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Alaska Department of Environmental Conservation
Division of Spill Prevention and Response

River Terrace Laundromat Cleanup

Soldotna, Alaska

This fact sheet provides an update on cleanup activities being conducted at River Terrace Laundromat on the banks of the Kenai River. Perchloroethylene (PCE), a dry-cleaning solvent, and several of its breakdown products have been found in soils, groundwater at the site, and sediments and water in the adjacent Kenai River. PCE is highly toxic and a suspected carcinogen.

On-going investigation and cleanup work at this site is divided into two parts. A short-term removal and treatment of highly contaminated PCE soils effort that is being performed by the property owner and overseen by the U.S. Environmental Protection Agency (EPA). The Alaska Department of Environmental Conservation (DEC) is overseeing the long-term soil and groundwater assessment and cleanup activities. These include further assessment activities, groundwater monitoring and possible groundwater treatment. This agreement was described in an August 4, 1997 Memorandum of Understanding between the two agencies.

EPA's Excavation, Stockpiling and Treatment Activities

In 1997 and 1998, EPA oversaw excavation and stockpiling of contaminated soils above a DEC-established PCE cleanup level of 11.5 milligrams/kilogram (mg/kg). Approximately 3,000 cubic yards of contaminated soil was excavated and stockpiled during the 1997 field activities. The 1998 field sampling showed that several areas remained that had soils above the 11.5 mg/kg PCE cleanup level. Some of these soils were excavated in 1998, while the deeper areas were further assessed and left in place.

In the fall of 1998, stockpiled soil was treated at the site using a soil vapor extraction system. The system was restarted in June 1999. Air vapor samples taken in the stockpiled soils indicate that the PCE levels have decreased. Confirmatory soil sampling of the stockpiled soils was conducted to ensure that the levels have been reduced below cleanup levels. Once the results are received, a determination will be made regarding whether the treatment system has successfully treated the soils or whether further treatment is necessary. If the soils are successfully treated, with permission of the agencies, they could be disposed of back on the site.

Right-of-Way Investigation Completed

In the fall of 1998, DEC conducted additional soils and groundwater sampling on the ADOT&PF right-of-way adjacent to the River Terrace site to determine the extent of contaminant migration onto this property. The results confirm that PCE and breakdown products have migrated onto the right-of-way property, but are below cleanup levels established for the River Terrace site.

Property Owner Completes Investigation of Buildings

In November 1998, the property owner completed an investigation of the property immediately surrounding the former dry cleaning building. Sumps beneath the building and the sewer line exiting the building were also tested. All samples showed levels of contamination well below applicable cleanup levels.

Groundwater Investigation

In 1997, under DEC's oversight the property owner began a quarterly groundwater-monitoring program at the site. The purpose is to determine the nature, extent and sources of the groundwater contamination. Contamination was detected in most of the wells installed at the River Terrace site. Based on the results from the initial sampling activities, additional monitoring wells were installed to further delineate the extent of groundwater contamination.

Early 1999 sampling showed that several monitoring wells continue to have elevated levels of PCE or vinyl chloride above the cleanup levels. Vinyl chloride is a highly toxic breakdown product of PCE. Contaminant levels found are similar to those found during the initial sampling in 1997, indicating there is little or no natural degradation of the contamination occurring to date.

DEC Samples Kenai River Sediments and Water

In May 1999, sediment and surface water samples were taken in the Kenai River adjacent to the River Terrace site. This was a follow-up of a May 1997 investigation. Results indicate that PCE and several of its breakdown products are migrating from the site into Kenai River sediments and water column. Levels of PCE contamination found in the river water are about one-half the acceptable Safe Drinking Water Maximum Contaminant Levels (MCLs). The contaminant levels in the sediment are similar to what was found in 1997. The sediment results showed that one breakdown product of PCE was at levels slightly higher than its ecological benchmark. The ecological benchmark is the level where a contaminant may pose risks to certain aquatic life.

PCE is being discharged into the Kenai River through a stormwater outfall. It appears that contaminated groundwater is migrating from the River Terrace site under the Sterling Highway and entering the stormwater sewer system. The PCE levels at the outfall are about three times higher than the MCLs and are similar to results from the 1997-sampling event.

DEC Assumes Investigation

In June 1999 a court order granted DEC full control of the long-term investigation and cleanup. DEC will be performing a Remedial Investigation/Feasibility Study (RI/FS) to determine whether further soil and groundwater cleanup activities are needed. On June 21, 1999, DEC began conducting the RI portion. The RI will fill in data gaps and provide more information about the nature and extent of contamination. It will also provide a method to evaluate all existing data. The FS portion will evaluate possible remedies to address any remaining contamination and ensure that the Kenai River is protected. The RI/FS fieldwork will be

concluded in July 1999. A RI/FS report is expected in August 1999.

Next Steps

Based on the findings of the RI/FS, DEC will continue to evaluate groundwater and soil data, and take necessary action to fulfill its long-term cleanup responsibilities for this site. Additional groundwater and/or soil remediation may be necessary to reduce the levels of contamination in the groundwater to protect the Kenai River.

Additional information:

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