

## Central Valley Regional Water Quality Control Board

26 February 2015

Terry Bettencourt  
Correctional Plant Manager II  
Deuel Vocational Institution  
P.O. Box 400  
Tracy, CA. 95378-0400

### **COMPLIANCE EVALUATION INSPECTION, CALIFORNIA DEPARTMENT OF CORRECTIONS, DEUEL VOCATIONAL INSTITUTION, SAN JOAQUIN COUNTY**

The discharge of wastewater by the California Department of Corrections (Discharger) from the Deuel Vocational Institution (Facility) is regulated by Waste Discharge Requirements (WDRs) Order R5-2014-0014 (NPDES CA0078093). On 18 February 2015, Central Valley Water Board staff conducted an inspection of the Facility to evaluate compliance with the WDRs. Board staff found the following violation and areas of concern for the inspection.

#### **Violation**

During the inspection, Board staff observed one bottle of chemical standard reagent for total chlorine residual was expired in 2014. According to Standard Provision I.D, “the Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures.” Board staff recommends implementing a system to track the expiration dates of reagents to avoid similar occurrences in the future.

#### **Areas of Concern**

1. Board staff is concerned that the Facility may lack adequate staffing to properly operate and maintain the Facility. According to Chapter 26 of division 3 of title 23 of the California Code of Regulations:

*.... a chief plant operator shall appoint a certified operator to be the designated operator-in-charge for any period of time during which the chief plant operator is unable to carry out the responsibilities of the position of “chief plant operator” as defined in section 3671.*

During the inspection, Board staff noted that the Facility has only two full time operators and one part time operator. The part time operator only helps when the reverse osmosis plant is not in operation. Therefore, there may be times when there isn't another

certified operator for the chief plant operator to designate in his absence. Moreover, the Discharger may need more staff to better respond to maintenance needs of the Facility.

2. During the Facility walk-through, Board staff noted general housekeeping issues in and around the Facility's grounds. Specifically, it was found that the Discharger uses the site for general storage of old and unused equipment, vehicles, metal debris, and dumpster bins. Pooled water from a recent broken pipeline was also observed during the inspection. Please develop and implement appropriate actions to correct this issue.
3. During the inspection, Board staff noted that the membrane bioreactor (MBR) was manually operating. According to the Discharger, the MBR modules have been damaged and it has lost efficiency, therefore, it is being operated manually.
4. The Discharger has not developed standard operating procedures (SOPs). The SOPs are necessary for proper operation and maintenance of the Facility to ensure consistency among operation and maintenance staff. In addition, SOPs will assist the Discharger in training new operators, which is critical in assuring the Facility is properly operated and maintained.

By **13 March 2015**, please provide a response indicating the actions that have been implemented, or will be implemented, to address the violation and areas of concern cited above and to prevent future similar events.

If you have any questions, please contact Mohammad Farhad at (916) 464-1181 or [mfarhad@waterboards.ca.gov](mailto:mfarhad@waterboards.ca.gov).



KARI HOLMES, P.E  
Senior Water Resource Control Engineer  
NPDES Compliance and Enforcement Unit

Enclosures: Compliance Evaluation Inspection Report  
Compliance Evaluation Inspection Photo Log

cc: Ken Greenberg, US Environmental Protection Agency, Region 9, San Francisco, CA  
Jamey Watt, US Environmental Protection Agency, Region 9, San Francisco, CA  
Daniel Mullins, Chief Plan Operator, Deuel Vocational Institution, Tracy, CA



**CALIFORNIA STATE WATER RESOURCES CONTROL BOARD  
NPDES COMPLIANCE EVALUATION INSPECTION (CEI) REPORT**

**Central Valley Regional Water Quality Control Board**



Name and Location of Facility Inspected	Entry Date	Permit Effective Date	Permit Expiration Date
California Department of Corrections and Rehabilitation Deuel Vocational Institution 23500 Kasson Rd. Tracy, CA 95376	2/18/2015	29 March 2014	1 March 2019
	9:40	Notified of Inspection? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Correct Mailing Address? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		If no, state rationale:	
NPDES Permit Number: R5-2014-0014 Order Number: CA0078093 Type of Facility: Wastewater Treatment Plant Receiving Water Name: Deuel Drain County: San Joaquin Current Plant Classification: III	Name of the individual who provided consent: Name: Daniel Mullins Title: Chief Plant Operator Phone: (209)835-4141 ext. 5891 Address: Same as Facility address		
<b>Names and Titles of On-Site Representatives</b>			
<u>Name</u>	<u>Title</u>	<u>Phone</u>	<u>Email</u>
Terry Bettencourt	Correctional Plant Manager	(209)830-3932	<a href="mailto:miles.bettencourt@cdcr.ca.gov">miles.bettencourt@cdcr.ca.gov</a>
<b>Name and Title of Responsible Official</b>			
<u>Name</u>	<u>Title</u>	<u>Phone</u>	<u>Email</u>
Daniel Mullins	Chief Plant Operator	(209)835-4141 x5891	<a href="mailto:daniel.mullins@cdcr.ca.gov">daniel.mullins@cdcr.ca.gov</a>
Does grade level comply with plant classification?			Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Inspector Information</b>			
<u>Name</u>	<u>Title</u>	<u>Phone</u>	<u>Email</u>
Mohammad Farhad	WRCE	916-464-1181	<a href="mailto:mfarhad@waterboards.ca.gov">mfarhad@waterboards.ca.gov</a>
Kari Holmes	Senior WRCE	916-464-4623	<a href="mailto:kari.holmes@waterboards.ca.gov">kari.holmes@waterboards.ca.gov</a>
<b>Weather and site conditions present during time of inspection:</b> Partially cloudy			



**Site Walk Inspection (continued)**

Treatment Processes in use at the Facility	Described by Permit		Present on site		Observed Operating		Well Maintained		
	Yes	No	Yes	No	Yes	No	Yes	No	
<b>Filtration</b>									
Membrane Bioreactor (MBR)	No.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cleaning Frequency	1/Quarter	<b>Required By O&amp;M/SOP:</b>		1/Quarter					
<b>Disinfection</b>									
UV		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Channels	No.3	#Banks	2	#Lamps/Bank	24				
Cleaning Frequency	1/Quarter	<b>Required By O&amp;M/SOP:</b>		1/Quarter					
<b>Effluent flow measurement</b>									
Magnetic Flow Meter		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Composite Sampler: Internal temperature				2.4°C					
<b>Biosolids</b>									
<b>Digestion</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>								
Digester/ Surge Basin <sup>1</sup>	No. 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Dewatering</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>								
Belt Press	No. 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Other processes:</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>								
Cooling Tower	No. 3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Groundwater monitoring program</b>			Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>					

**Notes:**

1. Part of Activated Sludge Process (Aeration Tanks). The Discharger has the ability to use the sludge tank as a digester or surge basin.

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**SITE WALK INSPECTION (continued)**

Chemical on site	MS/DS		Secondary Containment	
	Yes	NO	Yes	NO
1. Polymer	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Chlorine	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Citric acid	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Operations and Maintenance**

Maintenance program appears to be in place and being followed Yes  No

**Emergency Operations**

Is auxiliary power available? Yes  No

Are there alarm systems for power and equipment failure? Yes  No

Are treatment controls procedures establish for emergencies? Yes  No

**Miscellaneous**

Does the facility appear well operated and maintained? Yes  No

Do biosolids facilities include leachate and runoff control? Yes  No

Is public access restricted from the facility? Yes  No

**Notes:**



## RECORDS AND REPORTS

	Yes	No	N/A
Current NPDES permit available on-site	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Permit modification/amendments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compliance orders	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Influent flow meter calibration available on-site	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Date of last calibration</b> <u>6/27/2014</u>			
<b>Calibration performed by</b> <u>Alpine Controls Company</u>			
Effluent flow meter calibration available on-site	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Date of last calibration</b> <u>6/27/2014</u>			
<b>Calibration performed by</b> <u>Alpine Controls Company</u>			
Salinity Evaluation and Minimization Plan (VI.C.3.c.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PPP for Mercury	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Phase I Methylmercury Control Study Workplan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Standard Operating Procedure (SOP)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Daily Operations Log Book	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance records	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Number of open work orders:</b> _____			
<b>Oldest date of open work order:</b> _____			
Operation and maintenance manual	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the Facility staffing requirement described in the O&M manual?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the Facility staffed in accordance with the O&M manual?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Operation and maintenance (O & M) manual Last updated <b>Date</b> <u>2010</u>			
Plant spill and bypass records	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Biosolids disposal plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operation log books	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How are records maintained?      Electronic <input type="checkbox"/> Pen <input checked="" type="checkbox"/> Pencil <input type="checkbox"/>			
Are all records and reports required by the permit are organized and available?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Auxiliary Power check log records	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Board permit number: <u>N-1092752</u>			
Does on-site laboratory have an approved QA/QC Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is on-site laboratory ELAP certified?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Certification number : <u>N/A</u>			
Expiration date: <u>N/A</u>			
Facility Class: <u>III</u>			
Number of operators: <u>Two full-time and one Part-time<sup>1</sup></u>			
Chief plant operator : <u>Daniel Mullins</u> Grade <u>III</u>			

**Notes:**

1. One of the reverse osmosis plant (RO) operator helps at the Facility operators when RO plant is not online.





**Figure 1:** Automatically cleaned bar screens located at the headworks appeared to be in good working condition.



**Figure 2:** The Facility has one grit remover which appeared to be in good working condition.



**Figure 3:** The grit vortex control appeared to be in good working condition.



**Figure 4:** Aeration basins (two in use, one being used for aerobic digestion)



**Figure 5:** Another view of aeration basin.



**Figure 6:** Three channels of enclosed UV disinfection system



**Figure 7:** One of the three effluent cooling towers.



**Figure 8:** Belt thickener on standby.



**Figure 9:** 1000 KW auxiliary generator.



**Figure 10:** Downstream receiving water monitoring location.



**Figure 11:** The influent composite sampler was in operation during inspection, with an internal temperature of 2.8° C.



**Figure 12:** Effluent composite sampler.



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WORLDWIDE MEDIA  
© 2000

Infilco  
Climber Scraper  
Mechanically Cleaned  
Rotterdam, NY  
10001-1000

**WARNING**  
This equipment is designed for use only as a scraper. It is not to be used for any other purpose. Failure to follow these instructions may result in injury or death.

**NOTICE**

**NOTICE**





CONTROL SUPPLIED IN LUFT

4



















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MEMBRANE

MEMBRANE EFFLUENT

17



SAMPLER  
09-ASP-100

SAMPLER  
09-ASP-100





**DANGER**  
EQUIPMENT  
STARTS  
AUTOMATICALLY

**DANGER**  
EQUIPMENT  
STARTS  
AUTOMATICALLY





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**DANGER**  
STAND CLEAR WHEN  
TAGS ARE OPENED

**CAUTION**  
DO NOT RE-ENTER  
UNLESS ADVISED

**CAUTION**

STAND CLEAR WHEN  
TAILGATE IS OPENED.

**PRECAUCIÓN**

**DANGER**

STAND CLEAR WHEN  
TAILGATE IS OPENED.

**PELIGRO**

NO OBSTRUIR LA VENTANA  
CUANDO ESTE ABIERTA

USAGE INSTRUCTIONS    INSTRUCCIONES DEL USO

**CAUTION**

STAND CLEAR WHEN  
TAILGATE IS OPENED.

**PRECAUCIÓN**

**CAUTION**

STAND CLEAR WHEN  
TAILGATE IS OPENED.

**PRECAUCIÓN**

**WARNING**

**ADVERTENCIA**

**CAUTION**

**PRECAUCIÓN**





**DANGER**  
EQUIPMENT  
STARTS  
AUTOMATICALLY

Ashbrook  
Hartley

**DANGER**  
EQUIPMENT  
STARTS  
AUTOMATICALLY











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SAMPLER  
C2-ASP-100

## **Farhad, Mohammad@Waterboards**

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**From:** Daniel Mullins <daniel.mullins@cdcr.ca.gov>  
**Sent:** Friday, March 13, 2015 2:31 PM  
**To:** CentralValleySacramento  
**Cc:** Farhad, Mohammad@Waterboards; Holmes, Kari@Waterboards; Bettencourt, Miles (Terry)@CDCR  
**Subject:** Compliance Evaluation Inspection Response  
**Attachments:** Compliance Evaluation Inspection Response 3-15.pdf

Attached is the Compliance Evaluation Inspection Response

NPDES #CA0078093  
Facility ID 5B390100001

Daniel G Mullins  
Water & Wastewater Treatment Plant Supervisor  
Deuel Vocational Institution  
23500 kasson Rd Tracy CA 95376  
Office-(209) 835-4141 x5897  
Fax-(209) 830-3941

**DIVISION OF ADULT INSTITUTIONS**

P.O. Box 942883  
Sacramento, CA 94283-0001



March 13, 2015

Kari Holmes  
Senior Water Resource Control Engineer  
NPDES Compliance and Enforcement Section

**COMPLIANCE EVALUATION INSPECTION**

As requested in the compliance evaluation inspection dated February 26, 2015 Deuel Vocational Institution (DVI) is providing a response indicating the actions that have been implemented, or will be implemented to address the violation and areas of concern.

Wastewater Treatment staff have processed a purchase request to buy new chemical standard reagent for total chlorine residual that expired on January 12, 2015. The vendor has received a purchase order, we are waiting arrival. The Chief Plant Operator is developing a spreadsheet/log to note the expiration dates for all chemicals used in the laboratory.

DVI held interviews on March 11, 2015 for Water and Sewage Plant Supervisor. Reference checks are being conducted and will be making a job offer within the next two weeks. DVI is currently advertising for Water and Sewage Plant Supervisor until filled.

A corrective action Plan is being developed to address all housekeeping issues noted. DVI's plumbers have isolated the water leak that was observed during the inspection.

DVI's Chief Plant Operator has been in contact with GE to conduct a site visit to discuss all available options regarding the membrane bioreactor. DVI is currently processing clearance forms in order to conduct the site visit.

This week an engineer from Dewberry Engineering conducted site inspection at the Wastewater Treatment Plant. As part of the inspection Standard Operating Procedures were discussed as part of the scope of work.

Should you have any question or require additional information I can be contacted at (209)830-3932.

Handwritten signature of Terry Bettencourt in black ink.

TERRY BETTENCOURT  
Correctional Plant Manager II  
Deuel Vocational Institution