

ENVIRONMENTAL Fact Sheet



Anchorage Terminal Reserve, Anchorage, Alaska

U.S. Environmental Protection Agency, Region 10

July 2008

Environmental studies have been going on at the Anchorage Terminal Reserve. This 600-acre site near Ship Creek is owned by the Alaska Railroad Corporation. The site includes a rail yard and other properties leased to tenants. Some environmental problems have been documented. Below is a status report.

Remedial Investigation Report Completed

The Alaska Railroad recently prepared a Remedial Investigation (RI) report for the Anchorage Terminal Reserve. The work was done with oversight from EPA (U.S. Environmental Protection Agency). A brief summary of technical findings is included in this fact sheet. The full technical document can be viewed on the website or at the locations listed on page 3.

Courtesy Public Review: Comments Due August 29, 2008.

Later, when a Feasibility Study (FS) is prepared as noted below, EPA will take formal comments on the RI and FS. In the meantime, you are invited to informally review the Remedial Investigation report. Send comments to

Jacques Gusmano, EPA,
222 W 7th Avenue, #19
Anchorage, AK 99513
gusmano.jacques@epa.gov

The RI report presents the results of the site characterization studies done between 2004 and 2007. It also shares the findings of Human Health and Ecological Risk Assessments. Areas that pose unacceptable levels of risk will be evaluated for remedial actions. Cleanup options will be presented in a document called a Feasibility Study, or FS. The FS is expected to be completed by mid-2009.

The RI study found some locations of contamination on the site. Contaminated groundwater plumes were detected. Soil contamination was very limited. Contamination in Ship Creek and its sediments was also very limited. No sources of risk were noted in Ship Creek. Details follow.

How Was the Study Done?

During the Remedial Investigation, field work included:

- Soil samples collected from over 100 locations
- Groundwater samples collected from about 175 locations
- Water seep samples collected at 20 locations along the North Bluff area
- 27 surface water and 45 sediment samples collected from Ship Creek and off-channel areas
- Soil gas samples collected from 11 locations
- Water supply well samples collected from 7 wells on the site

More than 100,000 laboratory analyses were used to characterize the nature and extent of contamination. Other studies performed included seasonal and tidal influences on groundwater flow into Ship Creek, visual site inspections, review of lease use history, and review of data to understand the source, fate, and transport of site contaminants.

continued

RI Study Results

Surface Water and Sediment

For Ship Creek *surface water*, the study found inorganics (metals) slightly over screening levels in a few cases. No organic compounds (such as fuel, oil, or solvents) were found. At one off-channel location in the eastern part of the site, organic compounds including polychlorinated biphenyls (PCBs) and polynuclear aromatic hydrocarbons (PAHs), and some inorganics, were found above screening levels.

Ship Creek *sediment* samples went over screening levels only slightly, in few locations, for some PAHs and two inorganics, antimony and nickel. No sources of risk were noted in Ship Creek. For off-channel areas, several locations had concentrations over screening levels for PCBs, PAHs, and lead, zinc, cadmium, and mercury. Some level of ecological risk was noted.

The Oil Terminals area in the northwestern part of the site had elevated benzene in *water* samples collected from storm drainage ditches and pipes. Due to the mixing and dilution that occurs when this discharge enters Cook Inlet, no risk to aquatic habitats or marine life is expected. *Sediment* data collected in Cook Inlet near the Oil Terminals area did not show anything over screening levels.

Groundwater

Several areas of contaminated groundwater plumes were detected on both sides of Ship Creek and in the Oil Terminals areas. The most common contaminants were volatile organic compounds (VOCs) related to historical fuel and chlorinated solvent spills or releases. Inorganic contaminants were observed to a lesser degree.

The study confirmed that none of the groundwater in the area of the plumes is being used. Also, all water supply wells at the site were tested; none contained contaminants that exceeded drinking water standards. Deep water supply wells are not affected by site contamination.

A Bit about Screening Levels:

Screening levels help identify areas, contaminants, and conditions that require further attention at a particular site. Generally, at sites where contaminant concentrations fall below screening levels, no further action or study is warranted. Chemical concentrations above the screening level would not automatically tag a site as “dirty” or trigger a cleanup action. However, going over a screening level suggests that more evaluation of potential risks is in order.

Groundwater within and at the edge of the Oil Terminals area went over screening levels for benzene and several other organics. Sampling of groundwater and seeps along the North Bluff showed benzene, TCE, arsenic, cadmium, and nickel, described in the RI report as likely originating from off-site upgradient sources.

Soil

The nature and extent of soil contamination was very limited. A small number of detections were above screening criteria for benzo(a)pyrene, PCBs, fuel hydrocarbons, and inorganics. There is very limited human health risk, in a few localized places, which would require direct contact. In some areas, contamination could leach into groundwater.

Solid Waste Management Units and Areas of Concern

In 1996 and 2002, EPA identified some locations at the site requiring environmental actions, called Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs). The current project checked the status of these sites. Many of them were found to be no longer present, not in use, closed, or in good operational condition. Many sites have also undergone closure/cleanup activities under oversight by the Alaska Department of Environmental Conservation.

The study found three SWMUs and three AOCs in the Railyard area that had a potential for environmental concern or required more study. Sampling was done at all of these sites. It was found that one AOC had contamination levels high enough to be a potential source of risk.

A Note about the Terminals Area

There are three main leased properties in the Terminals area: Tesoro, Chevron and Flint Hills. The risk assessment for Tesoro is included in the RI report. It indicates that the contaminants found in the perimeter area are associated with sources within the Tesoro leased property. Chevron and Flint Hills have elected to do their own risk assessments. Alaska Railroad will submit those two risk assessments to EPA when they have been completed.

Site Background

The federal government transferred the Alaska Railroad to the state-owned Alaska Railroad Corporation in 1985. The Alaska Railroad Corporation owns the property known as Anchorage Terminal Reserve. Anchorage Terminal Reserve includes a rail yard and other properties leased to tenants. The area covers about 600 acres. Much of the land is near Ship Creek, in an industrial area. It is bordered by Cook Inlet to the west, Elmendorf Air Force Base to the north, the Mountain View community to the east, and downtown Anchorage to the south.

The rail yard includes a track system, repair buildings, a fueling area, a steaming rack, warehouses, and offices. Activities at the rail yard have included fueling, painting, steam cleaning, freight loading, and maintenance work on locomotives and rail cars.

Properties outside the rail yard, leased to tenants, have been used for many different types of activities. These include power plants, trucking and transit operations, fuel storage, auto salvage, and many others.

Environmental problems have been documented at both the rail yard and the properties outside the rail yard, thus leading to the RI done by Alaska Railroad. Concerns included solid waste handling, hazardous waste storage, seeps to Ship Creek, spills, and elevated contaminant levels in soils, groundwater, and sediments. As noted in the RI report, contamination above screening levels has the potential to pose a threat to human health or the environment. The possible need for cleanup action will be addressed in the FS.

Anchorage Waterways Council Involved in Site Activities

The Anchorage Waterways Council has received funding from the Alaska Railroad Corporation to promote meaningful public participation. The Council has been reviewing site documents with a technical advisor and will be seeking active public participation in site activities. To contact the Council, call 907-272-7335.

For More Information

Documents

Documents related to the site can be found on the website listed below or at:

AK Resources Library Information Services
University of Alaska, Anchorage Library Bldg.
Anchorage Terminal Reserve Information Repository
3211 Providence Drive, Suite 111
Anchorage, AK 99503
(907) 272-7547

EPA Region 10
Records Center, 7th Floor
1200 6th Avenue, Suite 900
Seattle, WA 98101

Contacts

Jacques Gusmano
Superfund Project Manager, Anchorage
gusmano.jacques@epa.gov
(907) 271-1271

Howard Orlean
RCRA Project Manager, Seattle
orlean.howard@epa.gov
(206) 553-2851 or 1-800-424-4372 x2851

Andrea Lindsay
Community Involvement Coordinator, Seattle
lindsay.andrea@epa.gov
(206) 553-1896 or 1-800-424-4372 x1896

Website

www.epa.gov/r10earth
Click on A to Z Index.
Click on A for Anchorage Terminal Reserve.



United States Environmental Protection Agency
Region 10, Community Involvement and Outreach
1200 Sixth Avenue, Suite 900, ETPA-081
Seattle, Washington 98101-3140

Pre-Sorted Standard
Postage and Fees Paid
U.S. EPA
Permit No. G-35
Seattle, WA

*Environmental Fact Sheet
Anchorage Terminal Reserve
Anchorage, Alaska
July 2008*



If you need materials in an alternative format, please call Andrea Lindsay for reasonable accommodation: 800-424-4372 x1896. TTY: 800-877-8339.