California Environmental Protection Agency

Department of
Resources Recycling and Recovery

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December 12, 2023

Ms. Karen Gork, MPH, REHS
Chief Environmental Health Specialist
Solid Waste Management Inspection and Enforcement Program
Los Angeles County Department of Public Health – Environmental Health
5050 Commerce Drive
Baldwin Park, California 91706

Subject: Review Chiquita Canyon Landfill (19-AA-0052) Options to Control Odors

Dear Ms. Gork:

CalRecycle staff are providing this letter in response to your request for technical assistance in reviewing the Chiquita Canyon Landfill (CCL) response letter concerning the odor incident.

The following comments are provided to the Los Angeles Local Enforcement Agency (LEA) as assistance to support the program in carrying out its responsibilities on permitted disposal sites. The final determination as to the comments to be provided to the responsible party is within the sole purview of the LEA, acting within the parameters of its discretion, in accordance with its vested authority under its certification as defined in Title 14, California Code of Regulations (14 CCR), Division 7, 27 CCR, Division 2, Subdivision 1 (Section 20005 et seq.), and Division 30 of the Public Resources Code.

For this response, I reviewed the following documents submitted to the LEA:

- Chiquita Canyon Landfill Written Plan Regarding the Documentation and Tracking of Fissures, Settlement, and Tension Cracks in the Soil Cover dated December 6, 2023;
- Chiquita Canyon Landfill Response to November 21, 2023 Letter and Additional Mitigation Measures – Corrected Version, dated December 7, 2023;
- Tetra Tech Memorandum to Steve Cassulo from Julie Hauenstein regarding Chiquita Canyon Landfill – Mitigation Measure #2, dated December 8, 2023; and
- Raven Installation Guidelines for Interim Landfill Covers Dura Skrim® R8BV, R12BV, R20BDV, R20WW, and R20BV dated 2019.

CCL Response and Discussions to Control Odors

Based on the CCL information provided and technical documents, CalRecycle staff offer the following comments and recommendations.

To control odors from incidents similar to Chiquita Canyon, several actions by the CCL must be accomplished. The odors the community has experienced are from leachate outbreaks, lack of sufficient cover, and damaged gas control wells. Since August 2023, the CCL has worked to contain the leachate outbreaks by installing a French drain along the western slope and over 55 additional gas control wells. The remaining task to reduce the odors is to place additional cover over the reaction areas. The CCL has proposed the following three alternatives for additional cover:

1. 12-mil Dura-Skrim Geosynthetic Cover;
2. Evaporative Soil Cover; or
3. Low Permeability Soil Cover.

Based on the available information from the CCL, CalRecycle staff believe the low permeability soil cover is the most effective option to control the odors.

The evaporative soil cover using onsite high permeability soil will allow air, water, and odors to migrate through the cover.

While other geosynthetic covers have been used by the industry to mitigate odors, the proposed 12-mil Dura Skrim® is likely to suffer from durability and performance issues due to settlement, sunlight, vehicle traffic, and drill equipment. According to the manufacturer's specifications, "*due to the thickness and construction of Dura Skrim® R8BV, R12BV, and R20BDV, hot wedge or hot air welding are not a requirement for field seaming. The preferred method is a sewn "J-style" prayer seam, which requires stitching through four layers of material*." Sewn seams will leak more than welded field seams. Welded seams will have greater durability over time. Since this reaction may last 24 to 48 months, a thicker geosynthetic with welded seams will offer better performance and reduced maintenance. Other landfill operators have used 24-mil to 30-mil geosynthetic covers, which are still in use 15 years later.

The CCL may still want to use the 12-mil geosynthetic cover while additional low-permeability soil or a more durable geosynthetic cover is acquired to reduce odors. Performance and maintenance will have to be closely monitored. However, CalRecycle staff does not recommend the proposed 12-mil product due to its limited-service life and seam issues. Dura Skrim® offers thicker, more durable 24-mil and 30-mil geosynthetic covers that are weldable and have a longer service life.

Should the LEA allow the use of the 12-mil Dura Skrim® or combination of low permeability soils, a monitoring and repair program should be required that documents settlement, fissures, tension cracks, tears in the liner, or other areas where the fill was needed to support the liner or maintain drainage and actions take to address these issues. The CCL should take before and after photographs of all repairs.

Additional Comments

Reaction Break

While CalRecycle staff cannot determine if the reaction is continuing to expand or is remaining at the current CCL specified boundary, the CCL should evaluate the reaction break installed at the Countywide Landfill in Ohio by the United States Environmental Protect Agency and not Bridgeton Landfill in Missouri. Once the temperature monitoring probes are installed, criteria can be established to determine where and when a reaction break is necessary to prevent the additional uncontrolled migration of the reaction into other areas of the landfill.

Please do not hesitate to contact me by telephone at (916) 341-6356 or by email at Todd.Thalhamer@Calrecycle.ca.gov if you have comments or questions.

Sincerely,



Todd Thalhamer, P.E.
Senior Waste Management Engineer
CalRecycle

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