

Changes Made To Proposed Order by Regional Water Board Staff

Regional Water Board staff made the following additional changes to the proposed Order. The need for these changes was identified during staff's review of the proposed Order while responding to public comments.

1. **Disinfection requirements (coliform bacteria effluent limitations) were removed from sections IV.B and IV.C of the proposed Order.** Disinfection requirements remain in section IV.A of the proposed Order, which is the only place that these requirements should be, because disinfection requirements are technology-based effluent limitations that must be met at the end of the treatment and disinfection processes (Discharge Point 001, Discharge from the WWTF to the Effluent Storage Pond).
2. **Sanitary Sewer Overflow (SSO) reporting requirements in section VI.C.5.a.(2)(d) was modified to include an additional requirement for written reporting following an SSO.** Section VI.C.5.a.(2)(d)(v) was added and requires that results of any water quality monitoring conducted be submitted with the written SSO report.
3. **Monitoring and Reporting Program Table E-4, Effluent Monitoring, Monitoring Location EFF-002.** Two new footnotes were added to this table to provide clarification to the monitoring requirements specified in the table.

Footnote 9 states, "Monitoring for ammonia shall be concurrent with acute whole effluent toxicity monitoring (Section V.A.1 of this MRP). Temperature and pH shall be recorded at the time of the ammonia sample." This footnote is important because ammonia and acute toxicity must be sampled at the same time so that, in the event that a sample shows acute toxicity, it can be determined whether there is a correlation between that toxicity and ammonia in the effluent.

Footnote 10 states, "Upon final authorization of the Discharger's UV disinfection system pursuant to Other Requirements D.3 and D.4 of the Order and demonstration by the Discharger that chlorine is no longer used at the WWTF, chlorine residual monitoring will no longer be required." This footnote simply clarifies the conditions under which the Discharger no longer needs to monitor for chlorine residual in its effluent. This footnote was added because the Discharger anticipates that it will stop using chlorine when the UV disinfection system is completed. The Discharger would need to demonstrate and certify that chlorine is no longer used at its facility before the chlorine residual monitoring requirement is eliminated.

4. **Monitoring and Reporting Program, section IX, Other Monitoring Requirements has been modified to include clarification language regarding the applicability of chlorine disinfection process monitoring requirements and to include UV Disinfection Process monitoring requirements.**

MRP, section IX.B has been modified to include the following clarification statement: "The following monitoring requirements are effective as long as chlorination is used as the primary disinfection method."

MRP, section IX.C has been added to include the following UV Disinfection Process monitoring requirements.

"C. Disinfection Process Monitoring for UV Disinfection System (Monitoring Location EFF-001)

Upon completion and approval of the UV Disinfection System, the following monitoring requirements must be implemented:

1. **Monitoring.** The UV transmittance of the effluent from the UV disinfection system shall be monitored continuously and recorded. The operation UV dose shall be calculated from UV transmittance and exposure time, using lamp age and sleeve fouling factors.
 2. **Compliance.** The UV transmittance shall not fall below 55 percent of maximum at any time, unless otherwise approved by CDPH. The operational UV dose shall not fall below 100 millijoules per square centimeter (mJ/cm^2) at any time, unless otherwise approved by CDPH.
 3. **Reporting.** The Discharger shall report daily average and lowest daily transmittance and operational UV dose on its monthly monitoring reports. If the UV transmittance falls below 55 percent or UV dose falls below $100 \text{ mJ}/\text{cm}^2$, the event shall be reported to the Regional Water Board and the CDPH by telephone within 24 hours. Any inadequately treated and disinfected wastewater shall be diverted to a storage basin or an upstream process for adequate treatment."
5. **Fact Sheet section V.H.3 has been modified to include additional language to justify the UV disinfection requirements.** The following language was added for this purpose:

UV system operation requirements are necessary to ensure that adequate UV dosage is applied to the wastewater to inactivate pathogens, e.g. viruses in the wastewater. UV dosage is dependent on several factors such as UV transmittance, UV power setting, and wastewater flow through the UV System. Minimum dosage requirements

are based on recommendations by the DPH and guidelines established by the National Water Research Institute (NWRI) and American Water Works Association Research Foundation NWRI/AWWARF's *"Ultraviolet Disinfection Guidelines for Drinking Water and Water Reuse"* first published in December 2000 and revised as a Second Edition dated May 2003. Furthermore, a Memorandum dated November 1, 2004 issued by CDPH to Regional Water Board executive officers recommended that provisions be included in permits for water recycling treatment plants employing UV disinfection requiring dischargers to establish fixed cleaning frequency of quartz sleeves as well as include provisions that specify minimum delivered UV dose that must be maintained (as recommended by the NWRI/AWWARF UV Disinfection Guidelines). Minimum UV dosage requirements specified in Effluent Limitations and Discharge Specifications Section VI.D.3 ensure that adequate disinfection of wastewater will be achieved.