California Environmental Protection Agency

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September 12, 2025 Via Email: *Peter.Ruttan@dtsc.ca.gov*

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Subject: Comments on the Draft Removal Action Plan to Protect Cell 8A from Intrusion of Elevated Temperature Landfill Event

Dear Mr. Ruttan:

The California Department of Resources Recycling and Recovery (CalRecycle) Staff are providing this letter in response to your request for technical assistance reviewing the following document:

> *Draft Removal Action Workplan: Interim Relocation and Stabilization of Containerized Waste;* dated July 2025; prepared by Civil & Environmental Consultants (CEC), Inc.

The Draft Removal Action Workplan (RAW) was prepared in response to the Imminent and Substantial Endangerment Determination and Order (ISE Order) issued by the California Department of Toxic Substances Control (DTSC) on April 2, 2025, regarding the Subsurface Elevated Temperature (SET) Event occurring at the Chiquita Canyon Landfill (CCL).

As requested, CalRecycle staff are providing the following comments for your consideration.

General Comments

To date, the CCL's current best management practices and strategies have been unsuccessful at containing the Subsurface Elevated Temperature (SET) Event. The submitted Workplan is similar to the third Soil Reaction Break/Barrier Plan dated November 26, 2024, which CCL submitted to the Los Angeles County Department of Public Health [Local Enforcement Agency (LEA)]. That Plan proposed no barrier and relied on the removal of gas and leachate as a control and containment strategy.

CalRecycle staff provided technical review and comments on the Plan in a letter to Ms. Karen Gork dated March 28, 2025. In this letter, CalRecycle staff determined that the submitted barrier plan will not contain or control the SET Event, thereby posing a risk to the entire waste management unit. The CCL is relying on an unfounded concept of removing heat from gas and leachate through their gas collection system to contain the SET Event. While CalRecycle agrees that the pressure needs to be reduced and the leachate must be removed from the gas extraction wells for the proper vacuum to be applied, CCL has not provided any evidence, report, or heat study to prove that this concept can contain the reaction.

SET Events will continue to expand until no organic matter is available to smolder or pyrolyze. Past SET Events have been contained by reducing the oxygen, removing organic matter through an air break or soil break/cover, or by dissipating heat over time to temperatures below those of combustion or pyrolysis. However, based on CCL's temperature probes, gas wellhead temperature, gas composition (e.g., carbon monoxide, hydrogen, volatile organic compounds), settlement, and fissure data, and the continuing odor violations the CCL has received from the South Coast Air Quality Management District, the SET Event is not contained using their best management strategies and is continuing to expand.

As an example, the current CCL gas wellhead data showed two wells, CV-113 and CV-24011 have both exceeded the 24-hour high temperature report pursuant to the compliance provisions identified in Title 40 of the Code of Federal Regulations (CFR) 63.1981(k) for a landfill gas temperature measured at either the wellhead or at any point in the well greater than or equal to 170 degrees Fahrenheit and the carbon monoxide (CO) concentration is greater than or equal to 1,000 ppmv. Both wells are outside CCL's Reaction Committee Data Driven Boundary Map as of July 2025.

Technical Comments

1. CCL claims that a partial soil barrier is installed between Cells 6 and 8; however, the submitted drawings show that the soil barrier is located in Modules 4 and 5. This demonstrates there is just a 5-foot cover above this area and no vertical soil wall between Cells 6 and 8. Based on CCL analysis, there is no internal barrier that will prevent the reaction from spreading to the entire facility.
2. This aforementioned cover does not prevent the SET Event from passing underneath the cover.
3. The CCL's consultant indicates that the cutoff barrier soil borings would need to be more than 200 ft deep, and this is not feasible. This again is confusing, given that the waste at the interface between Cells 6 and 8 is approximately 80 ft deep and is very achievable.
4. The CCL claims the US EPA "does not include construction of this type of barrier in its list of Potential Management and Mitigation Strategies for Elevated Temperature Landfill conditions." The cited one-page document is not a guidance document. On July 16, 2025, Dr. Max Krause of the US EPA's Research and

Development Division gave a webinar and stated in the presentation that one of the Potential Corrective Actions is “thermal barriers (grout or vertical walls).”

5. The CCL indicates that it is concerned that the construction of a vertical wall at the required location will result in additional impacts to the surrounding community in the form of detectable emissions. CalRecycle staff share the same concern but note that the intention is to install the barrier in an area not currently affected by the reaction.

Administrative Comments

1. The Final RAW should be signed by a registered professional engineer in the State of California. The current submittal is an unsigned draft.
2. The report references a footnote “Declaration of Craig H. Benson in Opposition to Plaintiff’s Motion for Preliminary Injunction, Case No. 2:24-cv 10819-MEMF-MAR, Dated July 17, 2025,” however, it does not provide the referenced document to review.

Conclusion

Our opinion remains that the CCL does not present a compelling reason not to construct the barrier. The expansion of the SET Event into Cell 8A must be prevented by connecting the previously constructed soil barrier to the west and eastern edges of Cell 8A for two primary reasons; (1) if a soil buttress must be constructed to stabilize the slope SET Event, this is the only area large enough to build a buttress and (2) to prevent the uncontrolled growth of the reaction area into areas where active waste disposal is occurring. Should the CCL not provide this vertical soil cutoff at the interface between Cells 8 and 6, CalRecycle staff recommend that additional mitigations be imposed, including but not limited to:

A. The CCL should complete a comprehensive global slope stability study for areas where critical infrastructure is located (e.g., temporary Tank Farm 13 located in Cell 8B) assuming the reaction encompasses the entire waste management unit. The CCL’s consultant GLA, in a presentation to USEPA in 2024, indicating that if the reaction expanded to the interface of Module 4/5, certain slope stability factors start dropping below the acceptable factor of safety.
B. No active waste disposal can occur within 500 ft. of the defined reaction area.

If you have any comments or questions, please contact Todd Thalhamer at (916) 341-6356 or email Todd.Thalhamer@Calrecycle.ca.gov.

Sincerely,



Todd Thalhamer, P.E.
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Cc Via Email:

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