

Department of Energy & Environmental Protection Bureau of Water Protection and Land Reuse Remediation Division 79 Elm Street, Hartford, CT 06106-5127 (860) 424-3705 www.ct.gov/deep/remediation

# INSTRUCTIONS FOR COMPLETION OF A VOLUNTARY REMEDIATION FINAL VERIFICATION (§22a-133y) FORM

(DEEP-LEP-VER-133y)

The purpose of the Voluntary Remediation Final Verification (§22a-133y) Form is to document the written opinion of an environmental professional, licensed pursuant to Section 22a-133v of the CGS, that an investigation of a specific parcel has been completed in accordance with prevailing standards and guidelines - including but not limited to the Site Characterization Guidance Document (SCGD), and that the actions taken to contain, remove, or mitigate the release areas at the property have been completed in accordance with the Remediation Standard Regulations (RSRs), Section 22a-133k-1 through 3 of the Regulations of Connecticut State Agencies.

Pursuant to Section 22a-133y(b) of the CGS, a final remedial action report shall be submitted by a LEP, and in doing so, the LEP shall render an opinion, in accordance with the standard of care provided for in §22a-133w(c), that the action taken to contain, remove, or mitigate the spill is in accordance with the remediation standards. In order to provide a consistent mechanism for which a LEP may render a verification, the Commissioner has developed this Voluntary Remediation Final Verification (§22a-133y) Form for use with the Final Remedial Action Report.

The Voluntary Remediation Final Verification (§22a-133y) Form [VF] is essentially a checklist of all requirements and provisions in the RSRs. The VF includes prompts to guide the LEP in proper completion of the VF. All applicable checkboxes should be marked. The VF also includes specific references to RSRs provisions. All provisions used to achieve compliance with each criterion are to be marked.

The Department of Energy and Environmental Protection (DEEP) advises that each referenced RSR section be reviewed prior to completing the **VF** to ensure the application of each provision marked as being used to achieve compliance has been properly applied. *Relevant findings (as defined in the Verification Report Guidance Document) that support the applicability and use of the RSRs are to be presented in the Verification Report, which is expected to be attached to the VF.* 

The **VF** is inclusive of all releases at the site at the time of the verification. Therefore, certain provisions may be applicable to more than one (1) release area. The **VF** includes space to identify the applicable release areas for each application.

The **VF** and all attached documents should be submitted to:

Remediation Division, 2nd Floor Bureau of Water Protection and Land Reuse Department of Environmental Protection 79 Elm Street, Hartford, CT 06106 - 5127

All **VF**'s undergo an administrative completeness review upon receipt. A complete **VF** will include the Final Remedial Action Report. Incomplete **VF**'s (including Verification Form and Final Remedial Action DEEP-LEP-VER-133y\_Instructions

Page 1 of 8

Rev. 6.1.16

Report) will either be: (1) not processed until complete, or (2) the Verification will be rejected, or (3) the Verification will be flagged for audit. DEEP's response actions will be evaluated on a case-by-case assessment.

#### **General Information**

**Ver#** - The Verification Number is a unique identifier to each verification received by the Commissioner. The Ver# is auto-assigned when the verification is entered into DEEP's database. The Ver# will be entered onto the **VF** by DEEP.

**Applicable Release Area ID#s** – Throughout the **VF**, Indicate the ID# of all Release Areas (RAs) at which all applicable provisions of the RSRs were used for such RA. Do not include the names of the RAs, just the ID# (e.g., RA-7). The details of names and locations of the RAs should be identified and described in the Final Remedial Action Report. Do not state "all" or "site-wide", as this non-specific entry provides no frame of reference. If DEEP must conduct a technical review / research to understand the context of the LEP's application of the RSRs, the Verification will likely be flagged for audit.

**Copies of Important Documents** - Certain provisions of the RSRs require Commissioner Approval or a notice. Copies of these key documents are required because the verification relies on the existence of these documents. Prompts to attach specific documents to the Final Remedial Action Report are embedded in the **VF**. If the LEP marks the Commissioner approval was used to achieve compliance with a specific provision, but does not attach a copy of said approval to the Final Remedial Action Report, the verification will be considered incomplete.

Specifically for Commissioner Approvals, the dates of any approvals must be entered in the **VF** and a copy of the approval letter [only] must be attached to the Final Remedial Action Report.

### Specifically for ELURs:

If an ELUR has been recorded prior to the verification, the date that the ELUR was recorded on the land records must be entered in the **VF** for each applicable provision of the RSRs and a copy of the Certificate of Title page (with volume and page deed references and the date recorded) is to be attached to the Final Remedial Action Report. **Please attach only the COT page**. This is required to ensure that all stakeholders know that the ELUR has indeed been recorded, and the specific RSR provision is, therefore, complete.

If an ELUR will be required to achieve compliance with a particular provision of the RSRs, but has not been executed at the time of the verification, indicate for each applicable provision of the RSRs that the ELUR is pending (documentation of the property owner's consent to record an ELUR must be provided in the Final Remedial Action Report.

It is also important to provide the requested detail and information related to any financial surety mechanisms that have been established for Commissioner-Approved engineered controls.

#### Part I: Site Information

Property Name and Address - Provide the name of the site by the full, legal company/firm name. Use the name that was indicated on the Remedial Action Plan (RAP) when the property entered the VRP. If identifying a corporation or limited partnership registered with the Secretary of the State, fill in the name exactly as it is shown on the registration. If identifying an individual's property, provide the full legal name, including title and suffix. Provide the full and exact street address of the location of the site.

Description in Tax Assessor's Office - Provide the lot, block, and map numbers, as listed in the Town's land records.

Acreage of Property – Include the total acreage of all contiguous properties that are referred to as part of this site.

#### Part II: Verification

- A. The verification is rendered for the specific property identified in the RAP. In order to identify the specific project, provide the date the RAP was filed with the Department and the Rem# assigned by the Department to the project. Note: The applicable Rem# is to be entered on each page of the **VF**.
- B. Check only one of the compliance options: whether the actions taken to contain, remove, or mitigate the release areas at the property have been completed in accordance with the RSRs; or that the parcel was in compliance with the RSRs at the time of the verification without requiring remediation.
- C. There are subsets of the first compliance option above that are related to the execution of an ELUR. Pursuant to §22a-133y(d), the execution of an ELUR is required unless evidence is provided to the Commissioner that an ELUR is not necessary to achieve compliance with the RSRs. Check whether an ELUR has been executed and recorded, or that an ELUR will be executed and recorded, or that the verification (and Final Remedial Action Report) demonstrates that an ELUR is not necessary to achieve compliance with the RSRs.
- D. The LEP is to provide his/her legal signature and license number, printed name, phone number, and e-mail address. The LEP is to imprint or stamp his/her seal in the box provided.

# **Part III: Regulatory History**

### A. Site Characterization / Remedial Action Plan Information

Complete this box as requested.

There is a box to confirm that **public notice of remediation** was posted in accordance with statutory and regulatory requirements.

# **B.** Significant Environmental Hazard

Complete this box as applicable. Note: all SEHN's filed for the subject establishment must be abated or resolved prior to rendering a verification.

Part IV: Standards for Soil Remediation

## A. Release Determination and Investigation

This section of the **VF** has three (3) options to check regarding releases to soil at the subject establishment, and presents the final assessment of release determination and investigation completed at the subject establishment for all potential releases applicable to the pertinent date of the verification. Only one option is applicable.

 No Releases to Soil. - Check this box if there were no releases to soil (no contaminants of concern {COCs} were detected). There is a box to check if this scenario is correct after a verification of remediation of release(s) at the subject establishment (and indicated above in Part III. A. of this VF).

If no releases to soil were detected, skip to Part V: Groundwater Remediation Standards.

- 2. **Releases to Soil No Remediation or other Compliance Measure Required** Check this box only if **all** detected concentrations of substances in soil at all release areas were less than applicable Direct Exposure Criteria (DEC) and Pollutant Mobility Criteria (PMC).
  - The box related to site characterization is not an option this is a confirmation that the LEP's conclusion that remediation or other compliance measure was not required is based on a validated Final Conceptual Site Model.
- 3. Releases to Soil –Remediation or other Compliance Measure Required If substances in soil at the site have ever exceeded criteria and RSR compliance for these substances was not verified, check the applicable boxes for Criterion Exceeded, indicate the category of COCs, and indicate the measures used to achieve or demonstrate compliance.

The final box in this section is a confirmation by the LEP that the Final Remedial Action Report documents and explains how the Soil Remediation Standards were achieved at each release area. This is relevant for any and all releases.

### **B.** Compliance Measures

This section of the **VF** provides the information related to the compliance measures indicated in the Part IV. A.3 box above. Check all applicable boxes for each measure taken. Indicate the Release Areas (RA's) at which the specific measure was used.

- **1. Excavation** If remedial excavation of polluted soil was conducted, indicate the volume and disposition of said soil.
- 2. Engineered Control The use of an Engineered Control requires the Commissioner's approval, and the recordation of an Environmental Land Use Restriction (ELUR). Indicate whether the EC (and resultant ELUR) were related to DEC or PMC. Follow all prompts on the VF.

The RSRs provide for establishing the surety mechanism within one year of construction of the EC. If required, this mechanism must be in place before the verification is rendered. Indicate the type of surety mechanism and the date the surety mechanism was established and documented. A copy of the surety mechanism must be attached to the Final Remedial Action Report.

If an EC was used to achieve compliance under a previous verification, and said EC required a financial surety mechanism, indicate that this was the case, and also indicate that this mechanism is still valid. The **VF** provides for comments on this subject.

- 3. **In-Situ Remediation** If in-situ remediation of polluted soil was conducted to achieve compliance, indicate if this measure was pursued under a Temporary Authorization or General Permit. The **VF** provides for comments on this remedial measure.
- 4. **Institutional / Administrative Compliance Measures –** This is a confirmation that the LEP's use of a compliance measure was used to achieve compliance with the Standards for Soil Remediation.
- 5. Other Compliance Measures This is provided for the LEP to describe any other remedial/compliance measure that was used to achieve compliance with the Standards for Soil Remediation.

#### C. Application of Standards for Soil Remediation

This section of the **VF** provides all options / provisions of the RSRs to demonstrate compliance with the Standards for Soil Remediation and the means used to apply the provisions. Indicate in each table what provisions were used and at what Release Areas they were used. The details of how and what data were used to achieve or demonstrate compliance ("Relevant Findings") should be explained in the Final Remedial Action Report. *Ensure that the provisions are properly applied by reading the referenced RSR section next to the provision.* 

- 1. Background Conditions 22a-133k-2(a)(2) Pursuant to Section 22a-133k-2(a)(2) of the RSRs, notice is required to be submitted to the Commissioner if background conditions are applicable at the project site. Checking the box on this Form acts as said Notice. In checking this box and the use of Background, the LEP is also confirming that the use of this provision (and all prerequisites) is discussed in the Final Remedial Action Report and must indicate the page/section of this discussion in the report.
- 2. Direct Exposure Criteria (DEC) 22a-133k-2(a)1(A) and k-2(b) Check all applicable boxes to indicate the provisions that were used at the subject site to achieve or demonstrate compliance with the DEC. Subset boxes must be appropriately marked to indicate the specific requirements to apply such provision were completed. Some subsets are "either-or" for application of that specific provision, and some subsets are "all-applicable". The provisions for inapplicability of the DEC are located at the end of Table 2.
- 3. **Compliance with DEC 22a-133k-2(e)** Indicate how the "compliance data" was applied to demonstrate compliance with the DEC.
- 4. Pollutant Mobility Criteria (PMC) 22a-133k-2(a)1(B) and k-2(c) Check all applicable boxes to indicate the provisions that were used at the subject site to achieve or demonstrate compliance. Subset boxes must be appropriately marked to indicate the specific requirements to apply such provision were completed. Some subsets are "either-or" for application of that specific provision, and some subsets are "all-applicable". The provisions for inapplicability of the PMC are located at the end of Table 4.

- 5. **Compliance with Pollutant Mobility 22a-133k-2(e)(2)** Indicate how the "compliance data" was applied to demonstrate compliance with the PMC.
- 6. **Other Provisions** This section provides for the LEP to indicate continued use of 500 mg/K for Lead [per 22a-133k-1(g)] and/or the use of the Widespread Polluted Fill variance.
- 7. **Non-Aqueous Phase Liquids (NAPL)** If NAPL was present at the subject establishment, indicate the extent to which it was remediated. The presence and remediation of NAPL is to be discussed in the Final Remedial Action Report and Table 7 must indicate the page /section of this discussion in the report.

#### Part V: Groundwater Remediation Standards

This section of the **VF** has three (3) options to check regarding the impact to groundwater at the subject establishment applicable to the pertinent date of the verification. Only one option is applicable.

1. No Releases to Groundwater - Check this box if all potential releases to groundwater have been investigated in accordance with prevailing standards and guidelines, including the SCGD or equal alternative approach, and groundwater has not been impacted from any releases.

There is a box to check if there were no groundwater impacts and soil remediation for PMC was not required. If this scenario is correct, skip to **Part VI**: **Receptors.** If soil remediation was required to address PMC, then groundwater compliance monitoring was required regardless of groundwater impact.

- 2. Releases to Groundwater No Remediation or other Compliance Measure Required Check this box if substances, applicable to the pertinent date of this verification, were detected in groundwater, but <u>all</u> detected substances in groundwater were less than all criteria of the Groundwater Remediation Standards <u>before</u> remediation or initiation of other compliance measure. There is a box to confirm that the seasonal and three-dimensional distribution of all applicable plumes have been adequately characterized.
- **3.** Releases to Groundwater Remediation or other Compliance Measure Required If substances in groundwater at the site have ever exceeded criteria, check the applicable boxes for Criterion Exceeded, indicate the category of COCs, and indicate the measures used to achieve or demonstrate compliance.
- **4.** Complete this table if remedial measures were conducted to address Vapor Intrusion. Check the applicable boxes to indicate which measure was taken.

# A. Application of Groundwater Remediation Standards

This section of the **VF** provides all options / provisions of the RSRs to demonstrate compliance with the Groundwater Remediation Standards and the means used to apply the provisions. Indicate in each table what provisions were used and at what Release Areas they were used. The details of how and what data were used to achieve or demonstrate compliance ("Relevant Findings") should be explained in the Final Remedial Action Report. *Ensure that the provisions are properly applied by reading the referenced RSR section next to the provision.* 

1. Application of Groundwater Remediation Standards - RCSA 22a-133k-3 - In order to validate the application of the Groundwater Remediation Standards, <u>all</u> subsections of Table #1 are expected to be completed. The LEP should be able to mark the first two boxes to confirm that the all plumes have been adequately characterized in accordance with prevailing standards and guidelines (including the SCGD), and the he/she has an understanding of the seasonal and dimensional groundwater conditions.

The next box confirms that groundwater monitoring has been completed in accordance with 22a-133k-3(g), with subsections related to the purpose of the groundwater monitoring program. Mark <u>all</u> boxes as appropriate. If a specific subsection is not applicable, then mark "Not Applicable".

The last box is an acknowledgement that the Final Remedial Action Report presents discussion of adequate representation and data usability for compliance.

- 2. Compliance with Criteria for Groundwater 22a-133k-3(g)2(A) The LEP is to check each box to indicate that all pre-requisites to demonstrate compliance have been met. Also indicate if the quarterly compliance sampling was completed within 1 year or 2 years. If any substance was detected above criteria during any of the compliance rounds, indicate where in the Final Remedial Action Report this is discussed, and the significance of the exceedance. The last box is to be checked if an alternative means to demonstrate compliance had been approved by the Commissioner.
- **2a. Groundwater Compliance not applicable Incidental Sources 22a-133k-3(f)** Check this box if the remediation criteria for groundwater do not apply due to "Incidental Sources". Complete the table to indicate the category of 'Incidental source'.
- 3. Background Groundwater Quality 22a-133k-3(a)(1)(B) and k-3(a)(2) Check the applicable box to indicate whether Background was the remedial goal, or if achieving Background was not required, or if achieving Background was exempt due to Technical Impracticability.

If meeting Background Water Quality was not required, the LEP is directed to complete Table 4a.

- **4. Compliance with Background 22a-133k-3(g)2(B)** If Background groundwater quality is used as the goal for remediation of a groundwater plume, indicate how groundwater data was applied to demonstrate compliance.
- **4a.** Compliance with Background not Required **22a-133k-3(d)(1)** or **(d)(2)** Check one of the 2 options to indicate why meeting Background Water Quality was not required. All subsets of each option chosen must be filled to indicate valid application.
- **5. Groundwater Protection Criteria 22a-133k-3(a)2(A) and k-3(d) -** Check the applicable boxes to indicate that the provision used to achieve compliance with the GWPC.
- **6.** Compliance with GWPC 22a-133k-3(g)2(B) If the groundwater protection criteria was the remedial goal for a plume, indicate how groundwater data was applied to demonstrate compliance.
- 7. Surface Water Protection Criteria 22a-133k-3(a)1(A) and k-3(b) Check all applicable boxes to indicate the provisions used to achieve compliance with the SWPC.

- **8.** Compliance with SWPC 22a-133k-3(g)2(C) The surface water protection criteria is applicable at all sites. Indicate how groundwater data was applied to demonstrate compliance.
- 9. Volatilization Criteria 22a-133k-3(a)1(A) and k-3(c) Check all applicable boxes to indicate the provisions used to achieve compliance with the VolC, or whether the VolC was exempt or not applicable. All subset boxes of the chosen option(s) must be checked to confirm the usability of the chosen option(s).
- **10. Compliance with VolC 22a-133k-3(g)2(D) –** If the volatilization criteria is applicable, indicate how groundwater/soil vapor data was applied to demonstrate compliance.
- 11. Other Provisions: "Policy on Upgradient Contamination 8/28/97" and Technical Impracticability 22a-133k-3(e)(2) Check applicable boxes to indicate if one of these provisions were used to achieve compliance. The details of how all marked provisions were used to achieve compliance are expected to be explained in the Final Remedial Action Report.

## **Part IV: Receptors**

Complete all information requested in this Section of the **VF**. Details of the Environmental Setting and results of any sensitive receptor survey should be explained in the Final Remedial Action Report.

Check the applicable boxes to indicate if an ecological receptor was identified and/or evaluated. Details regarding any evaluation of potential ecological exposure pathways, where contaminants could affect aquatic and terrestrial life, as identified in the Conceptual Site Model (CSM), should be included in the Final Remedial Action Report.

If water supply wells had been impacted from any on-site release, indicate the number of supply wells impacted and check and complete the applicable boxes to indicate the measures instituted to provide potable water supply. The details of how all marked provisions were used to achieve compliance should be explained in the Final Remedial Action Report.

# **Green Remediation**

This is intended for information gathering purposes only. Completing this section is optional and does not have any implication on the validity of the verification.

## **Part VII: Certification**

Completion of this section of the Voluntary Remediation Final Verification (§22a-133y) Form is to document that the property owner is cognizant that the verification is being rendered on their behalf. This certification must be signed by a legally authorized and binding representative of the property owner.