

Q&A on Proposed Changes to Alaska's Cleanup Regulations for Contaminated Sites

Public comment period ends October 22, 2007

Alaska's cleanup regulations, contained in 18AAC75, Article 3, govern cleanup of contamination in the soil and in groundwater. They also cover closure after cleanup and possible restrictions placed on land use.

Q Why make the changes?

These rules have had no substantive revision since 1999.

THIS PROPOSAL tightens and updates several important parameters, better protecting human health and the environment. The proposed changes:

- Update the standards to reflect new findings in toxicology.
- Establish cleanup levels for additional chemicals not previously listed in regulation.
- Repeal certain petroleum cleanup levels no longer used.
- Set upper limits for groups of petroleum compounds.
- Modify the way site-specific groundwater cleanup levels are established.
- Simplifies application of "migration to groundwater" cleanup levels.

Q Why are the rules so complicated?

Alaska's rules for cleanup of oil and hazardous substances allow our decisions to be protective of public health and also flexible. The rules provide for a great variety of specific circumstances at any given site, depending on:

- What's affected — soil, air, surface water, or groundwater.
- The compounds present.
- Land uses — current and future.
- Various ways people can be exposed.

Q Why are some soil cleanup levels stricter than others?

Strictest soil cleanup levels: "Migration to groundwater" levels protect the use of groundwater

for drinking. We don't want "dirty dirt" leaching contaminants to the groundwater. Migration to groundwater levels are generally the most restrictive (lowest). When soil is cleaned to meet the strictest of the three regulatory levels (direct contact, inhalation, migration to groundwater), we consider it clean enough for full site closure, without any restrictions on land use. Current regulation sets migration to groundwater levels for two precipitation zones in Alaska and exempts the Arctic from these levels because of permafrost.

THIS PROPOSAL simplifies migration to groundwater levels by making them uniform throughout the state, including the Arctic.

Risk-based soil levels: These levels are devised to protect people from the risk of harmful health effects through exposure to contamination by eating, drinking or breathing. These levels should not be considered clean enough for full closure. The department may consider a "conditional closure" on a site-specific basis if these levels are met. Conditional closure places certain land use restrictions to protect people from exposure and often requires continued monitoring.

Inhalation-based levels: Volatile contaminants may present a health risk when inhaled. Soil cleanup levels which protect for inhalation exposure ensure the air is safe to breathe.

Ingestion-based levels: Soil must be cleaned up to protect against chronic exposure through oral intake (for example, children playing in dirt and putting hands to their mouths) or absorption through skin.

THIS PROPOSAL renames the Ingestion category "Direct Contact," and proposes new levels to protect people from exposure through both ingestion and skin contact. The soil cleanup levels set for ingestion were once considered protective of exposure through the skin. New science shows that this isn't always so for some chemicals.

Petroleum soil levels: Alaska’s cleanup rules set “maximum allowable” levels for the three petroleum fuel groups (gas, diesel, and heavy oil.). Current regulation, however, allows these levels to be exceeded in cases where the responsible person can show DEC that the contaminant won’t migrate and won’t present a significant risk to human health or the environment.

THIS PROPOSAL would place an upper limit on groups of petroleum compounds left in place. The change addresses odor and aesthetic concerns which may be present in soil at higher levels of petroleum. This will help ensure that cleanups meet the intent of Alaska pollution control statutes.

Q What’s different with groundwater cleanup?

Groundwater: In current regulation, the responsible person may request a level 10 times the established groundwater cleanup level for any chemical if groundwater is neither used nor expected to be used as a drinking water source. The soil “migration to groundwater” cleanup level may also be raised by 10 times in these circumstances.

THIS PROPOSAL would repeal the arbitrary “10 times” rule. Site-specific groundwater and soil cleanup levels may still be proposed for approval by the department. They will be based, however, on more technically sound, site-specific conditions.

Q What about compounds you haven’t listed?

Current regulations require the responsible person to calculate cleanup levels for unlisted chemicals. In practice, a consulting firm hired by a responsible person often requests the department to calculate these cleanup levels on their behalf.

THIS PROPOSAL aligns the regulations with current practice and ensures consistency in how the levels are calculated. The department rather than the responsible person would be responsible for calculating cleanup levels for a hazardous substance not listed in regulation.

Q What else is proposed?

Permitted landfills: Soil and groundwater cleanup standards would apply to these facilities, which are currently exempt, if hazardous substances are found which prompt a cleanup. This clarifies what rules apply to contamination at permitted landfills.

Qualified person: We propose modifying the definition of a “qualified person” to allow five years of direct experience in environmental characterization and cleanup to substitute for a college degree in a related scientific field. Only persons fitting the definition of a qualified person can perform site cleanup work.

Aliphatic/aromatic petroleum cleanup levels: These levels are proposed for repeal since the department’s laboratory methods to determine aliphatic/aromatic fractions are problematic and rarely have been used. The aliphatic/aromatic petroleum fraction data will be retained in the department’s Cleanup Levels Guidance and still used in deriving the cleanup levels for the gasoline, diesel, and heavy oil groups.

Adopted-by-reference guidance: The Cleanup Levels Guidance and Cumulative Risk Guidance are to be modified for technical accuracy.

Housekeeping changes: References to external documents and standards are to be updated.

**Public comments accepted
until October 22, 2007**

You may comment on the proposed regulation changes by submitting written comments to:

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Electronic written submittals may be sent to
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The proposed regulations and related documents are available on the state’s Online Public Notice website, <http://notes5.state.ak.us/pn>; at DEC Public Notices, http://www.dec.state.ak.us/public_notices.htm; or at the Contaminated Sites webpage, <http://www.dec.state.ak.us/spar/csp/index.htm>. Paper copies may be ordered from DEC at the above mailing or email addresses.