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79 Elm St. Hartford, CT 06106-5127

(860) 424-3705

[portal.ct.gov/DEEP/remediation](https://portal.ct.gov/DEEP-remediation)

**FORM IV Supporting VERIFICATION (Business)**

Please refer to the [Verification Form Instructions](https://portal.ct.gov/DEEP/Remediation--Site-Clean-Up/Licensed-Environmental-Professional-Program/Verification-Form-Instructions) for more information on how to fill out and submit this form properly. The address and Rem# in the headers will automatically update upon printing (including printing to pdf) or print-previewing. Yellow fields are mandatory.

|  |  |  |  |
| --- | --- | --- | --- |
| **DEEP Use Only** | Date Received: | Outcome |  |
| Verification #: |  |
| Rem #: |  |

**Part I: General Information**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Business Establishment Name (current or former name)  Establishment Name | | |  | This property is described in the land records of: | | | |
| Business Establishment Street Address  Establishment Address | | |  | Tax Assessor Town  Tax Assessor Town | | | |
| City/ Town  City/Town | State  **CT** | ZIP  00000 |  | Lot/Parcel ID  Lot/Parcel | Block  Block | Map  Map | Total Acreage  Acres |
| For transfers that occurred  after October 1, 2020: | | Establishment is limited to a portion of a multi-tenant site or a unit and associated common elements in a common interest community | | | | | |

[](https://portal.ct.gov/DEEP/Remediation--Site-Clean-Up/Licensed-Environmental-Professional-Program/Verification-Form-Instructions#LEP/CP)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Licensed Environmental Professional (LEP) | | |  | Certifying Party (CP) | | |
| Name  Name | | |  | Name of Signatory for CP  Name | | |
| Company  Company Name | | |  | CP  Certifying Party | | |
| Address  Address | | |  | Address  Address | | |
| City/Town  City/Town | State  State | Zip  00000 |  | City/Town  City/Town | State  State | Zip  00000 |
| Phone  Phone | | |  | Phone  Phone | | |
| E-mail  E-mail | | |  | E-mail  E-mail | | |

**Part II: Verification Information**

|  |  |  |  |
| --- | --- | --- | --- |
| **Applicable Date of this Verification**  This is the date that the LEP signs the verification. Click print preview to automatically populate the LEP signature date with the date entered here. | **mm/dd/yyyy** |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **LEP Certification** | | |  | **CP Certification** | | |  |
| "I verify in accordance with §22a-134(13) of the CGS and §22a-133v-1(z) of the RCSA, that an investigation has been performed at the parcel in accordance with prevailing standards and guidelines, and that all actions to remediate any pollution caused by any release at the establishment have been taken in accordance with the remediation standards, RCSA Sections 22a-133k-1 through 22a-133k-3, except: | | |  | “In accordance with §22a-134a(g) of the CGS, I submit this Verification that has been signed and sealed by a licensed environmental professional (LEP), and the attached Verification Report, which has been approved in writing by a LEP, and other applicable documentation.  I understand that this Form IV Supporting Verification attests that all actions to remediate any pollution caused by any release associated with business operations at the establishment (as of the applicable date of this verification) have been taken in accordance with the remediation standards, RCSA Sections 22a-133k-1 through 22a-133k-3, except: | | |  |
|  | *(select appropriate ~~scenario(s)~~ reason(s) for filing a Form IV:)* | | | | | |  |
|  | groundwater compliance monitoring  recording an environmental use restriction.  natural attenuation groundwater monitoring (documentation of public notice is attached in Appendix A) | | | | |  | |
|  | | |  |  | | |  |
| LEP Signature | | |  | CP Authorized Signature | | |  |
| LEP Printed/Typed Name  Name | | |  | CP Authorized Signatory Printed/Typed Name  Name | | |  |
| Date of LEP Signature | |  |  | Date of CP Signature |  | |  |
| LEP Seal | | LEP License #  Number |  |  | | |  |
|  |  |  |

**Part III: Setting and Receptors**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A. Environmental & Cultural Setting** | | | | | | | | | |
| Groundwater Classification: | GW Class |  | | Surface Water Classification: | | SW Class | |  | |
| Depth to Water Table: | Depth | |  | Nearest Downgradient Surface Water Body: | | SW Name | | |  |
| Depth to Bedrock: | Depth | |  | Distance to Surface Water Body Named Above: | | Distance | |  | |
|  |  | |  | |  | |  | |  |
| Abutting Land Uses:  *(check all that apply)* | Industrial  Commercial  Residential  Agricultural  Undeveloped | | | | | | | |  |

|  |  |  |
| --- | --- | --- |
| **B. Receptors** | | |
| **1. Sensitive Receptor Land Use** | | |
| Sensitive Receptor Land Use Within 500 Feet of the Site:  *(check all that apply)* | School  Recreational  Residential  Child Care Facility  Healthcare Facility  Sensitive Water Resource *(e.g. shellfish beds, public fishing areas, significant wetland complexes, public water supplies)*  Other *(specify)*: Describe |  |

| **2. Water Supply Wells** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Has site groundwater been contaminated? | | | Yes  No |  | | | |
| Number of water supply wells within 500 ft. of site boundaries (including site well) | | | Enter Number |  | | | |
| Has an on-site groundwater plume migrated off-site? | | | Yes  No |  | | | |
| Water Supply Well Receptor Survey submitted to the Commissioner: | | | | | | Yes  No |  |
| Number of water supply wells impacted by on-site releases: | | | | | | Enter Number |  |
| Number of locations requiring alternative permanent potable water supply: | | | | | | Enter Number |  |
| Permanent potable water supply provided by: | | | | | | | |
|  | Water main connection | | Date: | | mm/dd/yyyy | |  |
|  | Filtration | Monitoring Frequency: | | | Frequency | |  |
| Comments: | Enter text as needed. | | | | | | |

| **3. Vapor Intrusion** | | | | |
| --- | --- | --- | --- | --- |
| Have groundwater volatilization criteria been exceeded anywhere on-site? | | Yes  No |  | |
| Number of occupied buildings overlying plume: | | Enter Number |  | |
| Have risks been mitigated: | | Yes  No  Not applicable | |  |
| Comments: | Enter text as needed. | | | |

| **4. Ecological Receptors** | | | | |
| --- | --- | --- | --- | --- |
| Were the potential ecological exposure pathways, where contaminants could affect aquatic and terrestrial life, evaluated? | | Yes  No |  | |
| What level of evaluation was completed? | | None  Scoping  Screening  Risk Assessment | |  |
| Did any on-site release have the potential to impact an ecological receptor | | Yes  No |  | |
| If yes, was the ecological receptor impacted by an on-site release? | | Yes  No |  | |
| If yes, was the ecological impact mitigated? | | Yes  No |  | |
| Comments: | Enter text as needed. | | | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **C. Significant Environmental Hazards** | | | | | | | |
| Was a significant hazard, as defined in 22a-6u, identified? | | Yes  No | |  | | | |
| Significant Hazard Notification filed: | | Yes  No  Not applicable | | | |  | |
| What type(s) of hazard(s) were identified? | |  |  | | | | |
|  | Click here to enter text. | | | | | |  |
| Hazard Resolution *(select all that apply)* | | | | |  | | |
|  | Commissioner’s Certification for Abatement | Enter Dates | | | | |  |
|  | Commissioner’s Memorandum of Resolution | Enter Dates | | | | |  |

**Part IV: Compliance History and Approvals**

| **A. Previous Remedial Program Information** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Property Transfer** | **Rem #** |  | **Other Program** |  |  |
|  | Form III | Rem # |  | Specify Program(s) | |  |
|  |  |  |  |  |
|  | **Voluntary Remediation** | **Rem #** |  |  |
|  | 22a-133x | Rem # |  |  |  |  |
|  | 22a-133y | Rem # |  |  |  |  |

| **B. Previous Verification Information** | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| This Form IV Verification relies on or incorporates a previous verification or commissioner approval. | | | | | | | | |
|  |  |  |  |  |  |  | |  |
|  | **Type of Verification** | **Date Submitted** | **Applicable Date** | **Rem #** | **Ver #** | **DEEP Response** | |  |
|  | Form/Program | Enter Date | Enter Date | Rem # | Ver # | Select Status | |  |
|  | Form/Program | Enter Date | Enter Date | Rem # | Ver # | Select Status | |  |
|  | Form/Program | Enter Date | Enter Date | Rem # | Ver # | Select Status | |  |
|  |  | | |  |  | |  |  |
|  | Commissioner approval of remediation | | | Rem # | Approval Date: | | mm/dd/yyyy |  |
|  |  | | |  |  | |  |  |
|  | Conditions or environmental controls presented in any verification or commissioner approval of Remediation indicated above (and incorporated into this verification) have **not** changed since the rendering of such verification/approval.  Comments: Enter text as needed. | | | | | | |  |

[](https://portal.ct.gov/DEEP/Remediation--Site-Clean-Up/Licensed-Environmental-Professional-Program/Verification-Form-Instructions#PN)

| **C. Public Notice** | | | |
| --- | --- | --- | --- |
| Public notice of remediation was posted in accordance with the requirements of §22a-134a and §22a-133k-1(d) of the RCSA. | | | Attach a copy of the public notice to this form as *Appendix A* and discuss any comments received in the verification report. |
| Public notice included the following: | | | |
|  | Remediation |  | |
|  | EURs including ELURs and NAULs |  | |
|  | Any other variance |  | |

|  |
| --- |
| **D. Approvals & Notices**  Select applicable approvals and notifications. Attach copies of approvals and applicable notification forms to this form as *Appendix B* and discuss all notifications and required provisions in the verification report. |

| **1. Additional Polluting Substances and Alternative Criteria** | | | | |
| --- | --- | --- | --- | --- |
| Additional polluting substances criteria  DEC  PMC  GWPC  SWPC  VolC | | Commissioner approval date(s): | mm/dd/yyyy |  |
|  |  | | | |
| Alternative criteria requiring commissioner approval  DEC  PMC  GWPC  SWPC  VolC  GA PMC dilution or dilution and attenuation factor  GB PMC dilution or dilution and attenuation factor | | Commissioner approval date(s): | mm/dd/yyyy |  |
|  | |  |  |  |
| LEP-calculated criteria (notice only)  GA PMC (≤ 1,000 mg/kg)  GB PMC (≤ 10,000 mg/kg)  GWPC (≤ 100 x established GWPC & ≤ Res VolC)  SWPC (≤ 100-1,000x WQC based on distance to SW) | | No approval required. Calculations and site-specific parameters must be provided in the verification report. | |  |
|  |  | | | |
| Matrix interference – commissioner approved laboratory reporting limit as clean-up standard  DEC  PMC  GWPC  SWPC  GWVC | | Commissioner approval date(s): | mm/dd/yyyy |  |

| **2. Public Roadways Variance** *§22a-133k-2(f)(3)* | | | |
| --- | --- | --- | --- |
| Commissioner granted a public roadways variance  DEC  PMC | Commissioner  approval date(s): | mm/dd/yyyy |  |

| **3. Widespread Polluted Fill Variance (requires EUR)** *§22a-133k-2(f)(1)* | | | | |
| --- | --- | --- | --- | --- |
| The site is subject to a widespread polluted fill variance. | | | | |
|  | Commissioner approval | Approval date: | mm/dd/yyyy |  |
|  | LEP certification |  |  |  |

| 4**. NAPL Removal Variance (requires ELUR)** *§22a-133k-2(g)* | | | |
| --- | --- | --- | --- |
| Commissioner approved variance to the requirement to remove NAPL to the maximum extent prudent. | Approval date(s): | mm/dd/yyyy |  |

| **5. Engineered Control Variance** *§22a-133k-2(f)(2)* | | | | |
| --- | --- | --- | --- | --- |
| Engineered controls were constructed at the site. | | | | |
|  | LEP certified DEC variance | Date of  Notification: | mm/dd/yyyy |  |
|  | Commissioner approved EC variance for:  DEC  PMC | Approval date(s): | mm/dd/yyyy |  |
|  |  |  |
|  |  | | | |
|  | Final engineered control completion statement submitted to the commissioner. | Date submitted: | mm/dd/yyyy |  |
|  | **Please complete the EUR (Part IV.D.6) and Financial Assurance (Part IV.D.7) sections.** | | |  |

| **6. Environmental Use Restrictions (EUR)** *§22a-133k-1(e)* | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| An EUR is pending, and the Form IV transferee consents to recording an EUR. | | | | Attach copy of Form IV transferee’s consent to record an EUR as *Appendix C*. Skip 6a and 6b. | | |
| An EUR was recorded for the site, and the site is currently in compliance with the EUR. | | | | Attach EUR Fact Sheet and Certificate of Title (for an ELUR) or updated title search (for a NAUL) referencing the volume, page, and date the EUR was recorded to this form as *Appendix C*. If available, attach the Notice of Receipt. | | |
|  |  | | | | | |
|  | **6a. Environmental Land Use Restriction (ELUR)** | | | | | |
|  | An ELUR was recorded on the site | | | Date Certificate of Title  accepted by commissioner: | mm/dd/yyyy |  |
|  |  | | | | | |
|  | **6b. Notice of Activity and Use Limitation (NAUL)** | | | | | |
|  | A NAUL was recorded on the site | | |  | | |
|  |  | Commissioner Approval | | Date final NAUL documents submitted to commissioner: | mm/dd/yyyy |  |
|  |  | LEP Approval | | Date final NAUL documents  submitted to commissioner: | mm/dd/yyyy |  |
|  |  | Date NAUL  signed by LEP: | Enter Date |  |  |  |

| **7. Financial Assurance** *§22a-133k-1(f)* | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Financial assurance requirements have been evaluated for:  Engineered control variance  Technical impracticability variance | | | | | | | | | | | |
|  | Financial surety established | | | | Date surety instrument  information submitted to commissioner: | | | mm/dd/yyyy | | |  |
|  | Type of financial surety instrument: | | Select Instrument | | Attach copy of surety instrument in *Appendix B*. | | | |  | |  |
|  | |  | | | | | |  | | | |
|  | Financial surety not required | | | | | | | | | |  |
|  | | Amount < $10,000. | | | |  | | | |  | |
|  | | Municipality or agency or political subdivision of state or federal government. | | | |  | | | |  | |
|  | |  | | | | |  | | | | |
|  | Financial surety instrument was established under a previous verification, is still in place, and remains valid. | | | | | | | | | |  |
|  | | Comments: | | Enter text as needed. | | | | | | |  |

| **8. Use of Polluted/Treated Soil** *§22a-133k-2(h)* | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Soil excavation/use was subject to the following provisions: | | | | | | | |
|  |  | | | | | | |
|  | **8a. Special Waste Release Area IDs** | | | | | | |
|  | The commissioner authorized the disposal of polluted soil as special waste, as defined in RCRA §22a-209-1. | | | |  | Enter RA IDs |  |
|  | Approval date(s): | | | mm/dd/yyyy |  |  |
|  |  | | | | | | |
|  | **8b. On-Site Reuse of Polluted Soil RA where Soil was Reused** | | | | | | |
|  | Polluted soil was reused on-site. | | | |  | Enter RA IDs |  |
|  | | | Date(s) notice provided  to the commissioner: | mm/dd/yyyy |  |  |
|  | | | Total approx. volume reused: | Enter Volume |  |  |
|  | | | Soil exceeds RSR criteria: | Not applicable  DEC  PMC |  |  |
|  | | For soil containing PCBs, date(s) of commissioner approval: | | mm/dd/yyyy |  |  |
|  |  | | | | | | |
|  | **8c. Off-Site Reuse of Polluted Soil RA Source(s)** | | | | | | |
|  | Polluted soil was reused off-site. | | | |  | Enter RA IDs |  |
|  | | Commissioner Approval Date(s): | | mm/dd/yyyy |  |  |
|  | | | Total approx. volume reused: | Enter Volume |  |  |

| **9. In-Situ Remediation** | | | | | |
| --- | --- | --- | --- | --- | --- |
| In-Situ remediation was conducted to achieve compliance with applicable criteria. | | |  | **Release Area ID** |  |
|  |  | |  |  |  |
|  | Temporary Authorization | |  | Enter RA IDs |  |
|  | Approval date(s): | mm/dd/yyyy |  |  |
|  |  |  |  |  |  |
|  | General Permit | |  | Enter RA IDs |  |
|  | Approval date(s): | mm/dd/yyyy |  |  |

| **10. Technical Impracticability for Groundwater Remediation** *§22a-133k-3(e)* | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| The commissioner approved a technical impracticability variance for GWPC and/or SWPC | | | |  | **RA Plume / Site-Wide** | |  |
|  | Approval date(s): | | mm/dd/yyyy |  | Enter RA IDs | |  |
|  | EUR recorded/pending? | | Yes  Not applicable |  |  |
|  | | **Please complete the EUR (Part IV.D.6) and Financial Assurance (Part IV.D.7) sections, as appropriate.** | | | |  | |

| **11. Conditional Exemption for Groundwater Polluted with Pesticides** *§22a-133k-3(g)(7) & (8)* | | | | | |
| --- | --- | --- | --- | --- | --- |
| Compliance with groundwater criteria is not required for pesticides in groundwater resulting from the application of pesticides at the release area. | | |  | **RA Plume / Site-Wide** |  |
|  | Pesticides applied at the parcel are present in groundwater on other parcels at concentrations exceeding the GWPC, and best efforts have been made to ensure that an EUR providing notice has been recorded for the affected parcels. | Attach certification in *Appendix B*. |  | Enter RA IDs |  |
|  | Notice of compliance with the requirements of §22a-133k-3(g), including all relevant documents, has been submitted to the Director of Health in the municipality where such pesticides in groundwater are located. | Attach copy  of notice in *Appendix B*. |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **12. Emerging Technologies & Alternate Approaches for GW Compliance** *§22a-133k-3(h)(3)(D)* | | | | | |
| An alternative method of demonstrating compliance with RSR groundwater criteria based on emerging technologies and approaches for which guidance or standard has been published was approved by the commissioner.  Background  GWPC  SWPC  VolC | | |  | **Release Area ID** |  |
| Enter RA IDs |
|  | Description of alternative method(s):  Enter Description | |  |  |  |
|  | Approval date(s): | mm/dd/yyyy |  |  |  |

**Part V: Standards for Soil Remediation**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **A. Soil Release Determination and Investigation** | | | | | | | |
| **1. No Releases to Soil** | | | | | | | |
| No releases to soil associated with the establishment business operations were identified. The relevant findings of all “no-release” determinations are presented in the verification report.  All potential releases to soil associated with the establishment business operations as of the applicable date of this verification have been investigated in accordance with prevailing standards and guidelines, including the SCGD (Phase II ESA) or other equal alternative approach, and there were no detected concentrations of a substance above naturally occurring conditions in soil. | | | | | | | |
|  |  |  |  |  | |  |  |
|  | Since the applicable date of a previous verification (referenced in Part IV.B above), no releases to soil were identified. | | | |  | |  |
|  |  |  |  |  | |  |  |
|  | [If #1 is checked, skip to Part VI, “Groundwater Remediation Standards,” below](#Part_VI) | | | | | |  |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2. Releases to Soil** | | | | | | | | | | | | |
| Releases to soil associated with the establishment business operations were identified. The verification report documents and explains how the Soil Remediation Standards were achieved at each release area.  The nature and distribution of all releases associated with the establishment business operations applicable to this verification have been characterized in accordance with prevailing standards and guidelines, including the SCGD (Phase III Investigation) or equivalent alternative approach. | | | | | | | | | | | | |
|  |  | |  | | |  |  |  | | | |  |
|  | The releases identified were not addressed by a previous verification referenced in Part IV.B above. | | | | | | | | |  | |  |
|  |  | |  | |  | |  | | | |  | |
|  | **2a. Identified Releases** | | | | | | | | | | |  |
|  | |  |  |  |  | | --- | --- | --- | --- | | **Substance Category** | **Criterion Exceeded Prior to Remediation** | | | | **No Exceedance** | **PMC**  **GA GB** | **DEC**  **Res I/C** | | Non-chlorinated VOCs |  |  |  | | Chlorinated VOCs |  |  |  | | Metals |  |  |  | | PAHs |  |  |  | | SVOCs (other than PAHs) |  |  |  | | PCBs |  |  |  | | Petroleum Hydrocarbons |  |  |  | | Pesticides / Herbicides |  |  |  | | PFAS |  |  |  | | Other Specify |  |  |  | | | | | | | | | | | |  |
|  | **2b. Compliance Measures Implemented Report Page # / Attachment** | | | | | | | | | | |  |
|  | | None required | |  | | Page # | | |  | | |  |
|  | | Excavation | |  | | Page # | | |  | | |  |
|  | | Engineered Control | |  | | Page # | | | [Complete Part IV.D.5](#Part_IV_D5) | | |  |
|  | | EUR | |  | | Page # | | | [Complete Part IV.D.6](#Part_IV_D6) | | |  |
|  | | In-Situ Remediation | |  | | Page # | | |  | | |  |
|  | | RSR Exemptions | |  | | Page # | | |  | | |  |
|  | | 95% UCL | |  | | Page # | | |  | | |  |
|  | | Other Specify | |  | | Page # | | |  | | |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **B. Application of Soil Remediation Standards** | | | | |
| **1. Background Concentrations in Soil Applicable Release Areas** | | | | |
| Compliance is based on background soil conditions instead of the DEC and/or PMC. §22a-133k-2(e)(3) of the RSRs provide prerequisites to demonstrate a background condition exists, and all must apply. | |  | Enter RA IDs |  |
|  |  | | | |

| **2. Direct Exposure Criteria (DEC)** |
| --- |

| **2a. Compliance with Numeric DEC Applicable Release Areas** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Polluted soil meets numeric DEC (check all that apply) | | | |  |  |  |
|  | ≤ Residential (Res) DEC | | |  | Enter RA IDs |  |
|  | ≤ Industrial/commercial (I/C) DEC (not PCBs)  → EUR recorded/pending | | |  | Enter RA IDs |  |
|  | Alternative DEC *§22a-133k-2(d)(2)*  → Commissioner-approved  If applicable, an EUR was recorded or is pending | | |  | Enter RA IDs |  |
|  | PCBs ≤ criteria other than Res DEC | | |  |  |  |
|  |  | ≤ I/C DEC *§22a-133k-2(b)(2)(B)*  → Non-residential.  → Parcel is an electrical substation or other restricted access location.  → Use consistent with [40 CFR 761](https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title40/40cfr761_main_02.tpl) high-occupancy provisions.  → ELUR recorded/pending. | |  | Enter RA IDs |  |
|  |  | PCBs are inaccessible and ≤ the  following: | |  | Enter RA IDs |  |
|  |  |  | 10 ppm dry weight (I/C) |  |  |
|  |  |  | 25 ppm dry weight  → Other restricted access (40 CFR 761.123) |  |  |
|  |  |  | 25 ppm dry weight  → Electrical substation (40 CFR 761.123) |  |  |
|  |  |  | 50 ppm dry weight  → Electrical substation and area labeled (40 CFR 761) |  |  |

§*22a-133k-2(e)(1)*

| **2b. Identify Applicable Methods of Demonstrating Compliance with the DEC Applicable Release Areas** | | | |  |
| --- | --- | --- | --- | --- |
|  | All samples from RA ≤ DEC §*22a-133k-2(e)(1)* |  | All RAs other than those listed below and in 2c. |  |
|  | 95% UCL of polluted soil in RA ≤ DEC  → Non-PCBs only  §*22a-133k-1(h)(3)* |  | Enter RA IDs |  |
|  | COCs ND at the laboratory reporting  limit due to matrix interference  → Commissioner-approved |  | Enter RA IDs |  |

| **2c. DEC Conditional Exemptions & Variances Applicable Release Areas** | | | | | |
| --- | --- | --- | --- | --- | --- |
| DEC exemptions and/or variances were applied at the Site | | |  |  |  |
|  | Inaccessible soil exemption *§22a-133k-2(b)(3)*  → <15 feet deep  → EUR recorded/pending | |  | Enter RA IDs |  |
|  | Engineered control variance *§22a-133k-2(f)(2)*  → EUR recorded/pending | |  | Enter RA IDs |  |
|  | Public roadways variance *§22a-133k-2(f)(3)*  → Commissioner-approved | |  | Enter RA IDs |  |
|  | Incidental sources exemption due to: *§22a-133k-2(b)(5)*  Normal operation of motor vehicles  Normal paving and maintenance of pavement | |  | Enter RA IDs |  |
|  | Pesticide exemption related to: *§22a-133k-2(b)(6)* | |  | Enter RA IDs |  |
|  |  | Residential use  → Protective measures implemented  → EUR recorded/pending |  |  |  |
|  |  | I/C use  → Soil management plan in place  → EUR prohibiting residential use recorded/pending |  |  |  |
|  |  | Agricultural use  → EUR prohibiting residential use recorded/pending |  |  |  |

|  |
| --- |
| **3. Pollutant Mobility Criteria (PMC)** |

| **3a. Compliance with Numeric PMC Applicable Release Areas** | | | | |
| --- | --- | --- | --- | --- |
| Polluted soil meets numeric PMC (check all that apply) | |  |  |  |
|  | Mass analysis ≤ PMC  → No inorganics & PCBs |  | Enter RA IDs |  |
|  | Mass analysis of inorganics or PCBs ÷ 20 ≤ PMC |  | Enter RA IDs |  |
|  | SPLP/TCLP of inorganics or PCBs ≤ PMC |  | Enter RA IDs |  |
|  | Alternative PMC  Commissioner-approved  LEP-calculated |  | Enter RA IDs |  |
|  | Optional PMC (GA or GB)  → Complete 3b or 3c |  | |  |

| **3b. GA Area – Optional Criteria** *§22a-133k-2(c)(2)* **Applicable Release Areas** | | | | | |
| --- | --- | --- | --- | --- | --- |
| Optional GA criteria were used (check all that apply) | | |  |  |  |
|  | Soil evaluated to seasonal high water table. Remediation to seasonal low water table was technically impracticable or would not result in the permanent elimination of the source. | |  | Enter RA IDs |  |
|  | SPLP/TCLP ≤ GWPC | |  | Enter RA IDs |  |
|  | 10x or alternate dilution (mass or SPLP/TCLP):  → Not applicable to ETPH or PCBs  → NAPL is not present.  → Water table ≥ 15 feet above the bedrock surface.  → Downward GW flow velocity ≤ horizontal velocity.  → Complete required secondary checklist below criteria selection. | |  | Enter RA IDs |  |
|  | *Required secondary checklist for 10x or alternate dilution* | | | |  |
|  | One of the following 3 conditions must be selected: | |  |  |  |
|  |  | → Public water within 200 feet of subject and adjacent parcels and within 200 feet of any parcel within the areal extent of the RA plume.  → GW within plume not used for drinking.  → No supply wells within 500 feet of RA.  → Affected GW not a potential water supply resource. |  | Enter RA IDs |  |
|  |  | → Concentrations of any substance within 75 feet of the nearest downgradient parcel boundary ≤ GWPC.  → GW plume is in a diminishing state. |  | Enter RA IDs |  |
|  |  | → Concentrations of any substance on the parcel and within 25 feet downgradient of the RA ≤ GWPC.  → The subject GW plume is in a diminishing state. |  | Enter RA IDs |  |

| **3c. GB Area – Optional Criteria** *§22a-133k-2(c)(3)* **Applicable Release Areas** | | | | | |
| --- | --- | --- | --- | --- | --- |
| Optional GB criteria were used (check all that apply) | | |  |  |  |
|  | SPLP/TCLP options for RAs with no NAPL present: | |  |  |  |
|  |  | ≤ 10x GWPC |  | Enter RA IDs |  |
|  |  | ≤ GWPC x ratio of up and downgradient areas (ratio must be ≤ 500) |  | Enter RA IDs |  |
|  |  | ≤ GWPC x commissioner-approved alternative dilution or dilution & attenuation factor |  | Enter RA IDs |  |
|  | Release-specific dilution (mass or SPLP/TCLP):  → Does not apply to PCBs.  → NAPL is not present above the seasonal high water table.  → Water table ≥ 15 feet above the bedrock surface.  → Background concentration ≤ GWPC. | |  | Enter RA IDs |  |

| **3d. Identify Applicable Methods of Demonstrating**  **Compliance with the PMC** **Applicable Release Areas** | | | |
| --- | --- | --- | --- |
| All samples from RA ≤ PMC §*22a-133k-2(e)(2)* |  | All RAs other than those listed below and in 3e. |  |
| 95% UCL of polluted soil in RA ≤ PMC §*22a-133k-2(e)(2)*  → Non-PCBs only  §*22a-133k-1(h)(3)* |  | Enter RA IDs |  |
| COCs ND at the laboratory reporting limit  due to matrix interference  → Commissioner-approved |  | Enter RA IDs |  |

| **3e. PMC Conditional Exemptions & Variances Applicable Release Areas** | | | | |
| --- | --- | --- | --- | --- |
| PMC exemptions and/or variances were applied at the Site (check all that apply) | |  |  |  |
|  | Environmentally isolated soil exemption *§22a-133k-2(c)(5)(A)*  → EUR recorded/pending |  | Enter RA IDs |  |
|  | Engineered control variance *§22a-133k-2(f)(2)*  → EUR recorded/pending |  | Enter RA IDs |  |
|  | Public roadways variance *§22a-133k-2(f)(3)*  → Commissioner-approved |  | Enter RA IDs |  |
|  | Widespread polluted fill variance *§22a-133k-2(f)(1)*  → Commissioner-approved or LEP-certified |  | Enter RA IDs |  |
|  | Incidental sources exemption due to: *§22a-133k-2(c)(5)(D)*  Normal operation of motor vehicles  Normal paving and maintenance of pavement |  | Enter RA IDs |  |
|  | Polluted material exemption: *§22a-133k-2(c)(5)(B)*  → Exempted PMC exceedances are due solely to coal ash, wood ash, coal fragments, coal slag, coal clinkers, asphalt, or any combination thereof.  → VOCs ≤ applicable PMC.  → Soil vapor ≤ applicable SVVC or soil is under a building, permanent structure, or engineered control.  → Compliance with the DEC has been achieved.  → Use of existing groundwater is not affected (including potential public water supply resource or aquifer protection area).  → A public water supply distribution system is available within 200 feet of the parcel containing the polluted material and within 200 feet of all adjacent parcels.  → The placement of the material was not prohibited by law at the time of placement. |  | Enter RA IDs |  |
|  |
|  | Soil subject to infiltration exemption: *§22a-133k-2(c)(5)(C)*  → 80% (or more) of the mass of the substances remaining at the RA subject to infiltration for at least 5 years.  → GW monitoring complies with 22a-133k-3(h)(1) of the RSRs.  → Analytical results for all GW sample events collected as specified in 22a-133k-(h)(3) of the RSRs ≤ applicable GW criteria (GWPC, SWPC, and/or water quality criteria). |  | Enter RA IDs |  |
|  | Pesticide exemption: *§22a-133k-2(c)(5)(E)*  → Pesticides present due solely to application.  → Compliance with the DEC has been achieved.  → Compliance with GW standards has been achieved. |  | Enter RA IDs |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **4. Non-Aqueous Phase Liquids (NAPL)** *§22a-133k-2(g)* | | | | |
| NAPL is/was present at the Site. | |  | **Release Area ID** |  |
|  | NAPL was removed to the maximum extent practicable. |  | Enter RA IDs |  |
|  | A variance to removing NAPL to the maximum extent practicable  → Commissioner-approved.  → ELUR required. |  | Enter RA IDs |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **5. Hazardous Waste** *§22a-133k-2(h)* | | | | |
|  |  |  | **Release Area ID** |  |
| Polluted soil meeting the definition of **hazardous waste** per CGS 22a-449(c) was located on site and was treated, stored, disposed, and/or transported in conformance with RCRA §22a-449(c)-101 through 110. | |  | Enter RA IDs |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **6. Other Compliance Measures** | | | |
| If applicable, describe other measures taken to achieve compliance with soil remediation standards: | | |  |
| Measures other than those listed above were implemented to achieve compliance with soil standards | | |  |
|  | Describe Measures: | Enter Text |  |

**Part VI: Standards for Groundwater Remediation**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **A. Groundwater Release Determination and Investigation** | | | | | | | |
| **1. No Releases to Groundwater** | | | | | | | |
| No releases to groundwater associated with the establishment business operations were identified. The relevant findings of all “no-release” determinations are presented in the verification report.  All potential releases to groundwater associated with the establishment business operations and applicable to this verification have been investigated in accordance with prevailing standards and guidelines, including the SCGD or equal alternative approach. | | | | | | | |
|  | Substances associated with business operations were detected in groundwater, but all detected concentrations are representative of *naturally occurring* background conditions. | | | |  | |  |
|  |  |  |  |  | |  |  |
|  | Check the following if applicable; otherwise, [skip to Part VII](#Part_VII): | | | |  | |  |
|  | LEP Calculation of PMC – Groundwater compliance monitoring is in support of LEP calculation and use of alternative release-specific PMC.  *§22a-133k-2(d)(4)(B)* | | | | [Skip to Part VI.A.3.](#Part_VI_A_3) | |  |
|  | PMC Exemption for Soil Subject to Infiltration – Groundwater compliance monitoring is in support of soil subject to infiltration to demonstrate compliance with the PMC.  *§22a-133k-2(c)(5(C)(iii)* | | | | [Skip to Part VI.A.3.](#Part_VI_A_3) | |  |

| **2. Releases to Groundwater** | | | |
| --- | --- | --- | --- |
| Releases to groundwater associated with the establishment business operations were identified. The verification report documents and explains how the Groundwater Remediation Standards were achieved at each release area.  The seasonal and 3-dimensional distribution of all plumes associated with the establishment business operations as of the applicable date of this verification have been characterized in accordance with prevailing standards and guidelines, including the SCGD (Phase III Investigation) or equal alternative approach. | | | |
| *If applicable, complete the following:* | | | |
|  | An upgradient groundwater plume has impacted the Site. *§22a-133k-3(h)(4)* | |  |
|  | | *No-comingled plumes* – Concentrations of substances in GW at the downgradient parcel may be ≤ concentrations in the GW plume at the boundary between the upgradient and downgradient parcels.  → Soil on downgradient parcel complies with the soil standards in 22a-133k-2 of the RSRs.  → All exposure pathways associated with drinking water and vapor intrusion have been eliminated or mitigated at the downgradient parcel.  → Such substances are not already present in a GW plume at the downgradient parcel. |  |
|  | | *Comingled plumes* – Concentrations of substances in the co-mingled GW plume at the downgradient parcel may be ≤ concentrations in the GW plume at the boundary between the upgradient and downgradient parcels.  → Soil on downgradient parcel complies with the soil standards in 22a-133k-2 of the RSRs.  → All exposure pathways associated with drinking water and vapor intrusion have been eliminated or mitigated at all parcels impacted by the GW plume emanating from the downgradient parcel. |  |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2a. Identified Releases** | | | | | | | | | |  |
|  | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Substance Category** | **Above Back-ground1** | **Criterion Exceeded Prior**  **to Remediation** | | | | **GWPC**  **GA GB2** | **SWPC** | **VolC**  **Res I/C** | | Non-chlorinated VOCs |  |  |  |  | | Chlorinated VOCs |  |  |  |  | | Metals |  |  |  |  | | PAHs |  |  |  |  | | SVOCs (other than PAHs) |  |  |  |  | | PCBs |  |  |  |  | | Petroleum Hydrocarbons |  |  |  |  | | Pesticides / Herbicides |  |  |  |  | | PFAS |  |  |  |  | | Other Specify |  |  |  |  | | | | | | | | | 1Check the background box if a substance was detected in GW above confirmed background at any time.  2Applicable in GB areas where GW is used as a drinking water supply. | |  |
|  | |  |  | |  | | |  | | |  |
|  | **2b. No Compliance Measures Required to Address Releases to Groundwater** | | | | | | | | | |  |
|  | | Substances applicable to this verification were detected in groundwater, but all detected substances in groundwater were less than criteria before remediation or initiation of other compliance measure. | | | | | | [Skip to Part VI.A.3.](#Part_VI_A_3) | | |  |
|  | |  | |  | | |  |  | | |  |
|  | **2c. Compliance Measures Implemented Report Page # / Attachment** | | | | | | | | |  | |
|  | | Air Sparging / Vapor Extraction | |  | | Page # | |  | |  | |
|  | | Dual Phase Extraction | |  | | Page # | |  | |  | |
|  | | Pump & Treat | |  | | Page # | |  | |  | |
|  | | Monitored Natural Attenuation | |  | | Page # | |  | |  | |
|  | | Sub-Slab Ventilation | |  | | Page # | |  | |  | |
|  | | Vapor Barrier | |  | | Page # | |  | |  | |
|  | | EUR | |  | | Page # | | [Complete Part IV.D.6](#Part_IV_D6) | |  | |
|  | | 95% UCL | |  | | Page # | |  | |  | |
|  | | Technical Impracticability | |  | | Page # | | [Complete Part IV.D.10](#Part_IV_D10) | |  | |
|  | | Emerging Technologies & Alternative Approaches | |  | | Page # | | [Complete Part IV.D.12](#Part_IV_D12) | |  | |
|  | | Upgradient Groundwater Plume | |  | | Page # | |  | |  | |
|  | | RSR Exemptions | |  | | Page # | |  | |  | |
|  | | Other: Specify | |  | | Page # | |  | |  | |

| **3. Compliance with Groundwater Remediation Standards has not yet been Demonstrated** | | | | |
| --- | --- | --- | --- | --- |
|  | Incomplete groundwater compliance monitoring or monitored natural attenuation (MNA) is a reason for filing the Form IV. | | |  |
|  |  | | |  |
|  | *Check the following as applicable:* | | |  |
|  |  | Indoor Air – There are no current exposure pathways:  → There are no occupiable structures overlying or within 15 feet of a groundwater plume containing VOCs that exceed applicable criteria for groundwater or soil vapor.  → If occupiable structures are present over such a plume, vapor mitigation must be demonstrated for current and planned future land use.  → If a significant environmental hazard is present, it is in a mitigated (controlled) status with regular hazard reporting. |  |  |
|  |  | Drinking Water – There are no current exposure pathways:  → There are no drinking water receptors within five hundred feet downgradient of a groundwater plume that exceeds the GWPC.  → If drinking water receptors are present within 500 feet, the absence of an exposure pathway must be demonstrated for current and planned future use through continued monitoring (and treatment if necessary).  → If a significant environmental hazard is present, it is in a mitigated (controlled) status with regular hazard reporting. |  |  |
|  |  | Surface Water – there is no groundwater plume with concentrations that exceed the SWPC (or an alternative SWPC) that is discharging or will discharge to surface water. |  |  |

|  | **3a. Groundwater Compliance Monitoring is a Reason for Filing the Form IV** | | | |  |
| --- | --- | --- | --- | --- | --- |
|  | Groundwater compliance monitoring has not been completed for certain plumes/release areas (do not check this box if the only outstanding compliance monitoring is associated with MNA in 3b below):  *If applicable, check the following:*  Remediation was conducted. GW monitoring will demonstrate the effectiveness of remediation to eliminate or minimize risks to human health and the environment.  MNA has been completed. GW monitoring will demonstrate the effectiveness of MNA to achieve compliance with GW criteria in a reasonable timeframe.  Site in GB area. GW monitoring will determine whether a GW plume interferes with existing GW uses.  Groundwater compliance monitoring is being conducted in support of alternative methods of demonstrating compliance with the PMC.  Upgradient plume(s) present. Compliance monitoring will demonstrate that exposure pathway mitigation was not necessary. | | | |  |
|  |  | | | |  |
|  |  | Applicable Release Areas (or Site-Wide) | Specify Release Areas |  |  |
|  |  | | | |  |
|  |  | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Substance in Groundwater Subject to Compliance Monitoring** | **Compliance Endpoint(s) not yet Met** | | | | | **Background** | **GWPC**  **GA GB1** | **SWPC** | **VolC**  **Res I/C** | | Non-chlorinated VOCs |  |  |  |  | | Chlorinated VOCs |  |  |  |  | | Metals |  |  |  |  | | PAHs |  |  |  |  | | SVOCs (other than PAHs) |  |  |  |  | | PCBs |  |  |  |  | | Petroleum Hydrocarbons |  |  |  |  | | Pesticides / Herbicides |  |  |  |  | | PFAS |  |  |  |  | | Other: Specify |  |  |  |  | | | |  |
|  |  | 1Applicable in GB areas where GW is used as a drinking water supply. | | |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **3b. MNA is a Reason for Filing the Form IV** | | | |  |
|  | MNA is not complete. The verification report provides details related to the following:  Appropriateness of natural attention for the plume(s).  The groundwater monitoring program.  Submission of annual status reports to the commissioner.  Expected duration of MNA: Enter Expected Duration  Sampling frequency: Enter Sampling Frequency | | | |  |
|  |  | | | |  |
|  |  | Applicable Release Areas (or Site-Wide) | Specify Release Areas |  |  |
|  |  | | | |  |
|  |  | |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Substance in Groundwater Subject to MNA** | **Compliance Endpoint(s) for MNA** | | | | | **Background** | **GWPC**  **GA GB1** | **SWPC** | **VolC**  **Res I/C** | | Non-chlorinated VOCs |  |  |  |  | | Chlorinated VOCs |  |  |  |  | | Metals |  |  |  |  | | PAHs |  |  |  |  | | SVOCs (other than PAHs) |  |  |  |  | | PCBs |  |  |  |  | | Petroleum Hydrocarbons |  |  |  |  | | Pesticides / Herbicides |  |  |  |  | | PFAS |  |  |  |  | | Other: Specify |  |  |  |  | | | |  |
|  |  | 1Applicable in GB areas where GW is used as a drinking water supply. | | |  |

|  |
| --- |
| **B. Application of Groundwater Remediation Standards** |
| The following box must be checked for all groundwater monitoring relevant to this verification: |
| The groundwater monitoring was capable of determining all of the following: *§22a-133k-3(h)(1)*  → Validity of conceptual model for the release area.  → Background conditions.  → Whether substances were present and ≤ applicable GW criteria.  *If applicable, check the following:*  Remediation was conducted. GW monitoring demonstrated the effectiveness of remediation to eliminate or minimize risks to human health and the environment.  MNA was implemented. GW monitoring demonstrated the effectiveness of MNA to achieve compliance with GW criteria in a reasonable timeframe.  Site in GB area. GW monitoring determined whether a GW plume interferes with existing GW uses.  Upgradient plume(s) present:  Compliance monitoring demonstrated that exposure pathway mitigation was not necessary (complete the applicable portions of this section).  No compliance monitoring necessary because receptor exposure pathways are not present or have been mitigated. If there are no other on-site plumes, skip to [Part VII](#Part_VII). |

| **1. Prerequisites for Determining Compliance with GW Remediation Standards** *§22a-133k-3(h)(2&3)* | | | | | |
| --- | --- | --- | --- | --- | --- |
| The following prerequisites must be checked if groundwater monitoring was conducted to demonstrate compliance with applicable groundwater criteria. If either box cannot be checked, then verification that groundwater complies with criteria is not appropriate at this time. | | | | |  |
| All GW compliance samples were collected after:  → All remedial actions to achieve compliance with the PMC and applicable GW criteria (if necessary) were completed.  → Aquifer no longer subject to transient effects on hydraulic head attributable to remediation or site redevelopment (if conducted).  → Any changes to geochemistry have stabilized and equilibrium conditions were established.  → GW plume(s) in a diminishing state. | | | | |  |
|  | | | | |  |
| All GW compliance samples were collected over at least 4 sampling events that reflect seasonal variability (except for monitoring conducted in accordance with 22a-133k-3(h)(3)(B)(ii) or (C)(ii)), and monitoring was completed in:  1 year  2 years  >2 years for 95% UCL for SWPC *(B)(ii)*  Heating/cooling seasons for SVVC *(C)(ii)* | | | | |  |
|  | Did a COC exceed criteria during any compliance monitoring event? | | | |  |
|  | Yes  No | If yes, enter page(s) discussed in the verification report: | Page # |  |  |

| **2. Background** *§22a-133k-3(a)(1&2)* |
| --- |

§*22a-133k-3(h)(3)(A)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **2a. Compliance with Background RA Plume / Site-Wide** | | | |  |
| Groundwater meets background groundwater quality. | |  | Enter RA or Site-Wide |  |
|  | **Identify Applicable Methods of Demonstrating Compliance with Background**  §*22a-133k-3(h)(3)(A)* | | |  |
|  | All laboratory results at all sampling locations ≤ background |  | Enter RA or Site-Wide |  |
|  | 95% UCL of at least 12 consecutive monthly samples ≤ background for each sampling location. |  | Enter RA or Site-Wide |  |
|  | COCs ND at the laboratory reporting limit due to matrix interference  §*22a-133k-1(h)(3)*  → Commissioner-approved |  | Enter RA or Site-Wide |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **2b. Remediation to Background in GA Area Not Required RA Plume / Site-Wide**  *§22a-133k-3(d)* | | | | |  |
| Remediation to GWPC, not background, is applicable. | | |  | Enter RA or Site-Wide |  |
|  | *Identify at least one condition permitting use of GWPC and complete Part VI.B.3 (GWPC Compliance):* | | | |  |
|  |  | No water supply risk. All of the following apply:  → A public water distribution system is available within 200 feet of the subject parcel, all adjacent parcels, and any parcel within the areal extent of the plume.  → Plume not located in aquifer protection area.  → Plume is not located within the area of influence of any public water supply. |  | Enter RA or Site-Wide |  |
|  |  | Prior to any soil or GW remediation, the plume was in a diminishing state. |  | Enter RA or Site-Wide |  |
|  |  | Each substance in GW was remediated to the GWPC, and further reduction of concentrations to background cannot be achieved. |  | Enter RA or Site-Wide |  |
|  |  | |  |  |  |
| Other exemptions from compliance with background apply (incidental sources, pesticide application). | | |  | [Complete Part VI.B.5.](#Part_VI_B5) |  |

| **3. Groundwater Protection Criteria (GWPC) Compliance RA Plume / Site-Wide** | | | | |
| --- | --- | --- | --- | --- |
| Groundwater complies with GWPC.  GA Area (exempt from background) [Complete Part VI.B.2b.](#Part_VI_B2b)  GB Area (GW used for drinking) | |  | Enter RA or Site-Wide |  |
|  | **Identify Applicable Methods of Demonstrating GWPC Compliance RA Plume / Site-Wide**  §*22a-133k-3(h)(3)(A)* | | |  |
|  | All laboratory results at all sampling locations ≤ GWPC |  | Enter RA or Site-Wide |  |
|  | 95% UCL of at least 12 consecutive monthly samples ≤ GWPC for each sampling location.  §*22a-133k-3(h)(3)(A)* |  | Enter RA or Site-Wide |  |
|  | COCs ND at the laboratory reporting limit due to matrix interference  §*22a-133k-1(h)(3)*  → Commissioner-approved |  | Enter RA or Site-Wide |  |
|  |  |  |  |  |
| Exemptions from compliance with the GWPC apply (incidental sources, pesticide application, technical impracticability). | |  | [Complete Part VI.B.5.](#Part_VI_B5) |  |

| **4. Surface Water Protection Criteria (SWPC) Compliance RA Plume / Site-Wide** | | | | |
| --- | --- | --- | --- | --- |
| Groundwater complies with SWPC | |  |  |  |
|  | ≤ SWPC §*22a-133k-3(a)(1)(B) & -3(a)(2)(A)* |  | Enter RA or Site-Wide |  |
|  | ≤ Appendix D of Water Quality Standards (WQC)  *§22a-133k-3(a)(3)* |  | Enter RA or Site-Wide |  |
|  | ≤ Background §*22a-133k-3(a)(1)(B) & -3(a)(2)(A)* |  | Enter RA or Site-Wide |  |
|  |  | | |  |
|  | **Identify Applicable Methods of Demonstrating SWPC Compliance RA Plume / Site-Wide** | | |  |
|  | *Portion of GW Plume Upgradient of  Discharge to SW Body*  *§22a-133k-3(h)(3)(B)(ii)* | | |  |
|  | All laboratory results ≤ SWPC (or WQC or background). |  | Enter RA or Site-Wide |  |
|  | 95% UCL of at least 12 consecutive monthly samples ≤ SWPC (or WQC or background) for each applicable monitoring location. |  | Enter RA or Site-Wide |  |
|  | COCs ND at the laboratory reporting limit due to matrix interference  *§22a-133k-1(h)(3)*  → Commissioner-approved |  | Enter RA or Site-Wide |  |
|  |  |  |  |  |
|  | *Entire Plume* §*22a-133k-3(h)(3)(B)(ii)* | | |  |
|  | 95% UCL of entire plume ≤ SWPC (or WQC or background) on a seasonal basis. |  | Enter RA or Site-Wide |  |
|  | COCs ND at the laboratory reporting limit due to matrix interference  §*22a-133k-1(h)(3)*  → Commissioner-approved |  | Enter RA or Site-Wide |  |
|  |  |  |  |  |
| Exemptions from compliance with the SWPC apply (incidental sources, pesticide application, technical impracticability). | |  | [Complete Part VI.B.5.](#Part_VI_B5) |  |

| **5. Additional Exemptions Applicable to Background, GWPC, and/or SWPC** | |
| --- | --- |
| Exemptions from compliance with background, the GWPC, and/or the SWPC apply:   * Incidental sources §*22a-133k-3(f)* * Pesticide application §*22a-133k-3(g)* * Technical impracticability §*22a-133k-3(e)* |  |

| **5a. Incidental Sources Exemption (Background, GWPC, SWPC) RA Plume / Site-Wide** | | | |  |
| --- | --- | --- | --- | --- |
| Incidental sources – exempt from compliance with criteria. | |  |  |  |
|  | Public drinking water release – Substances resulting from releases of drinking water from a public water supply system. |  | Enter RA or Site-Wide |  |
|  | Incidental sources of metals, petroleum hydrocarbons, or SVOCs due to:  Normal operation of motor vehicles  Normal paving and maintenance of pavement |  | Enter RA or Site-Wide |  |

| **5b. Pesticide Application Exemption (Background, GWPC, SWPC) RA Plume / Site-Wide** | | |  |
| --- | --- | --- | --- |
| Pesticide application – exempt from compliance with criteria.  [Complete Part IV.D.11](#Part_IV_D11)  → Local director of health notified  → Notice recorded on land records  → Impacts due solely to *application* of pesticides.  → Compliance with pesticide soil standards achieved.  → Nature and extent of pesticides in GW evaluated.  → Potable supply wells on the impacted parcel have been sampled and any exposure pathway to drinking water was eliminated or mitigated.  → Well receptor survey completed. |  | Enter RA or Site-Wide |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **5c. Technical Impracticability (GWPC, SWPC) RA Plume / Site-Wide** | | |  |
| Technical impracticability exemption for GWPC and/or SWPC  → Commissioner-approved |  | Enter RA or Site-Wide |  |

| **6. Volatilization Criteria (VolC)** |
| --- |

| **6a. Compliance with VolC RA Plume / Site-Wide** | | | | |
| --- | --- | --- | --- | --- |
| Volatile compounds were not detected at the Site | |  |  |  |
| Groundwater complies with VolC | |  |  |  |
|  | ≤ Residential (Res) VolC |  | Enter RA or Site-Wide |  |
|  | ≤ Industrial/commercial (I/C) VolC  → EUR recorded/pending |  | Enter RA or Site-Wide |  |
|  |  |  |  |  |
|  | **Identify Applicable Methods of Demonstrating VolC Compliance** | | |  |
|  | Each substance in groundwater  ≤ GW VolC  §*22a-133k-3(c)(1)(C)*  §*22a-133k-3(h)(3)(C)(i)*  → ≤ 30 feet for volatile substances other than volatile petroleum substances  → ≤ 10 feet for volatile petroleum substances |  | Enter RA or Site-Wide |  |
|  | VOCs in groundwater within 15 feet of the ground surface or lowest portion of a building ≤ GW VolC in the table in 22a-133k-1(i)(B)  §*22a-133k-1(i)*  → Prior to 2/16/2021, remediation of VOCs initiated (including public notice) or RAP documenting remediation not necessary submitted to the commissioner  → On or before 2/16/2023, remediation of VOCs completed |  | Enter RA or Site-Wide |  |
|  | Substances exceeding VolC are not at the water table and all analytical results from the uppermost portion of the water column ≤ VolC | §*22a-133k-3(c)(2)(B)* | Enter RA or Site-Wide |  |
|  | Each substance in soil vapor ≤ soil vapor VolC  → Heating and cooling seasons represented by data  §*22a-133k-3(c)(2)(A)*  §*22a-133k-3(h)(3)(C)(ii)* |  | Enter RA or Site-Wide |  |
|  | COCs ND at the laboratory reporting limit due to matrix interference  → Commissioner-approved  §*22a-133k-1(h)(3)* |  | Enter RA or Site-Wide |  |

| **6b. Exemptions from Compliance with VolC RA Plume / Site-Wide** | | | | | |
| --- | --- | --- | --- | --- | --- |
| Exemptions from compliance with the VolC apply. | | |  |  |  |
|  | | | | |  |
|  | *Vapor Mitigation Exemption* §*22a-133k-3(c)(3)* | | | |  |
|  | Exemption from VolC for vapor mitigation  → Measures to prevent migration of VOCs into overlying buildings have been implemented and demonstrated to be effective.  → EUR recorded/pending. | |  | Enter RA or Site-Wide |  |
|  |  | |  |  |  |
|  | *No-Building Exemption* §*22a-133k-3(c)(5)* | | | |  |
|  | Exemption from VolC for no-building restriction.  → No building present over subject GW plume.  → For VOCs (other than petroleum VOCs) that exceed applicable VolC within 30 feet of any part of a building, there is no potential vapor intrusion pathway. | |  | Enter RA or Site-Wide |  |
|  |  | *And one of the following conditions must be satisfied:* |  |  |  |
|  |  | EUR recorded/pending to prohibit construction of a building. |  |  |  |
|  |  | No building can be constructed.  → It has been demonstrated that no building can reasonably be expected to be constructed over the subject groundwater.  → Commissioner approved. |  |  |  |
|  |  | Natural attenuation or other methods of remediation will reduce VOC concentrations to applicable VolC within 5 years.  → Commissioner approved. |  |  |  |
|  |  |  |  |  |  |
|  | *Indoor Air Monitoring Exemption* §*22a-133k-3(c)(6)* | | | |  |
|  | Exemption from VolC through indoor air monitoring.  → Commissioner approved monitoring program.  → ELUR recorded/pending. | |  | Enter RA or Site-Wide |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **7. Other Groundwater Compliance Measures Not Documented Above** | | | |
| If applicable, describe other measures taken to achieve compliance with groundwater remediation standards: | | |  |
| Measures not described above were used to achieve compliance with groundwater standards. | | |  |
|  | Describe Measures: | Enter Text |  |

**Part VII: Appendices & Exhibits**

|  |  |  |  |
| --- | --- | --- | --- |
| Check all that apply and attach appropriate documentation to this Verification Form: | | |  |
| Appendix A – Public Notice Documentation |  |  |  |
| Appendix B – Approvals and Notifications |  |  |  |
| Appendix C – EUR Information  EUR recorded – Attach EUR Fact Sheet *and*:   * Certificate of Title (for ELUR) * Updated title search (for NAUL) * Notice of Receipt for title documents submitted to the Department (if available)   EUR pending – Attach copy of property owner consent to record EUR |  |  |  |
|  |  |  |  |
| Exhibit 1 – Verification Report | Required with all submittals | |  |