



May 22, 2007

Project No.: 248-00-06-08.011

Ms. Pamela C. Creedon  
Executive Officer  
California Regional Water Quality Control Board  
Central Valley Region  
11020 Sun Center Drive, #200  
Rancho Cordova CA 95670

**TENTATIVE DRAFT WASTE DISCHARGE REQUIREMENTS—CALIFORNIA  
DEPARTMENT OF GENERAL SERVICES CENTRAL HEATING AND COOLING  
FACILITY, NPDES NO. CA 0078581**

Dear Ms. Creedon:

The purpose of this letter is to provide comments from the State of California Department of General Services (DGS) regarding the Tentative Time Schedule Order (TSO) and Waste Discharge Requirements (TWDRs) for renewal of the National Pollutant Discharge Elimination System (NPDES) permit authorizing surface water discharge from the State's Central Heating and Cooling Facilities. The TWDRs were issued by the Central Valley Regional Water Quality Control Board (RWQCB) on April 18, 2007. Comments on the TWDRs are due to the RWQCB by May 22, 2007. West Yost Associates, Inc. and Robertson Bryan Inc, consultants to DGS, participated in the preparation of this letter. The organization of these comments is as follows:

- I. Factual Corrections
- II. General Comments Applicable to the Time Schedule Order and Draft Tentative Waste Discharge Requirements
- III. Specific Comments Applicable to the Time Schedule Order and Draft Tentative Waste Discharge Requirements

The DGS respectfully requests that revisions recommended below be incorporated into the Tentative Waste Discharge Requirements (TWDRs) prior to adoption. DGS believes that some of the revisions needed to address these comments are potentially significant and may require re-noticing and recirculation of the TWDRs for comment.

I. FACTUAL CORRECTIONS

A. **DGS Central Plant is not a Publicly Owned Treatment Works**

1. The DGS is not a Publicly Owned Treatment Works (POTW). Therefore, DGS respectfully requests that any reference to POTWs either be removed from this permit or clearly indicated as “not applicable” based on the following permit text from Page F-3:

“This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order that are specifically identified as “not applicable” have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as “not applicable” are fully applicable to this Discharger.”

This change specifically affects the following findings:

- a. Page 12, V.A. 1. Bacteria:

~~Bacteria. The fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, to exceed a geometric mean of 200 MPN/100 mL, not more than ten percent of the total number of fecal coliform samples taken during any 30-day period to exceed 400 MPN/100 mL.~~

- b. Page 14: VI.A.2.b.iv:

~~Land application plans. When required by a permit condition to incorporate a land application plan for beneficial reuse of sewage sludge, to revise an existing land application plan, or to add a land application plan.~~

~~Change in sludge use or disposal practice. Under 40 Code of Federal Regulations (CFR) 122.62 (a)(1), a change in the Discharger’s sludge use or disposal practice is a cause for modification of the permit. It is cause for revocation and reissuance if the discharger requests or agrees.~~

- c. Page 17, VI.A.2.i.:

~~A publicly owned treatment works (POTW) whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment~~

~~and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the discharger shall notify the Regional Water Board by 31 January. A copy of the notification shall be sent to appropriate local elected officials, local permitting agencies and the press. Within 120 days of the notification, the discharger shall submit a technical report showing how it will prevent flow volumes from exceeding capacity or how it will increase capacity to handle the larger flows. The Regional Water Board may extend the time for submitting the report.~~

d. Page 18, VI.A.2.u.:

~~For POTWs, prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a watercourse, the discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. (CWC section 1211).~~

**B. Tentative Resolution**

1. Page 2, Finding 7. It appears that a period is required at the end of the paragraph.

**C. Tentative Time Schedule Order**

1. Page 2, Finding 11. Second line. The word "exceed" should be replaced with "exceeds".

**D. Tentative Waste Discharge Requirements**

1. Page 4, Item II.A. Background. The current permit reads as follows:

"The Discharger submitted a Report of Waste Discharge, dated 30 August 2005, and applied for a NPDES permit renewal to discharge up to 9 million gallons per day (mgd) of wastewater from their Central Plant Operations, Heating and Cooling Facility, hereinafter Facility."

Per the existing permit, the DGS Central Plant is allowed to discharge up to 9.0 mgd on a monthly average basis. Therefore, DGS requests that the permit text be revised to the following to incorporate the monthly average discharge limitation:

“The Discharger submitted a Report of Waste Discharge, dated 30 August 2005, and applied for a NPDES permit renewal to discharge a *monthly average* of up to 9 million gallons per day (mgd) of wastewater from their Central Plant Operations, Heating and Cooling Facility, hereinafter Facility.”

**II. GENERAL COMMENTS APPLICABLE TO THE TIME SCHEDULE ORDER AND TENTATIVE WASTE DISCHARGE REQUIREMENTS**

**A. Request for a final performance-based Copper limitation**

The DGS contends that a final performance-based copper limitation is appropriate for the Central Plant discharge because there is adequate assimilative capacity in the Sacramento River for copper. There is a significant amount of available dilution for the DGS discharge, resulting in sufficient assimilative capacity for total copper in the Sacramento River, despite the elevated concentrations observed in the upstream receiving water. As shown in the table below, the highest measured discharge total copper concentration of 22 µg/L would be approximately 14 percent of the Effluent Concentration Allowance (ECA) for the Sacramento River. Moreover, the proposed performance-based criteria of 64 µg/L would be approximately 44 percent of the ECA. Therefore, adequate assimilative capacity is clearly available.

**Assimilative Capacity for Total Copper in the Sacramento River**

Parameter	Flow, mgd	Concentration, µg/L	Effluent Concentration Allowance <sup>(a)</sup>	Percent of Effluent Concentration Allowance
Current Discharge	13.1 <sup>(b)</sup>	22 <sup>(c)</sup>	-	14
Discharge Limit	13.1 <sup>(b)</sup>	68.4 <sup>(d)</sup>	-	44
Sacramento River	2,408 <sup>(e)</sup>	2.6 <sup>(f)</sup>	156	-

(a) Effluent Concentration Allowance = Criterion + Dilution Credit (Criterion – Receiving Water Conc.), copper chronic criterion is 3.43 µg/L

(b) 4-day average of daily maximum flows

(c) Maximum measured discharge concentration

(d) Proposed performance based limit

(e) 7Q10 flow

(f) Maximum measured receiving water concentration

Specific permit modifications requested are provided in Section III.

## **B. Request for a Five-Year Compliance Schedule for Copper**

The DGS has formally established the intent to cease river discharge within the term of the renewed permit, most likely during 2010. However, due to the project level of effort and possible construction delays, there is a possibility that the project schedule may be delayed until 2012. Per the above discussion, it appears that assimilative capacity exists for copper and that DGS discharge can meet the final performance-based effluent limitations for copper. With RWQCB approval, a five-year compliance schedule for copper is not necessary. However, in the event that the RWQCB does not grant dilution credit for copper, DGS also requests a five-year compliance schedule for total copper.

## **C. Request for the Removal of Studies Requirements**

The DGS has evaluated its options for renovating the Central Plant and addressing its NPDES permit compliance issues. The selected course of action is to eliminate the discharge within the term of this renewed permit. Therefore, DGS requests that the following study requirements be removed from the permit in light of ceasing river discharge and additionally for the following specific reasons:

**Pollution Prevention Plan:** Since the DGS is a non-contact cooling water discharge, other than changing the water supply source, DGS is unable to develop pollution prevention strategies prior to ceasing river discharge.

**Treatment Feasibility Study:** Any identified potential treatment strategies that were implemented as a result of the treatment feasibility study would need to be dismantled prior to ceasing river discharge that is scheduled to occur within the term of the renewed permit.

**Salinity Evaluation and Minimization Plan:** The DGS Central Plant discharge does not exhibit a reasonable potential for electrical conductivity or other component of salinity. The historical maximum of the DGS discharge was 664  $\mu\text{mhos/cm}$ , which is below the water quality objective of 700  $\mu\text{mhos/cm}$ . Additionally, the only reasonable minimization effort would be to identify and implement an alternative supply source. However, as part of the Central Plant facilities planning process, DGS pursued options for incorporating alternative water supplies and has determined that elimination of the discharge is the best option for meeting our long-term goals. Therefore, it is our position that identifying and implementing an alternative water supply as a means of minimizing the salinity in our discharge is not a reasonable use of our resources at this time.

**Best Management Practice Plan:** The DGS discharge is comprised of non-contact cooling water. Moreover, DGS does not add any constituents to the

discharge. Therefore, best management practices used to reduce constituents entering the discharge are not applicable.

Furthermore, developing these studies would not be a prudent use of public funds because the ultimate compliance strategy is to eliminate the discharge altogether, which is schedule to occur within the term of the renewed permit. Therefore, in light of these findings, the DGS requests that the following studies be removed from the tentative draft permit:

1. Time Schedule Order
  - Pollution Prevention Plan (PPP) for Iron
2. Tentative Draft Waste Discharge Requirements
  - Treatment Feasibility Study for Aluminum and Copper
  - Pollution Prevention Plan Workplan for Aluminum and Copper
  - Pollution Prevention Plan for Aluminum and Copper
  - Salinity Evaluation and Minimization Plan
  - Best Management Practice Plan (BMPP)

Specific deleted sections requested are provided in Section III.

**D. Request for the Use of Inhibition concentration (IC) 25 and Dilution Credit for Assessments of Toxicity**

A chronic toxic unit (TUc) is defined by EPA as the reciprocal of the effluent concentration in a bioassay that causes no observable effect (NOEC) on the test organisms (i.e.,  $TUc = 100/NOEC$ ) (USEPA 1991<sup>1</sup>). In calculating the TUc, the NOEC is determined through statistical hypothesis testing, the result of which can be significantly limited by the choice of dilution series. EPA review of toxicity testing data suggests that the 25 percent inhibition concentration (IC25) can serve as a reliable analogue to the NOEC, and states in fact that the IC25 point estimate is the preferred statistical method for determining the NOEC (USEPA 1991<sup>2</sup>). For this reason, the DGS specifically requests that TUc be defined as the reciprocal of the IC25 (i.e.,  $100/IC25$ ).

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<sup>1</sup> United States Environmental Protection Agency. 1991. Technical support document for water quality-based toxics control. EPA 505-2-90-001. Office of Water. Washington D.C. March 1991.

Second, a TUC of 1.0 is appropriate only when no dilution credit is granted. However, the Sacramento River provides substantial dilution (i.e.,  $\geq 160:1$  for acute aquatic life exposures) for the DGS discharge, which should be acknowledged in determining an appropriate accelerated monitoring/TRE trigger. The permit cites USEPA (1994) guidance for toxicity (see p. F-26), which states that "...ambient waters shall not demonstrate ..." (emphasis added), and furthermore cites survival percentages for acute tests and 1 TU for chronic tests. However, the permit applies these same percentages and TU triggers, which EPA clearly states are applicable to "ambient waters," where dilution of effluent has occurred, as directly applicable to 100%, undiluted effluent. This monitoring trigger is inappropriate and will likely require TREs to be initiated under this permit, even though there is no risk of toxicity to aquatic life in the receiving water.

Therefore, the DGS requests that dilution credit be granted for assessing the accelerated monitoring and TRE TU triggers, as has been done for the Sacramento Regional Wastewater Treatment Plant (see also p. F-27).

**E. Request for a Five-Year Compliance Schedule, Interim Effluent Limitation for Residual Chlorine and Removal of Dechlorination Requirements for the DGS Central Plant Discharge**

DGS requests a five-year compliance schedule to comply with the final chlorine effluent limitations. DGS's current policy is to use municipal water only on an emergency basis. Because DGS Central Plant has not used City water since September 2005, the DGS Central Plant Discharge has not discharged chlorine in the past two years. However, due to aging infrastructure at the Central Plant, there is potential that municipal water will be used within the term of the next permit.

Historically, when municipal water is used by the DGS Central Plant, effluent chlorine concentrations have exceeded the 0.02 mg/L effluent limit for chlorine. The maximum effluent chlorine concentration was 0.08 mg/L. While DGS will typically comply with the final chlorine effluent limitation, if municipal water is used, then DGS will exceed the effluent chlorine effluent limitation, resulting in mandatory minimum penalties. Therefore, DGS requests a five-year compliance schedule for compliance with the chlorine effluent limitation.

Additionally, the tentative waste discharge requirements indicate that DGS is required to install dechlorination facilities to comply with the final effluent limitation for chlorine. As DGS plans to cease river discharge within the renewed permit term, installation of such facilities would be an inefficient use of the State's resources. Dechlorination facilities would only be needed in the rare event that an emergency occurs and municipal water is needed, and the facilities would need to be dismantled prior to ceasing river discharge. Therefore, DGS

respectfully requests that the dechlorination requirements be removed from the draft permit.

**F. Request Reduced Monitoring Frequency for Dibromochloromethane and Bromodichloromethane**

DGS requests that dibromochloromethane and bromodichloromethane monitoring only be required when municipal water is being used (on an emergency basis). These constituents originate from the municipal water, and are not detected when municipal water is not used. Therefore, monitoring for these constituents is only relevant when municipal water is used. As described above, municipal water has not been used for the past two years. However, there is potential that municipal water will be used in the term of the renewed permit.

**G. Request Removal of Monitoring Requirements for Freons and Total Petroleum Hydrocarbons**

The DGS has monitored freons and Total Petroleum Hydrocarbons (TPHs) in the Central Plant discharge since 2002. As detailed in the DGS Central Plant Report of Waste Discharge, none of these constituents has been detected in the DGS discharge. Although freons and hydrocarbons are used at the Central Plant, staff monitors for these constituents in Central Plant process operations on an hourly (and less frequently) basis. Therefore, staff is immediately aware of and repairs any small leaks from the cooling system. A large leak has not occurred at the Central Plant due to annual inspection, cleaning, and maintenance. Therefore, the likelihood of discharge contamination from these constituents is extremely small, and additional monitoring for these constituents should not be included in the permit.

**III. SPECIFIC COMMENTS APPLICABLE TO THE TIME SCHEDULE ORDER AND TENTATIVE WASTE DISCHARGE REQUIREMENTS**

**A. Time Schedule Order**

1. Page 2, Finding 11. Pollution Prevention Plan for Iron. As discussed above, DGS is in the process of ceasing river discharge as its only compliance alternative. Therefore, additional source control or treatment strategies prior to ceasing river discharge are not necessary. Therefore, DGS requests that the text be revised as follows:

“Compliance with this Order exempts the discharger from mandatory minimum penalties for violations of effluent limitations for iron only, in accordance with CWC 13385(j)(3). CWC section 13385(j)(3) requires the discharger to prepare and implement a pollution prevention plan pursuant to section 13263.3 of the

California Water Code. Therefore, ~~a pollution prevention plan will be necessary for iron in order to effectively reduce effluent concentrations by source control measures.~~ However, DGS is ceasing river discharge within the term of the TSO. Because iron is present in the sourcewater and it is not feasible to alter the sourcewater prior to ceasing river discharge, the discharger is not required to develop a pollution prevention plan.”

- Page 3, Order 1. Method of Compliance Workplan/Schedule and Pollution Prevention Plan. Because DGS is in the process of ceasing river discharge it is requested that PPP requirements be removed from the ADWDRs as follows:

<u>Task</u>	<u>Date Due</u>
Submit Method of Compliance Workplan/Schedule adoption	6 months from
Submit Pollution Prevention Plan (PPP) pursuant to CWC section 13263.3 for iron	12 months from adoption

## B. Tentative Waste Discharge Requirements

- Page 10, Table 6. Effluent Limitations. As described above, there is sufficient assimilative capacity in the Sacramento River for total recoverable copper. Therefore, DGS submits that the limit for total recoverable copper in Table 6 be revised to reflect the proposed performance-based limit as follows:

**Table 6. Effluent Limitations**

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper, Total Recoverable	µg/L	<del>2.31</del> --	--	<del>4.64</del> 68.4	--	--

- Page 11, Table 7. Interim Effluent Limitations. There is sufficient assimilative capacity is available for total recoverable copper, and the DGS discharge complies with the proposed performance-based limit. Therefore, DGS submits that the interim total recoverable copper limit is not necessary, and the text in Table 7 should be revised as follows:

**Table 7. Interim Effluent Limitations**

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper, Total Recoverable	µg/L	--	--	68.4	--	--

3. Page 11, Total Residual Chlorine. Because the Central Plant cannot immediately comply with the final effluent limitation for chlorine, DGS requests the following interim effluent limitation:

**Table 7. Interim Effluent Limitations**

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
<i>Chlorine, Total Residual</i>	<i>mg/L</i>	--	--	<i>0.11</i>	--	--

4. Page 22, C.3. Best Management Practices and Pollution Prevention. a. Salinity Evaluation and Minimization Plan. The DGS Central Plant discharge does not exhibit a reasonable potential to cause an in-stream excursion above water quality objectives for salinity. Furthermore, DGS is committed to ceasing river discharge within the term of the renewed permit. Therefore, DGS respectfully requests that a Salinity Evaluation and Minimization Plan and subsequent annual reporting not be required by the WDRs, and suggests the following text be removed from the permit:

~~Salinity Evaluation and Minimization Plan. The Discharger shall prepare a salinity evaluation and minimization plan to address sources of salinity and shall provide annual reports demonstrating reasonable progress in the reduction of salinity in its discharge to the Sacramento River. The plan shall be completed and submitted to the Regional Water Board within 9 months of the effective date of this Order for approval by the Executive Officer.~~

5. Page 22, C.3. Best Management Practices and Pollution Prevention. a. Best Management Practice Plan (BMPP). The DGS Central Plant discharge is comprised of non-contact cooling water. Additional chemicals or other substances will not be introduced into the discharge. Therefore, DGS respectfully requests that a Best Management Practice Plan not be required by the WDRs, and suggests the following text be removed from the permit:

~~**Best Management Practice Plan (BMPP).** The Discharger shall develop and implement a BMPP that includes site-specific plans and procedures implemented and/or to be implemented to prevent the generation and potential release of additional pollutants from the Facility to waters of the State. The BMPP shall be consistent with the general guidance contained in the USEPA *Guidance Manual for Developing Best Management Practices (BMPs)* (EPA 833-B-93-004). In particular, a risk assessment of each area identified by the Discharger shall be performed that will ensure proper operation and maintenance of heating and cooling equipment, prevent the additional chemicals or other substances from being introduced into the discharge, and prevent the addition of pollutants from the other non-permitted process waters, spills, or other sources of pollutants at the Facility.~~

~~The BMPP shall be implemented as soon as possible, but no later than 90 days from the effective date of this Order. The Discharger shall also submit a copy of the BMPP to the Executive Officer within 90 days from the effective date of this Order.~~

~~The Discharger shall maintain a copy of the BMPP at the Facility and shall make the plan available upon request. The Discharger shall amend the BMPP whenever there is a change in the Facility or in the operation of the Facility. All changes to the BMPP shall be reported to the Regional Water Board.~~

6. Page 23, 6, Compliance Schedules. Per the Compliance Schedule Justification/Infeasibility Analysis, the DGS requests 5-year compliance schedules for all constituents for which compliance schedules are required.
7. Page 23, Compliance Schedules. DGS respectfully requests the removal of the following draft permit language:

~~iii. Pollution Prevention Plan. The discharger shall prepare and implement a pollution prevention plan in accordance with CWC section 13263.3(d)(3). The minimum requirements for the pollution prevention plan are outlined in the Fact Sheet, Attachment F, Section VII.B.3. A workplan and time schedule for preparation of the pollution prevention plan shall be completed and submitted to the Regional Water Board within 6 months of the effective date of this Order for approval by the Executive Officer. The pollution prevention plan shall be completed and submitted to the Regional Water Board within two (2) years following workplan approval by the Executive Officer, and progress shall be submitted in~~

~~accordance with the Monitoring and Reporting Program (Attachment E, Section X.D.1.).~~

~~iv. Treatment Feasibility Study. The discharger is required to perform an engineering treatment feasibility study examining the feasibility, costs, and benefits of different treatment options that may be required to remove aluminum, chlorine residual, and copper from the discharge. A workplan and time schedule for preparation of the treatment feasibility study shall be completed and submitted to the Regional Water Board within 6 months of the effective date of this Order for approval by the Executive Officer, an progress reports shall be submitted in accordance with the Monitoring and Reporting Program (Attachment E, Section X.D.1.).~~

**C. Attachment E - Monitoring and Reporting Program (MRP)**

1. Page E-3. DGS requests that the monitoring requirements for TPH and freons be removed from Table E-2 as follows:

**Table E-2. Effluent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Chlorodifluoromethane	µg/L	Grab	1/quarter	4
Dichlorodifluoromethane	µg/L	Grab	1/quarter	4
1, 1-Difluoroethane	µg/L	Grab	1/quarter	4
Total Petroleum Hydrocarbons	µg/L	Grab	1/quarter	4

2. Page E-4. Footnote 6. As described above, DGS requests that monitoring for DBCM and BDCM only be required when City water is being used to augment the DGS Central Plant Discharge. Therefore, DGS requests that footnote 6 be added to dibromochloromethane and bromodichloromethane in Table E-2, and that footnote 6 be revised as follows:

“6. Total residual chlorine, dibromochloromethane, and bromodichloromethane monitoring is only required when municipal water supply is used to augment cooling water.”

#### D. Attachment F – Fact Sheet

1. Page F-13. 3.b. As described above, the DGS Central Plant discharge does not demonstrate a reasonable potential for Electrical Conductivity. Therefore, DGS requests that Electrical Conductivity be removed from this paragraph.
2. Page F-16, g. Chlorine Residual. Per the above discussion, because the DGS Central Plant discharge uses municipal water on an emergency basis (that contains chlorine), DGS requests a five-year compliance schedule for compliance with the chlorine residual final effluent limitation. Dechlorination facilities cannot be installed within 30 calendar days. Therefore, DGS requests the following revision to the tentative draft permit (language was obtained from the administrative draft permit):

*“The Discharger may be in immediate non-compliance upon issuance of the permit during times when municipal water is used to augment cooling water. ~~Facilities to de-chlorinate the effluent when municipal water is being used must be implemented to comply with the effluent limitations. A period of six months from the effective date of this Order is provided for the Discharger to develop and implement facilities to de-chlorinate the effluent.~~ New or modified control measures may be necessary in order to comply with the effluent limitations, and the new or modified control measures cannot be designed, installed and put into operation within 30 calendar days. The Basin Plan for the Sacramento and San Joaquin River Basins includes a provision that authorizes the use of compliance schedules in NPDES permits for water quality objectives adopted after 25 September 1995 (see Basin Plan at page IV-16). The WQBELs for chlorine residual are based on a new interpretation of the narrative standard for protection of receiving water beneficial uses. Therefore, a compliance schedule for compliance with the chlorine residual effluent limitations is established in this Order.*

*An interim performance-based maximum daily effluent limitation of 0.11 mg/L has been established in this Order. The interim limitation was determined as described in Attachment F, Section IV.E.1., and is in effect through 22 June 2012. As part of the compliance schedule, this Order requires the Discharger to submit a corrective action plan and implementation schedule to assure compliance with the final chlorine residual effluent limitations.”*

3. Page F-17, 3.h. Copper. Based on the copper data presented, there appears to be sufficient assimilative capacity for total copper in the Sacramento River. Therefore, DGS requests that the draft permit text be revised as follows:

~~“The MEC for total copper was 22 µg/L, based on five samples collected between March 2002 and August 2005, while the maximum observed receiving water total copper concentration was 2.6 µg/L. Therefore, the discharge has a reasonable potential to cause or contribute to an instream excursion above the CTR criteria for copper. Since the maximum observed upstream receiving water concentration is practically equal to the chronic criterion, little to no assimilative capacity exists and no dilution is allowed. An AMEL and MDEL for total copper of 2.31 µg/L and 4.64 µg/L, respectively, are included in this Order based on CTR criteria for the protection of freshwater aquatic life (see Attachment F, Table F-8 for WQBEL calculations).”~~ *The ambient monitoring demonstrates the receiving water has assimilative capacity for total copper. The effluent limitation calculation procedures in Section 1.4 of the SIP allow for the granting of chronic aquatic life toxicity dilution credit based on the estimated 7Q10 flow of the Sacramento River and the 4-day average of maximum daily discharge flows, which would lead to a dilution credit of 184:1 (see Section IV.C.2.c). However, the Regional Water Board finds that granting of this dilution credit could allow an unnecessarily large portion of the receiving water’s assimilative capacity for chronic aquatic life toxicity objectives, and could violate the Antidegradation Policy. For this reason, a performance-based effluent limitation is included in this order that is calculated in the same way that interim limits are calculated (see Section IV.E.1 below). A maximum daily effluent limitation for total copper of 68.4 µg/L is included in this order. Based on the samples results for the effluent, it appears the Discharger can meet this new limitation.*

~~The Discharger is unable to comply with these limitations. Section 2.1 of the SIP allows for compliance schedule within the permit for existing dischargers where it is demonstrated that it is infeasible for a Discharger to achieve immediately compliance with a CTR criterion. Using the statistical methods for calculating interim effluent limitations described in Attachment F, Section IV.E.1., an interim performance-based maximum daily limitation of 68.4 µg/L was calculated.~~

~~Section 2.1 of the SIP provides that: “Based on an existing discharger’s request and demonstration that it is infeasible for the discharger to achieve immediate compliance with a CTR criterion, or with an effluent limitation based on a CTR criterion, the RWQCB~~

~~may establish a compliance schedule in an NPDES permit.”  
Section 2.1, further states that compliance schedules may be  
included in NPDES permits provided that the following justification  
has been submitted: ...”(a) documentation that diligent efforts have  
been made to quantify pollutant levels in the discharge and the  
sources of the pollutant in the waste stream; (b) documentation of  
source control measures and/or pollutant minimization measures  
efforts currently underway or completed; (c) a proposal for  
additional or future source control measures, pollutant minimization  
actions, or waste treatment (i.e. facility upgrades); and (d)  
demonstration that the proposed schedule is as short as  
practicable.” The new WQBELs for copper become effective on 18  
May 2010.~~

~~The Order requires the Discharger to submit a corrective action  
plan and implementation schedule to assure compliance with the  
final copper effluent limitations. The interim effluent limitations are  
in effect until May 17, 2010. As part of the compliance schedule for  
copper, the Discharger shall develop a pollution prevention plan  
program in compliance with CWC section 13263.3(d)(3) and submit  
an engineering treatment feasibility study.~~

4. Page F-17, h. Copper. Per the above discussion, DGS requests that the following draft permit text be revised:

~~This Order requires the Discharger to submit a corrective action  
plan and implementation schedule to assure compliance with the  
final copper effluent limitations. The interim effluent limitations are  
in effect through May 17, 2010 **June 22, 2012**. As part of the  
compliance schedule for copper, the Discharger shall develop a  
pollution prevention program in compliance with CWC section  
13263.3(d)(3) and submit an engineering treatment feasibility study.~~

5. Page F-26, Copper. Per the above discussion regarding total copper, DGS requests that Table F-6 be removed if dilution is initially granted for copper.
6. Page F-26, Table F-7. Per the above discussion regarding total copper, DGS requests that the following changes be made to Table F-7:

**Table F-7. Summary of Water Quality-Based Effluent Limitations**

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper, Total Recoverable	µg/L	2.3 --	--	4.64 68.4	--	--

7. Page F-31, Table F-8. Per the above discussion regarding total copper, DGS requests that the following changes be made to Table F-8:

**Table F-8. Summary of Final Effluent Limitations**

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper, Total Recoverable	µg/L	2.31 --	--	4.64 68.4	--	--

8. Page F-31. E. Interim Effluent Limitations 1. Aluminum, *Chlorine Residual* and Copper. As described above, DGS requests an interim effluent limitation for chlorine residual and therefore requests the following permit text changes:

Table F-9 summarizes the calculations of the interim effluent limitations for aluminum, chlorine residual, and copper:

**Table F-9 Interim Effluent Limitation Calculation Summary**

Parameter	MEC	Mean	Std. Dev.	# of Samples	Interim Limitation
Aluminum	82	--	--	5	255
<i>Chlorine, Total Residual</i>	0.08	0.054	0.017	11	0.11
Copper	22	--	--	4	68

9. Page F-37. VI. A. Influent Monitoring. As described above, the DGS Central Plant discharge does not demonstrate a reasonable potential for Electrical Conductivity. Therefore, DGS requests the following permit revisions:

“The Monitoring and Reporting Program No. R5-2002-0016 contained influent monitoring requirements for iron and electrical conductivity (EC) to collect additional data for purposes of determining whether an effluent limitation was needed. Based on monitoring data submitted by the

Discharger, iron and EC ~~have~~ *has* reasonable potential to cause or contribute to an in-stream excursion above their water quality objectives, *while EC does not exhibit a reasonable potential*. As a result, *an* effluent limitations for iron and EC ~~have~~ *has* been established in this Order. Therefore, influent monitoring requirements for iron and EC have been removed from this Monitoring and Reporting Program.”

10. Page F-37. VI. B. Effluent Monitoring. Second paragraph. Because the DGS Central Plant discharge does not exhibit a reasonable potential for EC, DGS requests the following change to the permit:

“Monitoring data submitted by the Discharger during the previous permit term indicated that there is *not* a reasonable potential for electrical conductivity to exceed water quality criteria. *However, due to salinity concerns within the Delta, the DGS discharge was issued an effluent limitation for electrical conductivity*. Weekly effluent monitoring for electrical conductivity has been carried over from Monitoring and Reporting Program No. R5-2002-0016 to determine compliance with the effluent limitations established in this Order.”

11. Page F-44, PPP removal. Per the above discussion regarding required studies, DGS requests that the following changes be made to the draft permit:

**~~Pollution Prevention Plan (PPP) for aluminum, chlorine residual, and copper.~~** A PPP for aluminum, chlorine residual, and copper is required in this Order per CWC section 13263.3(d)(1)(D) as part of the interim effluent limitations for aluminum, chlorine residual and copper. The PPP shall be developed in conformance with CWC section 13263.3(d)(3) as outlined in subsection c., below.  
**~~CWC section 13263.3(d)(3) Pollution Prevention Plans.~~** The pollution prevention plans required for aluminum, chlorine residual, and copper shall, at a minimum, meet the requirements outlined in CWC section 13263.3(d)(3). The minimum requirements for the pollution prevention plans include the following:

- ~~i. An estimate of all of the sources of a pollutant contributing, or potentially contributing, to the loadings of a pollutant in the treatment plant influent.~~
- ~~ii. An analysis of the methods that could be used to prevent the discharge of the pollutants into the Facility, including application of local limits to industrial or commercial dischargers regarding pollution prevention techniques, public education and outreach, or other innovative and alternative approaches to reduce discharges of the pollutant to the Facility. The analysis also shall identify~~

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~~sources, or potential sources, not within the ability or authority of the Discharger to control, such as pollutants in the potable water supply, airborne pollutants, pharmaceuticals, or pesticides, and estimate the magnitude of those sources, to the extent feasible.~~

- ~~iii.—— An estimate of load reductions that may be attained through the methods identified in subparagraph ii.~~
- ~~iv.—— A plan for monitoring the results of the pollution prevention program.~~
- ~~v.—— A description of the tasks, cost, and time required to investigate and implement various elements in the pollution prevention plan.~~
- ~~vi.—— A statement of the Discharger's pollution prevention goals and strategies, including priorities for short-term and long-term action, and a description of the Discharger's intended pollution prevention activities for the immediate future.~~
- ~~vii.—— A description of the Discharger's existing pollution prevention programs.~~
- ~~viii.—— An analysis, to the extent feasible, of any adverse environmental impacts, including cross-media impacts or substitute chemicals that may result from the implementation of the pollution prevention program.~~
- ~~ix. An analysis, to the extent feasible, of the costs and benefits that may be incurred to implement the pollution prevention program~~

Thank you for your consideration of these comments.

Sincerely,

-----Original Signed by Mr. Fred Cordano 5/22/07-----

Mr. Fred Cordano, Chief,  
Building and Property Management Branch

cc:

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