

ESCO Sauvie Island Landfill

The Department of Environmental Quality (DEQ) is working with ESCO Corporation to determine if environmental cleanup is needed at ESCO's Sauvie Island Landfill. Recent groundwater monitoring results from the landfill suggest that uranium has leached from the zircon sands that are a part of the waste disposed at the site. Levels exceeded federal drinking water standards in one well during an October 2004 sampling event. While the levels in the monitoring well results do not indicate that the release poses an immediate health or environmental risk, DEQ believes it requires further investigation.

Site Background

The ESCO Sauvie Island Landfill is located at the southern tip of Sauvie Island, northwest of Portland. It was established in 1977 and permitted by DEQ to accept wastes associated with ESCO's industrial steel-making processes. The wastes are comprised of spent firebrick, refractory, slag and sand, of which a small percentage is zircon sand. No hazardous wastes are allowed at the landfill.

Approximately 350,000 tons of material have been deposited at the site over an approximate depth of 15 feet since 1977. A portion of the landfill was closed in 1998, which means that final fill elevations had been reached and a landfill cap was subsequently constructed.

Landfill Monitoring Results

The DEQ Solid Waste permit requires that ESCO test wells around the perimeter of the landfill twice a year. The groundwater monitoring wells are sampled and analyzed for various substances that indicate if the landfill wastes are releasing contaminants to groundwater. Since the initiation of the landfill monitoring program in 1983, sample analysis has indicated no threat to human health or the environment. The first indication of a potential release was discovered during review of the October 2004 monitoring event.

The October 2004 monitoring event indicates that gross alpha radiation in water under the landfill exceeded allowable permit levels at one downgradient compliance well. Gross alpha is a measurement of radiation from any radiation emitting source. Following the receipt of the results, ESCO instructed their laboratory to retest the samples for uranium. Results indicated that all of the gross alpha radiation was attributable to uranium. The resampling also indicated that the

levels of uranium were above the federal drinking water standard. The DEQ Laboratory conducted sampling at the same time as ESCO's consultants, which confirmed ESCO's results. Results from the April 2005 analysis indicate that the gross alpha radiation levels at the same compliance well were significantly less than the October 2004 levels and were within federal drinking water standards, but still exceed levels specified in the landfill permit.

Environmental Concerns

The groundwater beneath the landfill generally flows to the south and southwest, towards the Multnomah Channel. It has been estimated that groundwater flows at a rate between 0.5 and 20 feet per year. It is not anticipated that any contaminants from the landfill have impacted neighboring drinking water wells. Investigation will be undertaken to ensure that the release does not adversely affect aquatic life or human health.

Next Steps

Preliminary Assessment

DEQ is requiring that ESCO prepare a preliminary assessment (PA) to determine what is causing the exceedances at the landfill monitoring well. The results of the PA will determine whether the detections are directly attributable to the landfill. The PA will also determine whether a remedial investigation is warranted for the site. The purpose of a remedial investigation is to determine what steps could be taken to reduce or eliminate the release of contaminants from the landfill.

Drinking Water Well Sampling

DEQ does not expect neighboring drinking water wells to be impacted by the landfill. However, DEQ and ESCO are offering to sample neighboring drinking water wells to rule out human health risks stemming from the landfill. DEQ will determine which wells are potentially affected and will conduct the sampling effort..

For More Information

If you have questions about the ESCO Landfill or would like to receive updates about this site, please contact Mark Reeves at 503-229-5157 or reeves.mark@deq.state.or.us.

Alternative formats

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