

ITEM: 25

SUBJECT: California Department of Corrections and Rehabilitation, Deuel Vocational Institution
San Joaquin County

BOARD ACTION: *Consideration of NPDES Permit Renewal and Cease and Desist Order*

BACKGROUND: The California Department of Corrections and Rehabilitation (Discharger) is the owner and operator of a wastewater collection, treatment, and disposal system, and provides sewerage service to the Deuel Vocational Institution, a California prison (Facility). The Facility serves a population of 5,000, which includes inmates and staff. The Discharger is constructing a new wastewater treatment plant (WWTP) to comply with the effluent limitations contained in the previous Order, as well as limitations and provisions contained under this Order. Effluent from the WWTP discharges (via Discharge Point 1) to the Deuel Drain, within the Sacramento – San Joaquin Delta, and tributary to Paradise Cut and Old River. The Discharger also discharges from two other discharge points to the Deuel Drain: Discharge Point 3: industrial storm water, and Discharge Point 4: industrial storm water commingled with contaminated groundwater.

The existing Waste Discharge Requirements (NPDES permit) authorizes a minor discharge of up to 0.62 million gallons per day (MGD) to the receiving water. The new WWTP plant will have a design flow of 0.7 MGD, however the Discharger has concluded they can maintain their current flow capacity of 0.62 MGD and are not requesting a discharge flow increase in this Order.

The proposed NPDES permit renewal includes new and/or more stringent effluent limitations for 5-day biochemical oxygen demand (BOD₅), total suspended solids, bromoform, chlorodibromomethane, dichlorobromomethane, ammonia, and chlorine residual for Discharge Point 1. The effluent limitations for ammonia and chlorine residual are based on implementation of the narrative Basin Plan objective. The specific criteria used as the basis for the effluent limitations for ammonia and chlorine residual are USEPA's National Recommended Ambient Water Quality Criteria (for protection of aquatic life).

The Discharger had previously committed to the design and construction of a new WWTP to comply with the existing effluent limitations for electrical conductivity, nitrate, bromoform, chlorodibromomethane, and dichlorobromomethane, the construction of which would not be complete until 1 March 2009. The Facility currently operates under CDO No. R5-2005-0152 that requires, in part, that the Discharger comply with the effluent limitations contained for electrical conductivity, nitrate, bromoform, chlorodibromomethane, and dichlorobromomethane; and complete construction of the new WWTP by 1 March 2009. Due in part to budget allocation delays, the new WWTP is now scheduled to be operational by 31 December 2009. Staff finds that until the new WWTP

is operational, the Discharger is not able to consistently comply with the effluent limitations for bromoform, chlorodibromomethane, dichlorobromomethane, electrical conductivity, and nitrate, as well as the provision for the construction, operation, and maintenance of the Facility. Therefore, a new Cease and Desist Order, including time schedules and corresponding interim effluent limitations, is proposed for new and more stringent effluent limitations in which the Discharger is unable to immediately comply.

ISSUES:

The Discharger submitted comments on the tentative NPDES Permit issued for public comments on 19 September 2008. The major issues discussed in the Discharger's comments are summarized below. Further detail on all comments is included in Regional Water Quality Control Board staff Responses to Comments.

Ultraviolet (UV) Disinfection System Operating Specifications – The Discharger requested that the UV disinfection system operating requirements be modified to accommodate the treatment system being constructed at the Facility. Staff concurs and has adjusted the requirements accordingly (dose of 80 mJ/cm² at a minimum transmittance of 65 percent). The Discharger also requested that the requirement for visual inspection of UV lamps be removed because they will be using a closed vessel UV system. Staff also concurs and the continuous UV performance monitoring required in the Monitoring and Reporting Program should ensure that the quartz sleeves are properly maintained.

Notification Requirements – The Discharger requested that the requirement for an electronic notification system be tied to the initiation of operation at the new WWTP and that, in lieu of this requirement for the existing WWTP, the Discharger should be allowed to continue use of their existing visual alarm notification system. Staff concurs and the electronic notification system will be tied to the completion of the new WWTP.

Mgmt. Review _____
Legal Review ___LTO_____
24 October 2008
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