

New Jersey Department of Environmental Protection Site Remediation and Waste Management Program

**RECEPTOR EVALUATION FORM INSTRUCTIONS** 

## **General Instructions**

 Applicability. The purpose of this Receptor Evaluation Form is to document, in summary form, the existence of human or ecological receptors and the actions taken to protect those receptors. This form has been created to assist in completing a receptor evaluation in accordance with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E-1.15. The Technical Requirements for Site Remediation and all applicable New Jersey Department of Environmental Protection (NJDEP) guidance documents, including the Receptor Evaluation FAQs (<u>http://www.nj.gov/dep/srp/srra/faqs/</u>) and the Receptor Evaluation Quick Reference Guide at : (<u>https://www.nj.gov/dep/srp/srra/training/quick\_reference.html</u>), should be used in concert with this form to ensure all appropriate technical data is collected and evaluated properly.

The receptor evaluation is an iterative process; therefore, the form should be completed for all contamination at the site. The form should be completed in full with each submission.

- 2. **Timeframe.** The Technical Requirements for Site Remediation include substantive requirements for the receptor evaluation process, including the requirement for the person responsible for conducting the remediation to initiate a receptor evaluation after triggering a requirement to remediate listed in N.J.A.C. 7:26C-2.2.
  - The initial receptor evaluation form is required to be filed with the NJDEP within 1 year after the earliest requirement to remediate listed at N.J.A.C. 7:26C-2.2. The receptor evaluation shall include the information known at the time of the report submission.
  - The updated receptor evaluation form is required to be filed with the submission of an Immediate Environmental Concern (IEC) source control report, a Remedial Investigation Report, and a Remedial Action Report, as appropriate.
  - A receptor evaluation is not required to be submitted if an Unrestricted Use Remedial Action Outcome is completed before the due date of the <u>Initial</u> receptor evaluation or within one year after the initiation of remediation.
- 3. **Updates.** The NJDEP may update this form periodically. Please ensure that 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>.

Updated Receptor Evaluation Forms must be filled out completely, not just the sections that have changed.

4. **Signatures.** This form must be submitted with a completed Cover/Certification Form signed by the person responsible for conducting the remediation, and if a Licensed Site Remediation Professional (LSRP) is overseeing the remediation, signed by the LSRP.

**Note:** If this form is being uploaded through a Remedial Phase Online Service, the Cover/Certification form is not required. The certification for this form is covered by the "Authorization to Submit a Report / Form through NJDEP Online Form".

5. **Filing.** A copy of all Receptor Evaluation Forms must also be sent directly to the municipal clerk and designated local health department.

Submit this form to NJDEP at the following address:

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

### Specific Instructions Section by Section.

**Note:** Data will be extracted from this electronically. Do not printout and scan this form or otherwise alter this form in a way that would render the fields unreadable by computer.

### Section A. Site

- 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).
- Communication Center Number(s) and/or ISRA number(s) for this submission: Provide only as many NJDEP Communication Center Numbers (AKA Hotline incident numbers) and/or ISRA numbers for this submission as will fit in the space provided.

Indicate if this is the "Initial Receptor Evaluation Submission" submitted for a confirmed discharge or an "Updated Receptor Evaluation Submission", which is for all subsequent receptor evaluation submissions. Submit Initial Receptor Forms pursuant to <u>N.J.A.C. 7:26E-1.12</u> for all contaminated sites. If all receptor concerns have been addressed at the site and documentation for that work already exists in the reports that have been submitted to the NJDEP, the remediating party must submit the Receptor Evaluation Form and reference the previously submitted documentation.

The Receptor Evaluation Form must be updated and submitted with each of the following reports:

- IEC Source Control Report
- Remedial Investigation Report
- Remedial Action Report

The Receptor Evaluation Form must continue to be submitted to the NJDEP with these reports until either an unrestricted use Remedial Action Outcome (RAO) is issued or until a limited or restricted use RAO is issued with the appropriate Remedial Action Permit(s).

The receptor evaluation must be evaluated and updated whenever the conditions listed below are identified. The Receptor Evaluation Form must be submitted with the following submissions: IEC Source Control Report, Remedial Investigation Report and/or Remedial Action Report.

- The known concentration or extent of the contamination in any medium increases,
- A new area of concern is identified,
- A new receptor is identified, or
- A new exposure pathway is identified.

### Section B. On Site and Surrounding Property Use

Evaluate the site use and surrounding property uses that are within 200 feet of the site property boundary.

- If any sensitive populations/uses are present onsite or are within 200 feet of the site property boundary, attach a list of addresses, facility names, type of use, and a map depicting the site boundary and location of each receptor. Indicate on the Form that none of the listed sensitive populations/uses exist. Any required maps shall be in compliance with N.J.A.C. 7:26E-3.13 (d).
- 2. Identify all the current on-site uses. Attach supplemental information/descriptions as needed.
- 3. Identify all planned changes in property use for the site and for off-site properties located within 200 feet of the site property boundary. Provide a map depicting the location of the changes.

### Section C. Description of Contamination

This section is intended to provide an overview of any high-level contamination that exists on site.

Check all boxes as appropriate based on the investigation results available at the time of the submission. Identify
whether the free product is light non-aqueous phase liquid (LNAPL) with a measured thickness of .01 feet or greater,
or dense non-aqueous phase liquid (DNAPL) product (see US EPA DNAPL Overview for definition available at:
<a href="http://cluin.org/contaminantfocus/default.focus/sec/Dense\_Nonaqueous\_Phase\_Liquids\_(DNAPLS)/cat/Overview">http://cluin.org/contaminantfocus/default.focus/sec/Dense\_Nonaqueous\_Phase\_Liquids\_(DNAPLS)/cat/Overview</a>)
and the date identified. Please note that a LNAPL Free Product Reporting Form is required to be submitted if LNAPL
product is encountered.

See Ground Water Technical Guidance and USEPA Assessment and Delineation of DNAPL Source Zones at Hazardous Waste Sites (attached as Appendix A of the NJDEP Ground Water Technical Guidance) available at: <a href="http://www.nj.gov/dep/srp/guidance/#pa\_si\_ri\_gw">http://www.nj.gov/dep/srp/guidance/#pa\_si\_ri\_gw</a> for additional information.

Primary source materials include material that based on the concentration, volume, or mass of material, and its condition and location would present a high level of hazard and easy access for receptor exposure. Circumstances where materials have not been discharged to the environment, are properly secured from unauthorized access or discharge to the environment, or without an exposure route would not result in checking the "Yes" box.

2. Based on sampling collected to date, indicate whether or not the horizontal and vertical extent of the soil contamination has been delineated to the applicable Direct Contact Soil Remediation Standard.

If "Yes," is all of the contaminated soil that remains at the site below the applicable Direct Contact Soil Remediation Standard or being addressed by an approved institutional control (i.e. deed notice)?

3. Submit a brief summary of the contamination unless the Receptor Evaluation Form is submitted with the next remedial phase report (e.g. IEC Source Control Report, RIR or RAR) that includes this information. The brief summary should include the overall nature of the contamination at the site including a description of all the contaminant(s) of concern, their concentrations or if necessary, the range of contaminant levels present at the site.

### Section D. Ground Water Use

1. Have all potentially contaminated areas of concern been evaluated to determine if there is a potential that ground water is contaminated pursuant to N.J.A.C. 7:26e-3.5?

If "No", Proceed to Section E.

2. Based on information obtained to date, including historical ground water sampling data, has a ground water investigation been required in accordance with N.J.A.C. 7:26E-3.5?

If "No", Proceed to Section E.

**Note:** A receptor evaluation for ground water use in the area surrounding the site is required if any ground water sample is found in excess of the Class II Ground Water Remediation Standards (GWRS).

3. Indicate if groundwater a ground water investigation has been conducted.

If "**Yes**", indicate if the laboratory data package has been received. If the laboratory package has not been received, provide the expected due date for the data and proceed to Section E.

If "No", Proceed to Section E.

4. Indicate if ground water contaminated above the Ground Water Remediation Standards.

If "**Yes**", provide the date that the laboratory data package was available and confirmed contamination above the Ground Water Remediation Standards.

If "No", Proceed to Section E.

- 5. Based on sampling collected to date. Has the horizontal and vertical extent of the ground water contamination been delineated to the applicable Ground Water Remediation Standard?
- 6. Provide the ground water classification for this site as per N.J.A.C. 7:9C, check all that apply.
- 7. Has a well search been completed in accordance with N.J.A.C. 7:26E-1.14(a)? If "Yes", provide the data the well records search was completed. Based on the ½ mile well search determine the distance to receptors from the known contamination if ground water contamination was identified. Using NJ GeoWeb (<u>http://www.nj.gov/dep/gis/geowebsplash.htm</u>), indicate if the contamination is located within a Tier 1 wellhead protection area (WHPA) for Public Community and Public Non-Community Water Supply Wells using the WHPA layers in NJ GeoWeb. The full well search including a map of all receptor wells, as required in N.J.A.C. 7:26E-3.14, should be submitted with the appropriate key document.

If the Class II GWRS continue to be exceeded, the NJDEP requires that the well search be re-evaluated every 2 years pursuant to N.J.A.C. 7:26E-1.14(a) and provide the information in the updated Receptor Evaluation in each of the following reports, as necessary: IEC Source Control Report, Remedial Investigation Report and/or Remedial Action Report.

8. Attach a copy of the completed Well Search Spreadsheet and if applicable, the historical well search table. Also submit an electronic copy of the spreadsheet to <u>srpgis wrs@dep.nj.gov</u>. Please refer to the NJDEP's Well Search E-Tools Instructions at <u>http://www.nj.gov/dep/srp/gis</u> to complete the spreadsheet. For new sites, a map should be submitted with the full well search as part of the next technical document submitted for review. While conducting updates to historical well searches, do not include any monitoring wells and other non-pumping wells in the Receptor Evaluation Form. These wells should be evaluated as part of the remedial investigation. A well location map is also not required to be submitted with the receptor evaluation unless specifically requested by NJDEP after review of the form.

9. Indicate whether potable wells or irrigation wells have been identified within a ½-mile.

If "Yes":

- The area must be canvassed to physically locate and/or confirm the findings of the well search. Specifically, the door-to-door survey/canvas is required when potable wells are identified in the ½-mile well search to determine the existence of any unpermitted potable or irrigation wells (which can be accessed for potable use) or when there is doubt if the ground water is being used by nearby residents.
- Identify, based on the well search and door to door survey, if any of the following conditions exist: potable
  wells located within 500 feet from the downgradient edge of the currently known extent of contamination,
  potable wells located 250 feet upgradient or 500 feet side gradient of the currently known extent of
  contamination, or ground water contamination from the discharge is located within a Tier 1 wellhead
  protection area (WHPA).

If "No", a door-to-door canvass is not warranted, proceed to question 12.

- Identify if potable or irrigation well sampling has been conducted. The sampling must be conducted in accordance with N.J.A.C.7:26E-1.14(a)2 and the Field Sampling Procedures Manual and analyzed using accepted laboratory methods. Please note that NJDEP notification on a Potable Well/Indoor Air Sampling Notification Form should be submitted 7 days prior to sampling potable wells.
- 11. Indicate if contamination has been identified in potable well(s), not attributed to background conditions, above the Class II Ground Water Remediation Standard (GWRS) or State Safe Drinking Water Levels (N.J.A.C.7:1E), whichever is applicable. See the NJDEP's Immediate Environmental Concern (IEC) Guidance <a href="http://www.nj.gov/dep/srp/guidance/IEC/index.html">http://www.nj.gov/dep/srp/guidance/IEC/index.html</a> for contamination in excess of the Class II GWRS. Submit a copy of the existing Receptor Evaluation Form, including the analytical summary sheet and a scaled map when an IEC is reported. In addition, please adhere to the timeframes stipulated in N.J.A.C.7:26E-1.1.

If contamination is not detected above standards in potable wells, submit a full laboratory deliverables package to the NJDEP within 30 days after receipt of analytical results from the laboratory.

Indicate whether an engineered system response (e.g. Point Of Entry Treatment system [POETs] or connection to public water) has been completed for all applicable receptors and provide a brief narrative description of the remedial measures that were completed.

Provide the date the engineered system response was completed. If a DEP case manager is assigned, provide the case managers name.

- 12. Indicate whether contamination, **not attributed to background conditions**, is present above the Class II Ground Water Remediation Standards (GWRS) in non-potable wells (excluding monitoring wells). Provide the date the laboratory package was received; Non-potable use data (e.g., industrial well) that are above the Class II GWRS require confirmation that there is no interconnection with potable supply and that the occupants do not use the water for potable purposes. **If potable use is identified** notify the NJDEP of the IEC by submission of an IEC Notification Form.
- 13. Have all ground water usage issues been addressed as outlined above and has the ground water contamination been delineated to the applicable Remediation Standard? A "Yes" answer means that all potential ground water usage issues have been identified and addressed.

# Section E. Vapor Intrusion (VI)

A receptor evaluation for vapor intrusion is necessary when ground water exceeds the ground water screening levels pursuant to the NJDEP's Vapor Intrusion Technical Guidance and buildings exist within critical distance criteria or other conditions exist, as specified in the Technical Requirements N.J.A.C 7:26E1.15(a). NJDEP's Vapor Intrusion Technical Guidance is available at a <a href="http://www.nj.gov/dep/srp/guidance/vaporintrusion/index.html">http://www.nj.gov/dep/srp/guidance/vaporintrusion/index.html</a>.

 Using the boxes provided, identify all existing conditions that trigger a VI evaluation and the date in which the contamination was first identified (e.g. date that the laboratory data package was provided to the consultant). If "Other" was checked, provide an explanation of the specific condition triggering the VI evaluation.

If all "No" boxes were checked, proceed to Section F, "Ecological Receptors", otherwise complete the remainder of this section.

- 2. Evaluate the ground water data to determine whether the contamination plume has been delineated to the extent needed to assess the VI pathway as outlined by the Vapor Intrusion Technical Guidance Document <a href="http://www.nj.gov/dep/srp/guidance/vaporintrusion/">http://www.nj.gov/dep/srp/guidance/vaporintrusion/</a>.
- 3. Indicate if any site-specific options were used to evaluate the VI pathway as specified in the NJDEP Vapor Intrusion Technical Guidance. NJDEP preapproval is recommended for any alternative vapor intrusion screening levels. The development of site specific screening levels, modeling or other alternative approaches will likely trigger a NJDEP

review. The applicable VI contacts, listed at <u>http://www.nj.gov/dep/srp/guidance/vaporintrusion/vicontacts.htm</u> should be consulted regarding questions on the development of site-specific levels or modeling.

- 4. Identify and locate, on a scaled map, any buildings/sensitive populations within the distances provided from the edge of the ground water contamination. A Vapor Intrusion Receptor Evaluation includes any subsurface utilities, school(s), child care facility(ies), residential buildings, or any other buildings. Identify any buildings with other conditions, such as soil gas or indoor air exceedances of the NJDEP VI Screening Levels, unsaturated soil contamination, landfills, elemental mercury, etc. that are located on or adjacent to the site.
- 5. Provide technical justification to support the claim that the VI pathway is not a concern at or adjacent to the site.
- 6. Indicate if soil gas sampling was conducted at any buildings/sensitive populations identified in question #4 above. If "Yes", indicate if the laboratory data package has been received. If "No", (soil gas sampling was not conducted) provide technical justification consistent with the NJDEP Vapor Intrusion Technical Guidance. The Guidance identifies two scenarios where sub-slab soil gas sampling is not appropriate (high water table and dirt slab). Alternatively, near slab soil gas sampling may be technically suitable. The mitigation Decision Matrix (Appendix A) defines proper actions based on both soil gas and indoor air results. Therefore, a technically defensible position to avoid soil gas samples must be provided. Otherwise, the collection of soil gas samples is necessary in order to complete the receptor evaluation. Additional information is available in the NJDEP Vapor Intrusion Technical Guidance available at: <a href="https://www.nj.gov/dep/srp/guidance/#vi">https://www.nj.gov/dep/srp/guidance/#vi</a>.
- 7. Indicate if indoor air sampling was conducted at any buildings/sensitive populations identified in question #4 above. If "Yes", indicate if the laboratory data package has been received. If the laboratory data package was received, indicate if the constituents exceed the Indoor Air Screening Levels. If indoor air sampling was not conducted or the laboratory data package has not been received, proceed to question 12.
- 8. Indicate if any indoor air contamination, above applicable indoor air screening levels, were attributed to background sources. If "Yes", provide justification in an attachment.
- 9. Identify if any indoor air samples were above the NJDEP's Rapid Action Levels. If so, see the NJDEP's Immediate Environmental Concern Guidance Document <u>http://www.nj.gov/dep/srp/guidance/IEC/index.html</u> for details. Write the date the laboratory data package was provided to the consultant that confirmed contamination above the Rapid Action Levels. If an IEC engineering system response control was implemented, provide the date the system was implemented and name of the assigned NJDEP Case Manager.
- 10. Identify if any indoor air samples were above the NJDEP's Indoor Air Screening Levels but were at or below the NJDEP Rapid Action Levels. If results were above the indoor air screening levels but at or below the Vapor Intrusion Rapid Action Levels, the LSRP must notify the NJDEP via the Vapor Concern Response Action Form within 14 days of the receipt of the data identifying the exceedances. A plan to mitigate the exceedances must be submitted to the NJDEP within 60 days of the receipt of data and implementation of the plan within 120 days of receipt of data. A mitigation response action report should be submitted within 180 days of receipt of data.

In accordance with N.J.A.C.7:26E-1.15(d), if contamination is not detected above screening levels in indoor air, submit a full laboratory deliverables package to the NJDEP within 30 days of receiving the data from the laboratory. This data is not required to be submitted with the Receptor Evaluation Form.

- 11. Determine if one or more buildings has an Indeterminate VI Pathway status as defined in the NJDEP Vapor Intrusion Technical Guidance. If "Yes," attach a list of the indeterminate building(s) with the address(s) and block/lot(s). An Indeterminate VI Pathway status exists where the completeness of the VI pathway is not resolved for a building that triggered a VI investigation. For example, soil gas samples exceed the NJDEP Soil Gas Screening Level, but no indoor air samples were collected (likely due to using, handling or storing the same investigative contaminants of concern or other technical reasons.
- 12. Have all the VI issues been addressed as outlined by the Vapor Intrusion Technical Guidance including the delineation of ground water contamination to the VI Ground Water Screening Level? A "Yes" answer means that all potential VI issues have been identified and addressed.

If "No" is the VI investigation continuing or stepping out for additional VI testing and/or ground water investigation? If "No", attach a written justification explaining why the VI issues have not been completely addressed and the investigation is not continuing.

#### Section F. Ecological Receptors

 Indicate if an Ecological Evaluation (EE) has been conducted as specified in N.J.A.C.7:26E-1.16. If "Yes," provide the date the ecological evaluation was completed. Additional information about preparing an Ecological Evaluation is available in section 5 of the *Ecological Evaluation Technical Guidance available at:* <u>https://www.nj.gov/dep/srp/guidance/#eco\_eval.</u>

- 2. Are any site-related contaminants above any Ecological Screening Criteria? Compare all site related contaminants to the ecological screening criteria in all media (soil, groundwater, surface water and sediment) in all AOCs, or migration pathways to or within Environmentally Sensitive Natural Resources (ESNRs).
- 3. Identify ESNRs [N.J.A.C. 7:1E-1.8(a)] on or adjacent to the site, or potentially impacted by site related contamination. [N.J.A.C. 7:26E-1.16]
- 4. Identify potential or complete migration pathways that exist between Contaminant of Potential Ecological Concern and ESNRs. Likewise, identify any historic migration pathways or any direct emplacement of contaminants into ESNRs. Residual contamination from historic migration pathways must be evaluated, even though the migration pathway may have been eliminated.

### If You answered "No" to Questions 2, 3, or 4, above Stop Here (form is complete).

- 5. Identify if any site-related free or residual product is/was present, indicate if a potential or complete pathway exists to an ESNR.
- 6. Based on results of the EE, identify if further remedial investigation of the ecological receptors is required, pursuant to N.J.A.C. 7:26E-4.8.

If "**Yes**," indicate if a remedial investigation of ecological receptors been conducted. If it has, provide the date the remedial investigation was completed.

7. Identify if any available data that indicates an impact to Ecological Receptor(s), Surface water, or Sediment. This would include evaluation of migration pathways that could act as a contaminant source to the ESNRs.

If "**Yes**," check all ESNRs or media that apply (surface water, sediment, soil, and wetlands) and submit with the ecological evaluation that includes contaminant summary information, or attach a brief summary of all currently available data and a description of all actions to be taken to mitigate exposure.

- 8. Identify whether COPECs have been delineated to the ESC in migration pathways and ESNRs (N.J.A.C. 7:26E-4.8(a)
- 9. Indicate if an Ecological Risk Assessment has been conducted [N.J.A.C. 7:26E-4.8(c)2 and *Ecological Evaluation Technical Guidance*, Section 6.
- 10. Provide the following information for on-site and/or off-site surface water bodies, which are potentially impacted by the site related discharge(s).
  - Surface Water Body Name or designation (for unnamed tributaries, streams, etc.);
  - Stream Classification Stream classifications are listed in the Surface Water Quality Standards (SWQS) at N.J.A.C. 7:9B-1.15 (found at <u>http://www.nj.gov/dep/srp/regs/</u>). Streams are listed alphabetically within the appropriate drainage basin (Atlantic, Delaware, Passaic, Raritan, and Wallkill). The Department's interactive mapping tool NJ GeoWeb, which is accessible through <u>http://www.nj.gov/dep/gis/</u> is also helpful in identifying stream classifications. Specifically, the Surface Water Quality Classification GIS Layer in NJ GeoWeb can be utilized to provide this information.
  - Antidegradation Designation Antidegradation designations are listed in the Surface Water Quality Standards (SWQS) at N.J.A.C. 7:9B (found at <a href="http://www.nj.gov/dep/srp/regs/">http://www.nj.gov/dep/srp/regs/</a>). The Department's interactive mapping tool NJ GeoWeb, which is accessible through <a href="http://www.nj.gov/dep/gis/">http://www.nj.gov/dep/srp/regs/</a>). The Department's interactive mapping tool NJ GeoWeb, which is accessible through <a href="http://www.nj.gov/dep/gis/">http://www.nj.gov/dep/srp/regs/</a>). The Department's interactive mapping antidegradation designations. Specifically, the Surface Water Quality Classification GIS Layer in NJ GeoWeb can be utilized to provide this information.
  - Trout Production Check the box if the surface water body is designated for Trout Production.
  - Trout Maintenance Check the box if the surface water body is designated for Trout Maintenance.
- 11. Indicate if a Program Interest (PI) or permit number (also known as file number) has been issued for any regulated areas by the Division of Land Use Regulation (DLUR). (e.g. wetlands, transition areas, flood hazard areas, coastal areas, tidelands, etc.).

If "**Yes**," identify the type(s) of regulated areas and provide the DLUR PI or Permit number(s) (e.g.: 0000-00-0000.00) for the site.

Information about the environmental features regulated by the DLUR, information is available at <a href="http://www.nj.gov/dep/landuse/">http://www.nj.gov/dep/landuse/</a>.

List the type(s) of any such regulated areas or features that are present on or adjacent to the site (e.g.: wetlands, transition areas, streams, dunes, etc.)

Provide the Land Use Regulation Program (LURP) PI number (s) or permit number(s) for the site.

**Note for instructions # 12 and # 13 below:** Question 12 is for pending LURP jurisdictions letters or approvals that have not been issued by the Department. Question 13 is for LURP jurisdiction letters or approvals that have been issued by the Department and are not expired or no longer applicable.

- 12. Indicate if any pending applications for LURP jurisdiction letters or approvals are under review by the NJDEP for the remediation. An application is pending when the application is submitted to LURP and administratively complete.
- 13. Indicate if any valid LURP jurisdiction letters or approvals have been issued for the site for the remediation. Valid means within the effective term of the approval (most approvals have a fixed term not to exceed 5 years). Jurisdiction letter may have an expiration date (e.g.: Letter of Interpretation) or were acquired for a specific project (e.g.: Applicability Determination) as indicated on the jurisdiction letter.