

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

CENTRAL VALLEY REGION

ORDER R5-2013-XXXX

WASTE DISCHARGE REQUIREMENTS

FOR

FRIANT RANCH, A LIMITED PARTNERSHIP

WATERWORKS DISTRICT NO. 18

SWD INVESTMENTS, INC.

FRIANT RANCH WASTEWATER TREATMENT FACILITY

FRESNO COUNTY

RECEIVED

OCT 14 2013

RWQCB-CVR
FRESNO, CALIF.

The California Regional Water Quality Control Regional Board, Central Valley Region, (hereafter Central Valley Water Board) finds that:

Water Recycling Regulatory Considerations

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57. Title 22, Section 60323, requires recyclers of treated municipal wastewater to submit an engineering report detailing the use of recycled water, contingency plans, and safeguards. The Discharger has not submitted a Title 22 Engineering Report to the Central Valley Water Board and DPH, ~~but it has not been approved yet.~~ A provision requiring the Discharger to submit a written copy of the letter from DPH, Division of Drinking Water approving the Title 22 Engineering Report (including approval of the design and field commissioning tests/demonstration and long term operation and maintenance of ~~of~~ the UV disinfection system) and a copy of the approved Title 22 Engineering Report prior to the application of recycled water is included in this Order.

B. Discharge Specifications

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F. Ultraviolet Disinfection System Operating Specifications

1. Prior to initial discharge to the pond, WWD No. 18 shall submit to the Executive Officer a copy of the letter from DPH, Division of Drinking Water stating that all the UV disinfection system pre-operation acceptance conditions specified by DPH have been satisfied.

2. The facility shall be operated in accordance with an approved operations plan, which specifies clearly the operational limits and responses required for critical alarms. The operations plan must be approved by DPH. A copy of the approved operations plan shall be maintained at the treatment plant and be readily available to operations personnel and regulatory agencies.

3. WWD No. 18 shall provide continuous, reliable monitoring of UV dose, flow, UV transmittance, UV power, UV intensity, lamp age, and turbidity.

4. The quartz sleeves and cleaning system components shall be visually inspected per the manufacturer's operations manual for physical wear (scoring, solarization, seal leaks, cleaning fluid levels, etc.) and to check the efficacy of the cleaning system.

5. The lamp sleeves shall be cleaned periodically as necessary to comply with these requirements and as required by DPH.

6. Lamps shall be replaced as required by DPH ~~per the manufacturer's operations manual~~, or sooner, if there are indications the lamps are failing to provide adequate disinfection. Lamp age and lamp replacement records shall be maintained.

7. A quick reference plant operation data sheet shall be posted at the treatment plant and include the following information:

a. The alarm set points for tertiary turbidity, high flow, and UV dose.

b. The values of high turbidity, high flow, and low UV dose, when flow must be diverted to waste.

c. The required frequency of calibration for all monitoring equipment measuring turbidity, flow, UV transmittance, and UV intensity.

d. The required frequency of mechanical cleaning/wiping and equipment inspection.

e. The UV lamp age tracking procedures and replacement intervals.

8. The UV system must be operated with a built-in automatic reliability feature that must be triggered when the system is below the target UV dose. Conditions that shall divert flow include: inability to meet the minimum UV dose, UV transmittance meter failure, intensity sensor failure, multiple lamp failure, or reactor failure.

9. UV transmittance meters, UV intensity sensors and flow meters must be properly calibrated to ensure proper disinfection.

10. Flow meters measuring the flow through a UV reactor must be verified to determine accuracy at least monthly via checking the flow reading against other flow determination methods.

11. Equivalent or substitutions of equipment are not acceptable without an adequate demonstration of equivalent disinfection performance.

G. Provisions

1. WWD No. 18 shall comply with Monitoring and Reporting Program No. R5-2013-XXX, which is part of this Order, and any revisions thereto as ordered by the Executive Officer. The submittal dates of Discharger self-monitoring reports shall be no later than the submittal date specified in the MRP.

2. WWD No. 18 shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements", dated 1 March 1991, which are attached hereto and made part of this Order by reference. This attachment and its individual paragraphs are commonly referenced as "Standard Provision(s)."

3. WWD No. 18 shall keep at the WWTF a copy of this Order, including its MRP, Information Sheet, attachments, and Standard Provisions, for reference by operating personnel. Key operating personnel shall be familiar with its contents.

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11. All wastewater discharged to the recycled water storage pond shall be oxidized, filtered, and disinfected pursuant to DPH reclamation criteria, CCR, Title 22, Division 4, Chapter 3 (Title 22), or equivalent as determined by DPH, Division of Drinking Water.

12. At least 60 days prior to initiating discharge from the WWTF to the recycled water storage pond, a written copy of the letter from DPH, Division of Drinking Water approving the Title 22 Engineering Report (including approval of the design and field commissioning tests/demonstration and long term operation and maintenance of the UV disinfection system) and an approved copy of the Title 22 Engineering Report shall be submitted.

MONITORING AND REPORTING PROGRAM R5-2013-XXXX

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ULTRAVIOLET LIGHT DISINFECTION SYSTEM MONITORING

WWD No. 18 shall monitor the ultraviolet light (UV) disinfection system at UVS-001 as follows:

Frequency	Constituent/Parameter	Units	Sample Type
Continuous	Flow	mgd	Meter
Continuous	Number of UV light banks in operation	Number	Meter
Continuous	UV Transmittance	Percent (%)	Meter
Continuous	UV Power Setting	Percent (%)	Meter
Continuous	UV Dose	MW-sec/cm2	Calculated

Continuous UV intensity MW-sec/cm Meter

Continuous UV lamp hours of operation hours

In addition, WWD No. 18 shall monitor the UV disinfection system for any additional parameters in accordance with a UV disinfection system operation plan approved by the California Department of Public Health.