



Order of Magnitude Evaluation

What is the Importance?

- “Finality” of a remedial action

Brownfield Act (58:10B-12j)

- **If** approved/certified Remedial Action Workplan
- **Then** additional remediation cannot be required if subsequent change in remediation standards
- **Unless** remediation standard decreases by an order of magnitude





Order of Magnitude Evaluation

Additional Caveat

- Workplan is implemented in a reasonable timeframe

What is reasonable?

- Regulatory/Mandatory time frame for remedial action





Order of Magnitude What Standards Does it Apply to?

Order of Magnitude Evaluation Applies to:

- Direct Contact Soil Remediation Standards
- Ground Water Remediation Standards
- Surface Water Remediation Standards





Order of Magnitude What Does it Not Apply to?

Order of Magnitude Evaluation Does Not Apply to Changes in:

- Impact to Ground Water Soil criteria
- TPH/EPH soil criteria
- Indoor Air Vapor Intrusion criteria





Order of Magnitude Basis of Approach

Basis: Brownfield Act N.J.S.A. 58:10B-12 j

...the department may not subsequently require a change to that workplan or similar plan in order to compel a different remediation standard due to the fact that the **established** remediation standards have changed;





Order of Magnitude Basis of Approach

Basis: Brownfield Act N.J.S.A. 58:10B-13e

...whenever contamination at a property is remediated in compliance with all applicable... remediation standards that were in effect or approved by the department at the completion of the remediation, no person,... shall be liable for the cost of any additional remediation that may be required by a **subsequent adoption** by the department of a more stringent remediation **standard** for a particular contaminant





Order of Magnitude

How do you do the evaluation?

- Compare remediation standards in the approved remedial action workplan to any new remediation standards to determine if there is an order of magnitude change
- If there is an order of magnitude change you must use the new remediation standards





Order of Magnitude Evaluation

Also applies to sites with final remediation documents

Brownfield Act (58:10B-13e)

- **If** site has NFA or RAO
- **Then** additional remediation cannot be required if subsequent change in remediation standards
- **Unless** remediation standard decreases by an order of magnitude





Order of Magnitude Evaluation

Additional Caveat

- Any additional remediation is the responsibility of the person liable for the remediation





Order of Magnitude

How do you do the evaluation?

- Compare remediation standards applied in the final remediation document to any new remediation standards to determine if there is an order of magnitude change
- **If** there is an order of magnitude change
- **Then** Order of Magnitude evaluation is required





Order of Magnitude

How do you do the evaluation?

- **If** difference between contaminant concentration on site and new remediation standard is an order of magnitude or greater
- **Then** evaluation of site must be conducted to determine if existing remedy is protective relative to the new remediation standard
- **If** the existing remedy is not protective
- **Then** additional remediation is required





Order of Magnitude When is it conducted?

For limited restricted and restricted use remedial actions

- Order of Magnitude evaluation is conducted as part of the biennial certification process associated with the remedial action permit

For unrestricted use remedial actions

- Order of magnitude evaluation is conducted if/when there is a trigger to re-evaluate the site

