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**ALTAMONT LANDFILL AND RESOURCE RECOVERY FACILITY
COMMUNITY MONITOR PROGRESS REPORT NO. 8**

Prepared For:

**Community Monitor Committee
Altamont Landfill Settlement Agreement
City of Livermore Public Services Department
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DOCUMENTS REVIEWED

MONTHLY TONNAGE REPORTS FOR DECEMBER 2005 AND JANUARY, 2006

The average total daily disposal quantity is well within the 11,500 tons per day permitted maximum and the 7,000 tons per day settlement agreement limit. The monthly tonnage reports include the type, source, and quantity of alternate daily cover (ADC) materials received at ALRRF, as required by the settlement agreement.

STORM WATER POLLUTION PREVENTION PROGRAM, MAY 2005

This document includes both the Storm Water Pollution Prevention Plan (SWPPP) and the Storm Water Monitoring Plan (SWMP). The SWPPP includes the following elements:

- source identification
- practices to reduce pollutants
- assessment of potential pollution sources
- a materials inventory
- a preventative maintenance program
- spill prevention and response procedures
- general storm water management practices
- employee training
- record keeping
- elimination of unpermitted on-storm water discharges to the industrial storm water system

The SWMP is intended to ensure that storm water discharges are in compliance with the RWQCB General Permit and the Waste Discharge Requirements (WDR), that pollution prevention practices are revised to meet changing conditions at the site, to aid in implementation of the SWPPP, and to measure the effectiveness of Best Management Practices (BMPs) to prevent storm water pollution.

The SWPPP is evaluated annually and may be revised if conditions have changed. The SWPPP and SWMP appear to be complete and up to date.

CONDITIONAL USE PERMIT C-5512, MARCH 9, 2000

Reviewed the Conditional Use Permit (CUP) for waste disposal limitations:

- Up to the expansion date, the amount of sludges, inert waste, and special waste is limited to 60,000 tons per year from outside Alameda and San Francisco counties.
- Up to the expansion date, 7,500 tons of such waste can be accepted from outside the Nine Bay Area Counties.
- Prior to the expansion date, ALRRF may accept up to 15,000 tons as self-haul from Contra Costa County.
- After expansion, sludges, inert waste, and special waste are limited to a total of 25,000 tons per year from outside Alameda and San Francisco Counties, and none from outside the nine Bay Area Counties.
- After expansion, the banking and major event provisions no longer apply.
- Self haul from Contra Costa County is limited to 25,000 tons per year after the expansion date.

WASTE ACCEPTANCE LIMITATIONS - QUANTITIES LIMITED BY THE SETTLEMENT AGREEMENT - WM TABLE

A table prepared by Waste Management from data generated by the scale program (attached) indicates that the quantity of sludge, inert waste and special waste received from outside Alameda and San Francisco Counties has been well within the 60,000 tons per year limit since 2001. The quantity of sludge, inert waste and special waste from outside the nine Bay Area counties has been within the 7,500 tons per year limit since 2001. In addition, the self-haul from Contra Costa county has been within the 15,000 tons per year limit since 1999. The numbers in the attached table have been revised from those presented in a previous progress report, to remove waste tonnage which was not covered in the waste disposal limits in the conditional use permit (CUP).

COMBINED TITLE V SEMI-ANNUAL AND PARTIAL 8-34 ANNUAL REPORT, JUNE 1, 2005 THROUGH NOVEMBER 30, 2005

- The gas collection system was not shut down for more than five days consecutively. The total downtime for this reporting period was 1.2 hours.
- The target gas flow rate was not achieved for 56.15 hours from June 1, 2005 through November 30, 2005. As of November 20, the total time the gas flow rate was not achieved during the calendar year was 193.24 hours out of a total of 240 hours allowed by the Bay Area Air Quality Management District (BAAQMD).
- The target gas flow rate was recalculated (from 2,381 standard cubic feet per minute (scfm) to 1,497 scfm) and is pending BAAQMD approval. The target gas flow rate of 2,381 scfm was originally established by BAAQMD, but Shaw Environmental (consultants to WM) believe it is in excess of what is required to maintain negative pressure at the well heads and prevent emission from the landfill surface in excess of

the 500 part per million limit. A lower target flow rate would allow the flare to run alone if they go "off the grid".

- Turbines maintained temperature above 855 and did not exceed 1,378 thousand thousand British thermal units (MMBTU)/day heat input at any time. However, operating flow and temperature data for the S-6 Turbine was lost from June 14 to June 16, 2005 due to a paper jam in the chart recorder. A notice of violation was issued by BAAQMD for late reporting of the inoperative monitor.
- Internal Combustion (IC) engines did not exceed daily carbon monoxide (CO) concentration limit of 330 parts per million (ppm) at any time and did not exceed the daily heat input permit limit of 420 MMBTU/day.
- Flare maintained 1,400 degree Fahrenheit combustion zone temperature during the reporting period and did not exceed 1,704 MMBTU/day heat input limit.
- The cover integrity monitoring was performed on a monthly basis. There were no areas that needed to be repaired during the reporting period. However, there were fifteen exceedances of the 500 ppmv limit during the second quarter (previous reporting period) that were not reported at that time. Areas of exceedances were repaired and re-monitored. There were no exceedances during the re-monitoring even on June 16, 2005.
- There was no well that deviated from the BAAQMD 8-34-305 limits (that each well head shall operate under a vacuum, the landfill gas temperature shall be less than 55 degrees C and the oxygen concentration shall be less than 5 percent by volume).
- Hydrogen sulfide was less than the 150 parts per million (ppm) limit on all monthly monitoring dates.
- ALRRF did not accept VOC contaminated soil greater than 50 ppm by weight.
- The carbon emission rate from VOC contaminated soil did not exceed 15 pounds per day as calculated in the Report.
- No methane was detected in permanent gas monitoring wells.

SECOND SEMI-ANNUAL AND ANNUAL 2005 GROUNDWATER MONITORING REPORT

No leachate seep were observed during the second semiannual 2005 monitoring period.

Seven groundwater monitoring wells (E-03A, E-17, E-18, E-20B, E-21, E-22, and E-23) were sampled in September and in November. Samples were also collected from Vadose Zone Monitoring location VZM-A, but the samples were lost by FedEx. A resample of VZM-A was collected on December 5, 2005. A 5-Year Constituent of Concern (COC) scan was completed at the groundwater monitoring wells, VZM-A, and leachate monitoring points during the Third Quarter 2005.

The concentration limits, which ALRRF must meet, are the lowest of either the practical quantitation limit, the reporting limit, or the state MCL. One unexplained detection above reporting limits, or two unexplained trace concentrations in any detection monitoring well are considered an initial exceedance and require notification to the RWQCB and resampling. The only detection exceeding the concentration limit during the first and second quarter 2005 in detection, corrective action, or evaluation monitoring wells is vinyl chloride at evaluation monitoring well E-20B. Vinyl chloride has been detected in well E-20B at similar concentrations since at least 1991 (the earliest data presented in the Groundwater Monitoring Report). Waste Management attributes the VOC detections at E-20B to the influence of landfill gas. The approach to the exceedance at E-20B, which has been proposed to the RWQCB (Updated Engineering Feasibility Study prepared by SCS, November 2004; revised March 2005; pending RWQCB approval) is active landfill gas control, and continued monitoring.

According to SCS Engineers, based on the intra-well (single well) statistical evaluation of inorganic constituents, there are no significant increasing or decreasing trends in inorganic monitoring parameters (alkalinity, chemical oxygen demand, chloride, nitrogen, total dissolved solids, sulfate, calcium, magnesium potassium, silicon, and sodium) for the third and fourth quarter 2005.

The monitoring results for each quarter are summarized below.

September (Third Quarter)

No volatile organic compounds (VOCs) were detected in wells E-17, E-18, or E-22. Estimated concentrations (below reporting limits) of 1,1-dichloroethane (1,1-DCA) were detected in E-03A, E-21 and E-23.

Vinyl chloride was detected in well E-20B at a concentration of 1.4 micrograms per liter (ug/L). This concentration exceeds the California Maximum Contaminant Level (MCL) for vinyl chloride of 0.5 ug/L. In addition, estimated concentration below reporting limits of benzene, chlorobenzene, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 1,1-DCA, 1,2-dichloropropane,

dichlorofluoromethane, diethyl ether, tetrachloroethene (PCE), trans-1,2-dichloroethene, trichloroethene (TCE), and tetrahydrofuran were detected in well E-20B.

Fourteen VOC compounds were detected in the sample from VZM-A at estimated concentrations (below reporting limits). These detections were attributed to landfill gas.

November (Fourth Quarter)

No VOCs were detected in E-17, E-18, and E-22. Estimated concentrations of 1,1-DCA were detected in E-03A, E-21, and E-23.

Vinyl chloride was again detected above the reporting limit in E-20B at a concentration of 0.95 ug/L, in excess of the California MCL. Contaminants detected in E-20B at estimated concentrations include benzene, chlorobenzene, 1,4-dichlorobenzene, cis-1,2-dichloroethene, 1,1-DCA, 1,2-dichloropropane, dichlorodifluoromethane, dichlorofluoromethane, diethyl ether, PCE, trans-1,2-dichloroethene, and TCE.

Two VOC compounds were detected in the sample from VZM-A at estimated concentrations (below reporting limits). These detections were attributed to landfill gas.

5-Year COC Event Results

All groundwater, vadose, and leachate monitoring locations were sampled during the third quarter 2005 for the 5-year COCs: chlorophenoxy herbicides, cyanide, metals, organochlorine pesticides, organophosphorous compounds, polychlorinated biphenyls (PCBs) semivolatile organic compounds, sulfides, and additional VOCs.

Aldrin was detected at an estimated concentration in well E-17, tert-butyl alcohol was detected at an estimated concentration in well E-20B, and total sulfide was detected at an estimated concentration in well E-22. Trace concentrations of aluminum, antimony, arsenic, cobalt, iron, lead, manganese, nickel, selenium, vanadium, and zinc were detected in one or more groundwater wells at trace concentrations.

Tert-butyl alcohol and methyl tert-butyl ether (MTBE) were detected in the VZM-A sample, as well as trace concentrations of antimony, iron, and nickel. Arsenic, barium, and manganese were detected in VZM-A above reporting limits.

Two SVOCs and one organochlorine pesticide were detected in the waste water treatment plant effluent sample. Organochlorine pesticides were also detected in the groundwater interceptor barrier (GWIB) and valley drain 2 (VD2). Tert-butyl alcohol and/or MTBE were detected in all leachate monitoring points except E-05. Antimony, arsenic, barium, chromium, iron, manganese, nickel, and vanadium were detected in one or more leachate samples above their reporting limits.

Based on 5-Year COC results for groundwater monitoring well samples, no additional action is recommended. VZM-A and leachate monitoring points are used to monitor the characteristics of potential releases from the ALRRF fill areas. No additional action is recommended for detections of 5-Year COCs at these points.

Concerns

Several concerns were identified during the review of the Second Seminannual and Annual 2005 Groundwater Monitoring Report.

First, although the *1998 Proposed Title 27 Detection Monitoring Program for the Existing Fill Area 1 and Proposed Expansion Area for Altamont Landfill and Resource Recovery Facility* (Rust Environmental) indicates that sampling will not be done before the water quality parameters have stabilized, during the fourth quarter, well E-21 was sampled before the turbidity had stabilized.

Second, only one set of stabilization parameters were collected from leachate monitoring wells E-05 and E-07, so it is unclear if stabilization was achieved before the leachate monitoring wells were sampled. The significance of this is that if stabilization was not achieved, then stagnant water was sampled and it is likely that the concentrations of VOCs were underestimated. Further, since the water in the well casing is oxidized as it stands, metals concentrations may not be representative of aquifer conditions.

Third, only 1.0 to 1.5 gallons of water were purged from leachate monitoring wells E-05 and E-07, so it is possible that stagnant water was sampled. As a result, it is possible that VOC concentrations are underestimated and that the metals concentrations are not representative.

TechLaw contacted Mr. James Obereiner of Waste Management with questions about groundwater and leachate monitoring well sampling. As a result of our questions, it appears that Waste Management's consultants, SCS Engineers, will be collecting 3 sets of stability parameters from the leachate monitoring wells E-05 and E-07 during future monitoring events.

LANDFILL INSPECTION 2/23/06

DOCUMENTATION MAINTAINED AT LANDFILL

Asbestos Daily Records 1/2/06 to 2/21/06

The only issue noted in the asbestos daily records is that the fence has been under construction throughout this period. A temporary fence is in place.

Load Check Reports 1/13/06 to 2/9/06

Items removed from loads during this period include tires, microwaves and TVs. WM is required to do at least four load checks per month; however, the practice is to do at least four per week. Load check forms are also completed anytime an item is removed from a load apart from a planned load check. Therefore, according to the load check reports, load checks are done much more often than required, up to several per day.

Special Occurrences Log

None to date this calendar year.

Notice of Violation Record - BAAQMD

None since last inspection.

Local Enforcement Agent (LEA) Reports 1/5/06 to 1/26/06

Some erosion on slopes; drainage and erosion control was identified as an area of concern, but there were no violations. The asbestos addendum noted that the temporary fence was up and there were no violations.

OBSERVATION OF ENVIRONMENTAL CONTROLS

Dust

Some dust was generated by vehicles, but did not persist. Water trucks were working the roads.

Vectors

Birds are present and bird cannons are in use.

Cover

The daily and intermediate cover appears to be in compliance with Title 27 requirements; no waste is exposed except in areas prepared for disposal, the working faces are kept to a minimum, compaction appears adequate. Significant erosion was observed in the closed portion of the landfill but none elsewhere in the cover.

Litter

There is litter near the gate and some litter in the first mile or so to the east. A lot of litter was observed in turnouts - probably unrelated to the landfill operations. There was apparently a recent litter pick up along the road to the west.

TRUCK TRAFFIC

No truck counts were performed during this inspection.

TOUR OF THE LANDFILL WITH WM ENVIRONMENTAL COMPLIANCE SPECIALIST (TERESA DOMINIQUE)

- Observed the route truck area.
- Observed the area filled last week and the next area to be filled.
- Observed stockpiles of auto shredder cover and shredded tires.
- Observed the asbestos area during dumping of soils containing naturally occurring asbestos.
- Viewed location of planned composting area. The mini-composting facility will have a capacity limit of 12,500 cubic yards.
- There is significant erosion in the final cover of the closed area. This area will be repaired when conditions permit.

LANDFILL INSPECTION 3/14/06

DOCUMENTATION MAINTAINED AT LANDFILL

Load Check Reports (through 3-3-06)

Since the last inspection, TV monitors, microwaves, water heaters and tires have been pulled from loads.

Asbestos Disposal Area Daily Operating Inspection Records (through 3-9-06)

The permanent fence is still not intact.

Special Occurrences Log

On 2/14/06 there was a third party accident. A trailer turned over when unloading dirt.

Notice of Violation Record - BAAQMD

None since last inspection.

OBSERVATION OF ENVIRONMENTAL CONTROLS

Dust

Heavy rain in early morning. No dust.

Vectors

Lots of birds are present and the bird cannons are in effect.

Cover

The cover appears to be adequate and intact with the exception of the erosion in the closed portion; which will be repaired when weather conditions permit. Conditions are very wet and muddy with some minor ponding on the surface.

Odors

No odor.

Litter

Very little litter observed.

TRUCK TRAFFIC

6:45 -7:45 AM: A total of 25 trucks. The limit is 50.

7:45 - 8:45 AM: A total of 20 trucks were counted. The limit is 50.

TOUR OF THE LANDFILL WITH THE LEA (KAREN MOROZ) AND WM ENVIRONMENTAL COMPLIANCE SPECIALIST (TERESA DOMINIQUE)

- Met with the new supervisor, Alan.
- Observed route truck area.

- Looked at garbage in public area with Karen to see if the public is complying with new universal waste laws. Identified many banned items including TVs microwaves, printers, and water heaters. Items were pulled while we observed.
- Observed the asbestos area during covering of a load disposed in boxes.
- Observed sedimentation basin near office. The basin in not full and not discharging.

REPORTING LEACHATE SEEPS

The Waste Discharge Requirements (WDR) requires that leachate seeps immediately be reported to the Water Board by telephone followed by a written report containing the location, flowrate, nature of discharge, and corrective measures taken. The leachate seep in March 2005 was reported to the Water Board by telephone and followed up with a letter report. The action taken was to berm with soil and place additional cover soil "track walked" with a dozer.

WELL 20B

The vinyl chloride detection in Well 20B is not a violation but "evidence of a release". The required actions in the event of a release are to notify the Water Board, propose an evaluation monitoring program, and submit an engineering feasibility study. WM conducted an engineering feasibility study for Well 20B in November 2004 (*Updated Engineering Feasibility Study Well E-20B Area, Altamont Landfill and Resource Recovery Facility*. SCS Engineers). WM attributes the detections in Well 20B to the influence of landfill gas and proposes continued monitoring and landfill gas control. The Water Board has apparently not responded to this proposal.

WHAT HAPPENS WHEN THERE IS A VIOLATION?

If the LEA identifies a violation, WM must correct the problem. If for some reason, the LEA does not feel that WM is responsive, she can take the issue to the District Attorney, who can impose a fine. She also has the authority to shut down the landfill operation if necessary. Fines can also be imposed by the BAAQMD for violations of the air permit (unless contested), by the RWQCB if a reporting date is missed, and if an NPDES report date is missed.

FUTURE WORK

TechLaw will conduct landfill inspections April and May, review monthly tonnage reports and any environmental compliance documents prepared by WM or their contractors, and respond to any requests from the Community Monitor Committee.

REFERENCES

Alameda County, March 9, 2000. *Conditional Use Permit C-5512 Altamont Landfill and Resource Recovery Facility, Class II Expansion.*

BAAQMD, December 29, 2005. *Combined Title V Semi-Annual and Partial 8-34 Annual Report.*

California Code of Regulations, Title 27.

Rust Environmental 1998. *1998 Proposed Title 27 Detection Monitoring Program for the Existing Fill Area 1 and Proposed Expansion Area for Altamont Landfill and Resource Recovery Facility.*

SCS Engineers, May 2005. *Storm Water Pollution Prevention Program.*

SCS Engineers, January 2006. *Second Semiannual and Annual 2005 Groundwater Monitoring Report, Altamont Landfill Resource and Recovery Facility.*

Waste Management, January 6, 2006. *Table of waste limitations with respect to the settlement agreement generated from scale reports.*

Waste Management, January 20, 2006. *Monthly Tonnage Report for December 2005.*

Waste Management, February 14, 2006. *Monthly Tonnage Report for January 2006*