

Fort Ord Cleanup Fact Sheet: Operable Unit 2 (OU2): Landfill Maintenance

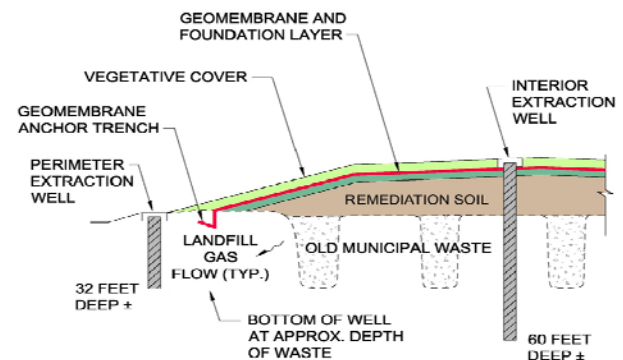
History:

The Army operated a landfill during the years Fort Ord served as a training base. The landfill provided waste disposal for Fort Ord's housing, offices and support facilities, such as machine shops and motor pools. The Army stopped accepting waste into the landfill in 1987. Like many municipal landfills from this era, Fort Ord's landfill (see photo at right) was later found to be leaching hazardous chemicals into the groundwater beneath it. The Fort Ord Landfill site also known as Operable Unit 2 or OU2, consists of smaller areas of buried waste called cells covering approximately 150 acres. Due to the presence of the contamination in groundwater, the Army installed a groundwater extraction and treatment facility which has been operating since 1995. The landfill is now covered with a special cover so that rain water cannot contact the waste and cause chemicals to leach through the soil into the groundwater beneath the landfill. The U.S. Environmental Protection Agency, the California Regional Water Quality Control Board, and the California Department of Toxic Substances Control continue to oversee the landfill project.



What happens on the covered landfill?

Now that the landfill is covered, the Army conducts a regular maintenance program to make sure that the treatment systems are efficiently operating and that the cover remains intact. The cover is inspected routinely and repairs are made to any minor damage caused by erosion and animals. The Army monitors and analyzes the groundwater as a part of a groundwater monitoring program. Monitoring at the Fort Ord landfill has been conducted since the landfill was covered. The diagram at the right shows a cross section of the landfill and the various parts.



Why is there gas and how is it removed?

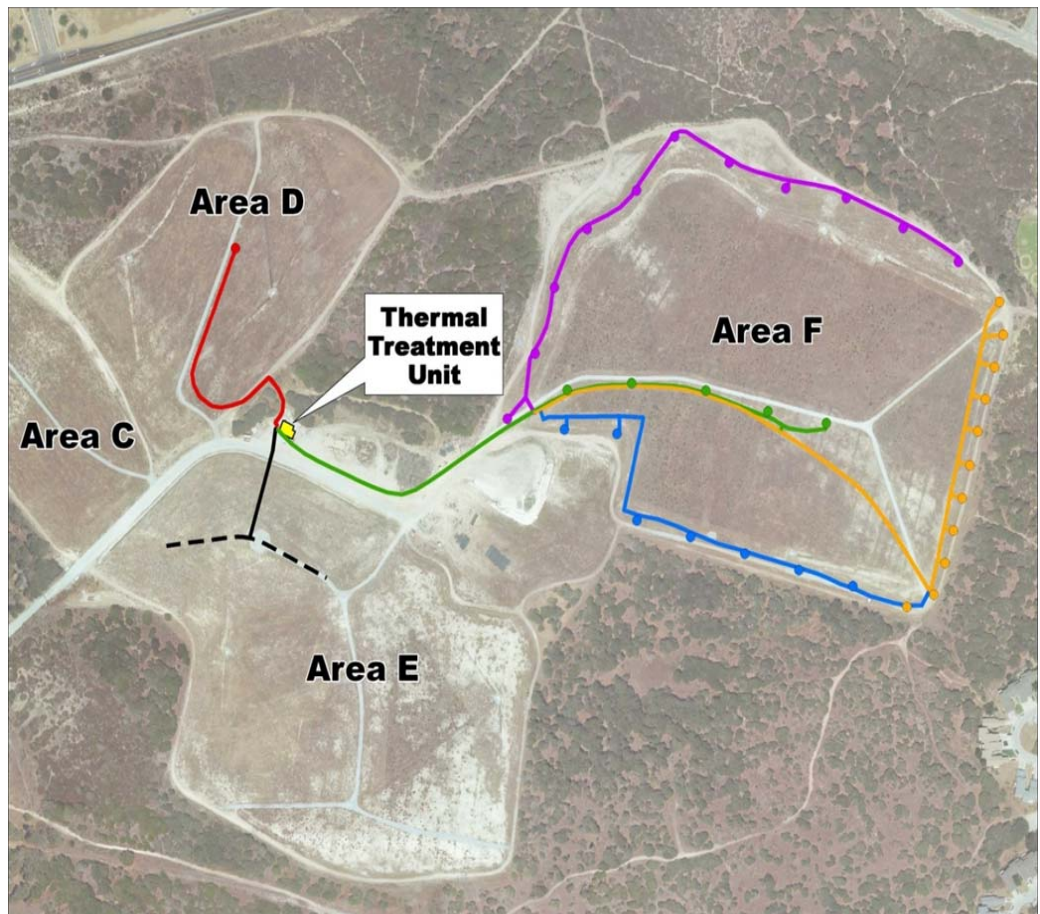
As with most landfills, the decay of organic waste produces gases (primarily methane and carbon dioxide). Over time, as the wastes continue to decay, less methane will be produced and eventually will decline to near zero. While methane gas has practically no toxic effects, at levels of 5% to 15% in air, methane can be ignited and could endanger landfill workers and nearby residents. The Army has installed a landfill gas extraction and treatment system to restrict landfill gas from reaching high concentrations and from migrating off the landfill.

The landfill gas treatment system consists of a thermal treatment unit (see photo at the right). The thermal treatment system extracts landfill gas from around the perimeter of the landfill cells and destroys the methane and potentially hazardous trace gases collected from under the cover of the landfill. The Army is operating the treatment system to maintain the methane concentrations in the soil at the landfill perimeter at acceptable levels and to remove chemicals that might otherwise migrate to groundwater.



Collecting samples of gas under the landfill cap

The Army has installed underground probes to monitor the landfill gas. Previous measurements indicated that the methane in the soil at the perimeter of the landfill was higher than state standards (5%) on one side of one landfill cell known as Area F. In response, the Army installed a landfill gas collection and treatment system adjacent to the landfill near the closest residences-- California State University Monterey Bay housing. The system draws methane and other gases from the soil surrounding the landfill and transports them to the landfill gas treatment system. The aerial photo at the right shows the pipes (indicated by lines in red, green, black, yellow and purple in photo at the right) of the landfill gas extraction system and the location of the thermal treatment system.



What Happens Next:

The Army will continue to monitor the landfill and operate the landfill gas treatment system.

To Learn More About the Fort Ord Landfill Maintenance:

U.S. Army Fort Ord Base Realignment and Closure, William Collins, BRAC Environmental Coordinator, (831) 393-1284, Melissa.M.Broadston.ctr@mail.mil

U.S. Environmental Protection Agency, Region IX: Martin Hausladen, (415) 972-3007, Hausladen.Martin@epa.gov

California Environmental Protection Agency, Department of Toxic Substances Control: Franklin Mark, (916) 255-3584, Franklin.Mark@dtsc.ca.gov

California Environmental Protection Agency, Regional Water Quality Control Board: Grant Himebaugh, (805) 542-4636, ghimebaugh@waterboards.ca.gov

Para obtener una copia en Espanol contacte 831-393-1284.