

Remedy Selection

Issue

What rule revisions, in any, are needed to clarify and update the remedy selection process under the Model Toxics Control Act (MTCA)?

Problem Statement

The remedy selection process under MTCA involves several subjective standards. These provisions purposely provide Ecology site managers with wide discretion in determining the extent of cleanup required at a site and the technology to be used for the cleanup. This can lead to protracted negotiations with potentially liable parties (PLPs). Success depends heavily on the PLP consultant's and Ecology site manager's negotiating skills and command of technical issues.

Most of the debate around remedy selection centers on provisions requiring "use of permanent solutions to the maximum extent practical" and a "reasonable restoration timeframe." While it is not possible to change remedy selection into a cookbook process, there are a number of provisions that could be clarified to streamline the process.

Background

The MTCA statute and rule require remedies to meet certain minimum requirements.¹ These requirements include:

- Protect human health and the environment
- Comply with cleanup standards
- Comply with applicable state and federal laws (ARARs)
- Provide for compliance monitoring
- Use permanent solutions to the maximum extent practicable
- Provide for a reasonable restoration timeframe
- Consider public concerns

¹ In this issue summary the terms MTCA cleanup regulation and MTCA rule are used interchangeably and refer to Chapter 173-340 WAC. The MTCA statute is codified as Chapter 70.105D RCW.

In addition, there are several narrative standards contained within Section 360 of the MTCA rule. This process and several specific provisions were heavily negotiated during the 2001 MTCA rule-making process.

Rulemaking Options Being Considered

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

Editorial and Simple Structural Changes: Under this option, Ecology would not make any significant revisions to the rule. However, Ecology would make editorial and structural changes to clarify the remedy selection requirements. Examples of these types of changes being considered are listed in Table 1 below.

Modest Policy Clarifications: Under this option, Ecology would make modest revisions to provide for submittal of better information and to clarify several of the remedy selection requirements. Examples of some of the types of changes being considered are listed in Table 2 below.

Significant Policy Revisions: Under this option, Ecology would change current language and add new presumptions intended to speed up the remedy selection process. Examples of some of the types of changes being considered are listed in Table 3 below.

Combination: Under this option, Ecology would make revisions to incorporate elements of all three of the above options.

Factors to Consider When Selecting an Option

Developing amendments to the MTCA cleanup regulation will require considering and balancing a number of issues and interests. Proposed amendments must also satisfy several regulatory goals, including the following:

- Providing for the selection of cleanup actions that meet the minimum statutory requirements.
- Providing consistent standards and methodologies for assessing and managing risk.
- Providing flexibility to address site-specific factors.
- Promoting efficient and cost-effective cleanup of contaminated sites.
- Improving the clarity and usability of the rule.

Table 1: Editorial and Simple Structural Changes to Clarify Requirements		
Current Provision	Under Consideration	Comment
Minimum Requirements: The distinction between threshold and other criteria adds unnecessary complexity.	Should the seven criteria be renumbered into one list?	This is a distinction without a purpose. All criteria still have to be met. Renumbering should simplify the analysis.
Non-permanent groundwater cleanup actions: Conditions for use of non-permanent groundwater cleanup actions do not reflect all requirements in other parts of rule.	Add to 360(2): <ul style="list-style-type: none"> • Alternative water supply • Institutional controls • Periodic reviews • Financial Assurance 	Would help clarify what conditions must be met for groundwater containment remedies.
Reasonable Restoration Time Frame: Currently identified as one of minimum criteria that remedies must meet with detailed discussion near end of Section 360.	Should this subsection be moved up and made more prominent in remedy selection process?	Moving up would emphasize this requirement and correspond better to when it is considered in the remedy selection process.
PMEP Evaluation Criteria: Costs and benefits not distinguished in current rule language.	Consider reordering criteria to distinguish which are costs and which are benefits as follows: <ul style="list-style-type: none"> • Cost-related factors include construction costs, long-term costs, and implementability • Benefit-related factors include protectiveness, permanence, long-term effectiveness and management of short-term risks. 	Should help streamline disproportionate-cost analyses.

Table 2: Modest Policy Clarifications		
Current Provision	Under Consideration	Comment
Disproportionate Cost Test: Costs are disproportionate to benefits if the incremental costs of the alternative over that of a lower cost alternative exceed the incremental degree of benefits achieved by the alternative over that of the other lower cost alternative.	Should standard be clarified? “Costs are disproportionate to benefits if the incremental costs of a <u>higher cost</u> alternative over that of a lower cost alternative <u>substantially</u> exceed the incremental degree of benefits achieved by the <u>higher cost</u> alternative over that of the lower cost alternative.”	2001 responsiveness summary noted that previous standard of “substantial and disproportionate” is subsumed within “disproportionate”. This is not obvious from current language.
Cost Analysis: Current rule does not specify an inflation rate or rate of return for disproportionate-cost evaluations.	Add default inflation rate and rate of return for present worth analyses. (Currently researching options.)	To provide more consistent disproportionate cost analyses across sites.

<p>Feasibility Study Contents (Section 350)</p>	<p>Should Section 350 be amended to:</p> <ul style="list-style-type: none"> • More explicitly describes the steps in the remedy selection process • List the contents of a feasibility study • Require feasibility studies to map the location, mass, and concentrations of residual contamination for each cleanup alternative? 	<p>Should speed up remedy selection since these are often points of confusion. Mapping the residual contamination would help speed up remedy selection as most sites do not submit this information and it must be created by Ecology staff. Should also lead to more complete investigations, avoiding supplemental investigations.</p>
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<p>Table 3: Significant Policy Revisions</p>		
<p>Current Provision</p>	<p>Under Consideration</p>	<p>Comment</p>
<p>Institutional Controls: The rule states that institutional controls must demonstrably reduce risks to ensure a protective remedy. This demonstration should be based on a quantitative scientific analysis where appropriate.</p>	<p>Should the “quantitative scientific analysis” requirement be eliminated?</p>	<p>Insufficient information current exists to conduct this analysis.</p>
<p>Reasonable Restoration Time Frame: Currently identified as one of minimum criteria that remedies must meet.</p>	<p>Add a presumption that remedies that restore a site within X (5) years are presumed to meet a reasonable restoration timeframe?</p>	<p>This presumption may not be stringent enough for sites with minor contamination.</p>
<p>Climate Change/Carbon Footprint: Not addressed in current criteria.</p>	<p>Should greenhouse gas emissions and the impact of climate change such as sea level rise be factored into the remedy selection process?</p>	<p>Carbon footprint may lead to more containment remedies since these tend to have the least initial carbon emissions.</p>
<p>PMEP Outcome: While the factors for selecting a permanent remedy are spelled out in detail, and some obvious expected outcomes are spelled out in Section 370, the outcome of this process is highly variable and highly dependent on the information provided and negotiation process.</p>	<p>Should a presumption be added to streamline the PMEP analysis? For example, if the remedy selected removes or treats X% (90-95%?) of the contamination, it is presumed to be permanent to the maximum extent practicable.</p>	<p>Applying the same % to all sites may be difficult given the wide variety of sites. Would need to be clear that this presumption would not override other minimum requirements (e.g., must still meet cleanup standards). How is the % reduction measured? (% weight? % risk reduction? % volume?). Another issue is whether the % reduction is measured for each medium or the overall site.</p>
<p>Demonstrating a Remedy is Protective: Section 360 provides a detailed discussion of</p>	<p>Should a new subsection be added to Section 360 describing how to</p>	<p>Exposure scenarios vary widely for different remedies and site</p>

<p>restoration timeframe and PMEP but does not describe how to determine a remedy is protective of human health and the environment when containment is used.</p>	<p>determine if containment remedies are protective of human health and the environment? Options range from evaluation factors to consider -- to default equations based on maintenance workers and other short term exposure scenarios.</p>	<p>and resource uses. This may be difficult to do given the wide range of remedies and sites.</p>
<p>Expectations (Section 370): The regulatory status of the expectations in Section 370 is unclear.</p>	<p>Should the rule require consideration of all expectations in Section 370 as part of remedy selection process?</p>	<p>Would help PLP's consultants understand what remedies Ecology is looking for.</p>