

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION**

CEASE AND DESIST ORDER NO. R7-2009-0049

ISSUED TO

IMPERIAL IRRIGATION DISTRICT, OWNER/OPERATOR

EL CENTRO GENERATING STATION

El Centro – Imperial County

The California Regional Water Quality Control Board, Colorado River Basin Region, (hereinafter referred to as the Regional Board) finds that:

1. Imperial Irrigation District (hereinafter, Discharger), P.O. Box 937, Imperial, California 92251, owns the El Centro Generating Station, which is a gas and oil-fired power plant located at 485 E. Villa Avenue, El Centro, CA 92243. The plant has a total output of 240 Megawatts (MW) and consists of two (2) steam units and one (1) combined cycle unit. The steam units are rated at 77 MW and 46 MW, and the combined cycle unit is rated at 117 MW (85 MW gas turbine and 32 MW steam turbine). All units are cooled using water circulated through unit specific cooling towers.
2. The Generating Station (hereafter referred to as Station) provides treatment and chlorination and dechlorination process units. Cooling tower supply water is treated with corrosion inhibitors, deposit control agents, microbial control agents and a coagulant and flocculent. In addition chlorination is used as an oxidizing biocide and sulfuric acid is added for pH control to protect cooling tower equipment. The effluent from the Station's cooling system is dechlorinated using a bisulfite based solution prior to discharge into receiving waters. The Discharger adds the following chemicals to the cooling tower water:

<u>Name of Chemicals</u>	<u>Purpose</u>
NALCO 3DT195 Sodium Bisulfate Sodium Formaldehyde Bisulfite	Cooling Water Dispersant
NALCO 1336 Sodium Tolyltriazole	Corrosion Inhibitor
NALCO 3DT185 Tetrapotassium Pyrophosphate	Water Stabilization
NALCO 7320 Dibromoacetonitrile 2,2-Dibromo-3-nitrilopropionamide Polyethylene Glycol	Microorganism Control Chemical
CATFLOC 8103 Phosphate based anionic polymer	Coagulant and Flocculent
NALCO 7408 Sodium Bisulfite	Bisulfite Based Dechlorinating Agent

SULFURIC ACID  
SODIUM HYPOCHLORITE

pH Control  
Oxidizing Biocide

3. The Station has a potential to discharge a maximum of 1.04 million gallons per day (MGD) of industrial cooling water to Central Drain No. 5, which flows into the Alamo River, which flows to the Salton Sea. The Central Drain No. 5, the Alamo River and the Salton Sea are waters of the United States.
4. The designated beneficial uses of waters in the Imperial Valley Drains are:
  - a. Fresh Water Replenishment of Salton Sea (FRSH)
  - b. Industrial Service Supply (IND)<sup>1</sup>
  - c. Water Contact Recreation (REC I)<sup>2</sup>
  - d. Non-Contact Water Recreation (REC II)
  - e. Warm Water Habitat (WARM)
  - f. Wildlife Habitat (WILD)
  - g. Preservation of Rare, Threatened, or Endangered Species (RARE)<sup>3</sup>
5. On July 1, 2004, the Regional Board adopted Waste Discharge Requirements (WDRs) Order No. R7-2004-0086 (NPDES Permit No. CA0104248).. WDRs Order No. R7-2004-0086 specifies effluent limitations, prohibitions, specifications, and provisions necessary to protect the beneficial uses of the surface and ground waters within the Colorado River Basin Region. WDRs Order No. R7-2004-0086 became effective on July 1, 2004 and will expire on July 1, 2009. The effluent limitations below were calculated and based on monitoring results and by using the California Toxics Rule.

Effluent Limitation A.8 of WDRs Order No. R7-2004-0086 establishes interim and final effluent limitations for free cyanide, copper and selenium as follows:

Constituent	Units	Date Effluent Limit Becomes Effective	Average Monthly Effluent Limit	Maximum Daily Effluent Limit
Free Cyanide (Interim)	µg/L	July 1, 2004	10.0	10.0
Free Cyanide (Final)	µg/L	July 1, 2009	0.5	1.0
Copper (Interim)	µg/L	July 1, 2004	200.0	200.0
Copper (Final)	µg/L	July 1, 2009	2.39	4.8
Selenium (Interim)	µg/L	July 1, 2004	66.0	66.0
Selenium (Final)	µg/L	July 1, 2009	4.09	8.22

<sup>1</sup> Potential use

<sup>2</sup> Although some fishing occurs in the downstream reaches, the presently contaminated water in the river makes it unfit for any recreational use. An advisory has been issued by the Imperial County Health Department warning against the consumption of any fish caught from the river and the river has been posted with advisories against any body contact with the water.

<sup>3</sup> Rare, endangered, or threatened wildlife exists in or utilizes some of these waterway(s). If the RARE beneficial use may be affected by a water quality control decision, responsibility for substantiation of the existence of rare, endangered, or threatened species on a case-by-case basis upon the California Department of Fish and Game on its own initiative and/or at the request of the Regional Board; and such substantiation must be provided within a reasonable time frame as approved by the Regional Board.

6. Provision E.20 of Board Order R7-2004-0086 states that:

“The Discharger shall submit data sufficient to determine if a water quality-based effluent limitation is required in the discharge permit as required under the California Toxic Policy. It is the Discharger’s responsibility to provide all information requested by the Regional Board for use in the analysis. The permit shall be reopened to establish water quality-based effluent limitations, if necessary.”

7. On March 29, 2004, the Regional Board received a letter from the Discharger dated March 22, 2004, providing an infeasibility report. The report indicated that it was infeasible for the Discharger to comply immediately with the effluent limitations for nickel, cyanide, copper, selenium and zinc pursuant to the implementation of the California Toxic Rule (CTR). Therefore, the Discharger requested a proposed five-year compliance schedule with milestone requirements and completion dates.

8. Based in part on the Discharger’s March 2004 letter, WDRs Order No. R7-2004-0086 provided the following time schedule under Specifications, Section D.14:

“The Discharger shall take specific actions as indicated in the following table to achieve compliance with the new effluent limits pursuant to the implementation of the CTR and provide an annual report to summarize each milestone and accomplishments.

<b>Milestone</b>	<b>Completion Date</b>	<b>Milestone Description</b>
1	July 1, 2005	<ul style="list-style-type: none"> <li>• Continue source stream pollutant monitoring</li> <li>• Obtain funding for environmental consultant</li> </ul>
2	July 1, 2006	<ul style="list-style-type: none"> <li>• Evaluate testing results and select control strategy</li> <li>• Obtain funding for control project implementation</li> </ul>
3	July 1, 2007	<ul style="list-style-type: none"> <li>• Prepare major work authorization and begin construction of control project</li> <li>• Submit report detailing facilities design rate adjustment and funding</li> </ul>
4	July 1, 2008	<ul style="list-style-type: none"> <li>• Complete design and begin construction</li> <li>• Complete construction and start operation and testing of control project</li> </ul>
5	July 1, 2009	<ul style="list-style-type: none"> <li>• Facility to operate in compliance with CTR</li> <li>• Submit report and verification compliance with CTR</li> </ul>

9. Notwithstanding the above-referenced time schedule for compliance, on March 16, 2009, Regional Board received a letter dated March 12, 2009 from the Discharger that indicates that the Discharger has conducted pilot studies to evaluate treatment technologies to reduce the levels of constituents of concern in the Station’s effluent, but it has not identified a treatment technology that will result in an effluent that will meet the CTR discharge limitations. Therefore, in its March 2009 letter, the Discharger requests the issuance of a Cease and Desist Order (CDO) from the Regional Board to provide time for IID to comply with its NPDES permit for Station or evaluate and implement alternative methods of treatment and disposal, treating the wastewater from the Station using reverse osmosis, with discharge of concentrated reject water to an evaporation pond; and evaluating the use of deep injection disposal of the wastes as an alternative disposal technology.

10. Based on the information provided in the letter dated March 12, 2009 and their monthly Self-Monitoring Reports (SMRs), the Discharger threatens violation of the final effluent limits for free cyanide, copper, and selenium in Board Order No. R7-2004-0086.

11. Section 13301 of the CWC states in relevant parts:

“When a regional board finds that a discharge of waste is taking place, or threatening to take place, in violation of requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action.”

“In the event of an existing or threatened violation of waste discharge requirements in the operation of a community sewer system, cease and desist orders may restrict or prohibit the volume, type, or concentration of waste that might be added to that system by dischargers who did not discharge into the system prior to the issuance of the cease and desist order.”

12. CWC Section 13385(h) and (i) require the Regional Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. CWC Section 13385(j) exempts certain violations from the mandatory minimum penalties. CWC Section 13385(j)(3) exempts the discharge from mandatory minimum penalties “where the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300, if all the [specified] requirements are met.”
13. Compliance with this Order exempts the Discharger from mandatory penalties for violations of effluent limitations in accordance with CWC Section 13385(j)(3) from the date of this Order’s adoption by the Regional Board.
14. Specifically, pursuant to CWC Section 13385(j)(3)(B)(i), mandatory minimum penalties under CWC Section 13385 (h) and (i) shall not apply if the Discharger is not able to consistently comply with the effluent limitations for free cyanide, copper and selenium established in the waste discharge requirements applicable to the waste discharge.
  - a. These effluent limitations are new;
    - i. The effluent limitations for free cyanide, copper and selenium were new parameters established in WDRs Order R7-2004-0086 as required by the California Toxics Rule, which rescinded WDRs Order No. 99-016. WDRs Order No. 99-016 did not contain effluent limitations for free cyanide, copper, and selenium.
  - b. These effluent limitations have become effective after the effective date of the waste discharge requirements and after July 1, 2000;
  - c. New or modified control measures are 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.
  - d. The new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.

15. 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 (CWC). Therefore, a pollution prevention plan will be necessary for free cyanide, copper, and selenium in order to effectively reduce the effluent concentrations by source control measures.
16. CWC Section 13263.3(d)(1) states in relevant part:
 

“The state board, a regional board, or a POTW may require a discharger subject to its jurisdiction to complete and implement a pollution prevention plan if any of the following apply:

  - (D) The discharger is subject to a cease and desist order issued pursuant to Section 13301...”
17. Issuance of this Cease and Desist Order to enforce CWC Division 7, Chapter 5.5 is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.), in accordance with Section 15321 (“Enforcement Actions by Regulatory Agencies”), Title 14, California Code of Regulations (CCRs).
18. Any person aggrieved by this action of the Regional Board may petition the State Water Resources Control Board to review the action in accordance with CWC Section 13320 and CCRs, Title 23, Section 2050 and following. The State Board must receive the petition no later than 5:00 p.m., thirty (30) days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: [http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality). Copies will also be provided upon request.

IT IS HEREBY ORDERED, that in order to meet the provisions contained in Division 7 of the CWC and regulations adopted there under, the Discharger shall comply with the following:

1. The Discharger is required to prepare and implement a Pollution Prevention Plan pursuant to Section 13263.3 of the CWC. The Discharger must address the issues specified in Section 13263.3(d)(3) and shall take specific actions as indicated in the following time schedule to achieve compliance with all requirements of Board Order No. R7-2004-0086:

<b>Milestone</b>	<b>Milestone Description</b>	<b>Milestone Submittal</b>	<b>Completion Date</b>
1	Complete Pollution Prevention Plan	Submit a Copy of the Pollution Prevention Plan to the Regional Board	December 31, 2009
2	Prepare Preliminary Design of the Reverse Osmosis/Evaporation Pond System	Submit a Copy of Design Drawings to the Regional Board	June 30, 2010
3	Complete Final Design of the Reverse Osmosis/Evaporation Pond System	Submit a Copy of Final Design Drawings to the Regional Board	December 31, 2010
4	Complete Construction of the Reverse Osmosis/Evaporation Pond System	Submit Summary and Verification of Construction Completion	December 31, 2011

2. Wastewater to Central Drain No. 5 shall not exceed the interim effluent limit for free cyanide, copper and selenium. The interim effluent limit is based on plant performance data, reference data from representative wastewater treatment facilities, and Best Professional Judgment (BPJ):

<u>Constituent</u>	<u>Unit</u>	<u>Date Interim Effluent Limit Becomes Effective</u>	<u>Maximum Daily Effluent Limit</u>	<u>Average Monthly Effluent Limit</u>
Free Cyanide, Total Recoverable	µg/L	May 21, 2009	10.0	10.0
	lbs/day	May 21, 2009	0.087	0.087
Copper, Total Recoverable	µg/L	May 21, 2009	200.0	200.0
	lbs/day	May 21, 2009	1.73	1.73
Selenium, Total Recoverable	µg/L	May 21, 2009	66.0	66.0
	lbs/day	May 21, 2009	0.572	0.572

3. The Discharger shall submit quarterly reports, due by the 15<sup>th</sup> of January, April, July, and October of each year, on the status of the preparation and implementation of the Pollution Prevention Plan and associated Milestones listed in the Table above.
4. As an alternative option to achieve compliance with all requirements of Board Order No. R7-2004-0086, the Discharger shall submit a report in the form of an engineering report describing alternative methods of treatment and disposal, other than the proposed reverse osmosis treatment and evaporation ponds for disposal, to phase out the discharge to waters of the United States. The report shall be submitted to the Regional Board by December 31, 2009. In addition to the requirements stated in Section 13263.3(d)(3), the report shall also include:
  - a) A description of potential alternative methods of treatment and disposal,
  - b) A description of the environmental benefits of the chosen alternative method of treatment and disposal compared to the WWTPs current method,
  - c) A description of the plan to implement the chosen alternative method of treatment and disposal, and
  - d) A time schedule setting deadlines or milestones for each phase of implementation of the chosen alternative method of treatment and disposal to phase out the discharge to surface waters of the United States by November 30, 2011.
5. After the engineering report is submitted to the Regional Board by December 31, 2009, the Discharger shall submit quarterly reports, due by the 15<sup>th</sup> of January, April, July, and October of each year, on the status and progress of the preparation and implementation of the chosen alternative of treatment and disposal described above in paragraph 4(c).
6. Plans and schedules are subject to the prior approval of the Executive Officer. Failure to comply with the terms of this Order may result in administrative civil liability of up to \$10,000 per day for each violation pursuant to Sections 13263.3(g), 13385(c)(1), and/or 13308 of the CWC.

7. In accordance with California Business and Professions Code Sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of California registered professionals (i.e., civil engineer, engineering geologist, geologist, etc.) competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall contain a statement of qualifications of the responsible licensed professional(s) as well as the professional's signature and/or stamp of the seal.
8. In addition, if in the opinion of the Regional Board's Executive Officer, the Discharger fails to comply with this Order, the Executive Officer may issue a complaint against the Discharger under Article 2.5, Chapter 5, Division 7 of the CWC, and seek the appropriate administrative civil liability and/or request the Attorney General to take appropriate action against the Discharger, including injunctive relief and civil monetary liability as deemed appropriate.

I, Robert Perdue, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the Regional Water Quality Control Board, Colorado River Basin Region, on May 21, 2009.

  
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ROBERT PERDUE  
Executive Officer