



**NAPA-VALLEJO WASTE
MANAGEMENT AUTHORITY**

Agenda Date: 11/5/2009

Agenda Placement: 6C

Napa-Vallejo Waste Management Authority Board Agenda Letter

TO: Board of Directors
FROM: Trent Cave - Manager
Napa-Vallejo Waste Management Authority
REPORT BY: Trent Cave, Manager - 7072534274
SUBJECT: American Canyon Sanitary Landfill (ACSL), activities related to methane gas

RECOMMENDATION

AMERICAN CANYON SANITARY LANDFILL (ACSL) activities related to methane gas

DISCUSSION AND POSSIBLE ACTION: Staff to discuss recent activities related to methane gas at American Canyon Sanitary Landfill.

EXECUTIVE SUMMARY

Staff to discuss recent activities related to methane gas extraction, corrective actions relative to a notice of violation by the California Waste Management Board Local Enforcement Agency, and new requirements from the EPA on greenhouse gas emissions.

FISCAL IMPACT

Is there a Fiscal Impact? No

ENVIRONMENTAL IMPACT

ENVIRONMENTAL DETERMINATION: The proposed action is not a project as defined by 14 California Code of Regulations 15378 (State CEQA Guidelines) and therefore CEQA is not applicable.

BACKGROUND AND DISCUSSION

In the first quarter of 2008, probes MP-3R and MP-4R started to have methane levels above 5 percent by volume in air (which is the lower explosive limit [LEL]) at the landfill property line. These high readings were unusual because this is the first incident of migration from the landfill since the inception of perimeter probe monitoring in 1991. The LEA has issued a Notice of Violation and the Authority has taken numerous action to correct the violation. MP-3R is in compliance but MP-4R continues to be a violation.

A meeting was held with the California Integrated Waste Management Board on October 7, 2009 and a concern relative to the probes proximity to the proposed public trail was expressed. Landfill Gas (LFG) levels observed at this probe do not cause an exposure problem because the landfill is surrounded by surface water bodies. Water filling the pore space in the soil blocks the pathway for the escape of LFG beyond the landfill property. A surface sweep was performed around the probe and the area between the probe and the landfill. The presence of methane was not recorded at the ground surface. This indicates that the high methane reading observed in probe MP-4R is not causing a surface emission problem. Many landfills in the State of California have public access above in-place garbage and high methane levels. The area of the probe and public access does not have in-place garbage below the surface. Periodic surface sweeps of the area have been added to our routine gas monitoring protocol.

The review of LFG system operational data from the individual extraction system by Golder indicated that several wells near MP-4R are not functioning properly. These wells include GS-80, GS-83, and L-6. In addition, a LFG header appeared to be blocked that provided vacuum to the wells in the vicinity of MP-4R. The Authority staff has developed the following an action plan in regard to correcting the on going violation at MP-4R.

1. Fortistar will conduct a maintenance appraisal of these wells and the vacuum header leading to these wells. The purpose of this appraisal is to determine if a vacuum deficiency to the wells in this general portion of the landfill could have added to the methane intrusion problem at MP-4R. Fortistar will be given 30 days to perform the assessment. If positive results are not taken by Fortistar within that time period, the Authority will take a more active role in LFG control at the site.
2. An assessment is also being made to determine if one of more of the existing LFG extraction wells should be replaced and/or new extraction wells added to the network.

The operational data gathered by Golder was for the purpose of determining the useful life of the remaining LFG and to assist the Authority in future planning for LFG related facilities. LFG production has had a unexpected reduction in gas generation over the last several years. Many wells are not functioning properly. The blocked header suggested by Golder maybe resulting in many well failures as extracted gas re-routes around the blocked header. If a blockage is discovered and flow returns, gas generation should rise.

The Authority has also been informed that it will be subject to EPAs Mandatory Reporting of Greenhouse Gases Final Rule. Golder Associates, our landfill gas consultants, are reviewing the rule and will be offering their services to bring us into compliance with the Rule, which begins next year. Golder's cost estimate for their service is \$4,000. An informational flyer is attached on the new rule.

SUPPORTING DOCUMENTS

- A . NOV Response Letter
- B . Golder Technical Info

Manager: Approve

Reviewed By: Martha Burdick