



Petroleum Spill Day 1 to Year 5

Spill Response, Investigation, Remediation, Monitoring

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Spill Response & Complaint
Investigation Section (SRCIS)

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Section (PRS)



Presentation Outline

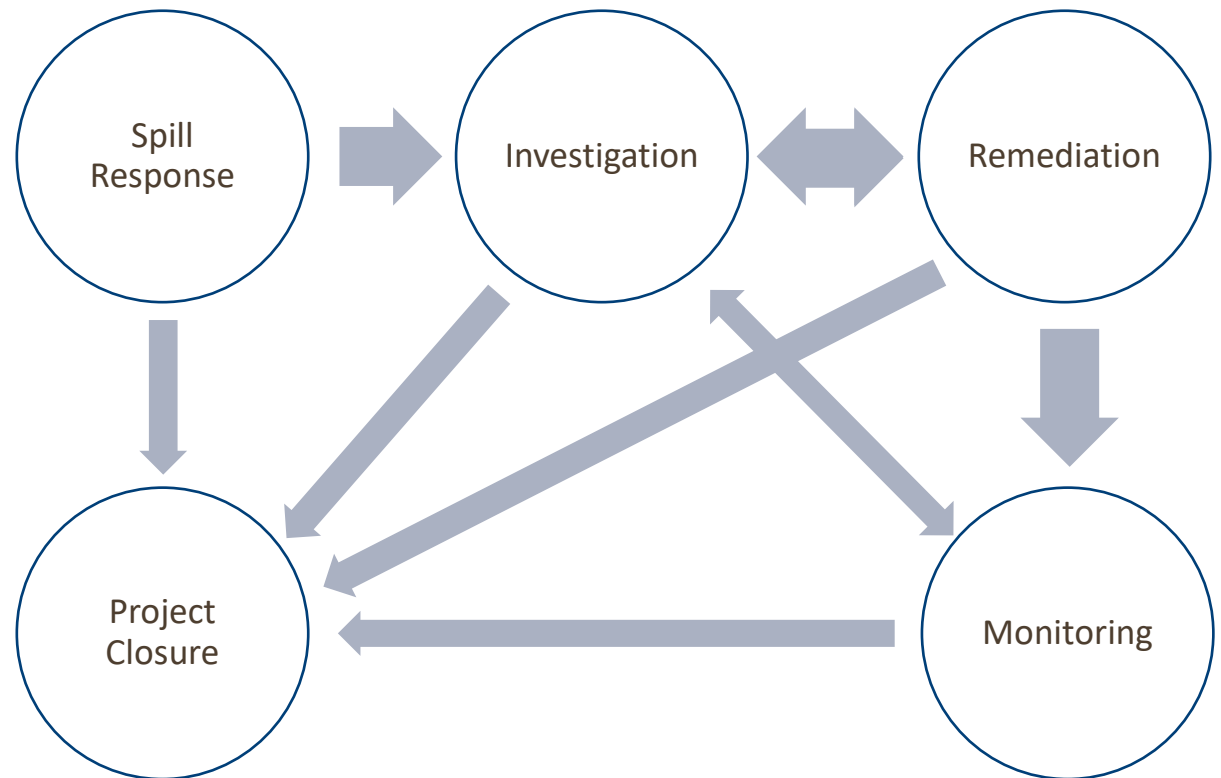


- The pathway to Project Closure
- A Spill Occurred, What Now?
- Who do I call?
- Spill Response
 - Initial Response Actions
 - Excavation Complete
 - The Hand-Off: Project Manager Assignment
- Petroleum Remediation Section
 - Investigation
 - Remediation
 - Monitoring
- Optimize Efficiency
- Steps to Success

The Pathway to Project Closure

How does a project transition from SRCIS to PRS?

- SRCIS
 - Spill Response / Initial Response Action
 - Includes Investigation and Remediation
 - May include Project Closure
- PRS
 - If not closed, Project transferred to PRS
 - Includes additional Investigation, Remediation, and Monitoring
 - Ultimate goal of Project Closure



A Spill Occurred, What Now?

Reportable Conditions

Petroleum (RSA 146-A)

- >25 gallons released
- Any amount to surface water or groundwater, or has the potential to impact groundwater
- Any amount that cannot be contained and cleaned up within 24 hours of release
- Any amount that poses an imminent threat to human health



Who do I call?

Notification of a Release



- LIFE-THREATENING EMERGENCY: 911
- NHDES Spill Reporting Hotline: 603-271-3899
- After Hours - NH State Police Dispatch: 603-223-4381
 - Provide location and nature of spill, and call-back information
 - SRCIS Responder on-call is notified and will call you back
- National Response Center (USCG): 1-800-424-8802
 - Notification required for releases to waterways
 - Watch Stander will ask about the location, spilled material(s), affected area(s), agencies notified, and remedial actions taken

NATIONAL RESPONSE CENTER 1-800-424-8802 ***GOVERNMENT USE ONLY ***GOVERNMENT USE ONLY*** Information released to a third party shall comply with any applicable federal and/or state Freedom of Information and Privacy Laws
Incident Report # 1438829
INCIDENT DESCRIPTION
*Report taken by NRC on 04-AUG-25 at 12:06 ET. Incident Type: VESSEL Incident Cause: VESSEL SINKING Affected Area: SEABROOK HARBOR. Incident occurred on 04-AUG-25 at 09:15 local incident time. Affected Medium: WATER / SEABROOK HARBOR.
REPORTING PARTY
Name: CHRIS WOOD Organization: NEW HAMPSHIRE DES Address: 29 HAZEN DR CONCORD, NH 03301 Email Address: christopher.b.wood@des.nh.gov
PRIMARY Phone: (603)7240625 Type of Organization: STATE GOVERNMENT
SUSPECTED RESPONSIBLE PARTY

Spill Response

Secure the Release and Stabilize the Scene

- Stop the discharge
 - valves, patches, plugs, putty, magnets
- Contain the release
 - dikes, dams, containment boom, absorbents
- Mitigate further risk of discharge
 - Pump-out contents, disconnect sump pumps
- Protect human health & environment
 - protect/cover the source area, ventilation, provide alternative drinking water



SRCIS can direct-hire emergency response contractors to mobilize necessary equipment to an incident

Initial Response Actions

Source Removal and Investigation



Goal: remove contamination to meet the NH Soil Remediation Standards and Ambient Groundwater Quality Standards, per Env-OR 600

- Work Scope Authorization required*
- Sub-slab impact delineation
 - concrete coring and hand auger advancement
- Bulk excavation of source area and affected, accessible soil
 - Guided by field screening with a PID
- Contaminated groundwater management
 - Containerization for small amounts
 - Pump-and-Treat for larger amounts or continuous flow (Temporary GW Discharge Permit)



*for work potentially reimbursable through the NH Oil Fund (e.g., OPUF projects)

Initial Response Actions

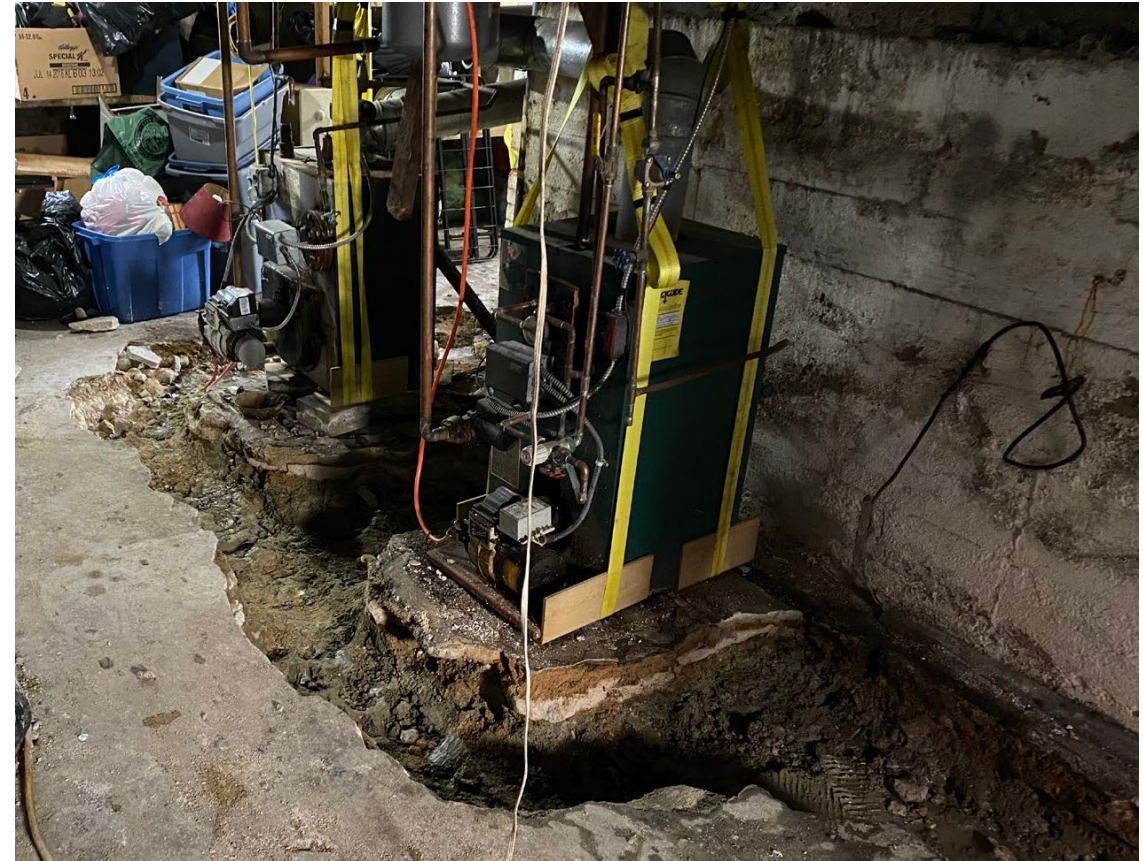
Advanced Removal Techniques



Structural evaluation and building support plans

- Prepared by a Professional Engineer
- Underpinning
- Temporary beams and columns
- Residential appliance relocation or support

*For Fund-eligible projects, Structural Plans reviewed/approved by NHDES prior to execution



Excavation Complete

Data Collection



Excavation endpoint soil sampling & groundwater sampling

- Sampling guided by field screening and extents of excavation (size/depth)
- Coordinate sampling with NHDES project manager
- Analytical suite depends on contaminants of concern
 - VOC 8260, PAH 8270, TPH 8015C (DRO/GRO), RCRA 8 Metals, PCB 8082A, etc.
- Drinking Water sampling of on-site supply wells (VOC 524.2)



Excavation Complete

Site Restoration and Setting Up For Success

Goal: Backfill and replace in-kind to return site to original conditions

When Soil Quality violations remain, consider:

- Installing repeatable soil sampling ports (4" PVC)
 - discrete soil sample locations
 - future sample collection at depth after restoration
- Installing soil vapor extraction piping where vapor intrusion is a concern
 - Perforated pipe surrounded by porous media/aggregate
 - Passive systems or “radon fan” negative pressure systems



Excavation Complete

Initial Response Action Reporting



Env-OR 605.06

- IRA Report shall be submitted within 30 days of action completion
- Projects >120 days require interim reports every 60 days

NHDES-5-04-011

 **INITIAL RESPONSE ACTION
REPORTING FORM** 
Waste Management Division

RSA/Rule: RSA 146-A / Env-Or 605.06

A. Site Information

Date of release: Enter date of release	Date of IRA report: Enter date of IRA report		
NHDES site number:	NHDES project number:		
Site name:	Site contact person:		
Site address:	Phone number:		
Town:	State:	ZIP:	Email address:
Property Owner Information		Responsible Party Information	
Owner name:		RP name:	
Mailing address:		Mailing address:	

IRA Reporting Form

If no Soil or Water Quality violations remain, NHDES can issue a
Certificate of No Further Action*

- Release information (source, mechanism, volume, etc.)

C. Potential Receptor Information (check all that apply)

☐ Municipal water provided to site	☐ Dug supply well on-site; Depth = feet
☐ Municipal sewer service connection	☐ Drilled supply well on-site; Depth = feet

If Soil or Water Quality violations *do* remain...

Project Narrative, Conclusions, and Recommendations

*When the site meets all other requirements for project closure

The Hand-Off Across the Aisle

Petroleum Remediation Section



...a project cannot be closed without *additional investigation*

SRCIS reviews the IRA Report and requests that a Petroleum Remediation Section project manager is assigned to pursue further investigation/remediation

Petroleum Remediation Section Investigation

Initial Site review:

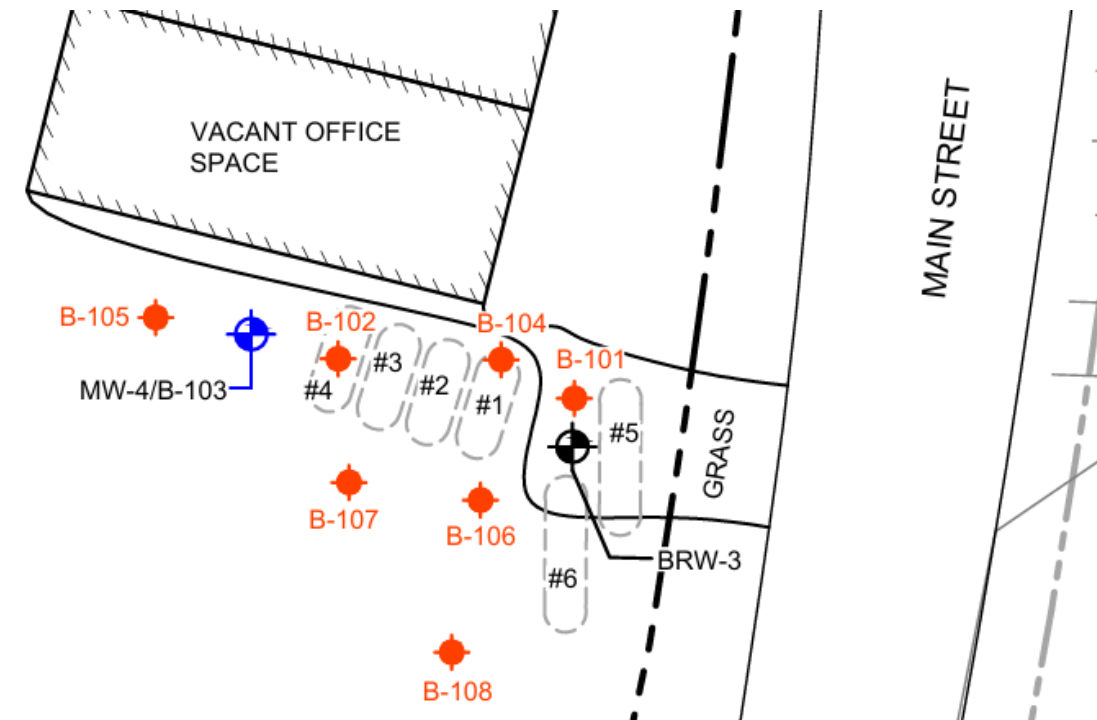
- SRS exceedances?
- Groundwater impacts (AGQS violation, NAPL, or Sheen)?
- Supply wells that may be impacted?
- Could bedrock groundwater be impacted?

Request:

- Groundwater Quality Assessment (GQA);
- Initial Site Characterization (ISC); or
- Site Investigation (SI).

Determine site history, current use, receptors, potential hazards, limitations to proposed work, and characterize contamination.

Purpose: Demonstrate closure criteria or prepare for remediation



Petroleum Remediation Section Remediation

Minimize exposures to human health and the environment, and expedite closure of the site.

Most commonly used remediation methods:

- Excavation
 - Work Plan requested
- In-Situ Remediation
 - Work Plan or a Remedial Action Plan requested



Petroleum Remediation Section Monitoring

Monitor potential migration, attenuation, and the associated potential impact to human health and/or the environment.

After multiple rounds of data, excavation / injections have been completed, groundwater impacts remain, and the plume has been delineated

➤ 5-year GMP

GMP sites usually indicate long-term monitoring



**YEAR
5**

Optimize Efficiency

1. Meet report deadlines
2. Meet report requirements per Env-Or 600
3. Provide Responsible Party's Email Address
4. Responsible Party on the Cover Sheet should match the database
5. Fill out the Cover Sheet

Identify Town and DES Site Number for all email or phone inquiries





All Information is Important

Groundwater Monitoring Report Cover Sheet Waste Management Bureau


[Clear Form](#)

Site Name: _____

NHDES Site ID#: _____ Project number: _____

Municipality: _____

Type of Permit and Submittal (Check all that apply)

Permit Type

- ☐ Non-Permit Monitoring Data Submittal
☐ Groundwater Management Permit (GMP)
☐ Groundwater Release Detection Permit (GRDP)
☐ Groundwater Discharge Permit (GDP)

Submittal Type

- ☐ Annual/Periodic Summary Report (Year) _____
☐ Data Transmittal* (Mo./Year) _____
*for GMP Data Transmittals month/year per Condition #7 and/or any other Conditions that require reporting per Permit

Check each box where the answer to any of the following questions is "YES."

Sampling Results

- ☐ During the most recent monitoring event, were any **new** compounds detected at any sampling point?
 Well/Compound: _____

- ☐ During the most recent monitoring event, did any compounds exceed the Ambient Groundwater Quality Standards (AGQS) included in Env-Or 606.03, Table 600-1 **for the first time** at any sampling point?
 Well/Compound: _____

- ☐ Are there any detections of contamination in drinking water that is untreated prior to use?
 Well/Compound: _____

- ☐ Do compounds detected exceed AGQS?

- ☐ Was free product detected for the **first time** in any monitoring point?

- ☐ Surface Water (*visible sheen*)

- ☐ Groundwater (*1/8" or greater thickness*)

Location/Thickness: _____

Contaminant Trends

- ☐ Do sampling results show an increasing concentration trend in any source area monitoring well?

Well/Compound: _____

- ☐ Do sampling results indicate an AGQS violation in any of the Groundwater Management Zone (GMZ) boundary wells?

Well/Compound: _____

Recommendations

(For Petroleum Fund eligible sites, contact NHDES directly, and on discovery, to recommend well/road box repairs.)

- ☐ Does the submittal include any recommendations requiring NHDES action? (Do not check this box if the only recommendation is to continue monitoring under the conditions set forth in the existing Permit).

First time AGQS
Exceedance

Untreated Supply Well
AGQS Exceedance

Recommendations

Tina.A.Clark@des.nh.gov or phone (603) 271-7379

PO Box 95, Concord, NH 03302-0095

www.des.nh.gov



Report Cover Waste Management Division

Clear Form



Enter the Report Title
Enter Site Name
Enter Site Street Address
Enter Site City/Town, State ZIP Code

NHDES Site #:
Project Type: Enter Project Type
Project #:

PREPARED FOR

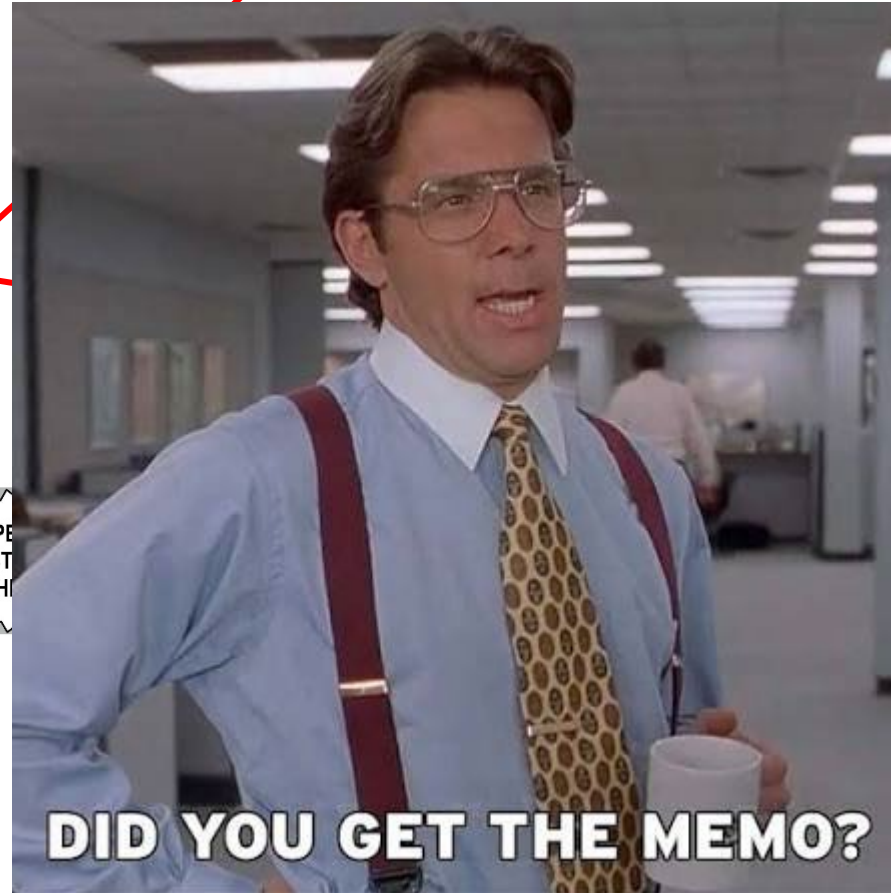
Enter Responsible Party Name
Enter Responsible Party Street Address
Enter RP City/Town, State ZIP Code
Enter Responsible Party Phone Number
Enter Responsible Party Contact
Enter Responsible Party Email

PREPARED BY

Enter Consultant Company Name
Enter Consultant Mailing Address
Enter Consultant City/Town, State Zip Code
Enter Consultant Phone Number
Enter Consultant Company Contact
Enter Consultant Email

Date of Report:

Tina.A.Clark@des.nh.gov or phone (603) 271-7379
PO Box 95, Concord, NH 03302-0095
www.des.nh.gov



Enter the Report Title

Enter Site Name

Code

Project Type

ne

Address

Code

Number

Contact

Enter Responsible Party Email

Steps to Success

- ☐ Include all required information per Env-Or 600
- ☐ Identify if water was observed during IRA activities or an excavation
- ☐ Note NAPL and petroleum sheen!
- ☐ Soil summary tables should include sample depths
- ☐ Identify deviations from the scope
- ☐ Update monitoring well status in Site Plans
- ☐ Is the downgradient well clean?



Steps to Success

❑ NHDES considers Site Closure if:

- direct exposure to contaminants have been eliminated
- the source of groundwater contamination has been eliminated
- groundwater is suitable for drinking without treatment
- groundwater meets the AGQS for at least two rounds (accounting for seasonal variability)
- there is no evidence of NAPL or sheen
- ongoing remediation is complete

Env-Or 609.02

Certificate of No Further Action



Steps to Success

- Approaching closure?
Begin reviewing historical soil data



For Additional Questions



IRA Phase – Call SRCIS Project Manager

Regarding this Presentation

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Fund Related

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