

Summary of Proposed Modifications
18 AAC 75.325-390 (Site Cleanup Rules)
April 7, 2006

The proposed revisions to the site cleanup rules (18 AAC 75.325 – 390) represent the first phase of a multi-phased project to improve the clarity, flexibility, and scientific defensibility of the regulations. Phase 1 comprises relatively simple modifications and technical changes that DEC proposes to adopt by summer or fall 2006 following a 30-day public comment period.

Subsequent phases include merging the Leaking Underground Storage Tank (LUST) and Contaminated Site cleanup regulations, revising the petroleum cleanup levels, restructuring the regulations for clarity, and repealing the “alternative cleanup level” approach. These revisions will occur in stages between 2007 and 2009.

This summary explains the short-term changes only.

Citation

Description

Section 335 – Site Characterization

325(c)(2) The permitted solid waste storage or disposal facility exemption has been repealed. The purpose of this change is to ensure that 18 AAC 75 and 18 AAC 60 regulations are calibrated in the future. The solid waste regulations are currently undergoing revision to state that 18 AAC 75 site cleanup rules will be followed if a permitted or non-permitted solid waste facility undergoes excavation

The references to 18 AAC 62 and 42 U.S.C. 6901- 6992k (Solid Waste Disposal Act, as amended by the Resource Conservation Recovery Act) have also been repealed. These are unnecessary citations because there are no hazardous waste storage or disposal facilities in the state.

325(g) The non-cancer hazard risk number has been changed to one significant figure (from 1.0 to 1) to be consistent with EPA and DEC guidance. The uncertainty associated with risk assessments is not proportional to a hazard index of one significant figure beyond the decimal point. Risk management decisions are never based on this level of detail.

The department’s *Cumulative Risk Guidance*, adopted by reference, has been updated to January 1, 2006 due to the proposed changes to the guidance. The final adoption date will be inserted into regulation following the public comment period.

325(h) The non-cancer hazard risk number has been changed to one significant figure, as described above.

The 40 C.F.R. 300.430 citation has been updated.

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- 325(k) The ADF&G and ADNR statutory citations have been updated.
- 340(e)(1) The department's *Cleanup Levels Guidance*, adopted by reference, has been updated to January 1, 2006 due to the proposed changes to the guidance. The final adoption date will be inserted into regulation following the public comment period.

341 – Soil Cleanup Levels Tables

- 341 Table B1 The ingestion cleanup levels were originally intended to account for both ingestion and dermal exposure. They have been renamed "Direct Contact" to avoid confusion. The method for integrating dermal exposure was updated in the *Cleanup Levels Guidance*. Cleanup levels were changed for contaminants for which dermal exposure is a significant risk pathway.
- 341 Table B1 Revisions to various cleanup levels have been made based on updated information in EPA's Integrated Risk Information System (IRIS), the primary source of peer-reviewed toxicity data at the national level. For contaminants with more conservative cleanup levels, it is important to note that DEC will not be re-visiting sites where a closure decision has already been issued.
- 341 Table B1 Consultants and responsible parties often request DEC to calculate cleanup levels for contaminants not in Table B1. All contaminants for which cleanup levels have been calculated and used in the past have been added to the table.
- 341 Table B2 The ingestion cleanup levels have been renamed "Direct Contact" to avoid confusion and to be consistent with the new labeling in Table B1. However, the petroleum cleanup levels in this table were not affected by dermal exposure and have not changed.
- 341 Table B2 The aliphatic/aromatic cleanup levels have been repealed. Since the site cleanup rules were adopted in 1999, DEC has found the use of the aliphatic/aromatic cleanup levels to be misunderstood and inconsistently applied.
- The current aliphatic/aromatic cleanup levels provide the basis for the Total GRO, DRO and RRO clean-up levels. This will not change with the removal of the aromatic/aliphatic cleanup levels from the regulatory table(s). The default values and chemical properties used in the derivation will still be present in the Cleanup Level Guidance, which is adopted by reference. Additionally, the fractions and calculation(s) will remain part of the Method Three calculator. Appropriate site specific data, including petroleum fraction(s) data, will still be able to be supplied to the department when proposing alternative cleanup levels under Method Three or Method Four.

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- Notes to Tables B1 and B2 Note # 5 defining ingestion has been repealed.
- Note # 13 pertaining to the 0.5 factor to account for dermal exposure has been repealed. With the updated method for integrating dermal exposure this factor is now invalid.
- Several PAH compounds have been added to note # 15.
- New note # 16 has been added to define “direct contact.”

345 – Groundwater and Surface Water Cleanup Levels

- 345 Table C The aliphatic/aromatic cleanup levels have been repealed for the reasons described above.
- 345 Table C Updates to cleanup levels have been made based on new toxicity information. For contaminants with more conservative cleanup levels, it is important to note that DEC will not be re-visiting sites where a closure decision has already been issued.
- 345 Table C Consultants and responsible parties occasionally request DEC to calculate cleanup levels for contaminants not in Table C. All contaminants for which cleanup levels have been calculated and used in the past have been added to the table.
- 345(b)(2) The “10 times” groundwater cleanup rule has been repealed. Since the site cleanup rules were adopted in 1999, DEC has found the use of this arbitrary cleanup level to be inconsistently applied and confusing. With this repeal, a back-calculated migration to groundwater soil cleanup level equal to 10 times the table value will no longer be possible. Site-specific groundwater and soil cleanup levels may still be approved by the department.
- 345(c)(3)(A) The *Standard Methods for the Examination of Water and Wastewater* citation has been updated.
- 360(b)(11)(G)(v)
i) The ASTM test method citations have been updated and specific adoption dates repealed. The purpose of this modification is to ensure that the latest version of a specific test method is used.
- 370 – Table D –
Bottom Liner
Specifications The ASTM test method citations have been updated and specific adoption dates repealed. The purpose of this modification is to ensure that the latest version of a specific test method is used.
- 380(b)(9)(I) The 42 U.S.C. 6901-6992K citation has been updated.

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- 495(a)(7) This modification updates the regional master discharge prevention and contingency plan boundary for Western Alaska by specifying the Iditarod and Kuspuk Regional Educational Attendance Areas.
- 990(109) The definition of “risk assessment” as defined by AS 46.03.450 has been placed in regulation rather than referencing the statute. A typographical error in the original statutory definition was corrected in the process.

Internal Adopted-By-Reference Guidance Documents

- Cleanup Levels Guidance
- Appendix A: The ingestion pathway was relabeled “Direct Contact” and equations 3 and 4 were updated to include dermal contact and an absorption value. Equation 5 is a new equation to determine the Soil Dermal Factor for Carcinogens. Text was added to explain how dermal exposure was integrated into the cleanup levels, which chemicals were evaluated for dermal exposure, and the physical properties that were used for that selection
- Appendix B: Default values for Surface Area and Adherence Factors were added to the Commercial/Industrial Exposure Parameters.
- Appendix C: An Absorption Factor (ABS) Column, which includes values for chemicals that have dermal risk effects, was added for the dermal contact pathway. Existing contaminant toxicological, physical and chemical properties were updated to the appendix. Twenty-one new contaminants were added to the Chemical Specific Parameters table.
- Appendix D. A new appendix titled “Selection of Compounds for Dermal Absorption” was added to the document. Appendix D includes a table that lists chemical specific exposure parameter for the dermal exposure route.
- Cumulative Risk Guidance
- The Cumulative Risk Guidance was updated to clarify inclusion of dermal exposure in direct contact cleanup levels. Four chemicals were added to the “Indicator Compounds for Petroleum Contaminated Sites” table.
- Appendices B and C were updated to reflect changes in toxicity values and chemicals that were added to the cleanup levels tables in the regulations. The Hazard Quotient was revised to one significant figure.
- Reference to the groundwater 10 X rule was removed.