Central Valley Regional Water Quality Control Board
Central Valley Region Board Meeting
18/19 April 2024

Response to Written Comments for Waste Management of Alameda County, Inc.
Altamont Solidification Facility

Tentative Waste Discharge Requirements

In a 12 February 2024 Notice of Public Hearing, Regional Water Quality Control Board Central Valley Region (Central Valley Water Board) Staff circulated tentative Waste Discharge Requirements (WDRs) for the proposed Altamont Solidification Facility (Facility) in Alameda County with the intent of consideration by the Central Valley Water Board at a public hearing held on 18/19 April 2024.

This document contains responses to summarized written comments received from interested persons regarding the tentative WDRs. Written comments were required by public notice to be received by the Central Valley Water Board by 13 March 2024 to receive full consideration. Timely comments were received from Waste Management of Alameda County, Inc. (Discharger) on 23 February 2024, 1 March 2024, and 12 March 2024. Written comments are summarized below, followed by responses from Central ValleyWater Board Staff.

Central Valley Water Board Staff also made changes to the tentative WDRs to improve clarity and fix typographical errors.

DISCHARGER'S COMMENTS

DISCHARGER'S COMMENT NO. 1:

The Discharger requests concurrence with a Liquid Waste Sample Collection and Analysis Plan (SCAP) submitted to the Central Valley Water Board on 24 January 2024. The Discharger indicates its "highest priority item" related to the Tentative WDRs is inclusion of a Liquid Waste SCAP into the Tentative WDRs, including the Tentative Monitoring and Reporting Program (MRP), considered for adoption by the Central Valley Water Board. The Discharger describes the liquid waste characterization requirements in the Tentative WDRs, including the Tentative MRP, on "…a landfill operator, to periodically sample waste materials that have been previously characterized by the generator is a highly unconventional requirement in California and nationwide. California and federal law are clear that the legal obligation to characterize wastes prior to disposal is with the waste generator, not the receiving facility." The Discharger represents that "[g]iven the unique requirement specified in the Tentative WDR/MRP, it is imperative that the sampling approach be clearly defined and specified in the adopted Order as part of the MRP."

RESPONSE:

Title 27 specifies that the Discharger is responsible for accurate characterization of wastes, including determinations of whether or not wastes will be compatible with containment features and other wastes at in a waste management unit, and whether

or not wastes are required to be managed as hazardous wastes (Title 27 section 20200(c)). Water Code section 13267 also provides authority for the Central Valley Water Board to require investigation and submission of the subject waste characterization information. Tentative WDRs Order R5-2024-XXXX, Finding 30 describes the basis and purpose for requiring waste characterization. Moreover, the Tentative WDRs would not require the Discharger "… as a landfill operator, to periodically sample waste materials that have been previously characterized by the generator." As further described in Tentative WDRs Order R5-2024-XXXX, Finding 30, the Tentative WDRs would not require the Discharger to repeat its "rigorous process to characterize waste before it accepts the waste for discharge into the solidification basins."

Although the Discharger owns and operates the adjacent Altamont Landfill Resource Recovery Facility (ALRRF), a large active municipal solid waste (MSW) landfill, the proposed Altamont Solidification Facility is not a landfill. The proposed Altamont Solidification Facility purpose and function is to solidify liquid wastes with various solid wastes (described as "extenders") in concrete lined basins constructed as Class II surface impoundments with an adjacent stockpile area. In fulfilling this function, the Discharger will engage in mixing of multiple wastes, each of which the Discharger, in its comment, represents "… have been previously characterized by the generator." The Discharger's planned mixing of wastes plainly is within the scope and meaning of Title 27 requirements to characterize the combined wastes stored in the proposed waste management units, in part, to better understand the characteristics of liquids stored in the Class II surface impoundment in the event of unauthorized release scenarios and to assess the compatibility of combined liquid wastes with containment features of the Class II surface impoundment.

Tentative WDRs Monitoring Requirement G.9 is revised to require a SCAP for the Detection Monitoring Program and a separate SCAP for liquid waste monitoring, both for Central Valley Water Board approval. Tentative WDRs Monitoring Requirement G.9 is further revised to clarify that the Discharger already submitted a Liquid Waste Sample Collection and Analysis Plan for solidification Operations, dated 12 March 2024, which satisfies the minimum requirements for the liquid SCAP and is incorporated into Tentative MRP R5-20XX-XXXX. Tentative MRP R5-20XX-XXXX, General Provision A.4 is also revised to describe the acceptability of the Liquid Waste SCAP.

DISCHARGER'S COMMENT NO. 2:

For Tentative WDRs Table 1, Finding 19.c, and Attachment C, the area delineated on Attachment C as the "Extender Stockpile and Work Area" appears to also include the solidification basins. The Extender Stockpile and Work Area includes asphalt concrete surfacing and baserock with an underlying clay liner, whereas the containment system for the solidification basins includes concrete and underlying secondary geomembrane components. The limits of the asphalt concrete and clay liner will be the edges of the concrete basin or extender containment walls, concrete curbs and as shown on Attachment C. The Discharger re-calculated the aerial extent of Extender Stockpile and Work Area as 52,000 square feet, which excludes the area of the solidification basins.

RESPONSE:

The summary square footage of the Extender Stockpile and Work Area described in Table 1 and Finding 19.c is revised to 52,000 square feet. No change is required for Attachment C.

DISCHARGER'S COMMENT NO. 3:

For Tentative WDRs Finding 96.a and 96.b, armoring of the concrete basin walls and floor will only be needed where the concrete can be damaged by the solidification mixing actions of the excavator bucket – it will not be needed along the entire length of the access ramp walls and floor. The slab floors are designed to be 8 inches, however, this is a horizontal cross-section through the basin walls which doesn't encompass the floor slab as you move from "inside to outside" in Attachment G.

RESPONSE:

Tentative WDRs Finding 96.a and 96.b are revised.

DISCHARGER'S COMMENT NO. 4:

For Tentative WDRs Finding 100, the "Flood Test" incorporated into Specification D.15 provides one reasonable method demonstrating the hydraulic performance of the entire basin(s). To ensure clarity concerning the method to be used to demonstrate performance, a direct reference is recommended.

RESPONSE:

Tentative WDRs Finding 100 is revised.

DISCHARGER'S COMMENT NO. 5:

For Tentative WDRs Finding 105, the text should be clarified to describe the pan lysimeters will collect the subject liquids.

RESPONSE:

Tentative WDRs Finding 105 is revised.

DISCHARGER'S COMMENT NO. 6:

For Tentative WDRs Finding 114, the Discharger describes text related to a precise slope angle restriction on a dynamic operation involving the continual loading and unloading of extender material as "… both impractical and inherently subjective and immeasurable to both the Discharger and the Central Valley Water Board." Given the dynamics and uncertainty involved, the Discharger is concerned how this restriction will be managed from a compliance perspective. Additionally, language is already included in this Finding and the associated Specification limiting the extent of extender materials such that they do not accumulate within one foot of the top of the Extender Concrete Containment Wall or slough outside of the Extender Stockpile and Work Area.

RESPONSE:

The Tentative WDRs would prohibit "[t]he unauthorized discharge of waste from the Extender Stockpile Area, including overtopping of the Extender Concrete Containment Wall or any other condition resulting in uncontained wastes" (Tentative WDRs Prohibition A.7). The intent of a maximum slope angle of accumulated extender materials is to provide a numerical operational limit to help prevent unauthorized discharge of materials from the Extender Stockpile and Work Area. However, as noted in the Discharger's comment, the implementation of a numeric maximum slope angle of accumulated extender materials may prove impracticable, and as such Central Valley Water Board Staff support elimination of the numeric maximum slope angle of accumulated extender materials from the Tentative WDRs. Compliance evaluation of Tentative WDRs Prohibition A.7, in part, may consider an assessment and/or observation of "any other condition resulting in uncontained wastes" from the Extender Stockpile and Work Area, which could include, but is not limited to, consideration of apparent cohesiveness of materials, ambient conditions (e.g., wind, humidity, etc.), operational conditions, slope angles of accumulated extender materials, observed extender materials outside of the waste pile or other approved waste management unit, and/or combination thereof.

Tentative WDRs Finding 114 and Facility Specification C.13 are revised to remove reference to a numeric maximum slope angle of accumulated extender materials.

DISCHARGER'S COMMENT NO. 7:

For Tentative WDRs Discharge Specification B.6, the text should be modified to provide context for what level of degradation requires remediation of the reinforced concrete primary liner system. Surface blemishes such as minor chipping and spalling will not have any affect on the integrity of the containment system.

RESPONSE:

Tentative WDRs Discharge Specification B.6 is revised to clarify the intent to require the Discharger to remedy degradation of the installed reinforced concrete primary liner reasonably believed to reduce containment system integrity.

DISCHARGER'S COMMENT NO. 8:

For Tentative WDRs Discharge Specification B.7 the text should be modified to provide context for what level of degradation requires remediation of the Extender Stockpile Area containment system.

RESPONSE:

Tentative WDRs Discharge Specification B.7 is revised to clarify the intent to require the Discharger to remedy degradation of the Extender Stockpile Area containment system reasonably believed to reduce containment system integrity.

DISCHARGER'S COMMENT NO. 9:

For Tentative WDRs Facility Specification C.17, the Discharger requests revision of the due date from 1 October of each year to 15 November to resolve parallel reporting requirements specified in the Tentative MRP Reporting Requirements D.4.

RESPONSE:

The twelve-month period from 1 October to 30 September of the following calendar year represents a "water year" in California. The concept of a "water year" is widely used to manage, predict, evaluate, and compare water storage, use, needs, and other key water management and budgeting parameters. In the context of surface impoundments, the Central Valley Water board typically requires Annual Operations Plans, which anticipate precipitation and evaluate past precipitation conditions for the year, to be submitted on 1 October, in part, to simplify and align with industry water reporting standards. The 1 October annual reporting deadline also provides for reasonable prediction of whether or not surface impoundments have adequate capacity to accommodate wastes and anticipated seasonal precipitation. Annual evaluation of surface impoundment and waste pile conditions with respect to the "water year" is an important consideration in developing an Operations Plan required by Title 27 section 20375(b).

To minimize reporting burdens, Tentative WDRs Facility Specification C.17 is revised to require the Discharger to submit an Annual Operations plan 15 November each year which considers the period from 1 October through the following 30 September, inclusive.

DISCHARGER'S COMMENT NO. 10:

For Tentative WDRs Unit Construction Specification D.15, the Discharger requests addition of clarification language regarding the installed "*hydraulic conductivity of all concrete liner systems, inclusive of all seams, joints, change of plane, is 1E-06 cm/sec.*"

RESPONSE:

The purpose of Unit Construction Specification D.15 is to establish framework and parameters for a "flood test" to demonstrate that the installed reinforced concrete primary liner system can achieve the Action Leakage Rates prescribed by the WDRs. The Tentative WDRs address the issue in Unit Construction Specification D.6 as follows:

> *The Discharger shall use reasonable methods in accordance with accepted civil engineering practice to demonstrate the installed hydraulic conductivity of all concrete liner systems, inclusive of all seams, joints, change of plane, are 1E-06 cm/sec or less throughout the service life of each basin. (Unit Construction Specification D.6)*

The flood test set forth in Unit Construction Specification D.15, does not require the Discharger to make a demonstration that installed primary concrete liner systems, inclusive of all components, have a *hydraulic conductivity of 1E-06 cm/sec or less.*

The Tentative WDRs would require that such demonstration is made pursuant to Unit Construction Specification D.6. Moreover, the proposed revision to Unit Construction Specification D.15 would not further demonstration of Action Leakage Rates prescribed by the WDRs. No revisions were made to Tentative WDRs Unit Construction Specification D.15.

DISCHARGER'S COMMENT NO. 11:

For Tentative WDRs Unit Construction Specification D.16, the Discharger requested clarification language to note that the requirement to perform a leak location test be applicable to the secondary geomembrane and to consider "…the unique design of the basins which include a concrete primary liner and secondary geomembrane liner."

RESPONSE:

Tentative relevant portion of WDRs Unit Construction Specification D.16 requires "[t[he Discharger shall perform a leak location test on each installed geomembrane in a Class II surface impoundment containment system to find any defects in the geomembrane …" Whereas, the Discharger clarification request appears intended to reflect the Discharger's plan to utilize a single contiguous secondary geomembrane for both basins. Central Valley Water Board Staff interpret the relevant portion of WDRs Unit Construction Specification D.16 applicable regardless of whether the Discharger utilizes a single contiguous secondary geomembrane for both basins or modifies the design to provide for secondary geomembranes for each respective basin. No revisions were made to Tentative WDRs Unit Construction Specification D.16.

DISCHARGER'S COMMENT NO. 12:

For Tentative WDRs Monitoring Requirements G.9, the Discharger requests modification to reflect submission of a Liquid Waste SCAP, as discussed in Discharger's Comment No. 1.

RESPONSE:

Tentative WDRs Monitoring Requirements G.9 is revised. Refer to the Response to Discharger's Comment No. 1.

DISCHARGER'S COMMENT NO. 13:

Tentative WDRs Time Schedule, Table 6 the Discharger requests revision to certain deadlines related to submission of a Liquid Waste SCAP, as discussed in Discharger's Comment No. 1 and Discharger's Comment No. 9.

RESPONSE:

See Response to Discharger's Comment No. 1 and Response to Discharger's Comment No. 9.

DISCHARGER'S COMMENT NO. 14:

For Tentative MRP General Provision A.4, the Discharger requests modification to "ensure consistency and clearly document the mutual understandings for the Liquid Waste SCAP," relating to issues discussed in Discharger's Comment No. 1.

RESPONSE:

Tentative MRP General Provision A.4 is revised to separate and clarify requirements and Central Valley Water Board review for the respective Liquid Waste SCAP and the Detection Monitoring Program SCAP. See also Response to Discharger's Comment No. 1.

DISCHARGER'S COMMENT NO. 15:

For Tentative MRP Detection Monitoring Program B.2.a, Table 6, the Discharger requests modifications to "ensure clarity on the design of unsaturated zone monitoring points. It is Discharger's intent to modify the pan lysimeter design with unwelded geomembrane seams to provide the required unsaturated zone monitoring.

RESPONSE:

The Discharger's proposed revisions Tentative MRP Detection Monitoring Program B.2.a, Table 6 restate items addressed elsewhere. Tentative WDRs Order R5-20XX-XXX Finding 83 adequately describe the status of the Discharger's intent to modify the pan lysimeter configuration for each basin. Tentative WDRs Order R5-20XX-XXX Finding 83 establishes the requirements described in *Monitoring Requirement G.7.* No revisions were made to Tentative MRP Detection Monitoring Program B.2.a, Table 6.

DISCHARGER'S COMMENT NO. 16:

For Tentative MRP Detection Monitoring Program B.2, Table 7, the Discharger notes that the lysimeter design includes a gravity drainage system and there are no lysimeter sumps beneath the basins where depth to water in the lysimeters could be measured. The hydraulic low point for this system is located at the storage tank bottom, which has an elevation approximately 30 feet below the lysimeters. The Discharger requests that the requirement to measure depth of liquids in the lysimeters either be removed or that a footnote be included indicating that the depth to liquid is measured in the storage tank.

RESPONSE:

The purpose of a defined "sump" location is, in part, to establish a common basis relating to key surface impoundment elements, including the Leachate Collection and Removal System (LCRS), to support evaluation of system function, operation, and compliance with requirements. Title 27 defines the LCRS as the "…portion of a waste management unit's containment system that is designed and constructed (pursuant to §20340) to collect all leachate that reaches it, and to convey such leachate to a designated collection area to minimize the buildup of leachate head on

any underlying liner…" (title 27 section 20164). Tentative WDRs Finding 105 defines the Yellow Flag and Blue Flag Basin "Sump" as "… a hydraulic low point on an engineered concrete pad with secondary containment depicted in **Attachment I**."

The Discharger proposes modifying the defined proposed "Sump" location to the bottom elevation of the storage tanks. The storage tanks are fixed works which serve as "designated collection areas" for leachate and are not intended to convey leachate. Moreover, the Discharger's proposal would result in a condition which precludes using a "sump" to provide meaningful evaluation of the condition of the LCRSs. The air gaps depicted in **Attachment I** are open to atmospheric pressure and thereby represent the physical terminus of the LCRSs piping systems. The air gaps are also key system boundaries for determining the total system static pressure, potential, and velocity heads within the LCRSs. As the Discharger notes, the approximate total elevation head anticipated in the LCRSs exceeds 30 feet which suggests potentially substantial static pressure head at any point within the LCRSs. Identification of a "sump" point downstream of the air gaps precludes use of fluid mechanic principles to evaluate LCRSs function, operation, and compliance with requirements – all key to monitoring the static pressure head at any point within the LCRSs, the integrity of the dual-contained HDPE collection pipes and ensuring ensure no buildup of hydraulic head occurs on the liner systems (Title 27 Section 20340(c)). The Discharger can utilize fluid mechanic principles to develop and propose multiple means of observing and measuring volume in the LCRSs and reporting a depth of liquids relative to the "Sump" datum.

Finding 105 is revised to clarify that the Sump is also "upstream of the air gap between the end of the LCRSs and the storage tanks."

DISCHARGER'S COMMENT NO. 17:

For Tentative MRP Additional Facility Monitoring C.1, the Discharger describes the proposed leachate collection and removal system as being designed "…as a gravity drainage system and there are no LCRS sumps beneath the basins" and requests the "sump" be defined as the hydraulic low point at the bottom elevation of the respective storage tanks.

RESPONSE:

See Response to Discharger's Comment No. 16.

DISCHARGER'S COMMENT NO. 18:

For Tentative MRP Reporting Requirements, Table 17, the Discharger requests the annual due date be revised to 15 March to reflect Footnote 5 which provides for submission of the Annual Monitoring Report combined with the Semiannual Monitoring Report, which has a due date of 15 March.

RESPONSE:

Tentative MRP Reporting Requirements, Table 17 is revised.

DISCHARGER'S COMMENT NO. 19:

For Tentative MRP Reporting Requirements, Table 17 the Discharger suggests revisions to Annual Facility Inspection Report requirements intended to "…promote clarity and avoid duplicative reporting" suggests adding a footnote to the reporting requirement indicating that it combines information required in the Annual Operations Plan specified in WDR Facility Specification C.17. Also See Discharger's Comment No. 9.

RESPONSE:

Tentative MRP Reporting Requirements, Table 17 is revised to include a footnote that the Annual Facility Inspection Reports may be included in the Annual Operations Plan required by WDRs Order R5-2024-XXXX, Facility Specification C.17. See also Response to Discharger's Comment No. 9.

DISCHARGER'S COMMENT NO. 20:

For Tentative MRP Reporting Requirements D.2, the Discharger requests similar revisions as described in Discharger's Comment No. 18.

RESPONSE:

Tentative MRP Reporting Requirements D.2 is revised to require annual monitoring reports by 15 March.

DISCHARGER'S COMMENT NO. 21:

For Tentative MRP Detection Monitoring Program Table 2 and Table 3 have a typo error in the first footnote.

RESPONSE:

Tentative MRP Detection Monitoring Program Table 2 and Table 3 has updated the footnote to correct the spelling error of "semiannually."

DISCHARGER'S COMMENT NO. 22:

For Tentative MRP Additional Facility Monitoring Table 11 references the sampling frequency of 1,2,3-Trichloropropane per Method SRL-524M-TCP to occur "Quarterly" instead of "Every 5 Years."

RESPONSE:

Tentative MRP Additional Facility Monitoring Table 11 has been updated.

DISCHARGER'S COMMENT NO. 23:

For Tentative MRP Reporting Requirements D.1, the language should be changed to allow for submission of semiannual Monitoring Reports (SMRs) on 15 September (1 Jan. to 30

June) and 15 March (1 July to 31 Dec to be consistent with information provided in Table 17.

RESPONSE:

Tentative MRP Reporting Requirements D.1 is revised.

DISCHARGER'S COMMENT NO. 24:

For Tentative MRP Reporting Requirements D.1.c and D.2.a, the reference to "Section D.9.b" is unclear.

RESPONSE:

The reference in Tentative MRP Reporting Requirements D.1.c and D.2.a are corrected to D.7.b.

DISCHARGER'S COMMENT NO. 25:

For Tentative MRP Reporting Requirements D.5., Major Storm Event Reports, there appears to be a formatting issue with the requirement.

RESPONSE:

Central Valley Water Board Staff reviewed Tentative MRP Reporting Requirements D.5., Major Storm Event Reports, and did not identify a formatting issue. Tentative MRP Reporting Requirements D.5.remains as follows:

Major Storm Event Reports

Immediately following each post-storm inspection described in ***Section C.5****, the Discharger shall notify Central Valley Water Board staff of any damage or significant erosion (upon discovery). Subsequent repairs shall be reported to the Central Valley Water Board (together with before and after photos of the repaired areas) within 14 days of completion.*