



# Proposed Cleanup Level Amendments 18 AAC 75

Public Workshops – October 2015

DIVISION OF SPILL PREVENTION AND RESPONSE

CONTAMINATED SITES PROGRAM

SALLY SCHLICHTING, UNIT MANAGER, REGULATIONS AND POLICY DEVELOPMENT

# Overview

- ▶ Introduction
- ▶ Summary of the proposed changes
- ▶ Cleanup levels calculator
- ▶ How we evaluated the costs
- ▶ Implementing the changes for active and closed sites
- ▶ Public comment period and what's ahead

# Summary of the Proposed Changes

- ▶ Soil Cleanup Levels for Table B1
- ▶ Groundwater Cleanup Levels Table C
- ▶ How cleanup Levels are calculated
- ▶ New compounds added
- ▶ Changes To 340 And 345 concerning special situations
- ▶ New procedures documents
- ▶ New definitions

**Note: Petroleum cleanup levels are not part of the changes**

# Changes to the Cleanup Levels

- ▶ Updated risk-based approach for both soil and groundwater
- ▶ Since last update in 2008, new values incorporate “newer science”
- ▶ Now a single soil cleanup value labeled “human health” for each climate zone
- ▶ groundwater values are all risk-based – No MCLs
- ▶ 18 compounds are being added, for a total of 182 compounds.
- ▶ Carbazole removed

# Soil Cleanup Levels

## 18 AAC 75.341

### ▶ **Migration to Groundwater**

- ▶ 134 more stringent
- ▶ 26 less stringent
- ▶ 1 unchanged- Dibromoethane, 1,2-
- ▶ 2 compounds with no value (PCB and Lead)

### ▶ **Arctic Zone**

- ▶ 85 More stringent
- ▶ 76 Less stringent
- ▶ 3 compounds the same

### ▶ **Under 40-inch Zone**

- ▶ 78 more stringent
- ▶ 82 less stringent
- ▶ 4 compounds the same

### ▶ **Over 40-inch Zone**

- ▶ 76 More stringent
- ▶ 85 Less stringent
- ▶ 3 compounds the same

### ▶ **Notes to Tables B1/B2 have been updated**

# Groundwater Cleanup Levels

## 18 AAC 75.345

- ▶ Now use consistent risk-based approach – no MCLs
- ▶ 132 of 182 cleanup levels more stringent
- ▶ 30 less stringent
- ▶ 2 values unchanged (PCB and Lead)
- ▶ More stringent levels are due to the incorporation of child exposure parameters.
- ▶ Table C groundwater cleanup levels now are risk-based.
- ▶ **Notes to Table C have been updated**

# “New” Compounds

- ▶ Benzaldehyde
- ▶ Benzyl Alcohol
- ▶ Bromobenzene
- ▶ Butadiene, 1,3-
- ▶ Chlordecone (Kepone)
- ▶ Cyclohexane
- ▶ Formaldehyde
- ▶ Hexane
- ▶ 2-Hexanone (MBK)
- ▶ Isopropanol
- ▶ Methanol
- ▶ Mercuric chloride
- ▶ Pentaerythritol tetranitrate (PETN)
- ▶ 1,1,1,2-Tetrachloroethane
- ▶ 1,2,3-Trichlorobenzene
- ▶ Trichlorophenoxyacetic Acid, 2,4,5 (2,4,5-T)
- ▶ PFOS (perfluorooctane sulphonic acid)
- ▶ PFOA (perfluorooctanoic acid)

**Removed: Carbazole**

# Changes to Regulatory Provisions

## 18 AAC 75.340

### ▶ **18 AAC 75.340 Soil Cleanup Levels General Requirements**

Revisions consolidate, update, and clarify this section and subsections **(a) (d) (e)**

- ▶ **340 (e)(2)(D) and (f)** adds new language – requiring consent from landowners to create, maintain and abide by institutional controls
- ▶ **340 (g)** modifies the process for developing a cleanup level for a contaminant that is not listed
- ▶ **340 (i)(2)** updated to remove evaluation of fugitive dust and add evaluation of sensitive subpopulations. (see new definition)
- ▶ **340 (j)** clarifies the terminology and pathways accounted for in the soil cleanup levels (dermal contact and inhalation of particulates)

# Changes to Regulatory Provisions

## 18 AAC 75.345

### ▶ 18 AAC 75.345 Groundwater Cleanup Levels

- ▶ **345(b)**: New paragraphs (3) and (4) added to match parallel section in 340 for unlisted chemicals
- ▶ **345(c)**: adds provisions for setting a more protective cleanup level in certain circumstances (sensitive subpopulations, more stringent MCL)
- ▶ **345(d)**: New subsection - allows the department to require alternative water supply or institutional controls where toxicity information for a compound is insufficient
- ▶ **345(f)**: adds a new subparagraph (C) to require concurrence from affected landowners for institutional controls.
- ▶ **345(k)**: removes adoption by reference to outdated groundwater well guidance and replaces it with “an approved method”.

# Other Changes

- ▶ Adopted by Reference (18 AAC 325(g) and (h)):
  - ▶ 2008 Cleanup Levels Guidance replaced with Procedures for Calculating Cleanup Levels 2015
  - ▶ 2008 Cumulative Risk Guidance replaced with Procedures for Calculating Cumulative Risk 2015
- ▶ 18 AAC 75.370 – Corrects or updates references to other chapters
- ▶ 18 AAC 75.990 – adds definitions for mutagen, mutagenic, and sensitive subpopulation.
- ▶ Various housekeeping changes for new terms, etc., in other sections.

# New Cleanup Levels Calculator

The screenshot displays the website for the State of Alaska's Contaminated Sites Program. At the top, there is a yellow navigation bar with the state logo and the text "State of Alaska". To the right of this bar are links for "myAlaska", "My Government", "Resident", "Business in Alaska", "Visiting Alaska", and "State Employees". Below this is a dark blue header with the "Division of Spill Prevention and Response" logo and the text "Contaminated Sites Program". A search bar is located on the right side of the header. Below the header is a breadcrumb trail: "State of Alaska > DEC > SPAR > CSP > Cleanup Levels Home >". A red text box contains the message: "Attention: This is a beta test site. For comments or questions, contact i65@ornl.gov." Below this is a section titled "CLEANUP LEVELS AND RISK CALCULATOR TOOLS" with a list of links: "Cleanup Level Equations", "Cleanup Level Equation Parameters", "Cleanup Level Calculator", "Chronic Daily Intake (CDI) Equations", "CDI Equation Parameters", and "Risk (Cancer and Hazard Index) Calculator". To the right of this list is a "Contents" menu with links to "Home", "CL Equations", "CL Calculator", and "Risk Calculator". At the bottom of the page, there are links for "Statutes", "Regulations", "Acronyms", "DEC Home", and "DEC Careers". On the right side, there is contact information for the "Department of Environmental Conservation, Division of Spill Prevention and Response" at "410 Willoughby Ave., Ste. 302, P.O. Box 111800, Juneau, AK 99811-1800". The footer contains the same navigation links as the top bar and the text "State of Alaska © 2011 Webmaster". A decorative graphic of stars and the state outline is at the very bottom.

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Division of Spill Prevention and Response  
Contaminated Sites Program

State of Alaska > DEC > SPAR > CSP > Cleanup Levels Home >

**Attention: This is a beta test site. For comments or questions, contact i65@ornl.gov.**

**CLEANUP LEVELS AND RISK CALCULATOR TOOLS**

- ▶ Cleanup Level Equations
- ▶ Cleanup Level Equation Parameters
- ▶ Cleanup Level Calculator
- ▶ Chronic Daily Intake (CDI) Equations
- ▶ CDI Equation Parameters
- ▶ Risk (Cancer and Hazard Index) Calculator

**Contents**

- ▶ Home
- ▶ CL Equations
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Department of Environmental Conservation  
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Juneau, AK 99811-1800

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# How We Evaluated Cost

AS 44.62.190(d)

## Factors we considered:

- ▶ Changes to cleanup levels
- ▶ Greatest change: groundwater – 132 compounds more stringent
- ▶ 80% of sites are petroleum contaminated – these levels are not changing
- ▶ 25 most common contaminants occur at 1% or more of all sites - BTEX, certain PAHs and VOCs, certain metals.
- ▶ Or look at it another way: Each of the other 157 contaminants occur at less than 1% of contaminated sites.

**Synopsis-** there may be a slight increased cost for longer groundwater treatment and monitoring; more expensive laboratory analyses- but difficult to quantify due to varied site conditions.

# Implementation Process

## Closed Sites

- ▶ without institutional controls
- ▶ Sites closed with institutional controls
- ▶ Highest priority will be to evaluate sites where groundwater was impacted.
- ▶ Objective is to not reopen sites – evaluate for institutional controls

## Active Sites

- ▶ New cleanup levels are not applied until they are promulgated; however, sites cleaned up or closed under the current framework may be subject to further evaluation following promulgation.
- ▶ Note: Promulgation of new criteria may not occur until late spring.

# Public Process

- ▶ Public comment period runs until December 11, 2015
- ▶ Public workshops
  - ▶ Anchorage on October 14, 2015
  - ▶ Fairbanks on October 27, 2015
  - ▶ Teleconference on November 5, 2015
- ▶ How to provide comments?
  - ▶ In writing, submitted by:
    - ▶ mail to Sally Schlichting, ADEC
    - ▶ email to [sally.schlichting@alaska.gov](mailto:sally.schlichting@alaska.gov)
    - ▶ through Alaska Online Public Notices
- ▶ Getting questions answered
  - ▶ Visit our regulations page [http://dec.alaska.gov/spar/csp/reg\\_rev.htm](http://dec.alaska.gov/spar/csp/reg_rev.htm)
  - ▶ Submit questions to [sally.schlichting@alaska.gov](mailto:sally.schlichting@alaska.gov) and we will post answers to our FAQs on our website.

**Note:** *public comments cannot be accepted during the workshops*

# Questions?

Much more information on our regulations page:

[http://dec.alaska.gov/spar/csp/reg\\_rev.htm](http://dec.alaska.gov/spar/csp/reg_rev.htm)

or email: [sally.schlichting@Alaska.gov](mailto:sally.schlichting@Alaska.gov)

