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# LATE REVISIONS

## AGENDA ITEM 10

February 16, 2024 Board Meeting

LATE REVISIONS – 15 February 2024

### Item 10. Forward, Inc., Forward Landfill, San Joaquin County

Consideration of Tentative Waste Discharge Requirements Order No. R5-2024-XXXX.

The proposed Waste Discharge Requirements and Monitoring and Reporting Program for Forward Landfill (Discharger) has late revisions to add additional language regarding action leakage rates. Some additional minor corrections to the documents are also noted below.

1. Add new finding after Finding 84 in Waste Discharge Requirement on page 24:

85. The 1992 EPA guidance document Action Leakage Rate for Leak Detection Systems informs theory relating to evaluation and observation of flow rates through surface impoundment containment systems with geomembrane system components. The 1992 EPA guidance, in part, describes that the objective of a containment system is to minimize the head or pressure on the secondary liner and thereby decrease the potential for migration of constituents out of a surface impoundment should a leak occur in both the primary liner and the secondary liner. The 1992 EPA guidance document Action Leakage Rate for Leak Detection Systems describes the "action leakage rate" (ALR) as the maximum design flow rate, with a safety factor, that the leak detection system can remove without the head on the secondary liner exceeding one foot. The 1992 EPA guidance document Action Leakage Rate for Leak Detection Systems provides for guidance for geomembrane containment systems where flow rates in excess of the minimum ALR indicate a major localized or general failure of a primary liner; flow rates of 1,000 gallons/acre/day or greater represent “potentially significant hole sizes that may be readily identified and repaired” for geomembrane based containment systems. The guidance recommends that the ALR for lined surface impoundments be set at no more than 1,000 gallons per acre per day (gpad) unless site-specific conditions dictate otherwise.

The Discharger proposed an ALR of 14,445 gpd, based on site-specific calculations, in *Action Leakage Rate Calculation and Leak Location Test Results Waste Management Unit F-West, Forward Landfill* on 19 January 2024.

Higher ALR values above the recommended 1,000 gpad are site-specific and require Central Valley Board staff to consider design of the surface impoundment, pumping rates, and Discharger submitted technical ALR reports into account when establishing ALR values. The presence of automatic pumps at the existing surface impoundments allow for a greater US EPA recommended volume of 1,000 gpad for each of the Class II surface impoundments.

WMU F North and WMU F West utilize suction lysimeters to monitor the unsaturated vadose zone. Future Class II surface impoundments with a robust unsaturated vadose zone system will allow Central Valley Water Board staff to consider a higher ALR value.

Central Valley Water Board staff identified that 1,000 to 3,000 gpad values have been set for other Central Valley sites. Given the above information, this Order sets the ALR for the existing and proposed surface impoundments at 3,000 gpad.

The Discharger may submit technical reports and request alternative action leakage rates for existing and proposed surface impoundments, which will be subjected to undergo review and approval by Central Valley Water Board staff.

1. Add new finding in Waste Discharge Requirements after Requirements C. Facility Specifications, 8 section on page 49:

9. The Action Leakage Rate (ALR) for each Class II surface impoundment is as follows:

|  |  |  |
| --- | --- | --- |
| **Surface Impoundment Identification** | **WMU F North** | **WMU F West** |
| Area (acres) | 1.36 | 0.97 |
| Action Leakage Rate (gpad)1 | 3,000 | 3,000 |
| Notification Level (gpd)(33% of ALR) | 1,346 | 960 |
| Evaluation Monitoring Trigger (gpd)1(66% of ALR) | 2,693 | 1,921 |
| Corrective Action Level (gpd)1(100% at ALR) | 4,080 | 2,910 |

Note: 1. Gallons per day (gpd) shall be measured by a calibrated flow totalizer.

a. If leakage generation in the LCRS or leak detection layer of a Class II surface impoundment exceeds the **Notification Level**, the Discharger shall:

1. Submit written notification within seven days that includes historical and graphical information which describes how the leakage in the Class II surface impoundment has increased over time to reach the Notification Level.

2. Discuss any noticeable increases in leakage rates that may indicate a significant defect has developed in the primary liner.

b. If leachate generation in the LCRS or leak detection layer of a Class II surface impoundment exceeds the **Evaluation Monitoring Trigger**, the Discharger shall:

1. Immediately notify Central Valley Water Board staff by telephone and email.

2. Submit written notification within seven days with an evaluation monitoring plan that proposes increased monitoring and reporting of the LCRS or leak detection layer and unsaturated zone, and a contingency plan for how the facility will operate if the pond level reaches the Corrective Action Level.

3. Provide information specified at the notification level.

4. Provide estimated schedule of when the surface impoundment can be repaired to meet facility operational needs.

c. If leachate generation in the LCRS or leak detection layer of a Class II surface impoundment exceeds the **Corrective Action Level**, the Discharger shall:

1. Immediately cease the discharge of waste, including leachate, to the surface impoundment and notify Central Valley Water Board staff by telephone and email.
2. Submit written notification within seven days that includes a time schedule to locate and repair the leak(s) in the primary liner system or take other actions to mitigate the exceedance.
3. Submit a plan to reduce head pressure on the primary liner such that leakage through the primary liner is reduced to the evaluation monitoring trigger leakage rates.
4. If initial repair attempts or other actions do not result in a leakage rate less than the Notification Level leakage rates, the Discharger shall submit written notification within seven days that includes a time schedule for a leak location survey, identification of damaged or non-performing areas of the primary liner, and replacement or repair of the identified damaged or non-performing areas of the primary liner of the surface impoundment or other action necessary to reduce leachate production.
5. Complete repairs, other actions, or liner replacement in accordance with the approved time schedule(s) required under “2” and/or “4”, above.
6. Change requirement D.1.b on page 30 in the Monitoring and Reporting Program as follows:

b. **Sump Inspection**—All WMU LCRS sumps shall have a flow meter installed on the discharge pipe in order for the leachate volume to be recorded in gallons/day and reported quarterly.. All WMU LCRS sumps shall be visually inspected weekly to assure the pump alarms are still operating as designed. As provided in Table 26, the total flow and flow rate for leachate in each sump shall be recorded after each inspection and reported quarterly per Section E.1.

1. Change Table 26 on page 31 in the Monitoring and Reporting Program as follows:

Table 26—LCRS Sump Monitoring, Monthly Inspection Parameters

| **Physical Parameter** | **GeoTracker Code** | **Units** | **Sampling Freq.** | **Reporting Freq.** |
| --- | --- | --- | --- | --- |
| Total Flow | (none) | Gallons | Continuously | Quarterly |
| Flow Rate | FLOW | Gallons/Day | Continuously | Quarterly |

1. Add new finding in the Monitoring and Reporting Program in Section D. Additional Facility Monitoring, after finding 7 on page 40:

8. Action Leakage Rate: The Discharger shall record the leakage rate for each Class II surface impoundment LCRS and report the value in gallons per day. The results shall be included in the information in the quarterly reports and compared to the Action Leakage Rates found in the WDRs under Facility Specification C.9. If monitoring of the flow rate into the LCRS shows an exceedance of the Action Leakage Rate required by the WDRs, the Discharger shall follow the procedures in the WDRs under “C. Facility Specifications”. Tabulated leakage rates shall be included in the quarterly monitoring reports.

1. Add new finding in the Monitoring and Reporting Program in Section E.1. Reporting Requirements, after finding k on page 44:

 q. Tabulated leakage rates (in values of gallons per day) into the LCRS or LCRS sump with comparison to the Action Leakage Rate, and a discussion of required response if ALR was exceeded.

1. Add date in Finding 33 Waste Discharge Requirement on page 13:

33. A Compost Facility exists on site and was previously permitted under the previous WDRs Order R5-2014-0006. The composting facility is now regulated under State Water Board Order WQ 2020-0012-DWQ-R5S013, General Waste Discharge Requirements for Commercial Composting Operations. A Notice of Applicability was issued on 14 02 2024.

8. Add date in B. Discharge Specifications, item 13:

13. Discharge of cannery wastes to the LAA or the surface impoundments shall not degrade groundwater or cause or contribute to condition of pollution and/or nuisance as those terms are defined in Water Code section 13050. Discharge of cannery rinsate to the compost facility shall be regulated by WQ 2020-0012-DWQ-R5S013 NOA dated 14 02 2024.