines in test cells for long periods of time when connected to equipment for which it is intended to operate (e.g., electrical generators) is necessary to ensure that turbine model will perform as it is intended in the field. The District agrees that operation of turbines in the test cells when connected to generators is for testing and research purposes, and not for the purpose of making commercial profit from selling power to the grid. To demonstrate on-going compliance with this determination, the applicant has agreed to provide records, upon request, which specifies the purpose of any operation conducted in the test cells. These records are not intended to document historical operation of the test cells, but to confirm the purpose of operations witnessed by the Compliance Group during on-site inspections or upcoming operations of which the site is aware.

Equipment Descriptions (changes are highlighted)

APCD2008-PTO-020876

TEST CELL #16-1: GASEOUS OR DISTILLATE FUEL TO TEST GAS TURBINE ENGINES AND/OR COMPONENTS INCLUDING, BUT NOT LIMITED TO, GENERATORS, COMPRESSORS, OR MECHANICAL DRIVES FOR PRODUCTION, RESEARCH, DEVELOPMENT, PERFORMANCE, ENDURANCE, OR ROUTINE PERIODIC MAINTENANCE TESTING OF THE GAS TURBINE ENGINE AND/OR COMPONENTS AND ELECTRICAL INFRASTRUCTURE OR SIMILAR TYPES OF TESTING THAT MAY INCIDENTALLY PRODUCE ELECTRICITY AS A BYPRODUCT TO BE DIRECTED TO THE FACILITY, GRID, OR A LOAD BANK; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH TWO COMMON FLARES: ONE MAXON BURNER, 15 MMBTU/HR; AND ONE ECLIPSE BURNER, 3 MMBTU/HR.

APCD2022-PTO-004277

TEST CELL #16-2: GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH TWO COMMON FLARES: ONE MAXON BURNER, 15 MMBTU/HR; AND ONE ECLIPSE BURNER, 3 MMBTU/HR.

APCD2022-PTO-004278
TEST CELL #16-3: GASEOUS OR DISTILLATE FUEL; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH TWO COMMON FLARES: ONE MAXON BURNER, 15 MMBTU/HR; AND ONE ECLIPSE BURNER, 3 MMBTU/HR.

APCD2008-PTO-975790
TEST CELL #16-4: GASEOUS OR DISTILLATE FUEL TO TEST GAS TURBINE ENGINES AND/OR COMPONENTS INCLUDING, BUT NOT LIMITED TO, GENERATORS, COMPRESSORS, OR MECHANICAL DRIVES FOR PRODUCTION, RESEARCH, DEVELOPMENT, PERFORMANCE, ENDURANCE, OR ROUTINE PERIODIC MAINTENANCE TESTING OF THE GAS TURBINE ENGINE AND/OR COMPONENTS AND ELECTRICAL INFRASTRUCTURE OR SIMILAR TYPES OF TESTING THAT MAY INCIDENTALLY PRODUCE ELECTRICITY AS A BYPRODUCT TO BE DIRECTED TO THE FACILITY, GRID, OR A LOAD BANK; INTERNAL COMBUSTION ENGINE UNDER 500 BHP TO START GAS TURBINE BEING TESTED; WITH TWO COMMON FLARES: ONE MAXON BURNER, 15 MMBTU/HR; AND ONE ECLIPSE BURNER, 3 MMBTU/HR.

Permit Condition related to equipment description change for APCD2008-PTO-020876 and APCD2008-PTO-975790

Only the turbine engine test cells/pads described in Permits to Operate 20876 and 975790 may be connected to the electrical grid. If requested by the District, the applicant shall provide documentation of all dates during which power was generated in the test cell and sent to the grid. This documentation may be provided virtually via a Solar dashboard or other online visualization methods. The documentation shall include the dates and descriptions of the systems and/or components that were tested, and the objectives of the test. Electricity generated from testing operations, including maintenance, in the test cell may be used on-site, distributed to the electrical grid, or directed to a load bank. The owner or operator shall not supply electricity to the grid for commercial profit. If requested by the District, the owner or operator shall provide records of the grid interconnection agreement with the local service provider. This condition is effective as of April 28, 2022, and retroactive documentation is not required to be provided to the District.

## 12.0 Permit Process-Public Notification and Notice to EPA and Affected States

Before issuing the final permit, The District will provide the opportunity for review by EPA and affected states and a public notice period. Notice will be provided to the EPA electronically through the EPS and will be sent electronically to affected states and tribes. The public notice and associated documents will be provided on our website. The public notice contains information on how to petition EPA for review of a proposed action.

If no comments or objections are received, the District intends to promptly issue the Title V permit after conclusion of the review period. If comments are received the District will review and respond to the comments as necessary. If comments identify issues which require modification to the permit, revisions will be made and the permit either issued if the changes do not require re-review by EPA or the public, or will be re-noticed if changes are made which do require review.

## 13.0 Recommendations

The facility is expected to comply with all applicable requirements including those cited in the current District permit as well as those under District Rule 1401 and 40 CFR Part 70. Therefore, the recommendation of this report is for the subject renewal Title V permit to be issued following public notice, EPA review, and response to any comments.

## 14.0 Attachments

The following are attached:

- Application Package
- Draft Permit
- Public Notice