CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

RESOLUTION NO. R5-2007-0164

AMENDING WASTE DISCHARGE REQUIREMENTS
ORDER NO. R5-2005-0086 (NPDES NO. CA0078875) and
TIME SCHEDULE ORDER NO. R5-2005-0087

CALIFORNIA DEPARTMENT OF GENERAL SERVICES
OFFICE OF STATE PUBLISHING
SACRAMENTO COUNTY

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

1. On 24 June 2005, the Regional Water Board adopted Waste Discharge Requirements Order No. R5-2003-0086 (NPDES No. CA0078875) and Time Schedule Order No. R5-2005-0087, prescribing waste discharge requirements for the California Department of General Services, Office of State Publishing, hereafter referred to as "Facility." For the purposes of this Resolution, the California Department of General Services is hereafter referred to as "Discharger."

2. The Discharger owns and operates a publishing facility that provides printing and communications services to State, Federal, and City agencies. A monthly average flow of 1.3 million gallons per day (mgd) of non-contact cooling water is discharged, typically from April through October, to the American River (a water of the United States). Groundwater is used as a cooling medium for heat exchange coils for air conditioning units. The air conditioning units provide cooling for personnel and are not used for any publishing processes or equipment cooling. No chemical additives are used in the cooling water, including corrosion inhibitors, biocides, or anti-scaling agents. The non-contact cooling water mixes with on-site stormwater runoff during the rain prior to being discharged through a dedicated pipe to the American River. The Discharger is scheduled to modify its cooling system, which will allow it to cease the surface water discharge by the year 2010.

3. Order No. R5-2005-0086 included new effluent limitations with which the Discharger was unable to immediately comply. Therefore, as allowed by the Basin Plan, compliance time schedules were included in the NPDES permit and in a separate Time Schedule Order (TSO No.R5-2005-0087). The time schedules include interim performance-based effluent limitations that must be met during the compliance schedule.

4. Performance-based interim limitations are calculated based on facility performance and are intended to hold discharges at current levels during the compliance schedule. Interim limitations are established when compliance with effluent limitations cannot be achieved by the existing discharge. Discharge of constituents in concentrations in excess of the final effluent limitations, but in compliance with the interim effluent limitations, can significantly degrade water quality and adversely affect the beneficial uses of the receiving stream on a long-term basis. The interim limitations, however,

establish an enforceable ceiling concentration until compliance with the effluent limitation can be achieved.

5. When there are less than ten sampling data points available, the *Technical Support Document for Water Quality- Based Toxics Control* ((EPA/505/2-90-001), TSD) recommends a coefficient of variation of 0.6 be utilized as representative of wastewater effluent sampling, because the TSD recognizes that a minimum of ten data points is necessary to conduct a valid statistical analysis. The interim effluent limitations in the permit and TSO were derived using a limited dataset provided by the Discharger, and applying statistical methodologies for estimating maximum concentrations identified in Chapter 3 of TSD. Therefore, the interim daily maximum for each constituent was calculated by multiplying the maximum observed concentration by a factor of 4.7 from a 99% confidence level and 99% probability basis table (TSD Table 3.1), using the default coefficient of variation of 0.6.

6. On 4 September 2007, the Discharger submitted new effluent sampling data collected since the permit and TSO took effect, indicating concentrations of some constituents occasionally exceeding the interim effluent limits. Consequently, the Discharger requested that the interim effluent limitations be recalculated based on the more robust dataset. Since the interim effluent limits were based on a limited dataset, the requested modifications are considered reasonable.

7. The interim limitations have been recalculated based on the new information provided by the Discharger and are shown in Attachment 1. In developing the interim limitations, where there are ten sampling data points or more, sampling and laboratory variability is accounted for by establishing interim limits that are based on normally distributed data where 99.9% of the data points will lie within 3.3 standard deviations of the mean (*Basic Statistical Methods for Engineers and Scientists, Kennedy and Neville, Harper and Row*). Therefore, for the constituents with ten sampling data points or more, the interim limitations were recalculated as the mean plus 3.3 standard deviations of the available data.

8. The recalculated interim effluent limits for iron and nickel are more stringent. However, the recalculated interim effluent limits for arsenic, cadmium, copper, lead, and selenium have been relaxed. The relaxation of the interim effluent limitations is based on new information and is consistent with the anti-backsliding requirements of the Clean Water Act and federal regulations. The changes are also consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Resources Control Board Resolution 68-16. Any impact on existing water quality will be insignificant.

9. The action to adopt or amend the NPDES permit and TSO is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, et seq.), requiring preparation of an environmental impact report or negative declaration in accordance with Section 13389 of the California Water Code.

10. The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to amend waste discharge requirements for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

11. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

12. This Order shall amend Waste Discharge Requirements Order No.R5-2005-0086 (NPDES No. CA0078794) and TSO No.R5-2005-0087, pursuant to Section 402 of the CWA, and amendments thereto, and shall take effect upon the date of hearing, provided EPA has no objections.

IT IS HEREBY ORDERED that Waste Discharge Requirements Order No. R5-2005-0086 (NPDES No. CA0078794) is amended solely to modify Effluent Limitations B.2. and TSO No. R5-2005-0087 is amended solely to modify the interim effluent limitations. The California Department of General Services, its agents, successors and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted there under, and the provisions of the Clean Water Act and regulations and guidelines adopted there under, shall comply with amended Order No. R5-2005-0086 and amended Time Schedule Order No. R5-2005-0087.

1. Order No. R5-2005-0086 shall be amended by modifying Effluent Limitations B.2. as shown below.

Constituents	Units	Monthly Average
Cadmium	µg/L	~~5.6~~ 16
	lbs/day[1]	~~0.06~~ 173
Copper	µg/L	~~46~~ 422
	lbs/day[1]	~~0.49~~ 4.6
Lead	µg/L	~~2.5~~ 33
	lbs/day[1]	~~0.03~~ 0.36
Nickel	µg/L	~~221~~ 133
	lbs/day[1]	~~2.4~~ 1.4
Selenium	µg/L	~~34~~ 66
	lbs/day[1]	~~0.37~~ 0.72
1,2-dichloroethane	µg/L	2.4
	lbs/day[1]	0.03
Bis (2-ethylhexyl) phthalate	µg/L	17
	lbs/day[1]	0.18

[1]Based upon an average discharge flow of 1.3 mgd for Discharge 001.

2. Time Schedule Order No. R5-2005-0087 shall be amended by modifying the interim effluent limitations as shown below.

Constituents	Units	Daily Maximum
Arsenic	µg/L	~~71~~ 72
	lbs/day[1]	~~0.77~~ 0.78
Barium	µg/L	940
	lbs/day[1]	10
Fluoride	µg/L	2585
	lbs/day[1]	28
Iron	µg/L	~~987~~ 413
	lbs/day[1]	~~11~~ 4.5
Manganese	µg/L	3854
	lbs/day[1]	42
Organochlorine Pesticides[2]	µg/L	0.12
	lbs/day[1]	0.0013
Sulfate	mg/l	564
	lbs/day[1]	6120
TDS	mg/l	1504
	lbs/day[1]	16316
Tributyltin	µg/L	0.26
	lbs/day[1]	0.0028

[1] Based upon an average discharge flow of 1.3 mgd.

[2] Organochlorine Pesticides include aldrin, dieldrin, chlordane, endrin, endrin aldehyde, heptachlor, heptachlor epoxide, hexachlorocyclohexane (alpha-BHC, beta-BHC, delta-BHC, and gamma-BHC or lindane), endosulfan (alpha and beta), endosulfan sulfate, toxaphene, 4,4'DDD, 4,4'DDE, and 4,4'DDT.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Central Valley Region, on 6 December 2007

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PAMELA C. CREEDON, Executive Officer

ATTACHMENT 1 REASONABLE POTENTIAL ANALYSIS

Constituent	Max. Conc. (µg/L)	Multiplier[2]	Criterion Conc. (µg/L)	Controlling Criterion or Goal	Limit Req'd?	ECA= AMEL (µg/L)			MDEL[9] (µg/L)
Aluminum	39 (est)	1	87	USEPA Recommended Ambient Water Quality Criteria for Aquatic Life Protection	?	--			--
Ammonia	360	1	2,380	USEPA Ambient Water Quality Criteria	N	--		- -	--
Arsenic (CTR#2)	59.2	1	10	Site Specific Basin Plan Obj	Y				10
Barium	200	1	100	Site Specific Basin Plan Obj	Y				100
Bis(2-ethylhexyl) phthalate (CTR#68)	3.7 (est.)	1	1.8	CA Toxics Rule (CTR)	Y	1.8[3]			3.6
Cadmium (CTR#4)	13.4	1	0.75[7]	CA Toxics Rule (CTR)	Y	0.41[4]			0.82
Chloride	18[5]	1	106[5]	Agricultural Water Quality Goal	N	--		- -	--
Chromium (total) (CTR#5a)	2.6	1	50	CA DHS Primary MCL	N	--		- -	--
Copper (CTR#6)	236	1	2.6[7]	CA Toxics Rule (CTR)	Y	1.7[4]			3.4
delta-BHC (CTR#106)	.026	1	ND	Basin Plan Objective for Organochlorine Pesticides	Y	ND			ND
1,1-dichloroethane (CTR#28)	0.51	1	5	CA Primary MCL	N	--		- -	--
1,2-Dichloroethane (CTR#29)	0.51	1	0.38	CA Toxics Rule (CTR)	Y	0.38[3]			0.76
Diethyl Phthalate (CTR#79)	2	1	23[5]	CA Toxics Rule (CTR)	N	--		- -	--
Electrical Conductivity (EC)	540[6]	1	700[6]	Wescott and Ayers WQ Ag goal	N	--			--
Endrin Aldehyde (CTR#116)	.019	1	ND	Basin Plan Objective for Organochlorine Pesticides	Y	ND			ND
Fluoride	550	1	1,000	Agricultural Water Quality Goal	N	1000[3]			--
Foaming Agents (MBAS)	460 (est)	1	500	CA DHS Secondary MCL	N	500[3]			--
Iron	356	1	300	Site Specific Basin Plan Obj	Y	--			300
Lead (CTR#7)	31.7	1	.5[7]	CA Toxics Rule (CTR)	Y	0.41[4]			0.82
Manganese	820	1	50	Site Specific Basin Plan Obj	Y	--			50
Mercury (CTR#8)	.02	1	0.05	CA Toxics Rule (CTR)	N	--		-	--
Nickel (CTR#9)	120	1	15[7]	CA Toxics Rule (CTR)	Y	12[4]			24
Nitrate	110	1	10[5]	U.S. EPA Primary MCL	N	--		-	--
Phosphorus (total)	940	1	NA	No Criteria	N	--		-	--
Selenium, CTR#10	56.8	1	5	CA Toxics Rule (CTR)	Y	4.1[4]			8.2
Sulfate	140[5]	1	250[5]	CA DHS Secondary MCL	N	250[3,5]			--
Total Dissolved Solids (TDS)	323[5]	1	125[5]	Site Specific Basin Plan Objective	Y	--			125[5]

Tributyltin	.056	1	0.06	USEPA Ambient WQ Criteria	N	0.06[4]			0.12
Trichloroethylene (CTR#43)	.46	1	2.7	CA Toxics Rule (CTR)	N	--		--	--
Zinc (CTR#13)	10	1	10.22[7]	CA Toxics Rule (CTR)	N	--		-	--

[1] For less than 10 effluent data points, the coefficient of variation (CV) is estimated to equal 0.6.
[2] The multiplying factor (for 99% confidence level and 99% probability basis) is dependent on the CV and number of reported effluent results. For all constituents for which the source of the applicable water quality standard is the CTR, NTR, or site-specific Basin Plan numeric objectives referenced in the CTR, the multiplying factor is 1.
[3] For human health criterion/objective, water quality criteria = ECA (effluent concentration allowance) = AMEL (average monthly effluent limitation)
[4] For aquatic life criterion, LTA (long term average)acute =ECA acute*ECA acute multiplier, LTA chronic = ECA chronic*ECA chronic multiplier, AMEL aquatic life=LTA*AMEL multiplier utilizing most stringent LTA (acute or chronic)
[5] mg/L
[6] μmhos/cm
[7] Based on a receiving water hardness of 22 mg/L as $CaCO_3$
[8] For constituents with a monitoring frequency less than four times per month assume N=4
[9] No maximum daily effluent limitation (MDEL) is established for a pollutant whose applicable water quality standard is a drinking water Maximum Contaminant Level (MCL) or a recommended threshold based on Agricultural Water Quality.