

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2003-0004 AMENDMENT NO. 1

REQUIRING UNIVERSITY OF CALIFORNIA, DAVIS CAMPUS
MAIN WASTEWATER TREATMENT PLANT
TO CEASE AND DESIST
FROM DISCHARGING CONTRARY TO REQUIREMENTS

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

1. On 30 January 2003, the Regional Board adopted Waste Discharge Requirements (WDR) Order No. R5-2003-003, for the University of California, Davis Campus, (Discharger) Main Wastewater Treatment Plant. WDR Order No. R5-2003-003 regulates the discharge of approximately 1.525 million gallons per day (mgd) of treated domestic wastewater to the South Fork Putah Creek
2. WDR Order No. R5-2003-003 contains Effluent Limitations B.1, for cyanide, copper, nitrate + nitrite, iron and electrical conductivity which read in part as follows:

Effluent discharged to South Fork Putah Creek shall not exceed the following limits:

<u>Constituents</u>	<u>Units</u>	<u>Average Monthly</u>	<u>Average 4-Day</u>	<u>Average Maximum</u>	<u>Average 1-Hour</u>
Cyanide	µg/l		5.2	---	22
Copper	µg/l		Attachment D		
Nitrate + Nitrite (as N)	mg/l	10	--	--	--
Iron	µg/l	300	--	--	--
Electrical Conductivity	µmhos/cm	900		2,200	

3. The current plant design and operation may result in incomplete denitrification of wastewater and increase effluent nitrate concentrations. Failure to denitrify the wastewater would result in concentrations of nitrate plus nitrite that exceed Effluent Limitations. Nitrate concentrations have been detected in the effluent up to 42 mg/l. Based on review of results of past monitoring, the Discharger threatens to violate its effluent limitation for nitrate.
4. Cyanide was detected in an effluent sample collected 10 June 2002 at a concentration of 19 µg/l. Additionally, the analytical results in 6 March 2002 for South Putah Creek detected cyanide at 6.7 µg/l. Effluent limits for cyanide were adopted in Order No. 97-236 adopted in October 1997. Based on review of results of past monitoring, the Discharger has violated its effluent limitations for cyanide.

5. Copper was detected in an effluent sample collected 10 June 20002 at a concentration of 29.3 µg/l. Effluent limits were adopted in Order No. 97-236 in October 1997. Based on review of results of past monitoring, the Discharger has violated its effluent limitations for copper.
6. Iron was detected in an effluent sample collected 10 June 20002 at a concentration of 445 µg/l. Additionally, the analytical results in 6 March 2002 for South Putah Creek detected iron at 988 µg/l. Based on review of results of past monitoring, the Discharger threatens to violate its effluent limitations for iron.
7. The wastewater treatment plant electrical conductivity annual average is 1050 mmhos/cm. Based on review of results of past monitoring, the Discharger threatens to violate the Waste Discharge Requirement for electrical conductivity.
8. In order to consistently comply with the nitrate plus nitrite Effluent Limitations, nitrification and denitrification of the wastewater are necessary.
9. In accordance with California Water Code (CWC) Section 13385(j)(3), the Regional Board finds that, based upon operational capabilities, the Discharger may not be able to consistently comply with nitrate plus nitrite, iron and electrical conductivity effluent limitations. The nitrate + nitrite, iron and electrical conductivity limitations are new requirements that become applicable to the permit after the effective date of adoption of the waste discharge requirements, and after 1 July 2000, for which new or modified control measures are necessary in order to comply with the limitation, and the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.

Since the time schedules for completion of actions necessary to achieve full compliance exceed one year, dates for achievement are included in this Order. This time schedule does not exceed five years. Source control and treatment actions can be taken to correct the violations that would otherwise be subject to mandatory penalties under California Water Code section 13385(h) and (i), and the Discharger can take reasonable measures to achieve compliance within five (5) years from the date the waste discharge requirements were required to be reviewed pursuant to Section 13380.

California Water Code 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. A pollution prevention plan addresses only those constituents that can be effectively reduced by source control measures. Nitrate plus nitrite cannot be significantly reduced through source control measures in domestic wastewater, but iron and electrical conductivity may be reduced through source control measures. Therefore, this Order requires a pollution prevention plan for electrical conductivity and iron.

Compliance with this Order exempts the Discharger from mandatory minimum penalties for violations of effluent nitrate plus nitrite, iron and electrical conductivity limitations only, in accordance with California Water Code Section 13385(j)(3).

Compliance with this Order does not exempt the Discharger from mandatory minimum penalties for violations of effluent copper and cyanide limitations. Copper and cyanide limitations were adopted in Order No. 97-236 in October 1997. The Discharger had until 30 November 2000 to meet copper and cyanide limitations. Both copper and cyanide limits have been exceeded after November 2000.

10. On 30 January 2003, in Sacramento, California, after due notice to the Discharger and all other affected persons, the Regional Board conducted a public hearing at which evidence was received to consider a Cease and Desist Order to establish a time schedule to achieve compliance with waste discharge requirements.
11. Issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, *et seq.*), in accordance with Section 15321 (a)(2), Title 14, California Code of Regulations.
12. Any person adversely affected by this action of the Regional Board may petition the State Water Resources Control Board (State Board) to review the action. The petition must be received by the State Board Office of the Chief Counsel, P.O. Box 100, Sacramento, CA, 95812-0100, within 30 days of the date on which the action was taken. Copies of the law and regulations applicable to filing petitions will be provided on request.

IT IS HEREBY ORDERED that Cease and Desist Order No. 97-237 is rescinded and:

1. The University of California, Davis Campus shall cease and desist from discharging and threatening to discharge contrary to Waste Discharge Requirements Order No. R5-2003-0003, Effluent Limitations for copper, cyanide, nitrate plus nitrite, iron and electrical conductivity.
2. The University of California, Davis Campus shall comply with the following time schedule to assure compliance with nitrate plus nitrite, iron and electrical conductivity. Effluent Limitations contained in Waste Discharge Requirements Order No. R5-2003-0003 as described in the above Findings:

Task

Progress Reports¹
Pollution Prevention Plan
Achieve Full Compliance

Compliance Date

30 April and 31 October of each
30 September 2004
30 December 2007

3. The University of California, Davis Campus shall comply with the following time schedule to assure compliance with copper and cyanide Effluent Limitations contained in Waste Discharge

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UNIVERSITY OF CALIFORNIA, DAVIS CAMPUS
MAIN WASTEWATER TREATMENT PLANT
SOLANO AND YOLO COUNTY

Requirements Order No. R5-2003-003 as described in the above Findings:

<u>Task</u>	<u>Compliance Date</u>
Progress Reports ¹	30 April and 31 October of each
Achieve Full Compliance	30 January 2005

¹ The progress reports shall detail what steps have been implemented towards achieving compliance with waste discharge requirements, including construction progress, evaluate the effectiveness of the implemented measures and assess whether additional measures are necessary to meet the time schedule.

4. Until full compliance with Waste Discharge Requirements Order No. R5-2003-003, Effluent Limitations B.1 is achieved, the Discharger shall operate the treatment plant in a nitrification/denitrification mode to the maximum extent practicable.
5. If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may apply to the Attorney General for judicial enforcement or issue a complaint for Administrative Civil Liability.

I, Thomas R. Pinkos, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 18 March 2004.

Thomas R. Pinkos, Executive Officer