

ITEM: 31

SUBJECT: California Department of General Services – Central Plant Operations Heating and Cooling Facility

BOARD ACTION: *Consideration of NPDES Permit Renewal, Time Schedule Order, and Thermal Plan Exception*

BACKGROUND: The California Department of General Services (DGS) operates the Central Plant Operations Heating and Cooling Facility that provides heating and cooling to downtown State office buildings and, as a result, discharges closed-system non-contact cooling water to the Sacramento River. The sources of cooling water to the Facility are obtained from Ranney Collectors beneath the Sacramento River, and two deep wells. The Facility also periodically, in emergency situations, uses the City of Sacramento municipal water distribution system as a source. No chemicals are added to the supply water and the monthly average discharge flow is 9 mgd.

The Facility plans to cease the river discharge within the term of the proposed Order. The DGS plans to construct closed loop mechanical cooling towers with a thermal storage tank. Installation of these facilities would result in the elimination of the need to discharge condenser effluent directly to the Sacramento River. The elimination of the discharge to the Sacramento River is planned for 2010, but unforeseen circumstances could potentially delay project completion until 2012.

A Resolution for a Thermal Plan Exception is also under consideration that would exempt the Discharger from compliance with specific provisions of the Thermal Plan.

The tentative Order contains new effluent limitations for total residual chlorine, dichlorobromomethane, dibromochloromethane, arsenic, aluminum, copper, manganese and electrical conductivity.

ISSUES: Comments were received from the Discharger and from the California Sportfishing Protection Alliance (CSPA). CSPA is contesting the proposed Permit. The major issues discussed in the public comments are summarized below:

Thermal Plan Exemption: CSPA states that the proposed Permit contains Effluent Limitations for temperature based on a Thermal Plan exception that is also presented for Regional Board consideration. The proposed thermal plan exception and the proposed Permit conflict with the requirements of the Clean Water Act (CWA 101(a), 303(d)(4)) Federal Regulations 40 CFR 131.12(a) and the Board's Policy (Resolution 68-16) regarding antidegradation.

The DGS performed a study to evaluate the thermal impacts of its

discharge to the Sacramento River. The study concluded that the thermal discharge would not adversely affect migrating fishes, nor would it cause adverse population- or community-level effects for resident or anadromous fish. The thermal impacts study was reviewed by the National Oceanic and Atmospheric Administration's National Marine Fisheries Services and they agreed with the findings of the study. Based on the thermal effects study Regional Water Board staff have proposed a thermal plan exception. The change in temperature requirements included in the tentative Order will not affect the beneficial uses of the receiving water. The permitted surface water discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution 68-16. Furthermore, the DGS plans to cease river discharge during the term of the proposed Order resulting in no impacts to the receiving water.

Mixing Zone: CSPA states that the proposed Permit allows a mixing zone for arsenic, dibromochloromethane, dichlorobromomethane and manganese in violation of requirements in the Basin Plan and the SIP. It is inappropriately assumed in the proposed permit that the discharge is completely mixed.

The assumption that the discharge is completely mixed for human health based criteria is a valid assumption, because the criteria are based on long-term exposure (i.e. drinking 2 liters of water per day for 70 years) and there are no downstream drinking water intakes near the discharge. Furthermore, the flow in the Sacramento River is much larger than the discharge flow resulting in an allowable dilution credit of 1,640:1, for human health based criteria. Although there is substantial dilution, the proposed Order requires performance-based effluent limitations for arsenic, dibromochloromethane, dichlorobromomethane and manganese, which result in much lower dilution credits for these constituents (i.e. less than 60:1).

Additional Comments: In addition to the issues discussed above, CSPA had additional comments regarding effluent limitations for acute and chronic toxicity, mass based effluent limitations, the inclusion of compliance schedules within the permit and concerns with the Report of Waste Discharge used as the basis for the Permit. These comments together with the staff response are discussed in more detail in the Staff Response to Comments document included for this agenda item.

Mgmt. Review _____
Legal Review _____

21/22 June 2007
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