

**SITE REMEDIATION & WASTE MANAGEMENT PROGRAM
IMPLEMENTATION OF NOVEMBER 25, 2015
INTERIM GROUND WATER QUALITY STANDARDS
(ver. March 8, 2016)**

INTRODUCTION

On November 25, 2015, the New Jersey Department of Environmental Protection adopted Interim Ground Water Quality Standards for the following 12 contaminants:

CONTAMINANTS (No Prior Ground Water Quality Standard)

1-Chloro-1,1-difluoroethane
Cresols (mixed isomers)
1,1-Dichloro-1-fluoroethane
1-Methylnaphthalene
Perfluorononanoic acid (PFNA)
Strontium
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)
Tri-cresyl phosphate (mixed isomers)
1,1,1-Trifluoroethane
1,2,4-Trimethylbenzene
Tri-ortho-cresyl phosphate

CONTAMINANT (Prior Standard - Order of Magnitude Change)

1,4-Dioxane

These new interim ground water quality standards can be found on the Department's Water Monitoring and Standards web page (www.nj.gov/dep/wms/bears/gwqs_interim_criteria_table.htm).

Pursuant to the Remediation Standards, N.J.A.C. 7:26D-2.2(a)1, interim ground water quality standards are also ground water remediation standards. For all of the listed contaminants, the use of the new ground water remediation standards **became effective immediately upon posting to the Department website**. The Department posted these remediation standards on its website on November 25, 2015.

The Department is issuing this document to address four different sets of circumstances in which the person responsible for conducting the remediation may need to address the contaminants for which the Department has adopted new and changed ground water remediation standards:

1. The first circumstance is when the person responsible for conducting the remediation is conducting remediation at a site that is subject to the May 7, 2016 statutory deadline for completing the remedial investigation of their entire site and is not able to do so because there is not enough time between November 25, 2015, when the Department adopted the new ground water remediation standards, and May 7, 2016, the statutory deadline for completing the remedial investigation (see Part 1, Scenarios 1a and 1b).

2. The second circumstance is when the person responsible for conducting the remediation is conducting remediation at a site that is not subject to the May 7, 2016 statutory deadline, and has not yet completed the remedial investigation of the site (see Part 2, Scenarios 2a and 2b).
3. The third circumstance is when the remedial investigation has been completed at a site and the remedial investigation report has been submitted, but the remedial action has not been completed, and thus a final remediation document has not been issued (see Part 3, Scenarios 3a and 3b). This circumstance only applies to 1,4-Dioxane.
4. The fourth circumstance is when a final remediation document has been issued at a site (see Part 4, Scenarios 4a and 4b). This circumstance only applies to 1,4-Dioxane.

This guidance does not obviate the need for all contaminants in all other media, and for all ground water contaminants other than those listed above, to be delineated to the applicable remediation standards by the applicable regulatory timeframe to submit the remedial investigation report for the site.

1. SITES WHERE THE REMEDIAL INVESTIGATION IS NOT COMPLETE AND IS SUBJECT TO THE MAY 2016 STATUTORY DEADLINE TO COMPLETE THE REMEDIAL INVESTIGATION

Scenario 1a

A site where any ground water contaminant listed above was historically detected above the applicable November 25, 2015 ground water remediation standard, and delineation to the applicable November 25, 2015 ground water remediation standard is not complete.

The Department will consider the ground water remedial investigation of the contaminants listed above to be complete for the purposes of the May 7, 2016 statutory deadline, if the following conditions are met:

- i. No later than May 7, 2016, the person responsible for conducting the remediation:
 - Completes the remedial investigation for the entire site or all known contaminated areas of concern, as applicable, for all contaminants to the pre-November 25, 2015 ground water remediation standards;
 - Submits to the Department the remedial investigation report for the entire site or all known contaminated areas of concern, as applicable, or all known areas of concern, as applicable;
 - Completes the Remedial Investigation Report Form or Remedial Investigation Report Online Service by noting “delineation of ground water complete”; and
 - Establishes a ground water area of concern, which includes each contaminant listed above that was historically detected above an applicable November 25, 2015 ground water

remediation standard, in the Case Inventory Document submitted with the Remedial Investigation Report Form or Remedial Investigation Report Online Service by:

- Entering “<contaminant name(s)>” in the AOC Details field;
 - Entering “delineation, remediation of <contaminant name(s)> to <enter November 25, 2015 ground water remediation standard(s)> ug/l will take place and will be reported in the Remedial Action Report” in the Activity field; and
 - Entering all other information required by the Case Inventory Document, as applicable; and
- ii. The person responsible for conducting the remediation completes the delineation and remediation of the contaminants listed above to the November 25, 2015 ground water remediation standards by the applicable regulatory timeframe to submit the remedial action report for the site.

Scenario 1b

A site at which any ground water contaminant listed above was either:

- i. Historically not detected but the reporting limits were above the applicable November 25, 2015 ground water remediation standard; or
- ii. Not historically evaluated

The new and amended ground water remediation standards trigger the obligation of the person responsible for conducting the remediation to determine whether sampling for any of the ground water contaminants listed above is required.

The Department will consider the ground water remedial investigation of the contaminants listed above to be complete for the purposes of the May 7, 2016 statutory deadline, if the person responsible for conducting the remediation meets the following conditions:

- Completes the remedial investigation for the entire site or all known contaminated areas of concern, as applicable for all contaminants to the pre-November 25, 2015 ground water remediation standards;
- Submits to the Department the remedial investigation report for the entire site or all known contaminated areas of concern, as applicable;
- Completes the Remedial Investigation Report Form or Remedial Investigation Report Online Service by noting “delineation of ground water complete”; and
- If any of the contaminants listed above are determined to require evaluation, establishes a ground water area of concern in the Case Inventory Document submitted with the Remedial Investigation Report Form or Remedial Investigation Report Online Service by:
 - Entering “<contaminant name(s)>” in the AOC Details field for each contaminant determined to require evaluation;
 - Entering “Undetermined” in the Confirmed Contamination field;

- Entering “Evaluation, and if necessary, delineation and remediation, of <contaminant name(s)> to <enter November 25, 2015 ground water remediation standard(s)> ug/l will take place and will be reported in the Remedial Action Report” in the Activity field; and
- Entering all other information required by the Case Inventory Document, as applicable.

In those circumstances when the person responsible for conducting the remediation conducts additional ground water sampling and confirms the presence of any of the contaminants listed above at concentrations above the November 25, 2015 ground water remediation standards, the person responsible for conducting the remediation shall:

- i. Immediately report the detection(s) to the NJDEP Hotline (1-877-WARNDEP or 1-877-927-6337) and submit a Confirmed Discharge Notification form as follows:
 - By completing Section B of the Confirmed Discharge Notification form by answering “YES” to the following two questions:
 - “Is there an existing remedial case at the site?”; and
 - “If “Yes,” would you like to combine this incident number with the existing case?”; and
- ii. Complete the delineation and remediation of the contaminants listed above to the November 25, 2015 ground water remediation standards by the applicable regulatory timeframe to submit the remedial action report for the site.

2. SITES WHERE THE REMEDIAL INVESTIGATION IS NOT COMPLETE, BUT THE SITE IS NOT SUBJECT TO THE MAY 7, 2016 STATUTORY DEADLINE

Scenario 2a

A site at which any ground water contaminant listed above was historically detected above the November 25, 2015 ground water remediation standard and the remedial investigation is not complete, and the site is not subject to the May 7, 2016 statutory deadline.

The person responsible for conducting the remediation shall complete the delineation for all contaminants to the applicable ground water remediation standards, including the November 25, 2015 ground water remediation standards, by the applicable regulatory timeframe to submit the remedial investigation report. The person responsible for conducting the remediation may, if necessary:

- Ask for an extension to the applicable regulatory timeframe to complete the remedial investigation pursuant to N.J.A.C. 7:26C-3; and
- Ask and provide justification for an extension to the applicable mandatory timeframe to complete the remedial investigation pursuant to N.J.A.C. 7:26C-3.

Scenario 2b

A site at which any ground water contaminant listed above was not historically detected at any concentration.

The new and amended ground water remediation standards trigger the obligation of the person responsible for conducting the remediation to determine whether sampling for any of the ground water contaminants listed above is required.

In those circumstances when the person responsible for conducting the remediation conducts additional ground water sampling and confirms the presence of any of the contaminants listed above at concentrations above the November 25, 2015 ground water remediation standards, the person responsible for conducting the remediation shall:

- i. Immediately report the detection(s) to the NJDEP Hotline (1-877-WARNDEP or 1-877-927-6337) and submit a Confirmed Discharge Notification form as follows:
 - By completing Section B of the Confirmed Discharge Notification form by answering “YES” to the following two questions:
 - “Is there an existing remedial case at the site?”; and
 - “If “Yes,” would you like to combine this incident number with the existing case?”; and
- ii. Complete the delineation of the contaminants listed above to the November 25, 2015 ground water remediation standards by the applicable regulatory timeframe to submit the remedial investigation report for the site. The person responsible for conducting the remediation may, if necessary:
 - Ask for an extension to the applicable regulatory timeframe to complete the remedial investigation pursuant to N.J.A.C. 7:26C-3; and
 - Ask and provide justification for an extension to the applicable mandatory timeframe to complete the remedial investigation pursuant to N.J.A.C. 7:26C-3.

3. SITES WHERE THE REMEDIAL INVESTIGATION HAS BEEN COMPLETED AND THE REMEDIAL INVESTIGATION REPORT HAS BEEN SUBMITTED, A REMEDIAL ACTION WORKPLAN HAS BEEN APPROVED OR CERTIFIED, BUT THE REMEDIAL ACTION HAS NOT BEEN COMPLETED (A REMEDIAL ACTION REPORT HAS NOT BEEN SUBMITTED)

Scenario 3a

This scenario only applies at a site where 1,4-Dioxane is being remediated as part of an active ground water treatment system or by natural monitored attenuation.

The person responsible for conducting the remediation shall:

- Delineate and remediate 1,4-Dioxane to the November 25, 2015 ground water remediation standard of 0.4 ug/l;

- Amend the Case Inventory Document to acknowledge the delineation and remediation of 1,4-Dioxane to the November 25, 2015 ground water remediation standard of 0.4 ug/l; and
- Submit the amended Case Inventory Document with the remedial action report by the applicable regulatory timeframe to submit the remedial action report for the site. The person responsible for conducting the remediation may, if necessary:
 - Ask for an extension to the applicable regulatory timeframe to complete the remedial action pursuant to N.J.A.C. 7:26C-3; and
 - Ask and provide justification for an extension to the applicable mandatory timeframe to complete the remedial action pursuant to N.J.A.C. 7:26C-3

Scenario 3b

This scenario only applies at a site at which 1,4-Dioxane is **not** being remediated either by an active ground water treatment system or by natural monitored attenuation, but 1,4-Dioxane was identified as a potential contaminant of concern at the site, and either:

- (i) 1,4-Dioxane was detected at concentrations greater than the November 25, 2015 ground water remediation standard of 0.4 ug/l but at or below the pre-November 25, 2015 ground water remediation standard of 10 ug/l; or
- (ii) all historical analyses were non-detect for 1,4-Dioxane, and the reporting level for any of the analyses was greater than the November 25, 2015 ground water remediation standard of 0.4 ug/l

The person responsible for conducting the remediation shall:

- Sample ground water for 1,4-Dioxane, as necessary; and
- If 1,4-Dioxane is present above the November 25, 2015 ground water remediation standard of 0.4 ug/l:
 - Immediately report the detection(s) to the NJDEP Hotline (1-877-WARNDEP or 1-877-927-6337) and submit a Confirmed Discharge Notification form as follows:
 - By completing Section B of the Confirmed Discharge Notification form by answering “YES” to the following two questions:
 - “Is there an existing remedial case at the site?”; and
 - “If “Yes,” would you like to combine this incident number with the existing case?”;
 - Complete the delineation and remediation of 1,4-Dioxane to the November 25, 2015 ground water remediation standard of 0.4 ug/l;
 - Amend the Case Inventory Document submitted with the previous Remedial Investigation Report:
 - Establish a ground water area of concern for 1,4-Dioxane in the Case Inventory Document:
 - Enter “1,4-Dioxane in ground water” in the AOC Details field;

- Enter “delineation, remediation of 1,4-Dioxane to the November 25, 2015 ground water remediation standard of 0.4 ug/l was completed” in the Activity field;
- Enter all other information required by the Case Inventory Document, as applicable; and
- Submit the amended Case Inventory Document with the remedial action report by the applicable regulatory timeframe to submit the remedial action report for the site. The person responsible for conducting the remediation may, if necessary:
 - Ask for an extension to the applicable regulatory timeframe to complete the remedial action pursuant to N.J.A.C. 7:26C-3; and
 - Ask and provide justification for an extension to the applicable mandatory timeframe to complete the remedial action pursuant to N.J.A.C. 7:26C-3.

4. SITES WITH A FINAL REMEDIATION DOCUMENT

Scenario 4a

This scenario only applies at a site where 1,4-Dioxane is a contaminant of concern that the person responsible for conducting the remediation is remediating pursuant to a ground water remedial action permit.

- The person responsible for conducting the remediation shall compare the concentrations of 1,4-Dioxane in the ground water at the site and determine whether the ground water remedial action is adequate to prevent exposure to the contamination and that the site remains protective of public health, safety, and the environment; and
- The person responsible for conducting the remediation, who is also a Spill Act liable party (i.e., is not a statutory permittee), shall conduct all additional remediation of the 1,4-Dioxane necessary to comply with all applicable statutes and regulations in order to protect the public health, safety, and the environment.

Scenario 4b

This scenario only applies at a site with a final remediation document (no further action letter or response action outcome) for a remediation of 1,4-Dioxane, in which the 1,4-Dioxane achieved compliance with the previous ground water remediation standard of 10 ug/l. Note: if all historical ground water sampling results for 1,4-Dioxane were below 4.0 ug/l, then no additional remediation is required.

The person responsible for conducting the remediation, who is also a Spill Act liable party, shall remediate the 1,4-Dioxane according to the Administrative Requirements for the Remediation of Contaminated Sites at N.J.A.C. 7:26C-2.3 and the expedited site specific remediation timeframes the Department establishes for the remediation according to the following:

- Sample the ground water to determine whether 1,4-Dioxane is present at or above 4.0 ug/l; and
- If 1,4-Dioxane is found at or above 4.0 ug/l, then this contamination shall be considered a new case, and the person responsible for conducting the remediation shall:
 - Immediately report the detection to the NJDEP Hotline (1-877-WARNDEP or 1-877-927-6337);
 - Submit a Confirmed Discharge Notification form:
 - Complete Section E, Description of Discharge, to state “1,4-Dioxane in excess of 4 ug/l as part of an order of magnitude evaluation on a case with a final remediation document and no permit”;
 - Complete delineation of 1,4-Dioxane to the November 25, 2015 ground water remediation standard of 0.4 ug/l within the expedited site specific remediation timeframe that the Department establishes to complete the remedial investigation;
 - Establish a ground water area of concern for 1,4-Dioxane in the Case Inventory Document submitted with the Remedial Investigation Report;
 - Implement a remedial action to remediate 1,4-Dioxane to the November 25, 2015 ground water remediation standard of the November 25, 2015 ground water remediation standard of 0.4 ug/l within the expedited site specific remediation timeframe the Department establishes; and
 - Obtain and comply with a ground water remedial action permit, as necessary.