

## ABC Framework for Cleanup Levels

### Issue

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What steps (if any) should Ecology take to simplify and clarify procedures for establishing cleanup levels in the Model Toxics Control Act (MTCA) cleanup regulation?

### Problem Statement

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Prior to beginning the rule making process, Ecology held a number of scoping meetings. Most people attending the scoping meetings appeared to believe that the MTCA rule framework was not broken and, consequently, did not require a major overhaul.<sup>1</sup> However, Ecology consistently heard that the rule is unnecessarily long and complex. Many of those comments centered on the methods and procedures for establishing cleanup levels:

- Too Many Methods for Establishing Cleanup Levels: The rule currently has five methods (Method A, Standard and Modified Method B, and Standard and Modified Method C) for establishing cleanup levels. Several people stated that the rule provides too many options for establishing cleanup levels. In their opinion, the rule also lacks a clear roadmap for choosing the appropriate method, which contributes to confusion and cleanup delays. Several people pointed out that three of the options (Modified Method B, Method C, and Modified Method C) are rarely, if ever, used.
- Incomplete or Inadequate Attention to Important Exposure Pathways: Some people expressed the opinion that the current approach for establishing media-specific cleanup levels does not result in cleanup levels that take into account all relevant exposure pathways. They believe the current rule framework (tables and media-specific equations) serves as a barrier to considering exposure pathways like vapor intrusion and the ground water-to-surface water pathway.
- Length and Complexity: Several people expressed concerns that the length of the rule and/or individual sections makes it more difficult to understand key rule requirements.
- Limited Integration of Requirements for Human Health and Ecological Protection: Many people stated that it was hard to understand how to use the results from the Terrestrial Ecological Evaluations to establish soil cleanup levels based on ecological protection. This concern is discussed in a separate issue summary (Terrestrial Ecological Evaluations).

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<sup>1</sup> In this issue summary the terms MTCA cleanup regulation and MTCA rule are used interchangeably and refer to Chapter 173-340 WAC.

## Background

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Ecology originally adopted cleanup standards in 1991. The original MTCA cleanup regulation provided three methods for establishing cleanup levels.

- **Method A** can be used to establish cleanup levels at relatively small sites that involve few contaminants. Cleanup levels must be at least as stringent as (1) requirements in other applicable state and federal laws and regulations (e.g., drinking water standards); and (2) ground water and soil cleanup levels are listed in Tables 720-1, 740-1, and 745-1.
- **Method B** can be used to establish cleanup levels at any site. Under Method B, cleanup levels must be at least as stringent as (1) requirements in other applicable state and federal laws and regulations; and (2) cleanup levels calculated using the equations in WAC 173-340-720 through 173-340-750.
- **Method C** can be used to establish cleanup levels in limited situations—typically for soil cleanup levels for industrial land uses. Method C cleanup levels must be at least as stringent as (1) requirements in other applicable state and federal laws and regulations; and (2) cleanup levels calculated using the equations in WAC 173-340-720 through 173-340-750.

In February, 2001, Ecology completed significant changes to the cleanup standards. The 2001 amendments to the MTCA cleanup regulation included two additional methods (Modified Methods B and C) for establishing cleanup levels. The methods and policies for establishing Modified Method B and C cleanup levels are very similar to the standard methods. The primary differences are (1) the modified methods provide the flexibility to use chemical- or site-specific information to modify certain toxicological and exposure parameters and (2) the equations for the modified soil cleanup levels consider both soil ingestion and dermal contact exposures.

## Rulemaking Options Being Considered

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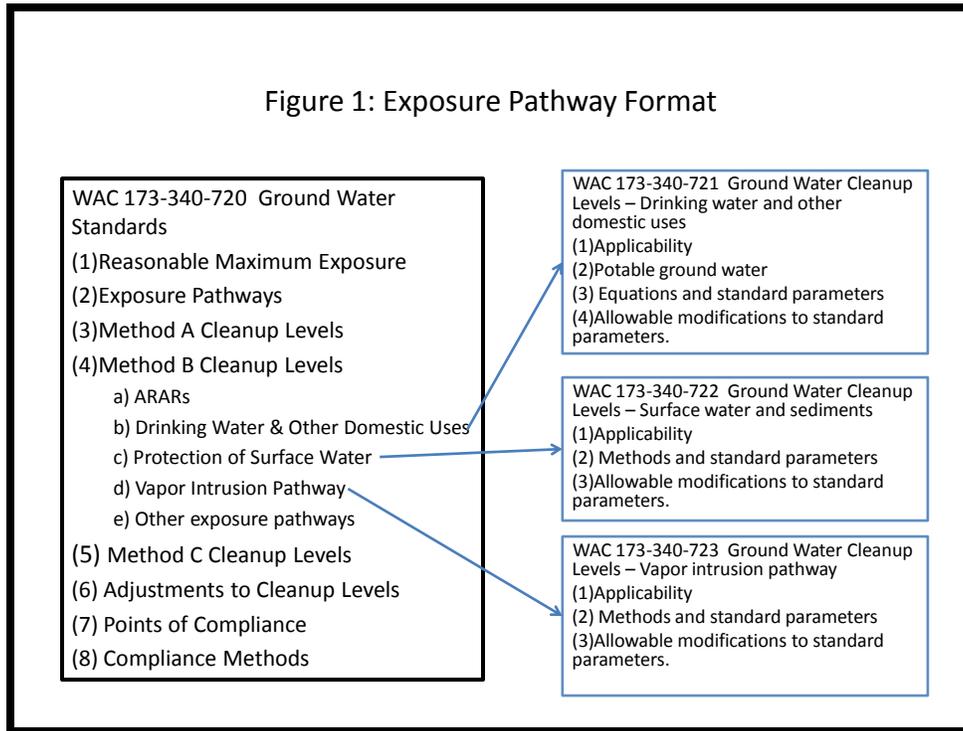
Ecology is considering several options for addressing this issue during the current rulemaking process. These include:

Eliminate Modified Method B and Modified Method C Provisions: Under this option, Ecology would eliminate the Modified Method B and Modified Method C provisions. The rule text would be revised to allow people to consider site-specific information for a limited number of factors (e.g., gastrointestinal absorption fraction) when using the standard Method B. This is currently allowed under WAC 173-340-708 and is similar to the provisions in the 1991 rule.

Eliminate Method C: Under this option, Ecology would eliminate the Method C provisions.

Exposure Pathway Format: Under this option, Ecology would retain three methods of establishing cleanup levels (A, B, and C). However, each media-specific cleanup level section would be organized around exposure pathways that provide better linkage to the conceptual site model prepared during the RI/FS (See Figure 1). Several other states (e.g., Michigan and Wisconsin) have rules that use this approach. The rule language would be supplemented with pathway-specific cleanup level tables that would be posted on the Ecology website as part of a

modified CLARC database.<sup>2</sup> This would be modeled on the cleanup tables prepared by the Oregon Department of Environmental Quality. These tables would facilitate the screening evaluations typically performed during the remedial investigation and feasibility study process.



Get Rid of ABC Framework: Under this option, Ecology would modify the rule to provide one method for establishing cleanup levels. The method would include a standard set of equations/procedures with clear direction on which parameters could be modified on a site-specific basis. Each section would be organized around exposure pathways similar to approaches used by Michigan and Wisconsin. This option is similar to the exposure pathway format, but does not include cleanup level tables in the rule. Under this option, Ecology would post pre-calculated standards based on those equations on the Ecology website.

## Factors to Consider When Selecting an Option

Developing amendments to the MTCA rule will require considering and balancing of a number of issues and interests. Ecology believes that the following factors need to be considered when evaluating options for addressing this issue:

<sup>2</sup> Ecology’s searchable database, Cleanup Levels and Risk Calculation (CLARC), is available through the Toxics Cleanup Program pages of the Ecology web site.

- How frequently have people used Method C or Modified Method C to establish cleanup levels (other than industrial soils)? Has anyone used Method C since the 2001 rule amendments introduced the remediation level concept?
- How frequently have people used Modified Method B to establish soil cleanup levels that take into account the dermal contact pathway?
- How frequently have people used or tried to use Modified Method B to establish cleanup levels based on the other factors identified in the MTCA rule? For example, are people using new or modified toxicity values, adjusting gastrointestinal absorption fractions or inhalation correction factors (WAC 173-340-720), or using modified toxicity equivalence factors?
  - If yes, how frequently?
  - Are people able to successfully establish cleanup levels based on site-specific information?
  - Did using Modified Method B to incorporate site-specific information make a practical difference in cleanup requirements?
- Would reducing the number of words and/or reorganizing the media-specific sections result in a more understandable rule?
- Would reorganizing the media-specific sections around exposure pathways facilitate more efficient information collection and evaluation during the remedial investigation and feasibility study phase?
- What are the current web-based options for providing information (relative to capabilities in 1991 when the original cleanup standards were completed)?
- What approaches are being used by other successful state cleanup programs?
- Do these options create additional implementation issues or problems (e.g., unintended consequences)?
- Are there complementary changes to other rule provisions that would be needed to support greater emphasis on exposure pathways?
  - Remedial investigation provisions (e.g., conceptual site model)
  - Remedy selection
  - CLARC database
  - Other?
- Are there other options that Ecology should consider when evaluating ways to simplify and clarify the MTCA procedures for establishing cleanup levels?