



Alaska Department of Environmental Conservation

Contaminated Sites

River Terrace Laundromat Cleanup

Soldotna, Alaska

November 30, 1999

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 and groundwater at the site, and in 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 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 separation of oversight tasks is 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 the excavation and stockpiling of contaminated soils above a DEC-established PCE cleanup level of 11.5 milligrams/kilogram (mg/kg). The 1998 field sampling showed that several areas remained that had soils above the 11.5 mg/kg PCE cleanup level. Some of the shallower soils were excavated in 1998, while the deeper soils were further assessed and left in place. More than 4,000 cubic yards of contaminated soil was excavated and stockpiled during the 1997 and 1998 field activities.

In the fall of 1998, stockpiled soil was treated at the site using a soil vapor extraction system. The system was turned off during the winter and 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. DEC recently received a report from EPA that was prepared on behalf of the responsible party regarding confirmation soil samples collected from the two remediation cells. This report will be reviewed to ensure that cleanup levels have been met. DEC will coordinate with EPA about the ultimate placement of the treated soils. If the soils have been successfully treated, they could be disposed of on the site with the permission of the agencies.

Right-of-Way Investigation Completed

In the fall of 1998, DEC conducted additional soils and groundwater sampling within the Alaska Department of Transportation & Public Facility's (ADOT&PF) right-of-way adjacent to the River Terrace site to determine the extent of contamination. The results confirm that PCE and breakdown products have migrated onto the ADOT&PF property, but were detected at levels below cleanup levels established for the River Terrace site.

Based on the results of the River Terrace and ADOT&PF right-of-way investigations, it appears at this time that the contamination resulting from the River Terrace Laundromat facility should not delay the timing for the planned upgrade of the Sterling Highway/Kenai River Bridge. However, the Remedial Investigation/Feasibility Study (RI/FS) as described below and/or any

future assessment work performed by ADOT&PF as part of the upgrade may find that the contaminants are in higher than known contaminants levels in the right-of-way and consequently could impact the highway upgrade project.

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. Sample results indicated levels of contamination were 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 was 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.

Groundwater sampling efforts through July 1999 indicated several monitoring wells continue to have elevated levels of PCE (up to 1,900 micrograms/liter (ug/l) or vinyl chloride (up to 7.6 ug/l) above the cleanup levels. Vinyl chloride is a highly toxic breakdown product of PCE. Contaminant levels continue to be detected at levels similar to those encountered during the initial sampling in 1997, indicating that little or no natural degradation of the contamination has occurred 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, as a follow-up to a May 1997 investigation. Results indicate that PCE and several of its breakdown products have migrated 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) and 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 at which a contaminant may pose risks to certain aquatic life.

PCE contamination is also being discharged into the Kenai River through a stormwater outfall. Assessment results indicate 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 MCL 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 undertook a RI/FS to determine whether further soil and groundwater cleanup activities were needed. DEC also assumed responsibility for on-going monitoring activities including quarterly groundwater monitoring, and monitoring of contaminant levels in the Kenai River water and sediment.

On June 21, 1999, DEC began conducting the RI portion of the investigation and study. The RI was intended to fill in data gaps, and provide information about the nature and extent of contamination needed to complete the FS portion. Results of the June RI field work revealed groundwater contamination at an on-site location not previously identified as contaminated. Additional RI work was performed in August and September 1999, in an attempt to define the extent of groundwater contamination and identify the source of the newly discovered area of contamination. This work provided additional information on the extent of the contamination, and on groundwater flow directions, but a specific, new source was not located. The information showed that not only does the groundwater contamination migrate southwest towards the Kenai River, but due to a mounding effect in the water table it also is migrating in a northwest direction from the former dry cleaning building.

Additional RI work was conducted during November 1999 on the River Terrace property and in the ADOT&PF right-of-way in an effort to learn whether a new source exists or whether the known source of contamination is responsible for the new area of groundwater contamination discovered in June. Field screening results from the November work indicate that contamination has migrated from the site, beneath the Sterling Highway and possibly onto adjoining properties.

The FS portion of the RI/FS will evaluate possible cleanup remedies to address remaining contamination and ensure that the Kenai River is protected. The RI/FS fieldwork concluded in November 1999. The RI/FS report is expected in February 2000.

Future Actions

DEC is presently considering the use of a dye test to assist in determining where the contamination is migrating to and to identify additional areas where it might be entering the Kenai River.

DEC is also evaluating alternatives for a temporary wastewater treatment system to be installed at the outlet of the stormwater sewer system under the Kenai River bridge. This temporary system would be designed to decrease the level of solvent contaminants in the stormwater sewer system prior to the wastewater entering the Kenai River. The RI/FS report would present long-term alternatives to address this contamination pathway.

DEC will be facilitating an open house on December 7, 1999 from 7:30 – 9:00 p.m. in Meeting Rooms A & B at the Kenai Peninsula Borough Building, Soldotna to discuss the on-going investigation at River Terrace Laundromat and future actions that may be needed. The Kenai Peninsula Borough Building is located at 144 N. Binkley St., Soldotna. It is expected that EPA and ADOT&PF staff will be attending the open house as well to discuss how this investigation has or may affect their agency's actions, such as the removal oversight by EPA and the ADOT&PF planned upgrade of the Sterling Highway/Kenai Bridge.

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. Preliminary results of the RI/FS indicate that additional groundwater and/or soil remediation may be necessary to reduce the levels of contamination in the groundwater low enough to protect the Kenai River. DEC will be holding a community meeting in Soldotna to discuss the cleanup alternatives presented in the RI/FS report and to seek local citizen and agency input prior to

selecting any cleanup alternative. It is expected that the community meeting would occur sometime in February or March 2000.

Additional information:

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