Alaska Department of Environmental Conservation

Cleanup Process

Cleanup of contaminated sites in Alaska

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The Alaska Department of Environmental Conservation's Contaminated Sites program oversees or conducts cleanup of contaminated sites based on their danger to public health and the environment. DEC stresses prevention as the best way to protect people and the environment. When spills and leaks do occur, cleaning up soil and groundwater can be quite difficult, time-consuming and expensive, but foremost in the process is protecting the health and safety of people and the environment.

The following process describes careful investigation and cleanup of what remains after an initial spill response or upon discovery of a leak or discharge underground. The process can range from a large, formal cleanup with extensive public involvement and lasting several years to a simple one taking a few months. It all depends on the source and extent of contamination and the threat to humans and the environment. This fact sheet briefly summarizes the cleanup process. For complete information, see Alaska's Statutes Title 46, and Alaska's Administrative Code of regulations 18 AAC 75. If the contamination comes from a leaking underground fuel tank, the process is slighly different: see 18 AAC 78. Cleanup overseen by a federal agency, military sites for example, may also use other terms and the steps may vary somewhat.

Site characterization workplan

18AAC 75.335(b)*

The person who caused the contamination or who owns the land is typically the one legally responsible for cleaning it up. That person must arrange for a "qualified person"** (typically a contractor or consultant) to prepare a site characterization workplan for DEC approval. Preparation usually involves these steps:

Scoping, to find all available information about the site, how much and what kind of contamination exists, and what harm there could be to people, animals and plants.

A **Conceptual Site Model,** or a first estimate of what and where the contaminants are, how they behave under site conditions, and what threat they may pose. This may be in a separate report or included in the next step.

A **Workplan**, to guide a more detailed investigation, designing field work to confirm or correct the first estimates of the conceptual site model.

Site characterization report

18AAC 75.335(c)

Field investigation: Guided by the workplan, the contractor (qualified person) takes samples and gathers more information at the site, and DEC oversees this work. The contractor then recommends cleanup techniques and levels in the report.

Cleanup levels: One of the most important parts of the cleanup process is determining cleanup levels - the concentration of a hazardous substance that may be left in soil or water without posing a threat to human health, safety or welfare, or to the environment. Different levels are chosen depending on the contaminant, the soil, and whether or not the hazardous substance would be taken in through breath, skin, or eating/drinking. When little is known about a site, strict default cleanup levels set in state and federal law are used to be most protective. Less strict levels can

Title 18 of Alaska's Administrative Code of regulations, Chapter 75, section 335, paragraph (b)

***See tips on selecting an environmental consultant at www.dec.state.ak.us/spar/csp/consultant.htm. Also see glossary for the definition of qualified person at www.dec.state.ak.us/spar/glossary.htm#qp*

sometimes be set when specific information is known about the site.

A **Risk Assessment** is sometimes conducted to gather detailed information about the site and how people would be exposed to contamination. Risk assessments can also be used to justify protective cleanup levels which are more or less strict than default levels. An important part of a risk assessment is to gather information from residents and other people on how they use the land and its resources.

Site Characterization Report: This report draws conclusions about the contamination and the risk to people and the environment, and it proposes cleanup levels for DEC to approve. A formal risk assessment, if conducted, would also be included. Removal of 100% of the contamination may not be possible, practical or affordable. Cleanup techniques are analyzed, and one or more is recommended based on their protectiveness, as well as practicality, effectiveness, conformity with state regulations, and consideration of any public comment.

DEC's Cleanup decision

18AAC 75.335 - 370, cleanup and reporting requirements

DEC's decision is made in writing, defining soil and groundwater cleanup levels and cleanup techniques. The decision takes into account current and future use of the site, the degree of treatment, and protection of human health and safety and the environment if contamination will remain on site. Minimizing spread of contamination and monitoring plans are also part of it. In a formal cleanup, the decision involves first issuing a Proposed Plan, inviting public comment, and a final Record of Decision.

Cleanup and report

18AAC 75.360, cleanup and reporting requirements

Before work begins, the responsible person submits a cleanup plan to DEC. After a plan is approved, the work must be performed by a qualified person, with DEC oversight to document and inspect the effort. A final report is completed for DEC review when cleanup is complete.

Site closure

18AAC 75.375, institutional controls

18AAC 75.380, site closure

Institutional Controls: DEC will give "Cleanup Complete" status when efforts to reduce contamination have met approved cleanup levels, or the possibility of human exposure to any residual contamination is highly unlikely.

Complete cleanup is not always practical or affordable. DEC may allow residual contamination to remain at a site if it does not pose a risk to human health or the environment, but there may be conditions or restrictions on land use that require compliance by current or future owners/operators. Those conditions require follow-up reporting. DEC would then grant "Cleanup Complete – Institutional Controls" status. The conditions allow the land to be put back to use.

DEC recovers the cost of its oversight and/or damages from responsible persons, if this hasn't already happened.

Follow-up ...

The Contaminated Sites Program protects human safety, human health and the environment by overseeing and conducting cleanups at contaminated sites in Alaska and by preventing releases from underground storage tanks and unregulated aboveground storage tanks. For follow-up questions, please contact our staff at the Contaminated Site program closest to you:

Juneau: 907-465-5390 / Anchorage: 907-269-7503 / Fairbanks: 907-451-2153 / Kenai: 907-262-5210

www.state.ak.us/dec/spar/csp