

**DOCKETED**

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*Powering* The Center of What's Possible

# **DONALD VON RAESFELD POWER PLANT**

## **Annual Compliance Report for Year 2021**

**Submitted to:**

**California Energy Commission**



# Annual Compliance Report for Year 2021

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## Section I

**BIO-2** The project owner shall ensure that the Designated Biologist shall perform the following activities during any site (or related facilities) mobilization, ground disturbances, grading, construction, operation and closure activities:

1. Advise the project owner's Construction and Operation Managers on the implementation of the biological resources Conditions of Certification;
2. Be available to supervise or conduct mitigation, monitoring, and other biological resources compliance efforts, particularly in areas requiring avoidance or containing sensitive biological resources, such as wetlands and special status species or their habitat;
3. Inspect active construction areas where animals may have become trapped prior to construction commencing each day. At the end of the day, inspect for the installation of structures that prevent entrapment or allow escape during periods of construction inactivity. Periodically inspect area with high vehicle activity (parking lots) for animals in harms way;
4. Notify the project owner and the CPM of any non-compliance with any biological resources Condition of Certification; and
5. Respond directly to inquiries of the CPM regarding biological resource issues.

**Verification:** The project owner shall ensure that the Designated Biologist maintains written records of the tasks described above, and summaries of these records shall be submitted in the Monthly Compliance Report.

During project operation, the Designated Biologist shall submit record summaries in the Annual Compliance Report.

**Response from SVP:**

**No mobilization, ground disturbances, grading, construction, operation and closure activities during 2021.**

## Section II

**HAZ-1** The project owner shall not use any hazardous material in any quantity or strength not listed in AFC Table 8.5-3 unless approved in advance by the

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Compliance Project Manager (CPM).

**Verification:** The project owner shall provide to the CPM, in the Annual Compliance Report, a list of hazardous materials contained at the facility in reportable quantities.

(Double click each icon to open the data)

## List of hazardous materials and their Reportable Quantities (RQ)



### Section III

**SOIL & WATER 4** The project owner shall use tertiary-treated water supplied from South Bay Water Recycling (SBWR) as its primary water supply source for cooling, process and landscape irrigation. The project owner shall meter in-plant uses of water, distinguishing fresh water used for domestic purposes from recycled water used for cooling, process and landscape irrigation. The project owner shall prepare an annual summary, which will include the monthly range and monthly average of daily water usage in gallons per day, and total water used by the project on a monthly and annual basis in acre-feet. The annual summary shall distinguish sources and uses of water according to recycled water for cooling and process supply, fresh water source for cooling, process and irrigation supply, and for fresh water for domestic supply. For subsequent years, the annual summary shall also include the yearly range and yearly average water use by the project. The annual summary shall be submitted to the CPM as part of the annual report.

**Verification:** The project owner will submit as part of its periodic reports and annual compliance report a water use summary to the CPM for the life of the project.

(Double click each icon to open the data)



S&W-4 Potable  
Water usage 2021.p



2021 Recycled  
Water Usage.pdf

### Section IV

**SOIL & WATER 6** Groundwater shall be used as a backup water supply for the PPP. Groundwater shall only be used during times when the primary water supply is unavailable. The maximum annual groundwater use for the project shall

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not exceed 57 million gallons nor shall it exceed a period of more than 45 days each year. However, should the recycled water supply be extensively disrupted by a natural disaster or similar unforeseen emergency, the CPM may allow additional pumping following consultation with the water district.

**Verification:** The project owner shall meter, record and report project groundwater pumping annually to the CPM. Should the supply of recycled water be disrupted due to a natural disaster or other unforeseen emergency, the applicant shall contact the CPM to discuss groundwater pumping for the facility. After consulting with the Santa Clara Valley Water District, the CPM may allow pumping for a period exceeding 45 days in a calendar year during the duration of the emergency, subject to any conditions necessary to protect the underground aquifer.

(Double click each icon to open the data)



2021 Well Water  
Usage.pdf

## Section V

**WASTE-5** The project owner shall prepare a Construction Waste Management Plan and an Operation Waste Management Plan for all wastes generated during construction and operation of the facility, respectively, and shall submit both plans to the CPM for review and approval. The plans shall contain, at a minimum, the following:

- A description of all waste streams, including projections of rates and amounts generated and hazard classifications; and
- Methods of managing each type of waste, including treatment methods and companies contracted with for treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/reduction plans.

**Verification:** No less than 30 days prior to the start of site mobilization, the project owner shall submit the Construction Waste Management Plan to the CPM. The operation waste management plan shall be submitted no less than 30 days prior to the start of project operation. The project owner shall submit any required revisions within 20 days of notification by the CPM.

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In the Annual Compliance Reports, the project owner shall document the actual waste management methods used during the year compared to the planned management methods.

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## Operation Waste Management Plan



Waste-5 2021.pdf

## Section VI

**VIS-2** Prior to commercial operation, the project owner shall treat the surfaces of all project structures, buildings, and walls visible to the public such that: their colors minimize the visual intrusion and contrast by blending with the landscape; their surfaces do not create excessive glare; and they are designed consistent with the City of Santa Clara Community Design Guidelines. The project owner shall submit to the CPM for review and approval and to the City of Santa Clara for review and comment, a specific treatment and design plan, the proper implementation of which will satisfy these requirements. The submittal to the CPM shall include the City's comments. The treatment and design plan shall include:

- a. Specification, and 11" X 17" color photo simulations (KOPs 2 and 5) at life size scale when viewed at 18 inches, of the treatment/design proposed for use on project structures, including structures treated during manufacture;
- b. A list of each major project structure, piping, building, tank, transmission line tower and/or pole, and wall and/or fence specifying the color(s) and finish proposed for each (colors must be identified by name and by vendor brand or a universal designation). The transmission line structures shall have a neutral gray finish. The conductors shall be non-specular conductors and non-reflective, and the insulators shall be non-reflective.
- c. Two sets of brochures and/or color chips for each proposed color;
- d. If practicable, samples at least 5" by 7" of each proposed treatment and color and each material to which they would be applied that would be visible to the public.
- e. A detailed schedule for completion of the treatment; and

## Annual Compliance Report for Year 2021

- f. A procedure to ensure proper treatment maintenance for the life of the project.

The project owner shall not specify to the vendors the treatment if any buildings or structures treated during manufacture, or perform the final treatment on any building or structures treated on site, until the project owner receives notification of approval of the treatment plan by the CPM.

**Verification:** The project owner shall submit its proposed treatment and design plan to the CPM and the City of Santa Clara at least 60 days prior to ordering the first structures that are color treated during manufacture.

If the CPM notifies the project owner that any revisions of the plan are needed, the project owner shall submit to the CPM a revised plan within 30 days after that notification.

Prior to commercial operation, the project owner shall notify the CPM that all buildings and structures are ready for inspection.

The project owner shall provide a status report regarding treatment maintenance in the Annual Compliance Report.

**Response from SVP:**

**No treatment maintenance during 2021.**

## Section VII

**VIS-3** The project owner shall prepare and implement a landscape plan to substantially screen views of the power plant and gas metering station and to soften views of perimeter sound walls. Landscaping shall consist of a mix of trees, shrubs, vines, and groundcovers. Fast growing evergreen species shall be used to ensure that maximum screening of the project is achieved as quickly as possible and is effective year-around. Landscaping shall be provided along Lafayette Street and Duane Avenue of sufficient density and height, to substantially screen project structures from southbound views from Lafayette Street within five years after completion of construction. Landscaping shall be installed around the gas metering station to substantially screen it from view from residences at Gianera Street and Wilcox Avenue. Suitable irrigation shall be installed to ensure survival of all plantings. Landscaping shall be installed consistent with the City of Santa Clara Zoning Ordinance and Community Design Guidelines.

The project owner shall submit a landscaping plan to the CPM for review and approval and to the City of Santa Clara Architectural Committee (or other



## Annual Compliance Report for Year 2021

appropriate entity) for review and comment. The submittal to the CPM shall include the City's comments. The plan shall include:

- a. 11"x17" color photo simulations of the proposed landscaping for the power plant, as viewed from KOPs 2, 5 and 6, and for the gas metering station, as viewed from the residences to the west, at 5 years after planting and at maturity;
- b. A detailed list of plants to be used, specifying their rates of growth and times to maturity and their proposed size and age at planting;
- c. Maintenance procedures, including any needed irrigation and a plan for routine annual or semi-annual debris removal for the life of the project; and
- d. A procedure for monitoring for and replacement of unsuccessful plantings for the life of the project.

The project owner shall not implement the plan until the project owner receives approval of the submittal from the CPM.

**Verification:** The project owner shall submit the landscaping plan prior to commercial operation and at least 90 days prior to installing the landscaping.

If the CPM notifies the project owner that revisions of the submittal are needed, within 30 days of receiving that notification the project owner shall prepare and submit to the CPM a revised submittal.

The project owner shall notify the CPM within seven days after completing installation of the landscaping that the plantings and irrigation system are ready for inspection.

The project owner shall report landscape maintenance activities, including replacement of dead vegetation, for the previous year of operation in each Annual Compliance Report.

### Landscaping Activity

#### **Response from SVP:**

**No landscape maintenance activities during 2021 other than general housekeeping.**

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## Section VIII

**VIS-4** The project owner shall design and install all permanent lighting such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project, the vicinity, and the nighttime sky is minimized. Lighting shall be installed consistent with the City of Santa Clara Zoning Ordinance and Community Design Guidelines. To meet these requirements the project owner shall ensure that:

- a. Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light source is shielded to reduce light trespass outside the project boundary while taking into consideration security concerns.
- b. All lighting shall be of minimum necessary brightness consistent with worker safety and security concerns;
- c. High illumination areas not occupied on a continuous basis (such as maintenance platforms) shall have switches or motion detectors to light the area only when occupied; and
- d. Plant operations staff shall record all lighting complaints received and document the resolution of those complaints. All records (following the general format of that in the “Lighting Complaint Resolution Form”, Exhibit 29, p. 4.11 – 51, Visual Resources Appendix VR-3 of the Staff Assessment, Part I) of lighting complaints shall be kept in the on-site compliance file.

**Verification:** At least 90 days prior to ordering any permanent exterior lighting, the project owner shall contact the CPM to arrange a meeting to discuss the documentation required in the lighting mitigation plan.

At least 60 days prior to ordering any permanent exterior lighting, the project owner shall submit to the CPM for review and approval and to the City of Santa Clara for review and comment a plan that describes the measures to be used and demonstrates that the requirements of the condition will be satisfied. The submittal to the CPM shall include the City’s comments. The project owner shall not order any exterior lighting until it receives CPM approval of the lighting mitigation plan.

Prior to commercial operation, the project owner shall notify the CPM that the lighting has been completed and is ready for inspection.

The project owner shall report any complaints about permanent lighting and provide documentation of resolution in the Annual Compliance Report for that year.

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## Response from SVP:

No lighting complaints received during 2021.

## Section IX

**VIS-5** To the extent required by the City of Santa Clara Community Design Guidelines, the project owner shall minimize the visibility of mechanical equipment located on top of the heat recovery steam generator (HRSG) units from public rights-of-way and nearby properties. The color or colors of any screening materials shall minimize visual intrusion and contrast by blending with the landscape and other project structure colors.

The project owner shall develop a plan for screening or otherwise minimizing the visibility of mechanical equipment located on the HRSG units for CPM approval to ensure that the treatment is effective and does not unduly contrast with the surrounding landscape. The project owner shall also submit the plan to the City of Santa Clara Architectural Committee (or other appropriate entity) for review and comment. The submittal to the CPM shall include the City's comments. The plan shall include:

- a. Specification, and 11" x 17" color photo simulations at life-size scale as seen from a northbound viewpoint on Lafayette Street (between KOPs 1 and 2), Highway 101 (KOP 4), and Raymond Street (KOP 5) of the proposed measure or measures to reduce the visibility of the equipment;
- b. A detailed schedule for completion of the measures; and,
- c. A procedure to ensure proper maintenance of the measures for the life of the project.

The project owner shall not implement the plan until approved by the CPM.

**Verification:** At least 45 days prior to start of construction of the HRSG, the project owner shall submit the plan for reducing the visibility of the HRSG equipment to the CPM for review and approval.

If the CPM notifies the project owner of any revisions that are needed before the CPM will approve the plan, within 30 days of receiving that notification the project owner shall submit to the CPM a revised plan.

Not less than 30 days prior to the start of commercial operation, the project

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owner shall notify the CPM that the screening measures are ready for inspection. The project owner shall provide a status report regarding maintenance of the screening measures in the Annual Compliance Report.

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**City of Santa Clara Architectural Committee Minutes approving Project recommendation that a HRSG screen was not needed.**



VIS-5 Architectural  
Committee Minutes.l

### Section X

**AQ-26** The Owner/Operator shall not allow the maximum projected annual toxic air contaminant emissions (per Condition AQ-29 and AQ-33) from the Gas Turbines and HRSGs (S-1 & S-2 and S-3 & S-4) combined to exceed the following limits:

acetaldehyde 1,155 pounds per year  
formaldehyde 2,706 pounds per year  
benzene 112 pounds per year Specified  
PAHs 0.71 pound per year unless the  
following requirement is satisfied:

The Owner/Operator shall perform a health risk assessment to determine the total facility risk using the emission rates determined by District approved source testing and the most current Bay Area Air Quality Management District approved procedures and unit risk factors in effect at the time of the analysis. This risk analysis shall be submitted to the District and the CEC Compliance Project Manager (CPM) within 60 days of the source test date. The Owner/Operator may request that the District and the CEC CPM revise the carcinogenic compound emission limits specified above. If the Owner/Operator demonstrates to the satisfaction of the APCO that these revised emission limits will not result in a significant cancer risk, the District and the CEC CPM may, at their discretion, adjust the carcinogenic compound emission limits listed above. (Toxic Risk Management Policy).

**Verification:** If prepared, the health risk analysis shall be submitted to the District and the CPM within 60 days of the source test date. Otherwise, the project Owner/Operator shall submit documentation of compliance with all

# Annual Compliance Report for Year 2021

emission limits specified in this Condition of Certification as part of the January 30 Quarterly Air Quality Report each year required by the verification of Condition AQ-34.

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## Annual Toxic Air Contaminant Emissions



Annual Toxic Air  
Contaminant Project

## Section XI

**AQ-34** The Owner/Operator of the Donald Von Raesfeld Power Plant shall submit all reports (including, but not limited to monthly CEM reports, monitor breakdown reports, emission excess reports, equipment breakdown reports, etc.) as required by District Rules or Regulations and in accordance with all procedures and time limits specified in the District Rule, Regulation, Manual of Procedures, or Enforcement Division Policies & Procedures Manual. (Regulation 2-6-502)

**Verification:** The project Owner/Operator shall submit a Quarterly Air Quality Report (QAQR) for the preceding calendar quarter by January 30, April 30, July 30 and October 30 of each year. Each QAQR shall include, but not be limited to, a compliance matrix, a summary of operations activities, and a summary of all reports covered by this Condition. The January 30 report for each year shall include an annual summary of the four Quarterly Air Quality Reports covering the preceding calendar year. The QAQR shall be submitted to the California Energy Commission Compliance Project Manager (CPM).

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## 2021 Quarterly Air Quality Reports



1Q21 CEC  
Compliance Report-S'



2Q21 CEC  
Compliance Report-S'



3Q21 CEC  
Compliance Report-S'



4Q21 CEC  
Compliance Report-S'

## Section XII

**AQ-39** The Owner/Operator shall contact the BAAQMD Technical Services Division regarding requirements for the continuous emission monitors, sampling ports, platforms, and source tests required by Conditions AQ-27, AQ-30, AQ-31, AQ-32, AQ-33, AQ-38, and AQ-45. All source testing and monitoring shall be conducted in accordance with the BAAQMD Manual of Procedures. (Regulation 1-501).

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**Verification:** The project Owner/Operator shall submit documentation of compliance with this Condition of Certification as part of the Quarterly Air Quality Report required by the verification of Condition AQ-34.

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## 2021 Source Test and RATA



DVR 2021 Source  
Test and RATA.pdf