

WEST COUNTY LANDFILL CAMU

Liner Characterization and Repair

Contra Costa County, California

Client:

Republic Services, Inc.

Contract Value:

\$21,000

Performance Period:

June 2006 –
October 2007

Technical Areas:

- Remediation
- Solid Waste Management
- Geotechnical Engineering, Geology and Hydrogeology

Successes:

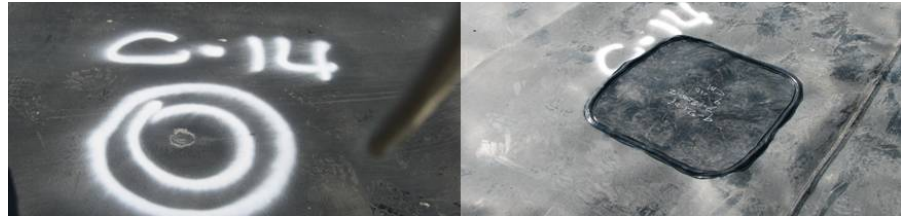
The work plan was approved by DTSC

Inspection and repairs conducted on time

Liner system at CAMU functioning as designated, so no further study necessary



Inspection of clay under geomembrane



Puncture in geomembrane

Patch over puncture

BACKGROUND

The Corrective Action Management Unit (CAMU) for the closed Class I Landfill at the West County Landfill owned and operated by Republic Services Inc. is a self-contained lined unit located on the south side of the landfill. The liner system includes a 2 ft-thick clay layer; an HDPE geomembrane with the textured side down; and a UV protective sacrificial geotextile.

In the summer of 2006, during routine inspections, several tears in the geomembrane were observed and liquid was noted underneath the southeastern portion of the CAMU. In response, the Department of Toxic Substances Control (DTSC) issued a letter requesting documentation of the damages and repairs, adequate characterization of the liner system, and a schedule to perform the follow-up repairs.

SES ROLE

SES prepared a work plan for inspection and repair of the liner system, including inspection of the geomembrane for defects (tears, holes, puncture, and abrasions); inspection of the surface of the clay liner for structural damage; and sampling and testing of the clay to verify that it still met the hydraulic conductivity requirements of the California Code of Regulations, Title 22, Section 66264.552. DTSC approved the work plan and the inspection was carried out in the summer of 2007. Thirty-four (34) defects were observed and repaired. The clay was observed to be intact and homogenous. The clay was tested and the saturated hydraulic conductivity met regulatory requirements.



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