

From: "ja lu" <jajalu@gmail.com>
To: <mfletcher@waterboards.ca.gov>
Date: 8/1/2007 2:47:00 PM
Subject: Los Olivos Landfill questions

Dear Martin Fletcher with the California Regional Water Quality Control Board,

Thank you for the documents and allowing us to inquire about the issues related to the future monitoring of our landfill site. We have a residential/agricultural property within a couple of miles from the landfill, which will be passed down in our family to the next generation. We would greatly appreciate answers for the concerns we've stated below.

1) The chemistry of waste is very complicated because of its complex composition. It is therefore very hard to determine whether the monitoring time of 30 years is enough. As stated, (Specifications, no.14, page 7 in the document Waste Discharge Requirements order No.R3-2007-0027 (WDR), "The post-closure maintenance period and compliance period,...is a minimum of 30 years, or until waste discharge no longer poses a threat to water quality". There should be a known decay period for every relevant component in the waste. Moreover, some of the composition may be unknown. Biochemical reactions can be very fast if it is allowed, meaning if enough water and air combined with the right temperature are given to the microorganisms the negative effects could be compounded.

1a) Is this factor considered in the design of the final evapo-transpirative covers?

1b) Will the evapo-transpirative cover slow down and control biodegradation, or delay a more serious problem of groundwater contamination.

1c) The proposed approach seems to be about containment and slow leaching of contaminants into the soil (and possible groundwater). Is this true? The approach seems to be about the delay of a serious problem. Please clarify. (General Findings, no.34, page 4, WDR).

1d) With this semi-containment procedure with assumed long percolation and decomposition life, wouldn't new "covers" possibly be needed to replace the old?

2) 150 feet below ground surface is the groundwater in the perched zones. Emcon & Associate identified seven lithologic zones: A zone at a depth of 110 to 200 feet, A-1, 45-55 feet, B, 30 feet, C, up to 90 feet, etc. (Page 2 of WDR).

2a) Are these pillings from bottom up?

2b) What is the minimum depth assumed for the area of waste disposal? 150 feet is very shallow. Our well at 3130 Foxen Canyon Rd is about this depth, which is at the bottom of the valley near the landfill site.

3) What is the depth of the existing or future monitoring wells? "The levels shown in MW10 indicate that levels of PCE appear to naturally attenuate prior to moving much further downgradient," (page 6, Staff Report for Regular Meeting of September 7, 2007) Please clarify in more detail.

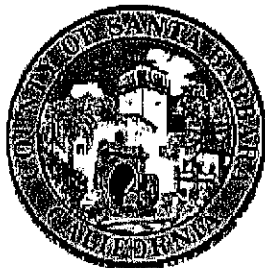
4) Why and how PCE disappears from the groundwater?

4a) Is it by diffusion?

We believe some wells have to be in the middle of the waste area, where the release is more serious, not only at the perimeters where the release has

**COUNTY OF SANTA BARBARA
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PHILLIP M. DEMERY
Director

August 2, 2007

Martin Fletcher
California Regional Water Quality Control Board
Central Coast Region
895 Aerovista Place, Suite 101
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**SUBJECT: COMMENTS TO DRAFT WASTE DISCHARGE REQUIREMENTS R3-2007-0027,
MONITORING & REPORTING PROGRAM R3-2007-0027 FOR FOXEN CANYON
CLOSED CLASS III LANDFILL**

Dear Mr. Fletcher:

The County of Santa Barbara, Public Works Department, Resource Recovery & Waste Management Division appreciates the California Regional Water Quality Control Board - Central Coast Region providing us the opportunity to review and comment on the subjects of:

- Draft Waste Discharge Requirements Order No. R3-2007-0027
- Draft Monitoring and Reporting Program No. R3-2007-0027

We offer the following comments:

Comment #1 WDRs Page 3 Surface Water and Groundwater #27:

WDR Attachment 3 should be omitted as it is redundant and contains several items that are obsolete or inaccurate. Omit the references to Attachment 3, and refer to Attachment 2 for monitoring point locations.

Comment #2 WDRs Page 3 Surface Water and Groundwater #29:

Under the first bullet item, omit "consistently" and replace with "sporadically". Well MW-10 is frequently dry and is therefore not consistently sampled, however, of the thirteen times it has been historically sampled, PCE has been non-detectable in five of those samples. It is also important to note that each of the detections of PCE has been at concentrations below the MCL.

Comment #3 WDRs Page 4 Surface Water and Groundwater #29:

Under the second bullet item, insert "Provision E. 27 of" before "this Order requires...".

AA/EEO Employer

Thomas D. Fayram, Deputy Director Scott D. McGolpin, Deputy Director Mark A. Schleich, Deputy Director
Rochelle Camozzi, Business Manager Michael B. Emmons, County Surveyor
www.countyofsb.org/pwd

Item No. 11 Attachment No. 6
September 7, 2007 Meeting
Foxen Canyon Closed Landfill

Comment #4 WDR's Page 8 Provision #12:

As we have discussed with RWQCB staff, the Discharger operates this facility on leased land. As such we have no ability to implement this Provision regarding a recorded notice on the deed.

Comment #5 WDR's Page 10 Provision #26 and page 11 Report and Implementation Date Summary Table:

The compliance date of June 30, 2007 for this Provision has already passed; please revise to a date within a reasonable time following the September 7, 2007 hearing date.

Comment #6 WDR Attachment 2:

The map shown in this attachment should be revised to eliminate MW-6 since this was a dry well that has been destroyed, and MW-2 which is a dry well that is not a part of the monitoring program. Also, the location of the waste footprint is not accurate in relation to the property lease boundary and well locations.

Comment #7 Monitoring and Reporting Program (MRP) Page 2 E. Evapotranspirative Cover Performance Monitoring:

Part I.E. and Part III.A.5 of the Monitoring and Reporting Program (MRP) require long-term monitoring of the performance of the evapotranspirative (ET) cover that was recently constructed at the Foxen Canyon Landfill (FCL). We believe that performance monitoring of the ET cover constructed at the FCL is not necessary for the following reasons:

- The ET cover proposed for the FCL was developed as an alternative to the California Code of Regulations (CCR), Title 27 prescriptive cover in compliance with the requirements of Title 27. The FCL ET cover was designed using methods used, recommended, and/or approved by the engineering profession, regulatory agencies, and/or research organizations. The FCL ET cover design was developed using site-specific climatic and soil engineering properties to simulate site-specific soil moisture percolation conditions. The results of the design effort indicate that the predicted percolation in the ET cover is less than half the percolation predicted for the Title 27 prescriptive cover. Therefore, the ET cover design will "isolate the waste in the unit from precipitation and irrigation waters at least as well as would a final cover built in accordance with applicable prescriptive standards" in compliance with the requirements of CCR, Title 27, Section 21090.
- Numerous intensively instrumented and monitored field scale test sites have been constructed and evaluated by the Alternative Cover Assessment Program (ACAP) demonstrating the applicability and limitations of alternative landfill covers. Over twenty full scale ET covers have been designed and/or constructed in California over the past ten to fifteen years. To date, over twelve ET covers have been constructed and approved as final covers by various California Regional Water Quality Control Boards. Available monitoring and modeling data for these projects indicate that ET covers performed as expected and exhibit a lower percolation rate than Title 27 prescriptive covers. United States Environmental Protection Agency (U.S. EPA) staff stated that "ET covers are equivalent or superior to clay in all areas" and "ET covers are predictable" in a presentation summarizing the results of the Alternative Cover Assessment Program (ACAP).
- While soil moisture monitoring systems have proven to be useful for agricultural purposes, their accuracy and reliability has proven to be a challenge when these systems are used to monitor

Comment #7, continued:

moisture migration and to quantify percolation in ET covers. This later concern was raised by Dr. William Albright of the Desert Research Institute and principal investigator of the ACAP.

Therefore, because much data has been generated supporting the superior performance of ET covers over that of the Title 27 prescriptive covers and because of the limitations of available soil moisture monitoring systems, it is the position of Santa Barbara County that the acceptance of the alternative cover for the FCL be based on design studies, percolation modeling using site-specific climatic data and soil properties, borrow source investigations, and construction quality assurance procedures, which have been previously submitted to and approved by the RWQCB in accordance with CCR, Title 27, Section 21090. In this regard, it is suggested that Part I.E. and Part III.A.5. should be omitted from this MRP.

We again thank you for the opportunity to review and comment on the Draft of the WDRs and MRP. Please contact me at 882-3613, if you have any questions regarding our comments.

Sincerely,



Imelda A. Cragin
Permitting & Engineering Manager

MAZ/BSP/IAC:mz

cc: Mark Schleich, Public Works
Burton Chadwick, CRWQCB
John Robertson, CRWQCB