CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL VALLEY REGION

RESOLUTION NO. R5-2009-0016

AMENDING WASTE DISCHARGE REQUIREMENTS
ORDER NO. R5-2007-0165
NPDES NO. CA0083861
FOR
AEROJET-GENERAL CORPORATION
INTERIM GROUNDWATER EXTRACTION AND TREATMENT SYSTEMS
ARGET, GET E/F, GET H, INTERIM GET H, GET K, INTERIM GET K,
GET L, GET L1, SAILOR BAR PARK WELL, CHETTENHAM WELL,
AND LOW THREAT DISCHARGES
SACRAMENTO COUNTY

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

1. On 6 December 2007, the Regional Water Board adopted Waste Discharge Requirements (WDR) Order No. R5-2007-0165, NPDES No. CA0083861, prescribing waste discharge requirements for the Aerojet-General Corporation, Interim Groundwater Extraction and Treatment Systems in Sacramento County. For the purposes of this Resolution, the Aerojet-General Corporation is hereafter referred to as "Discharger." The Discharger owns and operates several groundwater extraction and treatment systems (GETs) designed to cleanup the groundwater pollution emanating from the Discharger's rocket-testing and manufacturing facility in eastern Sacramento County.

2. One of the GETs, GET E/F, utilizes biological reduction to treat for perchlorate, ultraviolet/peroxide to treat for n-nitrosodimethylamine (NMDA) and volatile organics (VOCs) and air stripping to remove VOCs remaining in the flow from the ultraviolet unit. As stand-alone treatment systems, those technologies constitute best available treatment equivalents for removal of perchlorate to less than 4 µg/L, NDMA to around 0.002 µg/L and VOCs to 0.5 µg/L or less. However, after operating the GET E/F facility for the past decade, it has been determined that at times low concentrations of suspended solids from the perchlorate treatment system allow very low concentrations of trichloroethylene (TCE), a volatile organic, to pass through the ultraviolet and air-stripper treatment units. The Discharger has installed a clarifier to reduce the suspended solids concentrations from the perchlorate treatment unit. Even with that modification, there are still infrequent detections of TCE over 0.5 µg/L in the effluent from GET E/F.

3. Effluent Limitations IV.A.1.b of Order No. R5-2007-0165 specifies the best available technology value of 0.5 µg/L for TCE as the monthly average effluent limitation, with 0.7 µg/L being the daily maximum. The Primary Maximum Contaminant Level (MCL) for TCE is 5.0 µg/L and the current California Public Health Goal (one-in-a-million excess cancer risk) established by the California Office of Health Hazard Assessment is 0.8 µg/L, with a revised draft value of 1.7 µg/L out for public comment.

4. The discharge from GET E/F is to Buffalo Creek, an ephemeral stream that would be dry most of the year without the discharges from Aerojet's GET E/F, ARGET and GET J facilities. The mixing of the effluent from the three treatment systems allows a dilution of the GET E/F water by over 50 percent, assuming no other dilution is available from other sources.

5. This order revises the effluent limitation for GET E/F for TCE to 1.5 µg/L for the daily maximum value during regular operations. This value is below both the current MCL and proposed Public Health Goal. When GET E/F is discharging at the effluent limitation and mixing with the flows from ARGET and GET J, the estimated concentration in Buffalo Creek would be approximately 0.9 µg/L. The ARGET and GET J facilities consistently do not detect TCE in their respective effluents. This order revises the daily maximum value to 3.0 µg/L, upon approval of the Executive Officer, for periods when operational changes are being made to address exceedences or potential exceedences of effluent limitations of GET E/F. The beneficial uses of Buffalo Creek are still protected by the proposed change. The other six treatment systems operated by the Discharger and covered by the permit do not have their effluent limitations modified by this Order.

6. 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.

7. Under Water Code section 13389, this action to amend an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100-21177.

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

9. This Order shall amend WDR Order No. R5-2007-0165, NPDES No. CA0083861, pursuant to Section 402 of the CWA (33 U.S.C. section 1342), and amendments thereto, and shall take effect upon the date of hearing, provided EPA has no objections.

IT IS HEREBY ORDERED that Order No. R5-2007-0165 is amended solely to change the GET E/F effluent limitations for trichloroethylene. The Aerojet-General Corporation, its agents, successors and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with Amended Order No. R5-2007-0165.

1. Modify the Table on Page 11 of the Waste Discharge Requirements, in Section IV.A.1.b, Effluent Limitations for Discharge Point 002, as described below:

Parameter	Units	Effluent Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow – Discharge 002	mgd	8.64	8.64	--	--
Volatile Organic Contaminants[1]	□g/L	0.5	0.7	--	--
	lbs/day	0.037	0.050	--	--
Trichloroethylene	□g/L	--	1.5, 3.0[2]	--	--
	lbs/day	--	0.11, 0.22[2]	--	--
1,2-Dichloroethane	□g/L	0.38	0.5	--	--
	lbs/day	0.028	0.036	--	--
1,4-Dioxane	µg/L	3	6	--	--
	lbs/day	0.23	0.43	--	--
N-nitrosodimethylamine	µg/L	0.002	0.010	--	--
	lbs/day	0.00015	0.00072	--	--
Perchlorate	µg/L	4	6	--	--
	lbs/day	0.300	0.43	--	--
Total Copper	µg/L	11	17	--	--
	lbs/day	0.82	1.22	--	--
Acetaldehyde	µg/L	5	5	--	--
	lbs/day	0.38	0.36	--	--
Formaldehyde	µg/L	50	50	--	--
	lbs/day	3.7	3.6		
pH	standard units	--	--	6.5	8.5

[1] All volatile organic constituents listed in EPA Methods 8010/8020 or 8260. The concentration of each constituent shall not exceed 0.5 µg/L, except for Trichloroethylene and 1,2-Dichloroethane, which have specific effluent limitations.

[2] The daily maximum value is 1.5 µg/L except during times when the Discharger is making operational changes to correct effluent exceedences from GET E/F. During those times, the daily maximum effluent limitation is 3.0 µg/L when approved by the Executive Officer.

I, Pamela C. Creedon, Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 5 February 2009.

Original Signed by:_____
PAMELA C. CREEDON, Executive Officer