



STATE OF WASHINGTON

DEPARTMENT OF ECOLOGY

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January 19, 2023

Yakima Health District
ATTN: Shawn Magee
Environmental Health Director
1210 Ahtanum Ridge Drive
Union Gap, WA 98903

DTG Yakima Limited Purpose Landfill – PFAS Recommendations

Dear Shawn,

Ecology staff in our solid waste management division has recently learned that soils removed from the Yakima Training Center's (YTC) former Fire Training Facility were brought to the former Anderson Landfill (now DTG) for petroleum contamination treatment and disposal in 2004. As you may be aware, YTC's Fire Training Facility was a shallow unlined pit that was periodically filled with old fuel and set on fire so that fire crews at the YTC could practice fighting fires with aqueous film forming foam (AFFF). Prior to 2004, soil and groundwater at the YTC site was determined to be contaminated with petroleum-related compounds and cleanup was initiated. One of the selected remedies was to excavate the contaminated soil and remove it from the site. Approximately 743 cubic yards of the excavated soils were taken to Anderson Landfill for treatment at the petroleum contaminated soils (PCS) treatment site and disposal in the landfill.

In 2004, at the time of excavation of the YTC Fire Training Facility, the toxic characteristics of the ingredients of AFFF were not understood by YTC, the Yakima Health District (YHD), or Ecology. AFFF contains per- and poly-flouroalkyl substances (PFAS) which are now understood to be toxic at very low concentrations and extremely persistent in the environment. At the time of disposal of the Fire Training Facility soils, analytical methods were not available to identify and quantify PFAS in soil, and regulators were not aware that these compounds were as persistent or as toxic as they are now understood to be.

The PCS removed from the YTC site, were transported to the Anderson Landfill for treatment at the PCS site and disposal in the landfill. This material likely contained elevated concentrations of PFAS. Because the existing landfill and the PCS treatment site are unlined, there is a risk of migration of PFAS into groundwater. Ecology recommends that the sampling and analysis plan for routine monitoring at the landfill be amended to include analysis for PFAS. Ecology also recommends soil grid sampling of the PCS pad area and installation of monitoring wells around the PCS treatment area and development of a sampling and analysis plan for the site which should include soil sampling to determine if PFAS is present. Ecology recommends this work gets completed within 1 year time.

There have been some indications from DTG that they do not intend accept additional PCS for treatment at the PCS treatment facility. Ecology recommends monitoring well installation and soil sampling at the PCS treatment facility even if the facility will be closed to ensure that the site is not contaminated with PFAS or petroleum products. If the facility will remain open, Ecology also recommends that additional design features (e.g. an impermeable working surface, lined stormwater ponds, etc.) be required by YHD to ensure human health and the environment are protected during future operations. Either way more work is needed at the PCS site to decommission and monitor for the long-term, or prepare for future use with adequate environmental compliance controls.

Ecology has developed recommended groundwater cleanup levels for six PFAS compounds: PFOA, PFOS, PFNA, PFHxS, PFBS, HFPO-DA. The recommended cleanup levels and the basis for those levels are outlined in the attached document: *DRAFT Guidance for Investigating and Remediation PFAS Contamination in Washington State*. While the recommended groundwater cleanup levels and the guidance document are draft, they are still enforceable under the Model Toxics Control Act (MTCA) because the underlying toxicology information for these compounds meets the criteria required by MTCA. Therefore, it is within YHD's regulatory authority to require sampling and analysis for PFAS to ensure protection of human health and the environment.

Attached is some related documentation for YHD's records related to the YTC material.

Ecology appreciates the opportunity to work through the issues outlined above with YHD. For any concerns or questions feel free to contact me at (509) 731-5163 or via email at james.rivard@ecy.wa.gov.

Yakima Health District
Shawn Magee
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Sincerely,

James Rivard (Signed Digitally)

James Rivard
Regional Manager
Solid Waste Management Program
Washington State Department of Ecology
Central Regional Office

Attachments:

- (1) DRAFT Guidance for Investigating and Remediation PFAS Contamination in Washington State
- (2) Some ECY related YTC related Information

CC: Steven Newchurch, YHD
Luke LeMond, Ecology
Cole Provence, Ecology
Sage Park, Ecology
Ecology Records