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To: [WB-RB55-CentralValleySacramento](#); [Jain, Vinoo@Waterboards](#)
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Subject: FW: Tentative WDR Comments
Date: Monday, March 13, 2017 4:29:22 PM

ATTENTION: Vinoo Jain, P.E.
Water Resources Control Engineer
Title 27 Permitting and Mining Unit
Central Valley Regional Water Quality Control Board
11020 Sun Center Drive #200
Rancho Cordova, CA 95670-6117

SUBJECT: Tentative Waste Discharge Requirements for California Department of Corrections and Rehabilitation, Deuel Vocational Institution, Class II Surface Impoundments, Construction, Operation, Closure, and Corrective Action, San Joaquin County

Dear Mr. Jain:

The following comments are provided in regards to the tentative revisions (http://www.waterboards.ca.gov/centralvalley/board_decisions/tentative_orders/index.shtml) for the waste discharge requirements (WDRs) for the Deuel Vocational Institution Class II Surface Impoundments:

1. Item number 4 suggests the impoundments contain waste from the reverse osmosis and brine concentration process. The impoundments are designed only to accept waste from the brine concentration process.
2. For item number 6, please indicate the area for P-01 and P-02 is 1.71 acres each. This comment also applies to units P-03 and P-04.
3. The values in column 2, Wastewater Quality, in item number 12 is waste analysis collected from the proposed brine concentrate process replacement. It is not representative of the waste currently from the reverse osmosis or current brine concentrate system. For item number 26, the updated *Geotechnical Investigation – Surface Impoundment Ponds, Deuel Vocational Institution, Tracy, California, September 27, 2016* provide the following observation in regards to groundwater elevations, “Observations during the explorations for this study indicated groundwater depths between about 5 and 10 feet below ground surface (bgs). We note that Fugro (2005) reported groundwater depths as high as about 3.5 feet bgs. Based on these results the mean groundwater depth is about elevation of 5.6 feet bgs, with a standard deviation of 2.6 feet.”
4. For item number 32, a monitoring well installation plan for two additional wells for impoundments P-03 and P-04 are proposed as shown on Attachment D. The work plan will be submitted based on dates suggested in Comment 16 below.
5. For item number 33, a pan lysimeter under the LCRS sumps for each new impoundment is proposed.
6. For item number 40, the geonet drainage layer is 300 mil versus 200 mil.
7. Item number 41 states the LCRS is designed with the capacity for at least twice the

maximum anticipated daily volume of leachate. Is this maximum daily volume defined as the action leakage rate?

8. For item number 50, it is unclear if 3,000 gpad is proposed for the entire site or for each individual surface impoundment.
9. Please update item number 50.e certifying that an ALR of 4,182 gpad would pass through the LCRS as defined in the revised memorandum dated January 30, 2017, *Incomplete Report of Waste Discharge, Deuel Vocational Institution Class II Surface Impoundments, CA Department of Corrections and Rehabilitation, San Joaquin County*, page 4 of the *Calculation of Action Leakage Rate Through the Leakage Collection and Recovery System Underlying a Geomembrane Liner (Rev 2)*.
10. Please update the cost estimate for the corrective action in item number 55 to be \$2.6 million in 2016 dollars as revised in the memorandum dated January 30, 2017, *Incomplete Report of Waste Discharge, Deuel Vocational Institution Class II Surface Impoundments, CA Department of Corrections and Rehabilitation, San Joaquin County*.
11. On page 16, under Part C – Facility Specifications, Class II Surface Impoundments, Item Number 2, it states the Discharger shall maintain at least 2.4 feet of freeboard at all times. In item number 49 this number is 2.36. Please provide a consistent value.
12. On page 18, under Part D – Design and Construction Specifications, Class II Surface Impoundments, Item Number 11.b please update 200-mil geonet drainage layer to 300-mil geonet drainage layer and a minimum transmissivity of 0.011 ft²/sec as defined in the revised memorandum dated January 30, 2017, *Incomplete Report of Waste Discharge, Deuel Vocational Institution Class II Surface Impoundments, CA Department of Corrections and Rehabilitation, San Joaquin County*, page 3 of the *Calculation of Action Leakage Rate Through the Leakage Collection and Recovery System Underlying a Geomembrane Liner (Rev 2)*.
13. On page 19, under Part D – Design and Construction Specifications, Class II Surface Impoundments, Item Number 12 please update the highest anticipated groundwater value based on the final number defined in item number 26 (page 6). We recommend a value of 3 feet bgs based on the updated *Geotechnical Investigation – Surface Impoundment Ponds, Deuel Vocational Institution, Tracy, California, September 27, 2016*.
14. On page 23, under Part H – Provisions, Item Number 11 please clarify that the deed is only necessary upon final closure of the surface impoundment and not necessary for clean closure and then rehabilitation of the current built impoundments.
15. On page 24, under Part H – Provisions, Item Number 13 the compliance date for Groundwater Monitoring Plan (B.1) and Unsaturated Zone Monitoring Plan (C.1) date falls before the public hearing date of June 8/9, 2017. It is recommended these dates be pushed back to July 1, 2017 so as to include any comments brought forth in the public hearing. In addition the installation of the groundwater monitoring system should be pushed back to September 1, 2017 to account for the one-month extension.
16. On page 25, under Part H – Provisions, Item Number 13 requires an Unsaturated Zone Monitoring Plan (C.1) be submitted for surface impoundments P-01 through P-04. It is understood that the current impoundments P-1 through P-4 have an established Water Quality Protection Standard (WQPS) as required and documented in the previous issued Monitoring and Reporting Program No. R5-2007-0005. Can the previous WQPS be used and amended as part of this requirement? In addition, is the Unsaturated Zone Monitoring Plan not already defined in the attached Monitoring and Reporting Program R5-2017-XXXX which is based on an approved April 2007 Sample Collection and Analysis Plan?

Should you require additional information regarding these comments, please contact Jennifer Farrell, Regional Manager at (916) 255-1133 or Jeff Stanley, Regional Manager at (916) 255-3383.

Nathan T. Gaughan

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