



Memorandum

MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT

Reviewed by: [Signature] Date: 1/25/21
General Manager

DATE: January 15, 2021
TO: General Manager
FROM: Director of Engineering & Compliance
SUBJECT: California Air Resources Board (CARB) and Monterey Bay Air Resources District (MBARD)
Landfill Inspection Update

RECOMMENDATION: INFORMATION ONLY.

BACKGROUND

Since October 2020, staff has provided the Board with periodic updates of the progress of activities to achieve compliance on several aspects of applicable air quality regulations. On September 16, 2020, representatives from the California Air Resources Board (CARB) performed an inspection of the landfill and determined that nine (9) of 17 landfill gas collection wells had fugitive surface emissions in excess of the allowable limit. The CARB inspectors were accompanied by the Monterey Bay Air Resources District (MBARD) inspector for the Monterey Peninsula Landfill. Separately, MBARD issued a notice of noncompliance associated with the 2019 quarterly surface emission monitoring and reporting, and fugitive surface emissions from the landfill. This staff report to the Board is to provide an update on the District's progress to address all aspects associated with compliance the CARB and MBARD requirements.

DISCUSSION

Please refer to the attached letter to MBARD's Executive Officer, Richard Stedman, dated December 24, 2020. Outlined in the letter is the District's Action Plan to address the compliance shortcomings identified by and in association with the CARB and MBARD inspections and permit review activities. The Action Plan generally has two parts; a human factors element and a physical or infrastructure element. The first part consists of independent review of the District's air compliance activities, those conducted by both staff and contracted parties, such as monitoring, recordkeeping, and reporting; and also independent review of landfill operations and the landfill gas collection and control system (GCCS) operations by industry experts. These address the human factor element; management, administrative, and operational aspects.

There is also a physical or infrastructure element required to address the fugitive surface emission exceedances. Enough waste has been disposed since 2018 when the last gas collection wells were installed that new gas collection wells are required. In addition, the piping network to deliver the collected gas to the gas-to-energy plant and enclosed LFG flare also needs to be expanded to increase the gas volume delivered to the gas plant and flare. The piping network was last expanded in 2013 and there are several constrictions or restrictions that need to be eliminated in addition to bringing piping to the current top deck elevation where the new collection wells are being installed.

CARB/MBARD Landfill Inspection Update

January 15, 2021

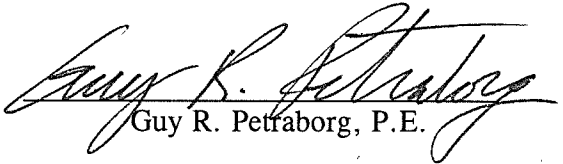
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A plan for 25 new gas collection wells was designed in 2019 and approved by the Board in March 2020 as part of the CEC Grant Project. Thirteen (13) of the 25 wells were drilled in December 2020. The remaining 12 wells are to be drilled in the next 30 days or so, weather permitting. Staff has determined that an additional 12 to 15 collection wells will be required mostly to replace older wells on the top deck that have been raised several times to accommodate the change in elevation of the landfill's top deck. The revised fiscal year budget presented in the January 2021 Board meeting includes funds for both the added gas collection wells and the piping network expansion.

The following are related measures that the District has accomplished to contribute to achieving our goal, and that of CARB/MBARD, of 100% compliance of applicable air quality requirements:

- Installed surface seals on all nine (9) of the wells having exceedances as measured by CARB
- Submitted requested information to MBARD on 11/13/2020
- Completed sUAS aerial drone monitoring on 10/26/2020
- Joined CARB Pilot Study of aerial flyover monitoring on 11/02/2020
- CARB Pilot Study aerial flyover completed – 11/12/20 and subsequently addressed several elements in the landfill in the vicinity of points identified by the aerial surveillance equipment
- Made internal improvements in gas well monitoring. New well heads installed in July 2020 allow for collection of more data from each well. The additional well data improves the well assessment and tuning activities that are associated with well monitoring.
- Increased frequency of well monitoring
- Completed 4th Quarter Surface Emission Monitoring and each of the progressive response activities of i) surface cover enhancement, ii) adjusting gas collection wells to increase gas collection, and iii) bringing online two (2) new wells in December 2020 (CV-16 and CV-17)

Staff plans to provide the Board with an update at the February 2021 Board Meeting.


Guy R. Petraborg, P.E.