

# New Jersey Department of Environmental Protection Site Remediation Program

# **INSTRUCTIONS FOR THE REMEDIAL INVESTIGATION REPORT FORM**

## **General Instructions**

- **Note:** The Remedial Investigation Report should not be submitted to the New Jersey Department of Environmental Protection (NJDEP) unless:
  - The remedial investigation is complete for all Areas of Concern (AOCs) addressed in this submission.
  - For a remedial investigation focused on a specific media, for example, a Soils Only Remedial Action Outcome (RAO), the delineation is complete for that media.
- 1. **Applicability** Use this form when submitting a *Remedial Investigation Report* (RIR). This report is used to develop a remedial action workplan or final remedy to clean up contamination exceeding remediation standards.
- 2. **Updates.** The NJDEP may update this form periodically. Please ensure you are using the latest version of this form. Download the latest version of this form from the NJDEP Website: <u>http://www.nj.gov/dep/srp/srra/forms/</u>.
- 3. **Signatures.** This form must be submitted with a completed Cover/Certification Form signed by the person responsible for conducting the remediation and the Licensed Site Remediation Professional (LSRP).
- 4. Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice Site Remediation Program NJ Department of Environmental Protection 401-05H PO Box 420 Trenton, NJ 08625-0420

- 5. The Receptor Evaluation Form must be submitted with all RIR, RAR, and RAO submissions.
- 6. The Case Inventory Document must be submitted with all PA/SI, RIR, RAW, RAR, and RAO submissions. All Case Inventory Documents must identify all active and inactive Areas of Concern (AOCs).

#### Section A. Site Name and Location

- Site Name: Provide the name of the site (i.e., ABC Corporation);
- Program Interest (PI) Numbers: The PI Number is assigned by the NJDEP and can be obtained via the web at <a href="http://www.nj.gov/dep/srp/">http://www.nj.gov/dep/srp/</a> (DEP DATA MINER REPORTS). If this is a new site with no previous SRP involvement, leave blank.
- **Case Tracking Numbers for this submission:** Provide all NJDEP generated site identification numbers (Hotline incident numbers, UST Notice of Intent to Close numbers, ISRA numbers, etc.). Attach additional sheets if necessary;

### Section B. Scope of Remedial Investigation Report

- 1. Specify, via the appropriate check box, whether the RIR is:
  - a) for specific area(s) of concern (AOCs) or
  - b) for the entire site (note: "entire site" is only a valid option if a PA/SI has been completed for the site).
- 2. Identify the total number of contaminated AOCs for your case (individually do not combine). This number refers to the entire case not just contaminated AOCs addressed in this submission.
- 3. Identify the total number of contaminated AOCs addressed in in this submission.
- 4. Indicate if the remedial investigation conducted for the contaminated AOCs addressed in this submission is complete.
- 5. Indicate if the remedial investigation is complete for all contaminated AOCs for your case. If "Yes," provide the date the remedial investigation for all contaminated AOCs was complete. Additional information about determining when a Remedial Investigation is complete can be found in "Policy Statement – Interpretation of Completing a Remedial Investigation at a Contaminated Site" at: <u>http://www.nj.gov/dep/srp/srra/training/quick\_reference.html</u>.

# Section C. General

- If an ASRS, Alternative Vapor Intrusion Screening Level or ecological site specific goal is being proposed, check "Yes," and attach the Alternative Remediation Standard and/or Screening Level Application Form. The form can be found at <u>http://www.nj.gov/dep/srp/srra/forms/</u>. The ASRS requirements can be found at <u>http://www.nj.gov/dep/srp/regs/rs/</u> (Subchapter 7 of the Remediation Standards Rule).
- 2. Refer to NJDEP Vapor Intrusion Technical Guidance for proposing alternate screening levels. The guidance can be found at: <u>http://www.nj.gov/dep/srp/guidance/vaporintrusion/</u>.
- 3. If a variance from the Tech Rules, N.J.A.C. 7:26E, was initiated at any point in the investigation/remediation, enter the citation for the requirement from which the variance occurred and reference the applicable pages in the report that justify the technical basis for the variance and any other documentation that was relied upon for technical support.
- 4. Specify via check box whether laboratory minimum detection limits are below applicable remediation standards and screening levels.
- 5. Indicate if any past deficiencies/notice of deficiencies have been addressed in this submission.

# Section D. Site Conditions

- 1. *through* 2. Self-explanatory.
- 3. Additional information about free product or Non-aqueous Phase Liquid (NAPL) can be found in the NJDEP LNAPL Technical Guidance Document at <a href="http://www.nj.gov/dep/srp/guidance/#lnapl">http://www.nj.gov/dep/srp/guidance/#lnapl</a>.
- 4. Indicate if dioxin was detected at levels above the NJDEP's interim direct contact soil screening level of 50 ppt dioxin TEQ (TCDD Toxicity Equivalence Quotient) in any AOCs addressed in this submission.
- 5. through 6. Self-explanatory.
- 7. Additional information about ENSRs and ESC can be found in the NJDEP Ecological Evaluation Technical Guidance at <a href="http://www.nj.gov/dep/srp/guidance/#eco\_eval">http://www.nj.gov/dep/srp/guidance/#eco\_eval</a>.
- 8. Please indicate by checking the appropriate box(es) any and all soil and ground water conditions currently present. Note that radionuclides remediation requires NJDEP approval.

### Section E. Applicable Remediation Standards/Screening Levels.

On June 2, 2008, the NJDEP adopted new Soil Remediation Standards (N.J.A.C. 7:26D). The ground water and surface water remediation standards were previously effective at N.J.A.C. 7:26E-1.13. The Remediation Standards rules and Basis and Background documents are available at <u>http://www.nj.gov/dep/srp/guidance/rs/</u>.

 The default box should be checked if utilizing the NJDEP derived default remediation standards/criteria/screening levels. The default direct contact health based criteria and soil remediation standards can be found at <u>http://www.nj.gov/dep/srp/regs/rs/rs\_appendix1.pdf</u>. The default Impact to Ground Water Soil Screening Levels can be found in Table 1 of the Development of Site Specific Impact to Ground Water Soil Remediation Standards Using the Soil- Water Partition Equation Guidance Document found at <u>http://www.state.nj.us/dep/srp/guidance/rs/partition\_equation.pdf</u>. The Ecological Screening Levels can be found at <u>http://www.state.nj.us/dep/srp/guidance/ecoscreening/</u>.

The default box should also be checked if the Soil Cleanup Criteria (SCC), that were in effect prior to June 2, 2008, are being applied to the site. See <u>http://www.state.nj.us/dep/srp/guidance/rs/phasein.htm</u> for guidance on which sites may continue to utilize the SCC, which were in effect prior to June 2, 2008.

- Indicate if a compliance averaging method was used to determine compliance with the Soil Remediation Standards. If "Yes," Identify the specific pathway(s) and method(s) of compliance averaging utilized. Check all that apply. Additional information on compliance averaging can be found in the NJDEP Technical Guidance for the Attainment of Remediation Standards and Site-Specific Criteria Document at: <u>http://www.nj.gov/dep/srp/guidance/#attainment\_comp</u>.
- 3. Indicate if the compliance option was utilized for the Impact to Ground Water pathway and identify via the check boxes which compliance option was used. Guidance can be at <a href="http://www.state.nj.us/dep/srp/guidance/rs/">http://www.state.nj.us/dep/srp/guidance/rs/</a>.
- 4. Indicate if an interim standard was used for a contaminant where a standard does not exist.
- 5. Indicate if any Alternative Remediation Standards for the Ingestion/Dermal have been utilized in the remedial action of the site. Guidance can be found at <a href="http://www.state.nj.us/dep/srp/guidance/rs/">http://www.state.nj.us/dep/srp/guidance/rs/</a>.
- 6. Indicate if any Alternative Remediation Standards for the Inhalation Pathway have been utilized in the remedial action of the site. Guidance can be found at <a href="http://www.state.nj.us/dep/srp/guidance/rs/">http://www.state.nj.us/dep/srp/guidance/rs/</a>.

- Indicate if a site specific standard for the Impact to Ground Water pathway was utilized. Identify all methods that were
  used to develop the site specific standard. Guidance on the site specific impact to ground water soil remediation
  standards can be found at <a href="http://www.state.nj.us/dep/srp/guidance/rs/igw\_intro.htm">http://www.state.nj.us/dep/srp/guidance/rs/igw\_intro.htm</a>.
- 8. Indicate if site specific ecological risk based remediation goals were developed. This is generally done on a site by site basis with direction from the NJDEP.
- 9. Specify the ground water classification at the site pursuant to N.J.A.C. 7:9C.

### Section F. Background Conditions

Completing a proper background investigation is one of many critical factors defining whether a person has liability for contamination found on a site. Two common scenarios related to background contamination relate to upgradient ground water contaminant sources and natural background levels of contamination in soil.

- Specify if an upgradient investigation of ground water away from any on-site areas of concern identified that all or part
  of the ground water contamination is migrating onto the site. In order to answer this question, the requirements of
  N.J.A.C. 7:26E -3.7(g) must be followed, including but not limited to, conducting a full site PA/SI to determine if there
  are any on-site areas of concern that may be contributing to this contamination. If the case does not involve ground
  water contamination, a background investigation was not conducted or if all contamination is linked to on-site AOCs,
  check NA as the answer.
- Specify whether naturally occurring soil contamination has been documented by following the requirements of N.J.A.C. 7:26E-3.10 (Site investigation - background investigation in soil). If a naturally occurring background soil contamination investigation was not completed or if all contamination is linked to on-site AOCs, check NA as the answer.

#### Section G. Historic Fill

Determine if historic fill is located on a site in accordance with N.J.A.C. 7:26E-3.12 and N.J.A.C. 7:26E-4.7 which limits the scope of both the remedial investigation and remedial action. Historic fill contaminant delineation is limited to the on-site property boundaries. Ground water delineation is limited when the extent of the historic fill is contained within the property boundaries.

- Indicate if Historic Fill is present. If Historic Fill is present, indicate if it is contaminated above applicable standards, describe the evidence used to determine if Historic Fill is present, and indicate if there are any other AOCs co-located within the Historic Fill. If any AOCs are collocated with Historic fill, indicate if the same contaminant types (e.g. lead arsenic, etc.) characterized as being present in the Historic Fill have been sampled for as contaminants of concern at these co-located AOCs.
- 2. Self-explanatory.

### Section H. Ground Water Trigger

Completing a ground water investigation when triggered pursuant to N.J.A.C. 7:26E-3.5 and 4.3 is a critical step in determining if ground water is impacted and if so, initiating the required receptor evaluations that relate directly to ground water contamination both on and off-site.

- 1. If no ground water investigation was triggered, check "NA." If a ground water investigation was triggered but not conducted, the answer should be "No."
- Indicate if delineation of soil contamination to the appropriate remediation standards has been completed. Additional
  information about determining when delineation is complete can be found in "Policy Statement Interpretation of
  Completing a Remedial Investigation at a Contaminated Site" at:
  http://www.nj.gov/dep/srp/srra/training/guick\_reference.html.

#### Section I. Ground Water Remedial Investigation Information

- 1. Indicate if contaminants are present with a specific gravity less than water (less than 1).
  - a. Indicate if any monitor wells are screened below the water table and identify them.
- 2. Indicate if contaminants are present with a specific gravity greater than water (greater than 1).
  - a. Indicate if multiple depth discrete ground water samples collected in a vertical profile at each ground water sampling location where dense contaminants were suspected.
- 3. Indicate if ground water in the bedrock aquifer is contaminated.
  - a. Indicate whether bedrock cores were used to characterize the bedrock aquifer. Guidance on coring methods may be found at <a href="http://www.state.nj.us/dep/srp/guidance/fspm/pdf/chapter06\_all.pdf">http://www.state.nj.us/dep/srp/guidance/fspm/pdf/chapter06\_all.pdf</a>.

- Indicate whether geophysical logging methods were used to characterize the bedrock aquifer. Guidance on conducting geophysical investigations may be found at <u>http://www.state.nj.us/dep/srp/guidance/fspm/pdf/chapter08.pdf</u>.
- 4. Indicate if ground water contamination has been delineated to the Ground Water Remediation Standards. Additional information about determining when delineation is complete can be found in "Policy Statement Interpretation of Completing a Remedial Investigation at a Contaminated Site" at: <a href="http://www.nj.gov/dep/srp/srra/training/quick\_reference.html">http://www.nj.gov/dep/srp/srra/training/quick\_reference.html</a>.

#### Section J. Ecological Receptor

The questions are self-explanatory. Provide an explanation where required.

#### Section K. Miscellaneous

 All USTs regulated pursuant to N.J.A.C. 7:14B must be registered. If you answered "Yes" to this question, an Underground Storage Tank Facility Certification Questionnaire must be completed and submitted to the NJDEP's Registration and Billing Unit. The form can be found at <u>http://www.nj.gov/dep/srp/forms/ust/index.html#ust021</u>.

To determine the list of regulated USTs, please check the Data Miner report, *Regulated UST Facilities by PI Number* (*Facility ID*), *UST* Summary, for the specified PI # at <a href="http://datamine2.state.nj.us/DEP\_OPRA/OpraMain/categories?category=Underground+Storage+Tanks">http://datamine2.state.nj.us/DEP\_OPRA/OpraMain/categories?category=Underground+Storage+Tanks</a> (DEP DATA MINER REPORTS-Underground Storage Tanks).

- a. Federal Release. This question pertains to discharges that have occurred from a federally regulated underground storage tank (UST) system(s). The Federal Energy Policy Act of 2005 requires the NJDEP report on sources and causes of releases from these systems. In most cases the required information has already been provided on your Confirmed Discharge Notification form which should have been submitted within 5 days after the occurrence of a discharge. If you did not know the source and/or cause of the Federal Release at the time of the initial filing of the Confirmed Discharge Notification form, this information should be reported now on a revised Confirmed Discharge Notification form. Refer to <a href="http://www.nj.gov/dep/srp/bust/regulated\_ust\_fact\_sheet.pdf">http://www.nj.gov/dep/srp/bust/regulated\_ust\_fact\_sheet.pdf</a> for additional information.
- 2. Self-explanatory.
- 3. Identify all remedial measures being conducted at the site.
- 4. Indicate whether any new information has been generated during the RI that changes or contradicts any conclusions previously provided in reports. Provide specific details of any changes or corrections.

### Section L. Laboratory Data

- 1. Self-explanatory.
- 2. Self-explanatory.
- 3. Indicate by checking each box that applies. If "Other" is checked, indicate what was used for the review.
- 4. Self-explanatory.
- 5. Self-explanatory.
- 6. Provide the page number for the "Reliability of Data" section of the report.