

March 7, 2024
File No. 01204123.21-13

Mr. Baitong Chen
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765

Subject: Monthly Reaction Committee Determination on Reaction Area Boundary
Chiquita Canyon Landfill – Castaic, California

Dear Mr. Chen:

In accordance with Condition Nos. 9a and 9b of the Modified Stipulated Order for Abatement (SOFA) pertaining to the Chiquita Canyon Landfill (Landfill or Facility) (Case No. 6177-4), the Reaction Committee has reviewed newly acquired applicable data recorded during the month of February 2024, considered revisions of the estimated extent of elevated temperature landfill (ETLF) conditions exhibited at the subject Facility (referred to as the “Reaction Area” limits), and has prepared this determination on potentially revising the Reaction Area map.

Attachment A presents the Drawing, titled “Reaction Area Map”, prepared by SCS Engineers (SCS) and dated 2/5/24. The Drawing depicts the Reaction Area boundary as prescribed in Condition No. 9a, which corresponds to the limits of Cells 1/2A, 2B/3, 4, and Module 2B/3/4 P2 as a solid black line. The Drawing also depicts the estimated extent of ETLF conditions being experienced at the site based on the Reaction Committee’s review of scientific data as a dashed magenta line. Data from the past month shows that there is an area within the dashed magenta line (the southwestern portion of the area) that demonstrated less evidence of reaction characteristics in February compared to the previous month, including less pronounced settlement and fewer wells exhibiting trigger thresholds for temperature, hydrogen, and poor gas quality. However, the Reaction Committee feels that it is prudent to not contract the magenta line this month to enable evaluation as to whether this constitutes a trend of contraction of ETLF conditions in this area over the next several months.

As presented on the Drawing, the estimated extent of ETLF conditions (dashed magenta line) is fully contained within the Reaction Area boundary decreed in the SOFA (solid black line). Although the dashed magenta line has been modified since the Reaction Committee’s prior monthly review to incorporate one additional landfill gas well, the Reaction Committee finds no basis to modify the Reaction Area boundary at this time because these ETLF conditions are fully contained within the Reaction Area boundary and have not expanded into a new cell. Please note the following:

- The rationale serving as the basis for considering adjustments and modifications to the Reaction Area boundary (or the determination to maintain the decreed boundary), include:
 - Landfill gas (LFG) wellhead temperatures in excess of approximately 160 degrees Fahrenheit.



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- Poor gas quality (defined as methane levels of less than 30 percent) in conjunction with methane-to-carbon dioxide (CH₄:CO₂) ratios less than 1.0.
 - The concentration of hydrogen (H₂) in the LFG measured greater than 2 percent by volume.
 - Accelerated settlement of the landfill surface, defined as approximately 6 inches or greater within a 60-day period, and cracks in landfill cover.
 - First-hand observations of Landfill and/or SCS engineering, construction, and operations and maintenance (O&M) field personnel who are on-site related to: 1) atypical excess leachate quantities (presence and quantity of liquids); 2) instances of pressurized liquids emitting from the landfill surface, from boreholes during drilling, and from LFG wells; and, 3) the characteristics of the odors originating from the select areas of the waste footprint (often described as “chemical-like” and distinctly different from typical LFG or landfill working face odors).
 - Observations of subsurface waste conditions and characteristics as noted on borehole drilling logs for recently installed new wells and/or probes.
- There was no dissenting opinion among the Reaction Committee members regarding this monthly determination.
 - Supporting data is presented on the Drawing included as Attachment A.

Please contact either of the undersigned if you have questions or require additional information.

Sincerely,



Robert E. Dick, PE, BCEE
Senior Vice President
SCS Engineers



Patrick S. Sullivan, BCES, CCP
Senior Vice President
SCS Engineers

RED/PSS

cc: Nathaniel Dickel, SCAQMD
Christina Ojeda, SCAQMD
Pablo Sanchez Soria, PhD, CIH, CTEH
Neal Bolton, PE, Blue Ridge Services, Inc.
Angie Perez, PhD, CIH, CTEH
Srividhya Viswanathan, PE, SCS Engineers

Enclosure:

Attachment A – Reaction Area Map

