



Linda S. Adams
Secretary for
Environmental
Protection

California Regional Water Quality Control Board Central Valley Region

Katherine Hart, Chair

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
Phone (916) 464-3291 • FAX (916) 464-4645
<http://www.waterboards.ca.gov/centralvalley>

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Arnold
Schwarzenegger
Governor

22 April 2010

Greg Pryor, General Manager
Recology Hay Road
235 N. First Street
Dixon, CA 95620

APPROVED	
Author	<u>MSB</u>
Senior	<u>MSB</u>

7 APRIL 2010 INSPECTION REPORT—COMPOSTING AREA, RECOLOGY HAY ROAD LANDFILL, SOLANO COUNTY

Attached for your review is the report from my 7 April 2010 inspection at the Recology Hay Road (Recology) landfill in Vacaville. This was a joint inspection performed by the Solano County local enforcement agency (LEA) and myself to observe Recology's operational changes to reduce off-site odors. Prior to the inspection, on 15 March 2010 the LEA issued a notice of violation to Recology for verified off-site odors originating from the facility.

During the inspection, I evaluated compliance with Waste Discharge Requirements Order R5-2008-0188 with respect to the composting area, an 18-million gallon retention pond, which holds compost leachate and stormwater runoff (referred to as the "high-flow runoff pond" in the WDRs), and requirements to adequately control landfill gas.

I did not note any off-site odors or any on-site nuisance conditions in violation of the WDRs. As I requested during my inspection, Recology shall provide field and laboratory analytical results of the pond liquids obtained during the period when food composting leachate was added to the pond and after the food composting leachate was diverted to holding tanks for off-site disposal. Staff will review the data for correlations, if any, between constituent concentrations and nuisance conditions. Copies of the test results are due to me by **7 May 2010**.

At the pond, I observed that that the HDPE pond liner has ballooned up above the water line, a possible indication of landfill gas intrusion between the liner and soil foundation. WDRs Section C.8, *Facility Specifications*, requires that methane and other landfill gases be adequately vented, removed from a unit, or otherwise controlled to prevent the danger of adverse health effects, nuisance conditions, degradation, or impairment of the beneficial uses of surface water or groundwater due to migration through the unsaturated zone. Therefore, Recology must investigate the cause of the ballooning and provide a report with its investigation results. Recology's investigation must include, but not be limited to, testing the gas space at nearby groundwater monitoring wells and landfill gas detection probes.

Greg Pryor
Recology Hay Road

22 April 2010

By **4 June 2010**, Recology must provide a report with its investigation results. If landfill gas is the cause of the ballooning, as determined by Central Valley Regional Water Quality Control Board staff, corrective action may be required.

If you have questions, please contact me at mboyd@waterboards.ca.gov or (916) 464-4676.

MARY BOYD, P.E.
Water Resource Control Engineer
Compliance and Enforcement Section

Enclosure: Inspection report

cc: Ed Padilla, Solano County Division of Environmental Health, Fairfield
Victor Chan, Solano County Department of Environmental Management, Fairfield
Beatrice Poroli, CalRecycle, Sacramento

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CIWQS Inspection ID # 2206432

CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

INSPECTION REPORT

22 April 2010

DISCHARGER: Recology Hay Road

LOCATION & COUNTY: 6426 Hay Road, Vacaville, Solano County

CONTACT(S): Greg Pryor, facility manager

INSPECTION DATE/TIME: 7 April 2010/8:30 AM

INSPECTED BY: Mary Boyd (Central Valley Regional Water Quality Control Board)
Victor Chan (Solano County LEA, Department of Resource Management)

ACCOMPANIED BY: Rich Flammer (consultant to Recology Hay Road)
Fengyu Wang (field sampler for Recology Hay Road)

OBSERVATIONS AND COMMENTS:

Victor Chan and I arrived at the site at 8:30 AM and met with Greg Pryor, the facility manager. Rich Flammer accompanied us as we walked through the composting area and its associated pond. I noted slight to moderate odors at the composting area. Leachate from the food waste composting area is currently diverted to Baker tanks and is subsequently hauled off-site to a permitted facility. At the 18-million gallon retention pond (the high-flow pond), I observed a large raised area of HDPE liner (a "balloon") that is likely caused by landfill gas intrusion into the space between the pond liner and the soil. I noted slight odors immediately adjacent to and downwind of the pond. A bubbler, odor mister, and chemical injection were in operation at the pond. Fengyu Wang sampled the pond liquids with a YSI 556 field instrument; the dissolved oxygen results were 2.7 mg/L at 8' and 1.38 mg/L at 1' below water surface. I did not note any odors off-site and north of the property at Hay Road or at Fry Road.

SUMMARY:

This joint inspection was performed as a follow-up to verified odor complaints received by Solano County's local enforcement agency. We inspected the composting area and the pond associated with the area. The Discharger recently installed a bubble aeration system, started adding a product ("Sulfree WS 1500" by Guard Products), and improved its odor misting to help control odors at the pond. A large "balloon" of raised HDPE liner in the middle of the pond is an area of concern for its potential to be caused by landfill gas. The Discharger has scheduled Golder and Associates to sample the interstitial space between the liner and the soil. The County inspector instructed Recology to sample the air space at the groundwater monitoring wells adjacent to the pond.

Approved:

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**ecology Hay Road, Solano County
7 April 2010 Inspection Report**



Photograph 1: The surface of the compost area is sloped to drainage ditch inlets (circled in photo) located along a concrete lined drainage ditch.

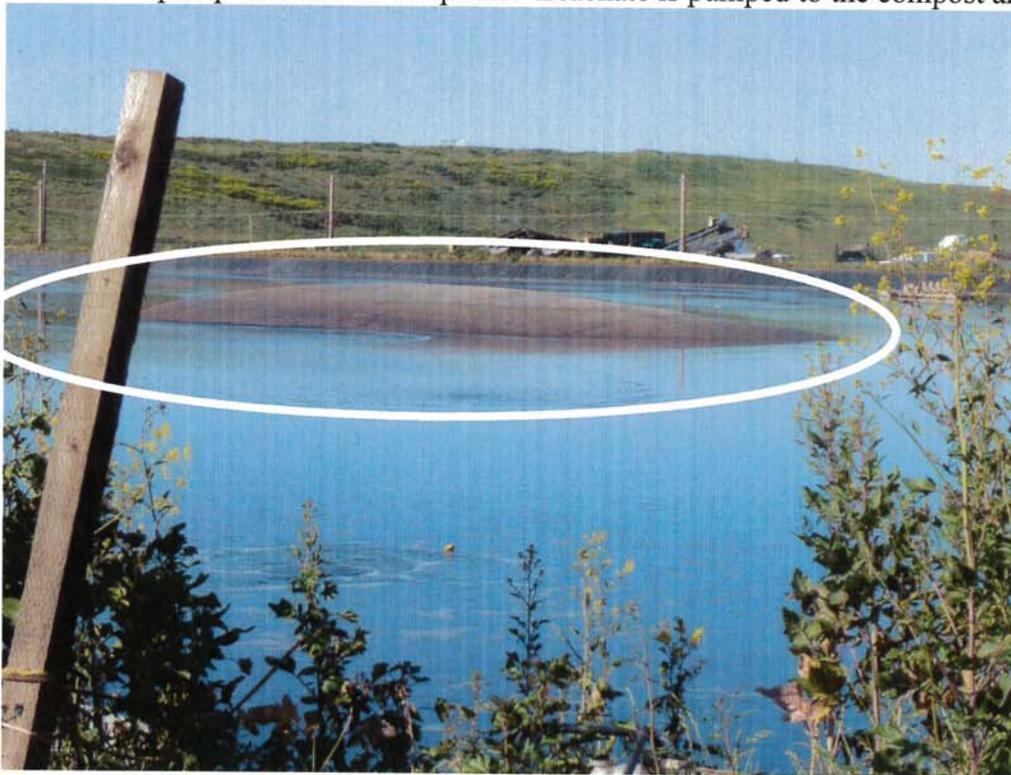


Photograph 2: Close up view of drainage ditch inlets. Concrete lined drainage ditch is located just beyond the cyclone fence on the right side of the photograph.

ecology Hay Road, Solano County
7 April 2010 Inspection Report



Photograph 3: Concrete lined drainage ditch. The location of a 4,200-gallon sump with pump is circled in the photo. Leachate is pumped to the compost area pond.



Photograph 4: Compost area pond with "balloon" (circled in photo above) possibly indicating intrusion of landfill gas. The pond is lined with 80-mil HDPE.