



**Connecticut Department of
Energy & Environmental Protection**
Bureau of Water Protection & Land Reuse
Remediation Division

**Registration Form
General Permit For
In Situ Remediation:
Chemical Oxidation**

Part I: Registration Information: Please complete this form in accordance with the [instructions](#) (DEEP-REM-INST-002) to ensure the proper handling of your registration. Print or type unless otherwise noted. You must submit the registration fee along with this form.

| | |
|---|-------|
| CPPU USE ONLY | |
| App #: | _____ |
| Doc #: | _____ |
| Check #: | _____ |
| Program: Remediation - General Permits | |
| Pmt #: | _____ |

| | |
|--|--|
| <p>A. This registration is for a (check all that apply):</p> <p><input type="checkbox"/> New general permit registration</p> <p><input type="checkbox"/> Replacement of an individual permit or an emergency or temporary authorization</p> <p><input type="checkbox"/> new ownership</p> <p><input type="checkbox"/> Renewal of an existing registration</p> <p><input type="checkbox"/> Modification of an existing registration</p> | <p>DEEP REMEDIATION USE ONLY</p> |
| <p>B. For renewals, modifications, replacements or new ownership:</p> <p>1. Existing permit number: _____</p> <p>2. Facility ID number: _____</p> <p>3. Existing expiration date: _____</p> | <p>RemGIS RemID <input type="checkbox"/> scanned</p> |
| <p>C. Dates for existing activity or proposed dates Start: <u>mm/dd/yyyy</u> End: <u>mm/dd/yyyy</u></p> | <p>D. City or Town where site is located: _____</p> |
| <p>E. Brief Description of Project: </p> | |

Part II: Fee Information: The registration will not be processed without the fee. The fee shall be non-refundable and shall be paid by check or money order to the Department of Energy and Environmental Protection.

| | |
|--|--|
| <p>The Base Registration Fee is \$500 #1942</p> <p>There is no charge for modifications.</p> <p>FEE ENCLOSED \$ _____</p> | <p>A 50% discount applies if the registrant is a municipality:</p> <p><input type="checkbox"/> Municipality Reduction Taken (CGS 22a-6(b))</p> <p><i>Single family residence homeowners may request a waiver of the fee, even if they are not a registrant:</i></p> <p><input type="checkbox"/> Single Family Residence Waiver* (Complete signature box below)</p> |
| <p>* <input type="checkbox"/> I am the owner of a single family residence which is the location where the pollution that is to be remediated originates, and I request a fee waiver.</p> | |
| <p>_____</p> <p>Homeowner's Signature</p> | |

Part III-A: Registrant Information

- **If a registrant is a corporation, limited liability company, limited partnership, limited liability partnership, or a statutory trust, it must be registered with the Secretary of State. If applicable, registrant's name shall be stated **exactly** as it is registered with the Secretary of State. Please note: for those entities registered with the Secretary of State, the registered name will be the name used by DEEP. This information can be accessed at the Secretary of State's database (CONCORD). www.concord-sots.ct.gov/CONCORD/index.jsp.*
- *If an registrant is an individual, provide the legal name (include suffix) in the following format: First Name; Middle Initial; Last Name; Suffix (Jr, Sr., II, III, etc.).*
- *If there are any changes or corrections to your company/facility or individual name, mailing or billing address, or contact information, please complete and submit the [Request to Change Company/Individual Information](#) to the address indicated on the form. If there is a change in the name of the entity holding a DEEP license or a change in ownership, contact the office of Planning and Program Development (OPPD) at 860-424-3003. For any other changes you must contact the specific program from which you hold a current DEEP license.*

| |
|--|
| <p>1. Registrant: _____</p> <p>Mailing Address: _____</p> <p>City/Town: _____ State: ____ Zip Code: _____</p> <p>Business Phone: _____ ext.: _____</p> <p>Contact Person: _____ Phone: _____ ext. _____</p> <p>*E-Mail: _____</p> <p>*By providing this e-mail address you are agreeing to receive official correspondence from the department, at this electronic address, concerning the subject registration. Please remember to check your security settings to be sure you can receive e-mails from "ct.gov" addresses. Also, please notify the department if your e-mail address changes.</p> <p>a) Registrant Type (check one):</p> <p><input type="checkbox"/> individual <input type="checkbox"/> federal agency <input type="checkbox"/> state agency <input type="checkbox"/> municipality <input type="checkbox"/> tribal</p> <p><input type="checkbox"/> *business entity (*If a business entity complete i through iii)</p> <p>i) check type: <input type="checkbox"/> corporation <input type="checkbox"/> limited liability company <input type="checkbox"/> limited partnership</p> <p><input type="checkbox"/> limited liability partnership <input type="checkbox"/> statutory trust <input type="checkbox"/> Other: _____</p> <p>ii) provide Secretary of the State business ID #: _____ (Information accessible through the CONCORD database at www.concord-sots.ct.gov/CONCORD/index.jsp)</p> <p>iii) <input type="checkbox"/> Check here if your business is not registered with the Secretary of State's office.</p> <p>b) Registrant's interest in property at which the proposed activity is to be located:</p> <p><input type="checkbox"/> site owner <input type="checkbox"/> option holder <input type="checkbox"/> lessee <input type="checkbox"/> easement holder <input type="checkbox"/> operator</p> <p><input type="checkbox"/> other (specify): _____</p> <p><input type="checkbox"/> Check if there are any co-registrants. If so, provide, for each such additional party, the information requested above. Space is provided on page 3 for the property owner and on page 4 for non-property-owners who are co-registrants.</p> <p>2. Billing contact, if different than the registrant:</p> <p>Name: _____</p> <p>Mailing Address: _____</p> <p>City/Town: _____ State: ____ Zip Code: _____</p> <p>Business Phone: _____ ext. _____</p> <p>Contact Person: _____ Phone: _____ ext. _____</p> <p>Title: _____</p> <p>Email: _____</p> |
|--|

Part III-B: Additional Party Information

1. **Owner of primary parcel** where activity will occur, *if different than registrant*. N/A: Same as registrant

Check if primary parcel owner is a co-registrant, and ensure registrant certification is included.

Name: _____

Mailing Address: _____

City/Town: _____ State: ____ Zip Code: _____

Contact Person: _____ Title: _____

Contact Phone: _____ ext.: _____

*Email: _____

*If a co-registrant, by providing this e-mail address you are agreeing to receive official correspondence from the department, at this electronic address, concerning the subject registration. Please remember to check your security settings to be sure you can receive e-mails from "ct.gov" addresses. Also, please notify the department if your e-mail address changes.

Entity Type (check one):

individual federal agency state agency municipality tribal

*business entity (*If a business entity complete i through iii)

i) check type: corporation limited liability company limited partnership

limited liability partnership statutory trust Other: _____

ii) provide Secretary of the State business ID #: _____ (Information accessible through the CONCORD database at www.concord-sots.ct.gov/CONCORD/index.jsp)

iii) Check here if you are **not** registered with the Secretary of State's office.

If primary parcel owner is neither a registrant nor co-registrant, describe how owner has granted permission and access.

Access Summary: _____

2. List the **primary technical contact** (professional employed or retained to assist in preparing the registration and/or to design or supervise the activity): Same as registrant

Name: _____ LEP P.E

Firm: _____ License number: _____

Mailing Address: _____

City/Town: _____ State: ____ Zip Code: _____

Contact Person: _____ Title: _____

Contact Phone: _____ ext.: _____

*Email: _____

*By providing this e-mail address you are agreeing that this contact you have identified may receive official correspondence from the department, at this electronic address, concerning the subject registration. Please ask this contact to check their security settings to be sure they can receive e-mails from "ct.gov" addresses. Also, please ask them to notify the department if their e-mail address changes.

Service Provided: _____

3. In the space on the following page, identify other parties who DEEP should be aware of regarding this project, *other than owners of parcels in addition to the primary parcel*, which instead must be included in Table 1 (page 9).

Identification of Additional Parties

[Expandable text entry area for users of electronic form]

Part IV: Site Location and Additional Parcels

1. Identify, for the **primary parcel** associated with the area of proposed activity:

Name of site: _____

Is this name of the site the same as the name of the registrant? Yes No

Is this the site of origin for the pollution being remediated? Yes No

Street Address or Description of Location: _____

City/Town: _____ State: **CT** Zip Code: _____

Tax Assessor's Reference: Map: _____ Block: _____ Lot: _____

Latitude and longitude of the center of the proposed activity (in degrees, minutes, and seconds or in decimal degrees): Latitude: _____ Longitude: _____

Method of determination (check one):

GPS USGS Map CTECO Other (specify): _____

2. Character of primary parcel (Check all that apply):

Retail/commercial Industrial/manufacturing Other nonresidential (specify below)
 Single family residence Up to four residential units Other residential

Explanation: _____

3. Will the area of the proposed activity area or expected zone of influence extend beyond the boundary of the primary parcel identified above? Yes No

If yes, Identify in Table 1 (on page 9) any other affected parcels and the owners of such other parcels, and indicate that you have obtained appropriate access permission.

Part V-A: Site Information- Site Setting

1. Check all that apply to any parcel, in whole or in part, that includes an area of proposed activity or any part of the expected zone of influence (consult the instructions for additional information):

- A. Is within the coastal area as defined in CGS section 22a-94 (a),
 Is within the coastal boundary as delineated on DEEP approved coastal boundary maps.

If within the coastal boundary, and this registration is for a new authorization or for a modification of an existing registration, you must submit a [Coastal Consistency Review Form](#) (DEEP-APP-004) with your registration as Attachment G.

- B. Is located on federally recognized Indian lands.
- C. Is subject to conservation or preservation restriction.

If applicable, proof of written notice of this registration to the holder of such restriction or a letter from the holder of such restriction verifying that this registration is in compliance with the terms of the restriction, must be submitted as Attachment H.

- D. Is located within an area identified as a habitat for endangered, threatened or special concern species as identified on the "State and Federal Listed Species and Natural Communities Map". Date of Map: mm/dd/yyyy

If applicable, complete and submit a [Request for NDDB State Listed Species Review Form](#) (DEEP-APP-007) to the address specified on the form. **Please note NDDB review generally takes 4 to 6 weeks and may require additional documentation from the registrant.**

When submitting this registration, please include copies of any correspondence to and from the NDDB, including copies of the completed CT NDDB Review Request Form, as Attachment I.

- None of the above apply to any parcel that is the subject of this registration.**

2. Check all that apply to any part of the area of proposed activity, including access and support activity, or any part of the expected zone of influence:

- Is within 100 feet of any watercourse, coastal water, inland wetland, or tidal wetland.
- Is located within any identified floodplain.

- Neither of the above applies to any area that is the subject of this registration.**

3. Provide, for the nearest downgradient stream or surface water body:

- A. Name of stream or water body: _____
- B. Distance (feet) from zone of influence: _____
- C. Surface water quality goal, as identified in the Connecticut Water Quality Standards adopted pursuant to CGS section 22a-426: AA A B C D + Coastal (S prefix)

4. Is any part of the area of proposed activity, including the predicted zone of influence, located within 1 mile of any public water supply well? Yes No

Part V-B: Site Information- Regulatory Framework

1. *Identify any remedial program creating an obligation to conduct remediation:*

A. Check all that apply to the primary parcel: List Associated DEEP ID numbers:

CGS 22a-133x or CGS 22a-133y _____

CGS 22a-134a (Prop. Transfer) _____

RCSA 22a-449(c)-105(h) (RCRA Corr. Act.) _____

RCSA 22a-449(d)-(106) (UST Corr. Act.) _____

Under a Pollution Abatement Order (CGS 22a-432) _____

Brownfield program (specify) _____

None of the above apply to the primary parcel.

B. For any other parcels where the zone of influence is present: N/A-No other parcels

Some of the above apply to a parcel other than the primary parcel. **If so, list on Table 1.**

None of the above apply to any other parcel in the area of activity or zone of influence.

2. For sites in a *remedial program*, or under any active oversight by DEEP LUST program, identify:

A. LEP lead DEEP lead Not determined Not in a remedial program

B. Name of supervising LEP: _____ License Number: _____

C. Name of DEEP project lead (if not LEP lead): _____

3. *Identify programs that may apply or impose regulatory requirements:*

A. Check all that apply to the primary parcel: List Associated ID numbers:

Regulated under RCRA Subtitle C / CGS 22a-449(c) (HW) _____

Regulated under RCRA Subtitle D / CGS 22a-208a (SW) _____

Registered with the DEEP Underground Tank Program _____

Issued a Water Discharge Permit under CGS 22a-430 (excluding stormwater discharge permits) _____

None of the above apply to the primary parcel.

B. For any other parcels where the zone of influence is present: N/A-No other parcels

Some of the above apply to a parcel other than the primary parcel. **If so, list on Table 1.**

None of the above apply to any other parcel in the area of activity or zone of influence.

4. *Other programs:* Identify any additional DEEP programs (not already noted above) or other governmental agencies that should be contacted when DEEP staff review this registration:

Part V-C: Site Information- Relation to Water Supplies

1. *Proximity to Public Water Supplies (PWS):* Check all that apply for any part of the area of proposed activity or anticipated zone of influence:

Within an aquifer protection area: Level A Level B

Within a public water supply source water area:

Surface Water Watershed Groundwater Well Source Water Area

Upon water company owned land: Land Class: 1 2 3

If any apply, provide PWS ID number(s): _____

If any apply, a duplicate or certified copy of the registration form *and the supporting documents* must be filed with the Drinking Water Section of the Department of Public Health.

Check here to certify that a copy was sent.

None of the above apply to any part of the area of proposed activity or anticipated zone of influence.

2. Identify the groundwater quality goal(s), adopted in the Connecticut Water Quality Standards pursuant to CGS section 22a-426, for any part of the area of proposed activity or anticipated zone of influence: GAA GAAs GA GB Other (specify): _____

3. *Proximity to water supply wells:* Check all that apply for any part of the area of proposed activity or anticipated zone of influence:

Located within 1000 feet of a public water supply well.

Within 200 feet of any water supply well pumping over 10 gallons per minute.

Within 75 feet of any water supply well not owned by registrant or primary parcel owner.

A water supply well owned by registrant or primary parcel owner is within 75 feet.

If any apply, a duplicate or certified copy of the registration form must be filed with the local director of health.

Check here to certify that a copy was sent.

None of the above apply to area of proposed activity or anticipated zone of influence.

4. A. List in Table 2 on page 9 of this registration all public water supply wells within 1000 feet and all water supply wells within 500 feet of the proposed activity or anticipated zone of influence. Indicate if no wells were identified for listing: No wells are identified.

B. Identify how the list was developed, or basis for determining no wells were present:

Well inventory conducted: Year: _____ Other (explain below)

Explanation: _____

Part V-D: Site Information- Environmental Effect Mitigation (see instructions)

Identify potential adverse environmental effects of the proposed activity on the site setting and receptors identified above in parts V-A and V-C and how these effects will be prevented. Also describe how these effects, should they occur, will be identified and mitigated, with particular attention to, but not limited to, a discussion of protection of water supply wells.

Check here if continuation sheet is needed, and label and attach it to this sheet.

Part VI-A: Detailed Information- Site and Pollution

1. *Sensitive Site Receptors*: Check all that apply **within 25 feet** of any part of the activity area or zone of influence; and explain in part VI-D how impact on identified receptors will be limited:

- Leaching system present.
- Coastal water, tidal wetland, inland wetland or watercourse present.
- Underground public utility present.
- Subsurface stormwater collection or management system present.
- Private utility or subsurface structure present.
- Occupied basement present.
- Structure present and volatile organic chemicals or gasoline present.

None of the above are present within 25 feet of the area of activity or zone of influence.

2. *Pollution Presence*: Check all that apply: (provide discussion as needed in part VI-D)

A. Evidence of a release that discharge is proposed to treat:

- Quantitative Qualitative No evidence of release

Identify nature of evidence: _____

Identify mechanism for release: _____

B. Nature of pollution that activity is proposed to treat:

- Petroleum Fuel Organic Solvent (specify) _____
- PAHs Metals (specify) _____
- Other (specify) _____

C. Nature and origin of Petroleum Fuel Pollution: Not applicable; no petroleum fuel pollution

Heating Oil Other Petroleum Fuel (specify) _____

Yes No Release is associated with a tank system over 2,100 gallons in size.

Yes No Release is associated with a heating oil tank.

D. Evaluation of Non-Aqueous Phase Liquids (NAPL): Not applicable; no NAPL potential

Yes No Don't Know or Not Applicable (provide discussion of either in part VI-D)

 Presence of non-aqueous phase liquid (NAPL) has been evaluated.

 NAPL likely is or was present at the location of the proposed activity.

Basis for answer: cTRSR Cnap over 1% solubility product encountered

Other (specify) _____

 Removal actions have been implemented for any NAPL present. (Summarize actions and results achieved in part VI-D discussion)

E. Contamination (non-natural) other than the target pollutant is present: Yes No

If yes, Identify nature: Additional AOCs Polluted Fill/Urban Soil Other

Describe: _____

3. *Hydrogeology*: Check all that apply:

- | Yes | No | Don't Know or Not Applicable | (provide discussion of either in part VI-D) |
|--------------------------|--------------------------|------------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Water table is less than 15 feet above the bedrock surface. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Aquifer permeability is determined: State range: _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Flow velocity is determined: State horizontal flow velocity: _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Activity is within the area of influence of a high-yield (10 gpm) well. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Temporal flow variation exists: <input type="checkbox"/> seasonal <input type="checkbox"/> pumpage related |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Significant vertical flow exists: State gradient ratio V:H : _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Preferential flow pathways have been identified. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Aquifer heterogeneity was evaluated and considered in remediation design. |

Explanations:

4. *Hydrogeochemistry*: Check all that apply:

- | Yes | No | Don't Know or Not Applicable | (provide discussion of either in part VI-D) |
|--------------------------|--------------------------|------------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Groundwater contains more than 10,000 mg/l petroleum or over 100 ppm VOCs. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Vertical contaminant distribution is known and considered in remedial design. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Groundwater/aquifer chemistry has been considered in design dosage. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Potential interactions with/mobilization of aquifer matrix may occur. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Potential interactions with other pollutants present may occur. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Intermediate or by-products may be generated. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | End, intermediate, or by-products may have environmental effects. |

Explanations:

5. *Zone of Influence (ZOI)*:

- A. Dimensions of composite ZOI (ft.): _____ Length _____ Width _____ Thickness
- B. Describe how the zone of influence depicted on the site map was determined:

Part VI-B: Detailed Information- Activity Proposed

1. *Objective and Scope:* Check all that apply:

A. Identify the general discharge objective:
 Pilot Test Source Control Remediation Other
Explain: _____

B. Identify the general nature of the technology proposed:
 In situ chemical
Explain: _____

C. Identify the target environmental media: soil groundwater product

D. Identify the performance objective: _____

2. *Primary Substance Discharged:* (list chemical amounts in question 4, and chemical details in Attachment F)

A. Identify the primary substance(s): _____

B. Categorize the nature of the principal substance to be discharged for the proposed activity.
 Chemical Oxidant* (typically for chemical destruction of organic pollutants)
*Specify: Metal Peroxide Percarbonate Other _____
 Hydrogen Peroxide Permanganate Persulfate Ozone
 Other/Composite: Explain: _____

3. *Additional Discharge Information:* (provide discussion as needed in part VI-D)

A. Identify the nature of additional chemicals to be discharged (*list chemicals in question 4*)
 Supplemental buffering chemicals.
 Surfactants
 Activators
 Other- Identify role: _____

B. Design/dosage based on Bench Testing Pilot Testing Other
Explain: _____

C. Identify any residual that will remain in the subsurface after the discharge period:

4. *Substances and Dosage*

List **all** substances to be discharged, identify the reason/role for their use, provide the proposed total discharge amounts for each discrete discharge period or event, and identify the proposed concentrations if solutions are to be used. Include units of measurement. **Provide, in Attachment F, information about each substance to the extent required by the General Permit**, including for proprietary chemicals identification of all specific chemical constituents, and, as may required by the General Permit, Safety Data Sheets, evaluation of impurities and additives, and identification of appropriate monitoring parameters for the proposed use.

| Substance | Role | Total Amount | Concentration |
|-----------|------|--------------|---------------|
| | | | |
| | | | |
| | | | |
| | | | |

5. *Delivery mechanism*: Identify how the substances will be introduced into the subsurface

A. Check all that apply:

- Emplacement in an open excavation resulting from removal of a tank or polluted soil.
- Emplacement of removable devices. Identify: _____
- Injection or emplacement on or below the ground surface:
 - Single use injection points
 - Constructed multi-use points
 - Existing wells repurposed
 - Other

Describe: _____

- Alternative delivery mechanism/source. Identify: _____

B. Injection specifics (per discharge period or Discharge Event):

Total discharge Volume (gal.): _____

Number of injection locations: _____

Rate per point (range) (gpm): _____

Expected pressure range (psi): _____

C. Depth range of discharge: Below Surface: _____

Below Water Table: _____

6. *Other Considerations* (provide discussion in part VI-D):

- A. Yes No Activity will result in introduction of chemicals into or on bedrock, or within 2 feet of the bedrock surface.
- B. Yes No Injection pressures are above 30 psi, or are intended or likely to alter aquifer hydrogeologic properties.
- C. Yes No Hydraulic controls associated with site infrastructure passively establish the Zone of Influence.
- D. Yes No An active groundwater or soil vapor system is proposed to establish the Zone of Influence or limit the migration of vapors.
- E. Yes No ReInjection of treated or untreated water is proposed.
- F. Yes No Energy or surfactants will be used to mobilize pollutants for treatment.
- G. Yes No A groundwater or soil vapor remedial system is currently in operation at the site to protect receptors from exposure or control pollutant migration.
- H. Yes No More than 50,000 gal/day of water/solution will be managed.
- I. Yes No Recurring scheduled discharge periods or multiple Discharge Events are proposed.

Summarize any multiphase schedule: _____

Part VI-C: Detailed Information- Monitoring Proposed

1. *Permit Compliance Monitoring:*

A. Identify receptors to be monitored:

Water Supply Wells (public/private) Surface Water Receptors Storm and Sewer Systems Indoor Air Pathway

Other Explain: _____

B. How many wells/points will be used to monitor the limits of the zone of influence? _____

C. How many wells/points will monitor chemical conditions within the zone of influence? _____

D. Yes No Field observations and field parameter monitoring are proposed.

E. Yes No Verification of injected chemical analysis/concentrations is proposed.

F. Yes No The monitoring plan proposes locations, parameters or a frequency that do not meet the minimum requirements in Section 5(b) of the General Permit. (Explain and provide justification in question 6).

2. In the tables below, **summarize** the nature of the compliance monitoring program:

| Monitoring Well Location(s) | Objective(s) | Parameter Group(s)* | Frequency* |
|-----------------------------|--------------|---------------------|------------|
| | | | |
| | | | |
| | | | |
| | | | |

| Other Monitoring Sites(s) | Objective(s) | Parameter Group(s)* | Frequency* |
|---------------------------|--------------|---------------------|------------|
| | | | |
| | | | |
| | | | |
| | | | |

| *Parameter Group | Constituents Analyzed | Objective(s) |
|-----------------------------------|--|---|
| <i>Example A field parameters</i> | DO, DCO ₂ , pH, ORP, Cond., Turbidity, Temp., Wtr Lvl | Real time results, map chemical effects |
| | | |
| | | |

| *Frequency | During Active Discharge | Post-Discharge |
|------------|-------------------------|----------------|
| | | |
| | | |

3. *Rebound:* Identify how the occurrence of rebound will be evaluated:

4. *Other Monitoring Information:*

A. Summarize how monitoring frequency and duration take into account site groundwater flow conditions, discharge chemodynamics, receptor locations, and the activity timeline:

B. Identify any changes in monitoring frequency (or parameters) associated with the shift from active injection to post injection monitoring, and the rationale for such modifications:

C. Identify any indicator or surrogate parameters used and the rationale for their selection:

D. Summarize any monitoring that incorporates approaches other than field or laboratory measurement of water samples from wells:

5. *Other Monitoring Considerations:*

A. Describe how the pre-discharge baseline condition for monitoring comparisons has been or will be established prior to initiation of the discharge:

B. Summarize any operational or process monitoring of the discharge that will be conducted:

C. Identify any other periodic monitoring being conducted at the site that relates to the pollution being remediated or that may be affected by the discharge:

D. Identify if any wells used for the discharge will later be used for compliance or verification monitoring, and how sample representativeness for the data objective will be evaluated:

6. Identify any difference in the Monitoring Plan from the minimum monitoring requirements in Section 5(b) the General Permit and provide supporting justification:

Part VI-D: Detailed Information- On-site Adverse Outcome Mitigation

**Describe how adverse outcomes associated with site conditions identified in Part VI-A and the specific proposed activities identified in Part VI-B will be prevented or minimized by the proposed activity design and implementation, how monitoring identified in Part VI-C will allow adverse outcomes to be identified, and the contingencies for mitigation of adverse outcomes should any occur.
Also discuss any identified data gaps and how they are either not significant or will be addressed during implementation.**

Check here if continuation sheet is needed, and label and attach it to this sheet.

Part VII-A: Supporting Documents

Identify, by checking the box, each specific lettered attachment being submitted with this registration form, and provide information regarding their content. When submitting any supporting documents, please label the documents as indicated in this part (e.g., Attachment A, etc.) and be sure to include the registrant's name as indicated on this registration form.

| | | |
|--------------------------|---|--|
| <input type="checkbox"/> | Attachment A: An 8 1/2" X 11" copy of the relevant portion or a full-sized original of a USGS Quadrangle Map indicating the exact location of the facility or site, required nearby features and <i>Latitude and Longitude</i> (DEEP-APP-003). Indicate the quadrangle name on the map. | |
| <input type="checkbox"/> | Attachment B: Site Conditions Report, including: | found on page(s): |
| | Characterization and origin of release being treated | _____ |
| | Description of previous remedial actions | _____ |
| | Identification of relevant site conditions and history | _____ |
| | Characterization of hydrogeology and water chemistry | _____ |
| | Identification of receptor or transport pathways | _____ |
| <input type="checkbox"/> | Attachment C: Site Plan(s), including: | |
| | <input type="checkbox"/> Basic site boundaries | <input type="checkbox"/> cross section(s) |
| | <input type="checkbox"/> Groundwater flow on maps & sections | <input type="checkbox"/> Location of significant site features |
| | <input type="checkbox"/> Location of wells and other data points | <input type="checkbox"/> Depiction of release, plume, & other AOCs |
| | <input type="checkbox"/> Specific proposed discharge location(s) | <input type="checkbox"/> Location(s) of proposed activity |
| | <input type="checkbox"/> Location(s) of receptors/pathways | <input type="checkbox"/> Composite zone of influence |
| | | <input type="checkbox"/> Monitoring locations |
| <input type="checkbox"/> | Attachment D: Work Plan, including, but not limited to: | found on page(s): |
| | Rational for technology selection / remedial goal | _____ |
| | Identification of all substances to be discharged | _____ |
| | Reason needed/evaluation of substances identified in VI-B | _____ |
| | Evaluation of byproducts produced / interaction with aquifer | _____ |
| | Bench/pilot study results, or reason unnecessary | _____ |
| | Calculation of chemical dosage and distribution | _____ |
| | Description of discharge mechanisms | _____ |
| | Chemical handling measures | _____ |
| | Site safety measures | _____ |
| | Contingency measures | _____ |
| | Discussion of multiphase implementation approach | _____ |
| <input type="checkbox"/> | Attachment E: Monitoring Plan, including: | found on page(s): |
| | Monitoring program objectives | _____ |
| | Monitoring locations and frequencies, and rationale/objective | _____ |
| | Monitoring constituents/parameters and rationale | _____ |
| | Monitoring sampling and analytical methods | _____ |
| | Data evaluation and reporting procedures | _____ |
| <input type="checkbox"/> | Attachment F: Specifications for substances to be discharged, as applicable. | |
| <input type="checkbox"/> | Attachment G: <i>Coastal Consistency Review Form</i> (DEEP-APP-004), if applicable. | |
| <input type="checkbox"/> | Attachment H: Conservation or Preservation restriction information, if applicable. | |
| <input type="checkbox"/> | Attachment I: CT NDDB Information, if applicable, including <i>CT NDDB Request Form</i> (DEEP-APP-007). | |

Part VII-B: Technical Certification

Certification prepared by a Licensed Environmental Professional (LEP) or Professional Engineer (P.E.) as required in Section 4(c)(4)(B) of the General Permit.

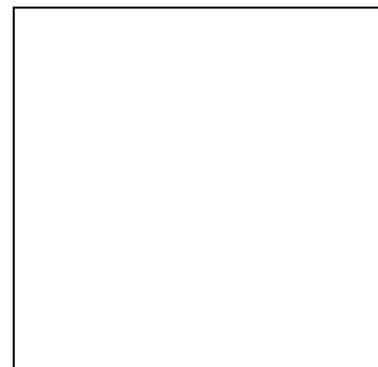
“I certify that I have reviewed the: site conditions report, including the past and present uses of the site and fill history; site plan; work plan; and monitoring plan; and, if applicable, results of screening samples included with this registration and any other site characterization samples. I certify, based on such review and on my professional judgment, that any constituent of concern list includes all known non-petroleum potential pollutants present in the area of proposed activity or zone of influence and that the proposed activities are based on a site characterization that, for the area of interest, is consistent with prevailing standards and guidelines.

I also certify that I have reviewed the proposed activities and, based on such review and on my professional judgment, I certify that the activity design, specifications, and implementation procedures are appropriate to remediate the pollution present at the area of the site where activity is proposed. I also certify that the oversight and monitoring provisions, and contingency measures, described in the work plan and/or monitoring plan, were developed to be substantially consistent with prevailing standards and guidelines, and the proposed activities are not expected to cause changes in groundwater or surface water quality beyond the designated zone of influence, are not expected to adversely affect any identified underground source of drinking water supply or water supply well, are not expected to create any explosion hazard or adversely affect indoor air quality in structures overlying the expected zone of influence, and are not expected to adversely affect any underground utilities, underground structures or leaching fields in the expected zone of influence.

I also certify that, in my professional judgment, the proposed work plan and monitoring plan considered potential adverse effects that could reasonably be expected to impact the site, and provide a mechanism to address and mitigate such effects.”

“I am aware that any professional services rendered pursuant to this general permit shall conform to the applicable rules of professional conduct of the Regulations of Connecticut State Agencies (for P.E.s section 20-300-12(a) and for LEPs section 22a-133v-6). I am also aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements.”

Affix seal here



Signature of Licensed Environmental Professional
or Professional Engineer

Date

Name of Licensed Environmental Professional or
Professional Engineer (print or type)

Title (if applicable)

License Number

Part VIII: Registrant Certification

The registrant *and* the individual(s) responsible for actually preparing the registration must sign this part. A registration will be considered incomplete unless all required signatures are provided. If the registrant is the preparer, please mark N/A in the spaces provided for the preparer.

| | |
|--|-----------------------------|
| <p>“I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief.</p> <p>I certify that this general permit registration is on complete and accurate forms as prescribed by the commissioner without alteration of the text.</p> <p>I understand that a false statement made in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the Connecticut General Statutes, pursuant to section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute.”</p> <p>“I certify that I have read the <i>General Permit for In Situ Remediation: Chemical Oxidation</i> issued by the Connecticut Commissioner of Energy and Environmental Protection; that the activities which are the subject of this registration are eligible for authorization under such permit; that if such activities commenced prior to the issuance of such permit, all applicable requirements of such permit are being met; and that a functioning and effective system is in place to assure that all such requirements are met so long as the activities which are the subject of this registration continue.”</p> <p>I understand that the subject activity is authorized only on or after the date the commissioner issues a written approval of registration or certificate of coverage with respect to such activity.</p> | |
| <hr/> Signature of Registrant | <hr/> Date |
| <hr/> Name of Registrant (print or type) | <hr/> Title (if applicable) |
| <hr/> Signature of Preparer (if different than above) | <hr/> Date |
| <hr/> Name of Preparer (print or type) | <hr/> Title (if applicable) |
| <p><input type="checkbox"/> Check here if additional signatures are required. If so, please reproduce this sheet and attach signed copies after this sheet. You must include signatures of any person preparing any report or parts thereof required in this registration (i.e., professional engineers, surveyors, soil scientists, consultants, etc.).</p> | |

Note: Please submit a completed Registration Form, Fee, and all Supporting Documents to:

CENTRAL PERMIT PROCESSING UNIT
 DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
 79 ELM STREET
 HARTFORD, CT 06106-5127

Space in electronic version of form to insert additional pages of certifications for Part VIII