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Information Needed to Complete the Report of Waste Discharge Application for Crystal Geyser Roxane Olancha Water Bottling Facility, 1210 South Highway 395, Olancha, Inyo County

The California Regional Water Quality Control Board, Lahontan Region (Water Board) has reviewed the Report of Waste Discharge (ROWD) and associated application for Waste Discharge Requirements, submitted by Geosyntec Consultants on behalf of Crystal Geyser Roxane, LLC (CG Roxane) for the Olancha Water Bottling Facility (Olancha Facility), 1210 South Highway 395 in Olancha. The ROWD, supporting information and application were received on October 21 and October 23, 2015, respectively. Water Board staff has determined that the ROWD is **incomplete and the proposed discharges do not appear to be in compliance with the *Water Quality Control Plan for the Lahontan Region* (Basin Plan)**. The additional information required to complete the application is discussed below. Due to the complexity of the issues at the facility, Water Board staff recommends a meeting to discuss the additional information needed to complete the ROWD for the Olancha Facility.

ADDITIONAL INFORMATION REQUIRED TO COMPLETE ROWD

The ROWD is missing information required to make specific findings required for developing Waste Discharge Requirements (WDRs) for the Olancha Facility. A ROWD needs to be a "stand alone" document to support the WDRs, and must include, facility design plans and flows for each process, and waste characterization necessary to develop findings and orders in the WDRs. The following information is required in order to complete your application for the Olancha Facility.

General Facility Information

1. The various cleaning and sanitation cycles and waste treatment methods result in variation in the characteristics of the waste streams at the facility over time. Representative samples need to be collected to adequately characterize the wastewater at the facility. Therefore, we recommend analysis of 24-hour composite

samples collected weekly, for a period of at least one month or more, to fully and accurately characterize all of the waste streams generated at the site. Continuous flow monitoring and flow totalizing information is also needed. Please submit a waste characterization sampling plan for review and approval to ensure required information is collected.

2. The wastewater sample analyses provided did not include Fecal Coliform. Representative wastewater samples must be analyzed for Total and Fecal Coliform.

3. Provide as-built plans for all Olancha facilities (Olancha North, Olancha South, East Pond, Fire Pond, former Arsenic Pond, etc.), including design and flow calculations.

4. Provide results of a comprehensive engineering analysis of the Olancha Facility including assessment all its waste collection, conveyance, treatment (including pH neutralization), storage and disposal operations and processes. The analysis must be conducted by a licensed Civil Engineer with adequate knowledgeable and experience in the operations of facilities such as CG Roxane's Olancha Facility. The analysis must include wastewater flows, pond design calculations, and an analysis of the facility's waste treatment and disposal operations. The analysis must address the following:

    a. Specifically, how is the pH monitored in the neutralization process and how is it recorded? Is this process manual or automated?
    b. How is the chlorination process monitored? Is this process manual or automated?
    c. Is the free chlorine recorded on an ongoing basis?
    d. What is the discharge criteria for pH, coliform, Arsenic, TDS, alkalinity, free chlorine, and any other discharge criteria established to ensure groundwater degradation does not occur?
    e. What types of controls exist at the facility to ensure wastewater that does not meet the discharge criteria is not discharged to the ponds.
    f. Provide a complete narrative description and illustration, including flow diagram, of each process within the facility that generates wastewater. Labeling storage tanks A, B and W is insufficient. The type and volume of source water or chemical must be clearly identified (8,000 gal. raw spring water from CGR-2, 4,000 gal. ozonated spring water from CGR-1, etc.) and the types, concentrations and volumes of acids and bases (and locations where introduced) must be identified at each process.

5. Provide a complete copy of the facility's Hazardous Materials Business Plan approved by Inyo County CUPA.

6. Provide a copy of the facility's Spill Prevention, Response and Cleanup Plan.

7. Identify any antifouling agents used in the Cooling Towers. Provide laboratory analytical results for the cooling tower discharge.

8. Provide a detailed Stormwater Flow Diagram and Stormwater Pollution Prevention Plan (SWPPP) to monitor and manage stormwater discharges at the facility.

9. Provide copies of all permits obtained to construct the Fire Pond and East Pond.

Wastewater Characteristics and Wastewater Disposal Facilities

10. Former Arsenic Pond

    Water Board staff understands that the Arsenic Pond and its contents have been removed and disposed offsite. Please provide all waste disposal documentation associated with removal and disposal of the former Arsenic Pond liner and its contents.

11. The ROWD states that the wastewater from the Arsenic system regeneration backflush process is "*reportedly removed and disposed off-site… Therefore waste water from this process is reportedly no longer discharged to any surface impoundment or to land surface*." These statements must verified. The wastewater generated by this process is likely hazardous waste, does not comply with the Lahontan Basin Plan, and cannot be disposed of anywhere at the Facility. Wastes generated from all steps/stages of the regeneration backflush process must be fully contained, characterized and disposed of offsite at an approved facility that is appropriately licensed to accept such wastes.

12. East Pond and Fire Pond

    The available wastewater characterization data provided indicate waste discharges at the site (East Pond, Fire Pond, Fire Pond Outfall) are in violation of the Basin Plan The Basin Plan Chapter 3- *Water Quality Objectives Which Apply to Groundwater*, contains the following narrative water quality objectives for groundwater:

    "Bacteria, Coliform
    In ground water designated as MUN, the median concentration of coliform organisms over any seven day period shall be less than 1.1/100 mL".

    Total coliform at 2400J MPN/100 mL in both Fire Pond and East Pond discharges violates the Basin Plan.

13. Basin Plan Section 4.4 General Requirements, states:

    "Discharge requirements are prescribed for each discharger on a case-by case basis; however in every case, industrial and municipal effluent discharged to waters of the Region shall contain essentially none of the following substances:…"

    Chlorinated hydrocarbons-The wastewater characterization indicates that the discharges during sanitation and the Ponds contain Total Organic Halides in the 10-15 ppb range.

Excessively Acidic and basic substances-The wastewater characterization data from the Fire Pond indicates the pH is 9.2 to 9.9 pH units.

The discharge appears to be in violation of the Basin Plan by exceeding water quality objectives and the discharge may be classified as a Designated Waste.

14. California Water Code 13173.(b) Designated Waste, states in part, "*Nonhazardous waste that consists of, or contains, pollutants that, under ambient environmental conditions at a waste management unit, could be released in concentrations exceeding applicable water quality objectives or that could reasonably be expected to affect beneficial uses of waters of the state as contained in the appropriate state water quality control plan."*

    Please provide a proposal to either treat the current wastewater discharges to levels compliant with the Lahontan Basin Plan or to construct a Title 27 compliant pond (i.e. double lined) A compliance schedule can be included in the Waste Discharge Requirements to either construct a Title 27 pond or modify the current treatment and disposal operations to allow time for compliance.

Groundwater Issues

15. Impacts to groundwater from the Arsenic Pond are documented with the elevated antimony, arsenic, alkalinity, phosphorus, phosphate, sodium, sulfate, and TDS, concentrations in Wells MW-04, MW-05, MW-08, and MW-09 (as compared to up-gradient well MW-03). Cleanup and abatement of the impacts to soil and groundwater from the Arsenic Pond is required, and will be directed under a separate action.

16. Chemical Constituents

    "Ground waters designated as MUN shall not contain concentrations of chemical constituents in excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (SCML) based upon drinking water standards specified in the following provisions of Title 22 of the California Code of Regulations which are incorporated by reference into this plan: Table 64431-A of Section 64431 (Inorganic Chemicals), Table 64431-B of Section 64431 (Fluoride), Table 64444-A of Section 64444 (Organic Chemicals), Table 64449-A of Section 64449 (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits), and Table 64449-B of Section 64449 (Secondary Maximum Contaminant Levels-Ranges). This incorporation by reference is prospective including the future changes to the incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect."

Monitoring well data indicates that the groundwater downgradient from the East Pond in MW-07 is degraded when compared to upgradient well MW-06 (pH 8.48 vs. 9.13; Residual chlorine 0.79 parts per million (ppm); vs. 1.55 ppm; Free chlorine 0.77 vs. 14.68 ppm; arsenic 18 vs 49.7 ppb, alkalinity 180 vs. 248 ppm).

17. Basin Plan Section 4.1 Waste Discharge Prohibitions, states: *"2. The discharge of waste which causes violation of any numeric water quality objective contained in this Plan is prohibited. 3. Where any numeric or narrative water quality objective contained in this Plan is already being violated, the discharge of waste which causes further degradation or pollution is prohibited."*

    The ROWD states that results from MW-07 indicate that there are no impacts to groundwater from the East Pond discharge. The limited and variable data reported from well MW-07 appears to demonstrate that there have been impacts to groundwater (arsenic, pH, conductivity, TDS, free and residual chlorine, alkalinity, etc.) above the levels at up-gradient well MW-06. Cleanup and abatement of the impacts to groundwater from the East Pond will be directed under a separate action.

18. Potential Impacts to Groundwater Quality. Water Board staff must evaluate future waste discharge impacts to receiving water quality, its beneficial uses, and other characteristics. This evaluation requires, in part, knowing the existing groundwater water quality and other characteristics. Provide a complete characterization of the receiving water/groundwater conditions and quality, which must include, but not limited to:

    a. groundwater concentrations for each of the constituents identified in the wastewater characterization.
    b. potential impacts to ground water characteristics in response to proposed wastewater discharges over the facility's lifetime.

In conclusion, Water Board staff has determined that your application is incomplete and the discharge is in violation of the Basin Plan. In order to process the application required per the Notice of Violation dated April 30, 2015, please provide the requested information and propose modifications to the wastewater treatment process or discharge disposal modifications within 60 days of the date of this letter. Processing of your application will continue when the information identified, above, is provided.

If you need assistance or have any questions regarding this matter, please feel free to contact Lisa Scoralle at (530) 542-5452 (lisa.scoralle@waterboards.ca.gov), or me at (530) 542-5468 (catherine.pool@waterboards.ca.gov).

Catherine Pool, P.E.
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cc (email only): Crystal Geyser Roxane Olancha Mailing List