Emergency Response Plan of the Rhode Island Department of Environmental Management



Rhode Island Department of Environmental Management Office of Emergency Response 235 Promenade Street, Suite 438, Providence, RI 02908-5767 (401) 222-1360, ext. 2777129 Open Weekdays 8:30 AM – 4:00 PM



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Section 1 Introduction



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Introduction

Section 1 Outline		
1.1	Purpose, Scope and Priorities of the Emergency Response Plan	
1.2	Definition of Emergency Response	
1.3	Incident Severity	
1.4	Legal Authority	

1.1 – Purpose, Scope and Priorities of the Emergency Response Plan

PURPOSE OF THE PLAN:

The purpose of this Emergency Response Plan (ERP) is to guide the Rhode Island Department of Environmental Management (DEM) in a safe, timely, and effective response to incidents that threaten the state's environment and public health, safety, or welfare. It is also intended to promote coordination among federal, state and local, public and private responders.

SCOPE OF THE PLAN:

This ERP is intended for personnel of the Rhode Island Department of Environmental Management and for other agencies that support DEM in large-scale, multi-divisional incident response. Incidents vary greatly in location and severity. This ERP applies only to incidents that occur on land or on inland or coastal waters of Rhode Island, and that present an imminent danger to public health, safety or welfare.

This plan does not, then, address response to common, minor incidents for which the divisions of DEM and other agencies have standard operating procedures. (See "Assessing Incident Severity"). Likewise, different kinds of incidents will entail different roles for DEM. There are many kinds of emergencies for which other state or federal agencies or private parties are responsible. In such cases, DEM has no predefined role and this ERP does not apply. (See "Definition of Emergency Response").





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This ERP applies to incidents for which DEM has one of three specific roles:

- **1. As the lead state agency.** This is likely to occur when the incident is defined around the following incidents:
 - o release of hazardous materials
 - o oil spill
 - o wildfire
 - o epidemic of livestock or zoonotic disease
 - pathogenic insect infestation
 - o failure of a dam
- **2.** As the state's coordinator of specific emergency response functions. Those functions are likely to occur in large-scale incidents that entail multidivisional operations with hazardous materials and animal care (ESF #10 and #16).
- **3.** As a supporter of another state or federal agency with responsibility for coordinating other emergency response functions.

PRIORITIES IN INCIDENT RESPONSE:

The following general principles will guide the DEM with the management of an incident:

- Preserve life and minimize risks to the health and safety of emergency responders and the public
- Identify and protect sensitive habitats and wildlife
- Contain and/or control the release of pollutants
- Identify the cause of the incident and the source of environmental hazards
- Remediate environmental impacts
- Collect and preserve evidence
- Assist with the apprehension of perpetrators

1.2 – Definition of Emergency Response

1. What Are "Emergencies"?

Emergencies are incidents that threaten public safety, health and welfare. If severe or prolonged, they can exceed the capacity of first responders, local fire fighters or law enforcement officials. Such incidents range widely in size, location, cause, and effect, but nearly all have an environmental component. To anticipate the variety, consider the following:



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Types of Hazards			
Natural Hazards	Human / Techno	ological Hazards	
Atmospheric	Structural Failure / Accident	Biological	
• Hurricanes, Cyclones	 Dam / Levee Failure 	 Biological WMD 	
 Thunderstorms 	 Building Collapse 	 Infectious Disease 	
 Lightning 	 Bridge Collapse 	 Critters 	
 Hailstorms 	 Tunnel Accident / 	Radiological	
 Tornadoes 	Fire	 Nuclear Accidents 	
 Windstorms 	Fires / Explosions	 Radiological WMD 	
 Dust and Sandstorms 	 Building 	Weapons of Mass Destruction	
 Avalanches 	 Industrial 	 Biological WMD 	
 Winter Storms 	 Residential 	 Chemical WMD 	
 Cold / Exposure 	 Health Care 	 Radiological WMD 	
 Extreme Summer 	o Arson	Civic Disruption	
Heat	 Bomb / Explosion 	 Hostage 	
 Global weather 	Energy / Utility Incidents	 Bomb / Explosion 	
Geologic	 Fuel Shortage 	 Stand-Off 	
 Landslides 	 Power Outage 	 Civil Unrest 	
 Mudslides 	 Water Shortage 	 Sabotage 	
 Land Subsidence 	• Communication	 Mass Hysteria / Riot 	
Sinkholes	Problems	Terrorism	
 Expansive Soils 	 Winter Storms 	o General	
Hydrologic	 Cold / Exposure 	 Agro-Terrorism 	
 Floods and Flash 	 Extreme Summer 	 Eco-Terrorism 	
Floods	Weather	 Cyber-Terrorism 	
 Storm Surges 	Transportation Incidents	Violence	
 Coastal / Rapid 	 Surface Vehicle 	 at Home 	
Erosion	Accidents	 at Work 	
 Droughts 	 Aviation Related 	 at School 	
Seismic and Volcanic	Incidents	\circ at Hospital	
 Earthquakes 	 Ships, Boats, Barges, 	 Public Violence 	
o Tsunamis	& Ferries	Information	
 Volcanoes 	 Train / Subway 	 Cyber Attacks 	
Other Natural Disasters	Crash	 Denial of Services 	
 Wildfire 	 Bridge Collapse 	 E-mail Hoaxes 	
 Animal / Insect 	 Tunnel Accident / 	Computer Viruses	
Infestation	Fire		
 Disease / Biological 	Hazardous Materials		
(Natural)	 HAZMAT / Oil Spills 		
 Natural HAZMAT 	 Chemical / WMD 		
Material from Space	Asbestos		

For a more detailed description of each hazard, refer to Section 7.3.



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What Are the Elements of Response?

Response is an effort to mitigate the impact of an incident on the public and the environment. A large or complex incident will require the cooperation of several agencies, and DEM is likely to be among them. For many emergencies, DEM will play a <u>supporting</u> role in the overall state response. DEM is likely to <u>lead</u> the state's response If the incident is one of the following:

- release of hazardous materials
- oil spill
- wildfire
- epidemic of livestock or zoonotic disease
- pathogenic insect infestation
- failure of a dam

No matter what the challenge or who is in charge, response is likely to address some commonly recognized responsibilities -- "emergency support functions" (ESF – See "Checklist of Emergency Response Issues: Emergency Support Functions for All Hazards).

1.3 – Incident Severity

WHEN DO INCIDENTS BECOME EMERGENCIES?

In general, emergency response should be proportionate to the size and complexity of the hazards that an incident brings. The greater the threat to the environment and public safety and welfare, the larger and more urgent the response. An "incident" becomes an "emergency" as the following conditions become evident or more likely to occur: :

Threat to Human Safety and Welfare

- Poisoning of water or food sources and/or supply
- Presence of toxic fumes or explosive conditions
- Damage to personal property
- Need for the evacuation of people
- Interference with public or commercial transportation

Threat to the Environment

- Injury or loss of animals or plants or habitats that are of economic or ecological importance such as:
 - Commercial, recreation or subsistence fisheries (marine plants, crustaceans, shellfish, aquaculture facilities) or livestock



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- Seal haul outs
- Marine bird rookeries
- Impact to recreational areas such as public beaches
- Impact to ecological reserves, forests, parks, archaeological and cultural sites

SEVERITY SCALES

Incident severity is often ranked from 1 to 3 or 4, with a "Level 1" incident considered minor; a Level 2, moderate; a "Level 3," major; and a "Level 4" severe. Thresholds depend on the sort of incident and hazards. The following examples are for oil spills (using a 1-3 scale) and for releases of hazardous material (using a 1-4 scale):

<u>For Oil Spills</u>

The severity of an oil spill depends not only on the amount and kind of oil that has been released, but also on the immediate circumstances (location, sea conditions, weather, time of day, sensitivity of the site and of the spill plume). Hence the following is intended only as rough guide. In general, releases of oil should be classified according to their degree of impact. For example, spills that meet the criteria of a minor incident but that also...

- 1. Occur in or endanger critical areas
- 2. Generate critical public concern
- 3. Become a focus of an enforcement action
- 4. Pose a threat to public health or welfare may be classified as moderate or major.

Category 1:

<u>Severity of Incident</u>: Minor - A spill, release or potential release of a known, non-combustible variety of oil from a limited source (e.g., from a day-use recreational craft). No deaths, and, if injuries, they are minor.

<u>Amount of Oil Involved:</u> Generally, less than 100 gallons into inland waters or less than 1,000 gallons in coastal waters

Extent of Incident: Limited to initial area of release and unlikely that it will spread (e.g., an area of 300 square feet or less).

<u>Population Affected</u>: Evacuation will be limited to the immediate area that can be secured in a short period of time and for a limited duration (usually no more than 4 hours). A limited number of the populace will be affected.

<u>Resources:</u> Normally to be handled by local emergency responders without RIOST support.

Category 2:

<u>Severity of Incident:</u> Moderate - A spill, release or potential release of oil that poses an uncertain risk to the environment. No deaths, but injuries can be minor to severe.



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<u>Amount of Oil Involved</u>: A discharge of 100 gallons to 1,000 gallons into inland waters or 1,000 to 10,000 gallons in coastal waters, or a discharge of any volume that poses a threat to the public's health or welfare. (E.g., a small leak from a tanker that is controlled would be a Level 2, while a release of the entire contents would be a Level 3.)

<u>Extent of Incident:</u> Area may be large, but it is limited and not so large as to disrupt normal community functions.

<u>Population Affected:</u> Evacuation will be considered to a designated area that local resources can achieve. Extended sheltering is not required.

<u>Resources:</u> Local response agencies may need assistance from other agencies. The RI EMA and possibly the National Response Center of the US Coast Guard must be notified. Incident command may request RIOST support.

Category 3:

<u>Severity of Incident:</u> Major -- A spill or release that has resulted in a serious fire, explosion or environmental contamination over a large area that is apt to get larger. Injuries or deaths may have already occurred.

<u>Amount of Material Involved</u>: A discharge of more than 1,000 gallons into inland waters or more than 10,000 gallons in coastal waters or a discharge of any quantity that substantially threatens the public's health or welfare or that generates wide public interest.

<u>Extent of Incident:</u> Large area may be impacted, possibly disrupting essential community services. Extensive environmental contamination is possible.

<u>Population Affected:</u> Presents an immediate danger to the public and response personnel. Evacuation will impact many the populace and/or disrupt everyday life in affected communities for several days or more.

<u>Resources:</u> Local response agencies will need assistance from several outside sources. The RIEMA and the National Response Center of the US Coast Guard must be notified. Incident command is likely to request RIOST support

For Releases of Hazardous Material

Category 1:

<u>Severity of Incident:</u> Minor -- A spill, release or potential release of known hazardous substance. No deaths, if injuries, minor in nature.

<u>Extent of Incident</u>: Limited to initial area of involvement and unlikely that it will spread. For example, a single structure or area of 300 feet or less.

<u>Type of Material Involved:</u> Identified hazardous substance that is not radioactive, water reactive or hypergolic. Generally, a flammable or combustible liquid, but could also include limited amounts of corrosives.



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<u>Amount of Material Involved:</u> A limited amount of a hazardous substance or smaller container. Would generally be less than 55 gallons.

<u>Population Affected</u>: Evacuation will be limited to the immediate area that can be evacuated in a short period of time for a limited duration (usually does not exceed 4 hours). A limited number of the populace will be affected.

<u>Resources:</u> Local resources can handle, includes automatic mutual aid agreements.

Category 2:

<u>Severity of Incident:</u> Moderate -- A spill, release or potential release of known or unknown hazardous substance. No deaths; injuries can be minor to severe.

<u>Extent of Incident:</u> Release may not be controllable without special resources. Limited to several blocks or buildings.

<u>Type of Material Involved:</u> Unknown hazardous substance or hazardous substance that is toxic, reactive, flammable, radioactive, corrosive, or biological in nature.

<u>Amount of Material Involved</u>: An amount limited by the size of the container and the release from it. For example, a small leak from a tanker that is controlled would be a Level II, while a complete failure releasing the entire contents would be a Level III or IV.

<u>Population Affected</u>: Evacuation will be considered to a designated area that local resources can achieve. Extended sheltering is not required.

<u>Resources:</u> Local response agencies may need assistance from outside sources.

Notification: Requires notification of the RI EMA and possibly the National Response Center of the US Coast Guard.

Category 3:

<u>Severity of Incident:</u> Severe - A spill, release or potential release of a hazardous substance with an associated fire, explosion or toxic/corrosive cloud. Injuries or deaths may have already occurred.

<u>Extent of Incident:</u> Large area may be impacted possibly disrupting essential community services. Extensive environmental contamination is possible.

<u>Type of material Involved</u>: Unknown hazardous substance or hazardous substance that can produce a toxic/corrosive gas cloud, is highly reactive or unstable, is a flammable gas or produces significant flammable vapors, is radioactive or chemical/biological pathogen.

<u>Amount of Material Involved:</u> Large amounts of hazardous material or limited amount of a very dangerous substance.

<u>Population Affected:</u> Presents an immediate danger to the public and operating personnel. Evacuation will require large numbers of the populace and/or extending over an area that will have a significant impact on the community. It may require activation of shelters for evacuees.

<u>Resources:</u> Local response agencies will need assistance from outside sources.



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Notification: Requires notification of the RIEMA and the National Response Center of the US Coast Guard.

Category 4:

<u>Severity of Incident:</u> Major -- A spill or release of a hazardous substance that has resulted in a serious fire, explosion or environmental contamination over an extended area.

<u>Extent of Incident:</u> Has an impact over a wide area with the probability that it will spread to a larger area. The impacted area can be smaller in a highly urbanized area with a large population impacted.

<u>Type of Material Involved:</u> A known or unknown hazardous substance that can be highly toxic, very reactive or unstable, flammable or explosive; etiological agents that are extremely pathogenic.

<u>Amount of Material Involved:</u> A hazardous substance in a large amount that can affect a large area.

<u>Population Affected:</u> Evacuation will affect a large area and will have to be done in stages taking several hours or more (evacuation duration could exceed several days). A large number of the populace is affected. Presents immediate danger to the public and operating personnel.

<u>Resources:</u> Mutual aid will be needed with a need for a large number of resources.

Notification: Requires notification of the RI EMA and the National Response Center of the US Coast Guard.

1.4 – Legal Authority

The Rhode Island Department of Environmental Management is authorized by R.I. General Laws Section 42-17.1-2 to protect the environment from pollution and to maintain an acceptable environmental quality within Rhode Island. The emergency powers of DEM are broad and encompass a wide variety of environmental emergencies as set forth in the chart of Statutory Authority below.

Rhode Island's environmental response authority supplements certain federal legislation, such as the Clean Water Act, 33 U.S.C. 1251 *et seq.*, the Clean Air Act, 42 U.S.C. 7401 *et seq.*, and the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 42 U.S.C. 9601 *et seq.* 40 CFR Part 311 requires and authorizes DEM to undertake emergency measures similar to those described above, pursuant to, *inter alia*, R.I. General Laws Sections 46-12-3 and 46-12-10.



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The DEM Environmental Response Plan (ERP) supports these goals. This ERP also serves to complement and support the National Oil and Hazardous Substances Contingency Plan and the Region One Oil and Hazardous Substances Regional Contingency Plan.

The national contingency plan has been supplemented on a regional basis. As part of the regionalized concept, the EPA Region One Contingency Plan has been developed for application in Rhode Island. Within the framework of Region One, there are separate response plans for coastal and inland discharges. The area response plan for the coastal region has been developed and is maintained by the United States Coast Guard. The inland response plan has been developed and is being maintained by the Environmental Protection Agency.

Pursuant to R.I. General Laws Chapters 23-17, 23-23, 42-17.1, 46-12, 46-13.1, and 46-14, the Department of Environmental Management was delegated the power and duty to control, prohibit, and respond to pollution of the air, surface waters, groundwater and lands of the state, and to protect the public health, safety, and welfare from the effects of releases of hazardous substances.

Additionally, the R.I. Administrative Inspection Guidelines (250-RICR-20-00-3) outline general procedures that grant DEM employees the right to conduct inspections on private property. These guidelines aim to balance private property owners' protection under the federal and state Constitutions, as well as DEM's interest in protecting the environment from potential hazards and public health risks. Find the guidelines online <u>HERE</u>.

This ERP is intended to describe general DEM procedures. It is intended neither to convey nor to restrict the rights of other parties. Due to the varied nature of emergency response, DEM reserves the right to modify or depart from these general procedures on a case-by-case basis.

A final caveat is that in the event of a disaster, as defined by R.I. General Laws Section 30-15-1 *et seq.*, the Department's emergency powers will be supplemented, and in some cases superseded, by the emergency powers of the Rhode Island Emergency Management Agency. Additionally, in the event of a disaster, the Governor has the authority to issue executive orders, proclamations, and regulations pursuant to R.I. Gen. Laws Section 30-15-7.



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Environmental Emergency Statute Authority			
Environmental Emergency	Description	Federal and or State Statute Authority	
AGRICULTURE	Authority for the State Veterinarian to quarantine, destroy, and regulate domestic livestock to eradicate disease	R.I. Gen. Laws Section 4-4-1 <i>et seq.</i>	
AIR POLLUTION The Clean Air Act	Emergency powers to protect air resources and ensure compliance with Federal Clean Air Act	42 USC 7401 et seq.	
RI Clean Air Act	Emergency powers for air pollution episode control	R.I. Gen. Laws Section 23-23.1-1 et seq.	
ANIMALS	Emergency powers for quarantine and eradication of disease in bees	R.I. Gen. Laws Section 4-4-1 <i>et seq.</i>	
DAMS AND RESERVOIRS	Emergency powers to drain and order repairs of unsafe dams and reservoirs	R.I. Gen. Laws Section 46-19-1 <i>et seq.</i>	
FISH AND WILDLIFE	Authority over fish (including shellfish) and wildlife within the State	R.I. Gen. Laws Section 20-1-1 <i>et seq.</i>	
FOREST FIRES	Emergency powers over fire hazards	R.I. Gen. Laws Section 2-12-15	



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HAZARDOUS WASTE Comprehensive Environmental Response Compensation and Liability Act (CERCLA)	Enables federal agencies to provide a response to unpermitted releases of hazardous substances to the environment and procedures to	42 U.S.C. 9601 <i>et seq.</i> , CERCLA Section 103E, 103F
Resource Conservation and	remediate those releases. Requirements include Emergency Planning and the Community	42 U.S.C. Section 321 <i>et seq.</i>
Recovery Act (RCRA)	Right-to-Know Act	Section 103E, 103F
Superfund Amendments and Reauthorization Act (SARA), Title III	Regulates the storage and management of hazardous wastes	
Toxic Substances Control Act	The purpose of SARA Title III is to assist the community and responsible public agencies in planning for and responding to	15 U.S.C. Section 2601 <i>et seq.</i>
(TSCA)	hazardous material incidents	R.I. Gen. Laws Section 23-19.1-16
RI Hazardous Waste Management Act	Regulates the management of chemical substances and mixtures (including PCBs) that present an unreasonable risk of injury to health and the environment,	
	Emergency powers for the management of hazardous waste	



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MEDICAL WASTE	Management of Regulated Waste Act	R.I. Gen. Laws Section 23-19.2-1
OIL SPILLS Oil Pollution Act of 1990 Oil Pollution Control Act Water Pollution Act	Regulates discharge of oil Emergency powers in connection with discharge of oil Emergency powers in connection with the discharge of pollutants, including petroleum or oil	33 U.S.C. 2702-2761 R.I. Gen. Laws Section 46-12.5.1-11 R.I. Gen. Laws Section 46-12-10
PLANT PESTS	Powers to control and eradicate disease-infested plants and plant pests	R.I. Gen. Laws Sections 2-16-3 – 2-16-12
PLANT DISEASE AND PARASITES	Powers for regulation, suppression and extermination of plant parasites and diseased plants	R.I. Gen. Laws Section 2-17-1 <i>et seq.</i> Section 2-18-1 <i>et seq.</i> Section 2-18.1 <i>et seq.</i>
SOLID WASTE Refuse Disposal Act	Regulation of refuse disposal	R.I. Gen. Laws Section 23-18.9-1 et seq.
WATER POLLUTION The Clean Water Act RI Water Pollution	Establishes structure for regulation discharges of pollutants into waters Emergency powers to protect water resources	33 U.S.C. 1251 et seq. R.I. Gen. Laws Section 46-12-10



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Section 2 Notifications



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Notifications

Section 2 Outline

- **2.1** Required Emergency Response Notifications for All Hazards
- **2.2** Support for Emergency Responders
- **2.3** Recommended Notifications for In-State

2.1 – Required Emergency Response Notifications for All Hazards

DEM Hotline, DEM Division of Law Enforcement *Anytime, Any Emergency* – (401) 222-3070 or (800) 498-1336 James Ball, DEM Emergency Response Chief (401) 222-1360, ext. 7129 Rhode Island Emergency Management Agency (RI EMA)

(401) 946-9996

When Public Health Has Been, or May be Affected

Rhode Island Dept. of Health (RIDOH) *After Hours Emergency* – (401) 222-5960 Seema Dixit, Division of Environmental Health Director (401) 222-7463 Ernest Julian and Catherine Freeney, Chiefs of the Center for Food Protection Chief (401) 222-4774 and (401) 222-7717

When Explosives are Found or Suspected

RI State Fire Marshall Emergency – (401) 426-4200 Non-emergency – (401) 889-5555

When Radiological Hazards are Found or Suspected

RI EMA:

Anytime – (401) 946-9996 Bryan Greenwood (401) 265-3676



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RIDOH: Call anytime - (401) 222-5960 *After Hours Emergency* – (401) 276-8046 Bill Dundulis, Supervising Radiologist (401) 222-7767 Mike Simoli, Chief of the Center for Healthy Homes and Environment (401) 222-7756 Additional Support: **Repositories in Rhode Island** Nuclear Science Center - Cameron Goodwin, Director (401) 874-2600 Brown University - Mark Dirksen, Radiation Safety Officer (401) 863-7138 Rhode Island Department of Energy (RI DOE) Police HQ: Brookhaven National Laboratory Dispatcher of Rapid Assistance Program (RAP) Response Team (631) 344-2200 **Commercial Broker and Processors** Radiation Safety Associates - Paul Steinmeyer (860) 228-0487 Case Environmental Group - Seb Cannata (860) 505-8109 or (860) 306-0195 See list online at: https://www.crcpd.org/page/Commercial Services **Conference of Radiation Control Program Directors** (502) 227-4543

When Hazardous Oil Substances have been or may be Released

Note: For guidance in identifying information relevant to a release in navigable waters, consult the "ICS Initial Incident Information" form in the RI DEM ERP.

IMPORTANT: All discharges/releases of oil or hazardous substances into navigable waters must be reported immediately by the spiller (person in charge of the vessel or facility) to the National Response Center (NRC). The NRC will contact appropriate local United States Coast Guard (USCG) or EPA offices.



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For Releases in Navigable Waters...

National Response Center – United States Coast Guard

See the following provided link for summary of reporting requirements: <u>http://www.nrc.uscg.mil/Default.aspx</u>

(800) 424-8802 or (202) 267-2675

If it is not practical to contact the NRC, contact the USCG, Marine Safety Officer (MSO), Providence Main Office.

24-hour line: (401) 435-2319

Standard NRC Report Forms are also available on-line at the following link: <u>https://www.nrc.gov/reading-rm/doc-collections/forms/</u>

For Releases Inland...

Environmental Protection Agency (EPA) Region 1

In addition to notifying the appropriate state, for spills occurring in the Inland

Zone

of Rhode Island and Southeastern Massachusetts contact the U.S. Environmental

Protection Agency, Region 1 *Day time:* (617) 918-1111 *24-hour line:* (888) 372-7341

For Releases Affecting Massachusetts...

Massachusetts Dept. of Environmental Protection All discharges/releases of oil or hazardous substances into Southeastern Massachusetts must be immediately reported to the Massachusetts DEP. (617) 292-5500

For Releases Affecting Connecticut...

Connecticut Dept. of Environmental Protection All discharges/releases of oil or hazardous substances into Southeastern Massachusetts must be immediately reported to the Connecticut DEP. (860) 424-3338



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When the Shoreline or Wetland has been or might be Affected

Some emergency response and remediation activities that affect a watershed (beach cleaning, etc.) are exempted from normal permit requirements "to protect public health and safety from actual or immanent harm." However, assent of the relevant authority may be required. Assent must be sought as soon as possible.

<u>For Coastal Resources (shoreline, beach, salt marsh, etc.) (RICRMP Section 180)...</u> Coastal Resources Management Council (CRMC) Grover Fugate, Executive Director/ Jeff Willis, Deputy Director (401) 783-3370

<u>For Freshwater Wetlands (inland ponds, marshes, etc.) (RIDEM Rule 6)...</u> RI DEM Chuck Horbert, Wetlands Supervisor, Water Resources

Phone: (401) 222- 4700, ext. 7402 Marty Wencek, Wetlands Supervisor, Water Resources Phone: (401) 222- 4700, ext. 7403

When Animal Health has been or might be Affected

State Veterinarian Scott Marshall, RI State Veterinarian, DEM Division of Agriculture (401) 222-2781, ext. 4503 *After Hours:* (401) 222-3070

USDA-APHIS Veterinary Services New England Regional Office, Sutton, MA (508) 363-2272 National Hotline (USDA) (866) 536-7593

When a Culturally Significant Site has been or might be Affected

Anyone whose actions affect a site of archeological, cultural, or historical significance in Rhode Island is required to consult The State of RI Historical Preservation and Heritage Commission (RIHPHC). Likewise, activities that affect properties of traditional religious and cultural importance to the Narragansett Indian Tribe must consult the Narragansett Indian Tribal Historic Preservation Office (NITHPO).



Office of Emergency Response

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RI Historical Preservation and Heritage Commission (RIHPHC) J. Paul Loether, RIPHPHC Executive Director (401) 222-4130, or fax: (401) 222-2968 Jeff Emidy, RIHPHC Project Review Coordinator (401) 222-4134 Timothy Ives, State Archeologist (401) 222-4139 Narragansett Indian Tribe Historic Preservation Office (NITHPC) John Brown, Preservation Officer (401) 539-1190 Tribal Government Stanley Bailey, Environmental Assistant (401) 364-1100, ext. 227 **Dinalyn Spears, Director, Planning & Natural Resources** (401) 364-1100, ext. 210 Anthony Dean Stanton, Chief Sachem (401) 364-1100, ext. 203

Locating Heritage Sites

RIGIS posts geographic data (albeit several years old) on such sites at the followinglink:http://www.rigis.org/ – They include...

- Archeological Sites (distribution restricted)
- Historic Districts and Properties on National Register of Historic Places
- Sites and Monuments on National Register of Historic Places
- Districts, Properties, Buildings, and Monuments that are historically significant but not on the National Register of Historic Places

Since both registered and eligible sites require consultation, the age of digitized records may be acceptable. For security purposes, archeological GIS data are both low-resolution (20-acre grid) and limited in access. For access, contact Christina Delage Baza at **(401) 222-6481**, or RIHPHC at **(401) 222-2678**.

Since it is the most frequent user and contributor to data on heritage sites, the Department of Transportation (DOT) is working with RIHPHC to update and digitize records for GIS. In the meantime, for help in using data on these sites or field experience with them, contact:

Mike Hebert

(401) 222- 6935, ext. 4040, or fax: (401) 222-2207 Barry Simpson (401) 222- 6935, ext. 4056



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235 Promenade Street, Suite 438, Providence, RI 02908-5767

When Response May Require Support for Debris or Waste Disposal

Rhode Island Resource Recovery Corporation (RIRRC) Brian Card, Landfill Manager (401) 942-1430, ext. 140

When an Incident Poses an Economic Emergency

When an incident threatens the survival of RI businesses, the **Rhode Island Commerce Corporation (Commerce RI)** can expedite the delivery of emergency economic services (small business loans, unemployment compensation, food stamps for fishing or tourism operations near an oil spill, etc.). Commerce RI is prepared to coordinate these efforts with the RI Department of Labor and Training and the Department of Health and Human Services. Through the Rhode Island Tourism Division, Commerce RI can also help find hotel rooms for visiting responders.

Commerce RI – **(401) 278-9100**, or fax: **(401) 273-8270** Jessie Saglio, President Lisa Lasky, Chief Financial Officer Stefan Pryor, Secretary of Commerce Bill Ash, Managing Director of Financial Services

DEM Emergency Communications

DEM Office of Law Enforcement (401) 222-3070

Office of the Governor

Brett Smiley, Chief of Staff (401) 222-8060 Gary McCarrahen, Senior Advisor for Public Safety (240) 449-9378



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2.2 – Support for Emergency Responders

- In securing the site, contact the police department of the jurisdiction (see contact information under "Rhode Island Police Departments").
- In suppressing or preventing fire, contact the fire department of the jurisdiction (see contact information under "Rhode Island Fire Departments").
- In dealing with potential explosives, contact the state Fire Marshall.
 (401) 889-5555
- In dealing with radiological hazards, contact the RI EMA (401) 946-9996
- If incident also entails transport of waste or scrap, contact RIDOH (401) 222-5960

Federal Contacts

```
Animal and Plant Health Inspection Services (APHIS)
      Emergency: (800) 940-6524
Center for Disease Control (CDC)
      Emergency: (770) 488-7100
      Information: (800) 232-4636
Agency for Toxic Substance and Disease Registry (ATSDR)
      Emergency: (770) 488-7100
      Information: (800) 232-4636
CDC Regional Poison Control Center
      Emergency: (800) 222-1222
Department of Energy
      Radiological Rapid Response Assistance Program (RAP)
             (202) 586-8100
      Regional RAP
             (631) 344-2200
Diver's Alert Network
      (919) 684-9111
Federal Bureau of Investigation
      Boston Office
             (617) 742-5533
      Providence Office
             (401) 709-5000
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Federal Emergency Management Agency **Regional Operations Center, MA** (978) 461-5400 Rhode Island Coordinator (978) 461-5402 Food and Drug Administration (FDA) *Emergency:* (301) 443-1240 National Clinicians Post-Exposure Prophylaxis Hotline (888) 448-4911 National Response Center (800) 424-8802 Office of Emergency Management, DHHS https://www.phe.gov/preparedness/Pages/contactus.aspx Public Health Service (PHS) – Region 1, Boston John McGough, Director (617) 565-1500

Rhode Island Local Police Departments				
City or Town	Emergency #	Non-Emergency #	Fax #	
Barrington		(401) 437-3930	(401) 437-3939	
Block Island	(401) 466-3220		(401) 466-3228	
Bristol		(401) 253-6900	(401) 253-1540	
Burrillville	(401) 568-6255		(401) 568-9499	
Central Falls		(401) 727-7411	(401) 725-4211	
Charlestown	(401) 364-1212		(401) 364-1232	
Coventry		(401) 826-1100	(401) 826-3419	
Cranston	(401) 942-2211		(401) 944-3370	
Cumberland		(401) 333-2500	(401) 334-4855	
East Greenwich		(401) 884-2244	(401) 886-8653	
East Providence		(401) 425 7600	(401) 431-2320	
		(401) 435-7600	(401) 435-7609	
Foster		(401) 397-3317	(401) 397-8731	
Glocester		(401) 568-2533	(401) 568-3280	
Hopkinton		(401) 377-7750	(401) 377-7755	
Jamestown		(401) 423-1212	(401) 423-3710	
Johnston	(401) 231-8100		(401) 231-9650	
Lincoln	(401) 333-1111	(401) 333-8281	(401) 334-4244	
Little Compton	(401) 635-2311		(401) 635-8782	
Middletown	(401) 846-1144, ext. 7076		(401) 846-0175	
Narragansett		(401) 789-1091	(401) 789-8819	



Office of Emergency Response

Narragansett Tribal	(401) 364-1107, ext. 236		
Navy Base		(401) 841-3241	(401) 041 2120
NETC PD		(401) 841-3242	(401) 841-3120
Newport	(401) 847-1212	(401) 847-1306	(401) 847-5598
North Providence		(401) 231-4533	(401) 233-1438
North Kingstown	(401) 294-3311	(401) 294-3316	(401) 294-6830
North Smithfield	(401) 762-1212		(401) 766-9412
Pawtucket	(401) 726-3911	(401) 727-9100	(401) 727-9133
Portsmouth		(401) 683-0300	Records: (401) 683- 0301
Providence		(401) 272-3121	Chief: (401) 243-6401
Prudence Island		(401) 683-0300	
Richmond		(401) 539-8292	(401) 539-8293
Scituate		(401) 821-5900	(401) 823-7140
Smithfield		(401) 231-2500	(401) 231-1641
South Kingstown	(401) 783-3321		(401) 788-9775
Tiverton		(401) 625-6717	(401) 624-1750
Warren		(401) 245-1311	(401) 245-8220
Warwick		(401) 468-4200	(401) 468-4358
Westerly		(401) 596-2022	(401) 596-7501
West Greenwich		(401) 397-7191	(401) 397-6890
West Warwick		(401) 821-4323	(401) 822-4898
Woonsocket		(401) 766-1212	(401) 766-8897
R	hode Island State Polic	e Department Headqu	arters
Scituate	(401) 444-1000		(401) 444-1133
Block Island	(401) 466-5656		
Chanachat	(401) 444-1065		
Chepachet	(401) 444-1111		
Evotor	(401) 294-7377		
Exeter	(401) 539-2323		
Hone Valley	(101) 111 1060		(401) 539-2326
nope valley	(401) 444-1000		(401) 539-2411
Lincoln	(401) 444-1100		(401) 722-0490
Portsmouth	(401) 444-1066		(401) 849-4446
	(401) 444-1088		
Wickford	(401) 444-1064		(401) 295-7240
	(401) 294-3371		
T.F. Green Airport	(401) 732-5327		



Rhode Island Local Fire Departments			
City or Town	Phone Number	Fax Number	
Barrington FD	(401) 437-3930	(401) 437-3943	
Bristol FD	(401) 253-6912	(401) 253-6610	
Harrisville FD	(401) 568-2224	(401) 568-9969	
Nasonville FD	(401) 568-5020		
Oakland Mapleville FD	(401) 568-5720	(401) 568-3126	
	(401) 568-4920	(401) 568-6390	
Pascoag FD	(401) 568-4470	(401) 568-4255	
Central Falls FD	(401) 727-7446		
Charlestown/ Richmond	(401) 2(4,0000		
Station	(401) 364-9909		
Charlestown - Cross Mills			
Station	(401) 364-6511		
Central Coventry FD	(401) 825-7800		
Coventry FD - HQ	(401) 821-3456		
Coventry - Anthony FD	(401) 821-3141		
Coventry - Harris FD	Currently closed		
Coventry - Hopkins Hill FD	(401) 821-6866		
Coventry - Tiogue FD	(401) 825-7800		
Coventry - Washington FD	Currently closed		
Cranston FD	(401) 461-5000		
Cumberland FD	(401) 658-0544	(401) 658-2198	
Cumberland Hill FD	Same as above		
North Cumberland FD	(401) 333-2244		
Valley Falls FD	(401) 722-5992		
East Providence FD	(401) 435-7677		
Exeter FD	(401) 295-3173		
Foster Center Volunteer FD	(401) 397-3404		
Potterville FD	(401) 647-4392		
Chepachet Fire Dept.	(401) 568-5200	(401) 568-6100	
Harmony Fire Dept.	(401) 949-1188	(401) 949-1210	
W. Glocester Fire & Rescue	(401) 568-2422	(401) 710-9932	
Ashaway Volunteer Fire	(401) 377-4549		
Hope Valley/ Wyoming FD	(401) 539-2229		
Jamestown FD	(401) 423-0062		
Johnston FD	(401) 351-1600	(401) 454-3474	
Albion FD	(401) 333-1242	(401) 333-1384	
Lime Rock FD	(401) 334-2131		
Lonsdale FD	(401) 725-8125	(401) 725-7131	
Saylesville FD	(401) 726-5890		
Quinville FD	(401) 333-0081		



Office of Emergency Response

Little Compton FD	(401) 635-2323	
Newport FD	(401) 845-5900	
Chopmist Hill FD.	(401) 647-2000	
N. Scituate FD #1	(401) 647-9298	
Primrose FD	(401) 762-9115	
Pawtucket FD	(401) 725-2331	
Portsmouth FD	(401) 683-1200	
Providence FD	(401) 274-3348	
Quonset FD	(401) 267-3300	
Richmond/ Carolina FD	(401) 213-6595	
RI Div. Of Fire Safety	(401) 889-5555	(401) 889-5533
T.F. Green Airport Fire/	Airport Police: (401) 737-	
Rescue	7789	
Hope-Jackson FD	(401) 828-6460	
Smithfield FD	(401) 949-1330	(401) 949-1192
Union FD	(401) 789-8354	
Tiverton FD	(401) 625-6707	
Warren FD	(401) 588-3020	
Westerly FD	(401) 596-0402	
Western Coventry FD	(401) 397-7520	
Dunn's Corner FD	(401) 322-0577	
Warwick FD	(401) 468-4000	
Watch Hill FD	(401) 348-8932	
West Greenwich FD	(401) 397-7484	
West Greenwich – Hianloland	(401) 207 7910	
FD	(401) 397-7819	
West Greenwich - Lake Mishnock FD	(401) 397-7353	(401) 397-9030
West Warwick FD	(401) 822-9241	(401) 822-9265
Woonsocket FD	(401) 766-1234	

Hospitals in Rhode Island				
Hospital Name	Address	Services	Phone Number	
Butler Hospital	345 Blackstone Blvd. Providence, RI 02906	Psychiatric	(401) 455-6200	
Hasbro Children's Hospital	593 Eddy St. Providence, RI 02903	Medical, Surgical	(401) 444-4000	
Kent County Memorial	455 Tollgate Rd. Warwick, RI 02886	Medical, Surgical, Obstetrical	(401) 737-7000	
Landmark Medical Center	115 Cass Ave. Woonsocket, RI 02895	Medical, Surgical, Obstetrical	(401) 769-4100	
Miriam Hospital	164 Summit Ave. Providence, RI 02906	Medical, Surgical	(401) 793-2500	



Office of Emergency Response

Newport Hospital	20 Powel Ave. Newport, RI 02840	e. Medical, Surgical, 02840 Obstetrical	
Our Lady of Fatima Hospital	200 High Service Ave. North Providence, RI 02908	Medical, Surgical	(401) 456-3000
Providence VA Medical Center	830 Chalkstone Ave. Providence, RI 02908	Medical, Surgical	(401) 273-7100
Rehabilitation Hospital of RI	116 Eddie Dowling Hwy. North Smithfield, RI 02896	Rehabilitation	(401) 766-0800
Rhode Island Hospital	593 Eddy St. Pawtucket, RI 02903	Medical, Surgical	(401) 444-4000
Roger Williams Medical Center	825 Chalkstone Ave. Providence, RI 02908	Medical, Surgical	(401) 456-2000
Saint Anne's Hospital	795 Middle St. Fall River, MA 02721	Medical, Surgical	(508) 674-5600
South County Hospital	100 Kenyon Ave. Wakefield, RI 02879	Medical, Surgical, Obstetrical	(401) 782-8000
Sturdy Memorial Hospital	211 Park St. Attleboro MA 02703	Medical, Surgical	(508) 222-5200
Westerly Hospital	25 Wells St. Westerly, RI 02891	Medical, Surgical, Obstetrical	(401) 596-6000
Women & Infants Hospital of RI	101 Dudley St. Providence, RI 02905	Medical, Surgical, Obstetrical	(401) 274-1100

Walk-In Medical Clinics in Rhode Island			
Clinic Name	Address	Phone Number	
Atmed Treatment	1524 Atwood Ave. Suite 100 Johnston, RI	(401) 273-9400	
East Providence Medical Center	525 Taunton Ave. East Providence, RI	(401) 438-3170	
CharterCARE Medical Associates	466 Putnam Pike Unit 15 Smithfield, RI	(401) 949-2010	
Garden City Treatment Center	1150 Reservoir Ave. Suite 100 Cranston, RI	(401) 946-2400	
Harbour Medical Primary Care	1000 Division St. East Greenwich, RI	(401) 885-6636	
Metacom Medical Associates	639 Metacom Ave. Warren, RI	(401) 245-1500	
Newport County Med. Treatment Center	67 Valley Road Middletown, RI	(401) 847-4950	
North Providence Urgent Care	1830 Mineral Spring Ave. North Providence, RI	(401) 353-1999	
South County Walk-In & Primary Care	360 Kingstown Rd Ste 104 Narragansett, RI	(401) 789-1086	



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Ocean State Urgent Care - Cumberland	2140 Mendon Rd. Cumberland, RI	(401) 642-2072
Lincoln Urgent Care	3 Wake Robin Rd. Lincoln, RI	(401) 333-9595
Advanced Urgent Care of RI	100 Smithfield Ave. Pawtucket, RI	(401) 305-3333
Smithfield Urgent Care	400 Putnam Pike Smithfield, RI	(401) 757-6160
Ocean State Urgent Care of Warwick	1131 Warwick Ave. Warwick, RI	(401) 287-4440

Air Ambulances

Life Star – Hartford, CT (800) 221-2569 MED Flight – Boston, MA (800) 233-8998 New England Life Flight – Worcester, MA (800) 343-4354

Contract Laboratories

Analytical Lab Services, Rhode Island Multiple Award Master Price Agreement (MPA) #48, 12/1/2018 – 11/30/2023. For Guidance, call the Office of Land Revitalization and Sustainable Materials Management at **(401) 222-2797**. Purchase agreements are available online <u>HERE</u>:

Analytical Labs			
Contact Name Number Contact Name Numb			Number
Alpha Analytical Labo	(508) 898-	ESS Laboratory	(401) 461-
Alpha Allalytical Labs	9220		7181
Mignobas Laboratorias	(717) 651-	New England Testing	(888) 863-
MICIODAC LADOI atories	9700	Lab	8522
DI Analytical Laboratorias	(401) 737-	SGS North America	(201) 508-
Ki Allalyticai Laboratories	8500		3000

Contract Remediators

Hazardous Waste and Petroleum Related Emergencies. RI Multiple Award Master Price Agreement #118, 2/1/2019 – 9/30/2023. Purchase Agreements are available online <u>HERE</u>.



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Contractors			
Contact Name	Contact Number(s)		
A Barber Excavating	(401) 265-9392		
ACV Enviro	main: (800) 777-4557	MA office: (508) 872-5000	
Boston Green Company	(888) 338-2657		
Clean Harbors	main: (800) 645-8265	RI office: (401) 228-2435	
Global Remediation Services	(508) 828-1005		
N.E. Environmental & Consulting	(401) 232-3353		
Newton B. Washburn (NBW)	(401) 647-9606		
NRC Environmental Services	emergency: (800) 899- 4672	MA office: (508) 966-6000	
Western Oil	emergency: (800) 240- 5540	RI office: (401) 727-8600	

2.3 – Recommended Notifications for In-State

 Note that state and local official contacts are managed by the DEM Director of Communications, Gail Mastrati, who can be contacted at the following number: (401) 222-4700, ext. 2402

State and Local Officials			
Name	Position or Office	Phone Number	
Brett Smiley	Governor's Chief of Staff	(401) 222-2080	
Joshua Block	Governor's Press Office	(401) 222-2080	
Gary McCarraher	Senior Public Safety Advisor	(240) 449-9378	
Matthew Santacroce	Governor's Policy Office	(401) 222-2080	
Daniel McKee	Lieutenant Governor	(401) 222-2371	
Peter Neronha	Attorney General	(401) 274-4400	
Kristy dosReis	Attorney General's Press Office	(401) 222-4400, ext. 2234	
Nellie Gorbea	Secretary of State	(401) 222-2357	
	State Fire Marshall	(401) 889-5555	
	Department of Health	(401) 222-5960	
	CRMC (Coastal Resources	(401) 792 2270	
	Management Council)	(401) / 83-33/0	
Jacob Bissaillon – Assistant	Senate Majority Leader	(401) 222-3310	
Patricia L. McNeilly	Senate Minority Leader	(401) 222-2708	
Lynn DiPetrillo - Assistant	House Majority Leader/Speaker	(401) 222-2447	
Traci Barros	House Minority Leader	(401) 222-2259	
	Save The Bay	(401) 273-7153	



Office of Emergency Response

Media Contacts			
Media Name	Phone Number	Fax Number	
Associated Press	(202) 556-1927		
Providence Journal – General Number	(401) 277-7303		
Publisher – Peter Meyer	(401) 277-7046		
Kent County Daily Times	(401) 789-9744		
Newport Daily News	(401) 849-3300		
Pawtucket Times	(401) 722-4000		
Westerly Sun	(401) 348-1000		
Woonsocket Call	(401) 762-3000		
The Herald Times	(508) 676-8211		
Block Island Times	(401) 466-2222		
Chariho Times	(401) 789-9744		
Coventry Courier	(401) 789-9744		
Cranston Herald	(401) 732-3100	(401) 732-3110	
East Greenwich Pendulum	(401) 789-9744		
East Bay RI	(401) 424-9144		
Jamestown Press	(401) 423-3200	(401) 423-1661	
Johnston Sunrise	(401) 732-3100	(401) 732-3110	
Newport This Week	(401) 847-7766	(401) 846-4974	
The Independent	(401) 821-1818		
The Valley Breeze	(401) 334-9555		
Providence American	(401) 351-8860		
Providence Phoenix	(401) 273-0300		
The NK Standard Times	(401) 789-9744		
Sun Chronicle	(508) 222-7000		
Warwick Beacon	(401) 732-3100	(401) 732-3110	
WPRI Channel 12	(401) 228-1700		
WJAR Channel 10	(401) 455-9105		
WLNE Channel 6	(401) 453-8000		
WB56	(401) 247-4265		
WRNI	(401) 351-2800	(401) 351-0246	
WPRO	(401) 433-4200		
Boston Herald	(617) 426-3000		
Boston Globe	(617) 929-2000		

Rhode Island DEM Administrators			
Name	Division	Phone Number	Email
David Chopy	Compliance & Inspection	(401) 222-1360, ext. 7400	david.chopy@dem.ri.gov
Chris John	Compliance & Inspection	(401) 222-1360, ext. 7023	chris.john@dem.ri.gov



Office of Emergency Response

Warren Angell	Information Management	(401) 222-4700, ext. 2424	Warren.Angell@dem.ri.gov
Ken Ayars	Agriculture	(401) 222-2781, ext. 4500	ken.ayars@dem.ri.gov
Susan Kiernan	Water Resources	(401) 222-4700, ext. 7600	sue.kiernan@dem.ri.gov
Tee Jay Boudreau	Forest Environment	(401) 222-2445, ext. 2059	TeeJay.Boudreau@dem.ri.gov
Ron Gagnon	Technical & Customer Assistance	(401) 222-4700, ext. 7500	ron.gagnon@dem.ri.gov
Dean Hoxsie	Law Enforcement	(401) 222-2284	Dean.Hoxsie@dem.ri.gov
Leo Hellested	Land Revitalization and Sustainable Materials Management	(401) 222-4700, ext. 7502	leo.hellested@dem.ri.gov
David Kerins	Admin. Adjunction	(401) 222-4700, ext. 4800	david.kerins@dem.ri.gov
Angelo Liberti	Surface Water Protection	(401) 222-4700, ext. 7225	angelo.liberti@dem.ri.gov
Laurie Grandchamp	Air Resources	(401) 222-2808	laurie.grandchamp@dem.ri.g ov
Irene Godin	Human Resources	(401) 222-2774, ext. 4607	Irene.Godin@dem.ri.gov
Michael Healey	Public Affairs	(401) 222-4700, ext. 7273	Michael.Healey@dem.ri.gov
Mary Kay	Legal Services	(401) 222-4700, ext. 2304	mary.kay@dem.ri.gov
Dan Costa	Coastal Resources	(401) 782-4587	dan.costa@dem.ri.gov
Bob Stankelis	Sustainable Watersheds	(401) 222-4700, ext. 7519	Bob.Stankelis@dem.ri.gov
Jennifer Ogren	Parks & Recreation	(401) 667-6200	jennifer.ogren@dem.ri.gov
James Ball	Emergency Response	(401) 222-1360, ext. 7129	james.ball@dem.ri.gov
Jo-Anne Scorpio	Criminal Investigation	(401) 222-2985	jo-anne.scorpio@dem.ri.gov
Christine Dudley	Fish & Wildlife	(401) 789-0281	christine.dudley@dem.ri.gov
Megan DiPrete	Planning & Development	(401) 222-2776, ext. 4316	Megan.DiPrete@dem.ri.gov
Lisa Roccabello	Natural Resources	(401) 222-2771, ext. 2416	Lisa.Roccabello@dem.ri.gov
Alicia Good	Water Resources	(401) 222-4700, ext. 7200	alicia.good@dem.ri.gov
Terry Gray	Air, Waste & Compliance	(401) 222-4700, ext. 7100	terry.gray@dem.ri.gov
Suzanne Amerault	Assistant to the Director	(401) 222-4700, ext. 2409	Suzanne.Amerault@dem.ri.go v
Janet Coit	Director	(401) 222-4700, ext. 2409	janet.coit@dem.ri.gov



Office of Emergency Response

Harbor Masters			
Name	Location	Phone Number	
Brian Hunt	Barrington	(401) 437-3930	
Gregg Marsili	Bristol	(401) 253-1700	
Justin Vail	Charlestown	(401) 364-1212	
Ted Wescott	Cranston	(401) 450-5024	
James Cullen	East Greenwich	(401) 230-2245	
Bruce Dufresne	East Providence	(401) 639-8437	
Mark J. Campbell	Jamestown	(401) 423-4340	
Michael D. Massa	Little Compton	(401) 635-2311	
Steve Ponte	Middletown	(401) 842-6500, ext. 7081	
Kevin Connors	Narragansett	(401) 640-1038	
Steve Land	New Shoreham	(401) 466-3204	
Tim Mills	Newport	(401) 845-5815	
Jim Broccoli	North Kingstown	(401) 294-3316, ext. 8255	
Stephen Burns	Portsmouth	(401) 643-0137	
Kenneth Vinacco	Providence	(401) 243-6132	
Michael Stach	South Kingstown	(401) 641-0620	
Tyler Loomis	Tiverton	(401) 625-6708	
Edward J. Cabral Jr.	Warren	(401) 245-6341	
Jeff Barris	Warwick	(401) 921-9633	
Kimberlie Rayner-Russell	Westerly	(401) 714-4114	

Rhode Island Beaches			
Beach Name	Contact Name	Phone Number	
Block Island Beach	Toni Lemoine	(401) 466-2313	
Briggs Beach	N/A	(401) 635-4448	
Little Compton Town Beach	N/A	(401) 635-2096	
Middletown First Beach	N/A	(401) 845-5810	
Middletown Second Beach	Craig Schmidt	(401) 842-6522	
Narragansett Town Beach	Bill Eckert	(401) 783-6430	
Newport Easton's Beach	N/A	(401) 848-6491	
	Steve Wright	(401) 222-2632	
Scarborough State Beaches	Michael Hurley	(401) 789-8374	
	Ted Burke	(401) 322-8910	
Warren Point Beach	N/A	(401) 635-9501	



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Commercial Fishing Organizations			
Organization	Contact Name	Phone Number	
Atlantic Offshore Lobstermen's Association		(603) 828-9342	
Ocean State Aquaculture Association		(401) 783-3360	
Commercial Fishing Corporation of Rhode Island (CFCRI)	CFCRI main number \rightarrow Chris Brown \rightarrow Fred Mattera \rightarrow Shane Rooney \rightarrow	(401) 789-2412 (401) 874-4568 (401) 741-4178 (401) 316-0081	
Rhode Island Lobstermen's Association	Gregory Mataronas (Pres.) → Brian Thibeault (V.P.) →	(401) 595-4782 (401) 932-8250	

Environmental Organizations in Rhode Island

 Note that the following Rhode Island environmental organizations vary tremendously in focus and size. Most of the organizations would only be interested in incidents of a specific nature or area. Some of the organizations are also part of the Environmental Council of Rhode Island (ECRI), who can be contacted at (401) 621-8048.

Environmental Organizations			
Organization	Contact Name	Phone Number	
Rhode Island Lung Association	N/A	(401) 586-4872	
Audubon Society of RI	Eugenia S. Marks	(401) 949-5454	
Brown University Center for Environmental Studies	N/A	(401) 863-3449	
Clean Water Action	N/A	(401) 331-6972	
Rhode Island Association of Conservation Commissions	Dan Novak	http://www.riacc- online.org/?page_id=569	
Rhode Island Public Interest Research Group	Faye Park	(401) 608-1201	
Rhode Island Water Resources Board	Kathleen M. Crawley	(401) 780-2146	
Rhode Island Rivers Council	Veronica Berounsky	info@ririvers.org	
Save the Bay	N/A	(401) 273-7153	
U.S. EPA Region 1	N/A	(888) 372-7341	



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Other ECRI Members		
Organization	Contact Name	Phone Number
Aperion Foundation	Julia Dundof - Director	(603) 905-9915
Appalachian Mountain Club	N/A	(617) 523-0655
Aquidneck Island Land Trust	Charles Allott	(401) 849-2799
Childhood Lead Action Project	Laura Brion	(401) 785-1310, ext. 205
Coalition for Consumer Justice	N/A	(401) 944-9199
Common Fence Point	N/A	(401) 683-4549
Improvement Association		<pre>commonfencepoint@gmail.com</pre>
Coventry Conservation Commission	Russell S. Crossman	(401) 822-9184
Cumberland Conservation Commission	Joseph Luca	(401) 728-2400, ext. 142
Defenders of Greenwich Bay	Jack Early	(401) 965-6529
Dunn Foundation	Ted Stenger	(800) 839-1821
East Greenwich Land Trust	Lisa Bourbonnais	(401) 886-8645
Friends of India Point Park	David Bilow	(401) 521-7929
		info@IPPfriends.org
Friends of the National Wildlife Refuges of RI	Richard N. Thieke	(401) 364-9124, ext. 49
Grow Smart RI	Gail E. McCann	(401) 273-5711
National Wildlife Federation	Donald Hooper	(800) 822-9919
Norman Bird Sanctuary	Pat Galuska	(401) 846-2477
Pawtuxet River Authority	Robert J. Nero	(401) 615-7039 pra@pawtuxet.org
Green Energy Consumers Alliance	Larry Chretien	(800) 287-3950 hello@greenenergyconsumers.or g
RI Association of Railroad Passengers	Peter Brassard	http://www.riarp.org/contact
RI Federation of Garden Clubs	Deborah Ort	http://rigardenclubs.org/
RI Mobile Sportsfishermen	David Fontaine	(401) 256-5020
RI Recycles Club	Dennis Doyon	(401) 421-9500
RI Resource Conservation Development Council	Paul Dolan	(401) 500-0399
RI Tree Council	John Campanini	(401) 764-5885
RI Wild Plant Society	Dick Fisher	(401) 789-7497
SWCS of Southern NE	Megan Myers	(518) 669-5902
Southern RI Conservation District	Gina T. Fuller	(401) 500-0422
Westerly Land Trust	Jennifer Fusco	(401) 315-2610
Wood-Pawtucket Watershed Association	Christopher Fox	(401) 539-9017
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Section 3 Checklist of Emergency Response Issues



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Checklist for Emergency Response Issues

Section 3 Outline		
3.1	Site Control	
3.2	Priorities	
3.3	Emergency Support Functions (ESF) for All Hazards	
3.4	Assets for Support in Emergency Response	
3.4.1	DEM Staff and Roles for Incident Command	
3.4.2	Incident Command Structure for Emergency Response	
3.4.3	DEM Emergency Response Materials	
3.4.4	DEM Resources for Natural Resource Damage Assessment (NRDA)	
3.4.5	SSEER (Scientific Support for Environmental Emergency Response)	

3.1 - Site Control

The first act of the Incident Commander must be to establish control of the site. A site must be controlled for the protection of first responders and to exclude unnecessary personnel. The basic approach is to establish three distinct zones; the hot zone (*exclusion*), the warm zone (*contamination reduction*) and the cold zone (*support*).

• Hot Zone

The hot zone is the area where the actual incident occurred and contamination exists. All individuals entering the hot zone must wear the prescribed levels of personal protection and be decontaminated before leaving. Entry and exit check points will be established at the outer boundary of the hot zone to regulate the entry and exit of personnel and equipment. The outer boundary of the hot zone is initially established by visually surveying the immediate area and determining where the hazardous materials involved are located. Monitoring equipment may also be used to define the area.

• Warm Zone

The warm zone is the transitional area between the hot zone and the cold zone. This zone generally contains the decontamination area and access control points through which personnel and equipment enter and exit. Since this zone is less hazardous, personnel can wear lower levels of personal protection equipment.

• Cold Zone

The cold zone is the outermost part of the site and is considered non-contaminated. This is where the command post is located, along with support equipment. Normal work clothes





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are acceptable in this area. The command post should be situated upwind and upstream of the hot zone and should be easily accessible to highways or other transportation routes. The press is allowed in this zone.

The size and distances between the hot zone, warm zone, cold zone and the command post is based on conditions specific to each incident, the material involved and the judgment of the incident commander. The following criteria should be considered when establishing zone boundaries:

- Physical and topographical features of the site
- Weather conditions and wind direction
- Field measurements of air contaminants
- Air dispersion models of the chemical(s) involved
- Physical, chemical, toxicological, and other characteristics of the chemical(s) present
- Cleanup activities
- Potential for fire or explosion
- Adequate roads, power sources, and water

3.2 - Priorities

- 1. Protect human health and safety
 - a. Protect incident responders
 - b. Protect the public
 - c. Control all hazards in the material discharged, the equipment used, and the environments that are affected
- 2. Contain the release
 - a. Control the source and terminate the flow
 - b. Contain the spill
 - i. Boom deployment, dikes and dams, dispersants, etc.
- 3. Protect environmentally sensitive habitats and wildlife
 - a. Identify the habitats
 - b. Implement boom inlets
 - c. Rescue and further measures to protect wildlife
- 4. Protect economically significant areas
 - a. Recreational areas such as parks and beaches
 - b. Residential areas
 - c. Public areas such as marinas and hotels
- 5. Clean impacted areas



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- a. Physical recovery, chemical cleaners and bioremediation
- 6. Remediate impacted areas
 - a. Assess natural resources damage and rehabilitate
 - b. Recover costs

Important Inquisitions for Major Oil Spills

- What is the hazard (oil type, quantity, location, projected path)?
- Have the proper response authorities been notified?
 - Law enforcement hotline: (401) 222-3070 or (800) 498-1336
- What human and environmental resources are most at risk?
- Have citizens residing near the incident location been duly warned?
- What is the source of the spill?
- Who is the responsible party?
- What is being done to minimize damage?
- Who is coordinating emergency response and cleanup efforts?
- Should additional authorities be notified?
 - If so, consult the "Notifications" section of the Emergency Response Plan

3.3 - Emergency Support Functions (ESF) for All Hazards

<u>Source</u>: U.S. Department of Homeland Security National Response Plan, which can be found at the following link: <u>http://www.dhs.gov/xlibrary/assets/NRP_Brochure.pdf</u>

ESF #1 - Transportation

- Federal and civil transportation support
- Transportation safety
- Restoration and recovery of transportation infrastructure
- Movement restrictions
- Damage and impact assessment
- ESF #2 Communications
 - Coordination with telecommunications industry
 - Restoration and repair of telecommunications infrastructure
 - Protection, restoration, and sustainment of national cyber and information technology resources
- ESF #3 Public Works and Engineering
 - Infrastructure protection and emergency repair



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- Infrastructure restoration
- Engineering services, construction management
- Critical infrastructure liaison
- ESF #4 Firefighting
 - Firefighting activities on federal lands
 - Resource support to rural and urban firefighting operations
- ESF #5 Emergency Management
 - Coordination of incident management efforts
 - Issuance of mission assignments
 - Resource and human capital
 - Incident action planning
 - Financial management
- ESF #6 Mass Care, Housing, and Human Services
 - Mass care
 - Disaster housing
 - Human services
- ESF #7 Resource Support
 - Resource support (facility space, office equipment, contracting services, etc.)
- ESF #8 Public Health and Medical Service
 - Public health
 - Medical
 - Mental health services
 - Mortuary services
- ESF #9 Urban Search and Rescue
 - Life-saving assistance
 - Urban search and rescue
- ESF #10 Oil and Hazardous Materials Response
 - Oil and hazardous materials response (chemical, biological, radiological, etc.)
 - Environmental safety and short- and long-term cleanup
- ESF #11 Agriculture and Natural Resources
 - Nutrition assistance
 - Animal and plant disease and pest response
 - Food safety and security
 - Natural and cultural resources and historic properties protection and restoration
- ESF #12 Energy
 - Energy infrastructure assessment, repair, and restoration
 - Energy industry utilities coordination
 - Energy forecast



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ESF #13 - Public Safety and Security

- Facility and resource security
- Security planning and technical and resource assistance
- Support to access, traffic, and crowd control
- ESF #14 Long-Term Community Recovery and Mitigation
 - Social and economic community impact assessment
 - Long-term community recovery assistance to States, local governments, and the private sector
 - Mitigation analysis and program implementation

ESF #15 - External Affairs

- Emergency public information and protective action guidance
- Media and community relations
- Congressional and international affairs
- Tribal and insular affairs

3.4 – Assets for Support in Emergency Response

- 3.4.1 DEM Staff and Roles for Incident Command
- 3.4.2 Incident Command Structure for Emergency Response
- 3.4.3 DEM Emergency Response Materials
- 3.4.4 DEM Resources for Natural Resource Assessment
- 3.4.5 SSEER (Scientific Support for Environmental Emergency Response)

3.4.1 - DEM Staff and Roles for Incident Command

I. Incident Command

Contact: Chief of Emergency Response – James Ball, (401) 222-1360, ext. 7129

- a. Protect the safety of incident responders and the public
- b. Minimize efforts of the incident on the surrounding area
- c. Deploy resources efficiently (max effect, minimum cost)
- II. Command Staff
 - a. Safety Officer
 - i. Monitors safety of incident response
 - ii. Develops measures for ensuring the safety of assigned personnel
 - b. Liaison Officer



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- i. Maintains contact with other agencies assigned to the incident response
- c. Information Officer
- Contact: Chief Public Affairs Officer Michael Healey, (401) 222-4700, ext. 7273

Contact: Chief of Customer and Technical Assistance – Ron Gagnon, **(401) 222-4700, ext. 7500**

- i. Collect and synthesize information regarding the incident
- ii. Coordinate communication among incident responders
- iii. In cooperation with other responding agencies
- iv. Keeps the public, government officials and media outlets informed
- III. Operations Section
 - a. Compliance and Inspection
- Contact: Chief of Compliance and Inspection David Chopy, (401) 222-1360, ext. 7400
 - i. Field assessment
 - ii. Assess the impact of the incident on regulated and non-regulated facilities and dams
 - iii. Issue appropriate warnings for responders and the public
 - iv. Coordinate the handling of hazardous materials and waste, as well as the reestablishment of compliant facilities
 - b. Law Enforcement

Contact: Chief of Law Enforcement – Dean Hoxsie, (401) 222-2284

- i. Assess the impact of the incident on environmental law enforcement
- ii. Maintain order and communications within DEM
- iii. Provide logged 24-hour phone access to DEM with relays to the State Fire Marshall and the RI Emergency Management Agency (RI EMA)
- iv. Provide marine assets
- v. Secure boundaries of incident site and regulate traffic with cooperating agencies (U.S. Coast Guard, state police, etc.)
- c. Water Resources

Contact: Chief of Water Resources – Susan Kiernan, (401) 222-4700, ext. 7600

- i. Assess impact of incident on water quality
- ii. Issue appropriate warnings for responders and the public
- iii. Assist watershed, marine and groundwater recovery
- d. Fish and Wildlife
- Contact: Chief of Fish and Wildlife Christine Dudley, (401) 789-0281

Contact: Chief of Coastal Resources – Dan Costa, (401) 782-4587

- i. Identify sensitive fishing and wildlife areas
- ii. Assess impact of incident on fish and wildlife



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- iii. Issue appropriate warnings for responders and the public (suspend commercial fishing, prohibit boats from entering spill zone, etc.)
- iv. Minimize impacts on fish and wildlife (create barriers, tend to wildlife, etc.)
- v. Assist in restoring vitality of fish and wildlife resources
- e. Land Revitalization and Sustainable Materials Management

Contact: Chief of Land Revitalization and Sustainable Materials Management – Leo Hellested,

(401) 222-2797, ext. 7502

- i. Assess impact of incident on solid waste generation and disposal sites
- ii. Issue appropriate warnings for responders and the public
- iii. Issue permits or waivers for emergency waste handling
- iv. Coordinate the containment and disposal of sources of pollution
- v. Assist waste generation and disposal sites in reestablishing compliant operations
- f. Air Resources

Contact: Chief of Air Resources – Laurie Grandchamp, (401) 222-2808

- i. Assess impact of incident on air quality and regulated emissions
- ii. Issue appropriate warnings for responders and the public
- iii. Provide technical assistance in reestablishing compliant emissions
- g. Parks and Recreation and Forest Environments
- **Contact:** Chief of Parks and Recreation Jennifer Ogren, **(401)** 667-6200
- Contact: Chief of Forest Environment Tee Jay Boudreau, (401) 222-2445, ext. 2059
 - i. Assess impact of incident on state parks, forests and recreational facilities
 - ii. Identify sensitive areas on state property
 - iii. Issue appropriate warnings for responders and the public
 - iv. Secure all affected facilities
 - v. Participate in search and rescue
 - vi. Suppress wildland fires with cooperating agencies
 - vii. Secure, transport and properly dispose of debris
 - viii. Restore DEM properties and facilities for public use
 - h. Agriculture

Contact: Chief of Agriculture – Ken Ayars, (401) 222-2781, ext. 4500

- i. Assess impact of the incident on agriculture (loss of produce, potential outbreak of crop disease, etc.)
- ii. Monitor radioactivity in vegetation
- iii. Issue appropriate warnings for responders and the public



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- iv. Coordinate the evaluation, treatment, quarantine, or euthanasia and disposal of distressed livestock or tainted agricultural products
- v. Issue emergency licenses and institute procedures for pesticide application, farm pond construction or livestock transportation
- vi. Assist farmers in recovery
- IV. <u>Planning Section</u>
 - a. Resources Unit

Contact: Appropriate divisions of the Bureau of Natural Resources

- i. Assess and document any necessary resources (material, personnel, allied agencies, community volunteers, etc.)
- ii. Define optimal deployment strategies (acquisition, check-in, staging, assignment, rotation in and out of service, etc.)
- iii. Report to Operations on resource readiness
- b. Situation Unit

Contact: Chief of Compliance and Inspection – David Chopy, **(401) 222-1360, ext. 7400 Contact:** Chief of Land Revitalization and Sustainable Materials Management – Leo Hellested,

(401) 222-2797, ext. 7502

Contact: Chief of Agriculture – Ken Ayars, (401) 222-2781, ext. 4500

- i. Evaluate the incident and response functions
- ii. Identify human and environmental resources at risk
- iii. Support Operations in modulating response
- iv. Document situation status
- c. GIS Unit

Contact: Chief of Information Management – Warren Angell, **(401) 222-4700, ext. 2424**

- i. Coordinate the collection and synthesis of geographic information on environmental assets in the incident area, incident impacts and response
- ii. Supply Operations Section with mapping equipment and maps
- d. Demobilization Unit

Contact: Chief of Compliance and Inspection – David Chopy, **(401) 222-1360, ext. 7400 Contact:** Chief of Land Revitalization and Sustainable Materials Management – Leo Hellested,

(401) 222-2797, ext. 7502

Contact: Chief of Water Resources – Susan Kiernan, (401) 222-4700, ext. 7600

i. Evaluate long-range alternatives for securing or remediating the site of the incident



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- ii. Establish procedures for takin response resources and facilities out of service
- iii. Plan for cost recovery
- V. Logistics Section
 - a. Communication Unit

Contact: Chief of Law Enforcement – Dean Hoxsie, **(401) 222-2284**

Contact: Chief of Information Management – Warren Angell, (401) 222-4700, ext. 2424

- i. Implement protocols for optimal communications among responders
- ii. Acquire, assign and maintain equipment for responders to speak with or leave messages for each other
- iii. Coordinate the collection and sharing of information among cooperating agencies
- iv. Report regularly to Incident Command and Public Relations
- b. Supply Unit

Contact: Chief of Parks and Recreation – Jennifer Ogren, (401) 667-6200

- i. Acquire personnel and materials for operation
- ii. Coordinate purchase, employment, and contracting with Finance and Management services
- c. Facilities Unit

Contact: Chief of Planning and Development – Megan DiPrete, (401) 222-2776, ext. 4316

- i. Establish site(s) for incident response (command post, staging areas, etc.)
- ii. Coordinate selection of sites for collection, temporary storage, or disposal of incident waste
- d. Environmental Unit

VI. Finance and Administration Section

a. Human Resources Unit

Contact: Office of Human Resources – Irene Godin, (401) 222-2774, ext. 4607

- i. Engage personnel for incident response
- ii. Track and document the movement of personnel in and out of incident response
- iii. Coordinate emergency employment practices with the Management Services Unit
- b. Management Services Unit

Contact: Management Services Assistant Director – Adam Brusseau, **(401) 222-4700, ext. 4902**

i. Identify funds and expedite paperwork for incident response



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- ii. In consultation with cooperating agencies and the responsible party
- iii. Advise Operations Section on budget control
- iv. Coordinate the documenting of resources committed to the incident
- v. Analyze costs and prepare documents for recovering funds
- c. Legal Unit

Contact: Office of Criminal Investigation – Jo-Anne Scorpio, (401) 222-2985

Contact: Acting Executive Counsel of Legal Services – Mary Kay, (401) 222-4700, ext. 2304

- i. Collect evidence for potential prosecution of the responsible party
- ii. Represent DEM in legal proceedings (negotiating with and or prosecuting the responsible party, securing injunctions or restraining orders, etc.)



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<u>3.4.2 – Incident Command Structure for Emergency Response</u>





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<u>3.4.3 – DEM Emergency Response Materials</u>

Find a list of DEM Emergency Response Materials at: <u>http://www.dem.ri.gov/topics/erp/3_4_3.pdf</u>

<u>3.4.4 – DEM Resources for Natural Resource Damage Assessment (NRDA)</u>

This contact list is up to date as of August 6, 2020.

Name	Office/ Position	Office Phone # Cell Phone #	Area of Expertise
James Ball	Emergency Response Emergency Response Coordinator	(401) 222-1360, ext. 7129	Oil & Hazardous Materials Specialist, CAMEO Proficient
John Leo	Emergency Response	(401) 222-1360, ext. 7127	Oil & Hazardous Materials Specialist, Toxicology, Chemistry
David Dumsar	Emergency Response	(401) 222-1360, ext. 2031	Oil & Hazardous Materials Specialist, CAMEO Proficient
Jason Caswell	Emergency Response	(401) 222-1360, ext. 7504	Oil & Hazardous Materials Specialist, CAMEO Proficient
Andrew Palmer	Emergency Response	(401) 222-1360, ext. 7150	Oil & Hazardous Materials Specialist, CAMEO Proficient
Lynne DeBritto	Emergency Response	(401) 222-1360, ext. 7506	Documentation
Paul Jordan	Planning and Development Acting Deputy Chief	(401) 222-2776, ext. 4315	GIS Specialist
Conor McManus	Marine Fisheries Deputy Chief	(401) 423-1941	Marine Biology
Terry Gray	Environmental Protection Deputy Director	(401) 222-6677, ext. 2412	Chemical Engineering
Katherine Rodrigue	Marine Fisheries Principle Biologist	(401) 423-1944	Marine Biology
Jason McNamee	Bureau of Natural Resources Deputy Director	(401) 222-2771, ext. 2414	Marine Biology
Mark Dennen	Land Revitalization & Sustainable Materials Management Deputy Administrator	(401) 222-2797, ext. 7141	Medical Waste Expert
Scott Marshall	Agriculture State Public Health Veterinarian	(401) 222-2781, ext. 4503	Veterinary Expert
Angelo Liberti	Water Resources Administrator for Surface Water Protection	(401) 222-4700, ext. 7225	Fisheries Closure
William Patenaude	Water Resources Operations & Maintenance	(401) 222-4700, ext. 7264	Wastewater Treatment
Olney Knight	Forest Environment	(401) 539-1052	ICS Certified



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	Forester, Forest Fie Program	(401) 539-2356		
	Coordinator			
	RIDOH	(401) 222-7766		
Michael Byrns	Environmental Health Risk		Toxicology	
	Assessment Toxicologist	(030) / 10-0343		
Leonard Civiliana	Emergency Response	(401) 222-1360, ext.	Waathan	
Leonard Giunano	State Meteorologist	7041	weather	
Dulan Formaina	Fish and Wildlife	(401) 789-0281	Dialogy	
Dylan Ferreira	Senior Wildlife Biologist		blology	

<u>3.4.5 – SSEER (Scientific Support for Environmental Emergency Response)</u>

For the most recent information on SSEER, see: <u>https://ci.uri.edu/ventures/sseer/</u>

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Section 4 Policies and Standard Procedures for Emergency Responders



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Policies and Standard Procedures for Emergency Responders

Section 4 Outline		
4.1	Office of Emergency Response Procedures	
4.2	Forms	
4.3	Guide to Radio Communications Standards	

4.1 – Office of Emergency Response Procedures

Duties of the Emergency Response Administrator

- The Office of Emergency Response is responsible for the direction and oversight of the DEM Emergency Response Program.
- The Office of Emergency Response will designate a responder(s) for emergency call back 24 hours a day, 7 days a week.
- The Office of Emergency Response is responsible for tracking and maintaining records on all incidents to which there is a DEM Emergency Response.
- The Office of Emergency Response will, insofar as possible, seek reimbursement for response costs.
- The Office of Emergency Response will assist the Office of Human Resources as necessary in coordinating personnel actions (promotions, disciplinary actions, etc.).
- The Office of Emergency Response will coordinate training of Emergency Response staff and relay training and medical monitoring information to the Office of Human Resources.
- The Office of Emergency Response will provide to the Director of DEM a budget for the operation of the Emergency Response Program.
- The Office of Emergency Response will provide response supplies and safety equipment to DEM emergency responders.
- The Office of Emergency Response will manage emergency response contracts and grants.
- The Office of Emergency Response will serve as the contact for any incident that may require notification of other divisions or offices of DEM.
- The Office of Emergency Response will inform the Director of DEM of any significant events that occur in Rhode Island. Unless directed otherwise, this information will flow through the normal chain of command.



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Defining Significant Events

- Any moderate or major coastal pollution incident, or any potential moderate or major coastal pollution incident.
- Any category 3 or 4 hazardous material inland incident, or potential category 3 or 4 hazardous material inland incident (see Section 1.3).
- Any oil or hazardous material incident, regardless of location in Rhode Island, that results in a loss of life or causes injuries to a significant populace.
- Any incident that generates significant media attention or political interest.

DEM Emergency Response On-Call Function

DEM Emergency Response Staff are on-call to provide rapid field response as needed and to provide technical assistance to other first responders as requested. To assure that response is rapid, staff will be available on an on-call basis during both working and non-working hours. This includes weeknights, weekends, and holidays, 24 hours a day, 7 days a week. At the discretion of the Emergency Response Administrator, on-call staff may also be composed of personnel from outside the Office of Emergency Response.

Requirements of Emergency Response Staff and On-Call Responsibilities

- DEM requires that all ER staff keep their pagers and cell phones activated and available for need-to-know communications. This does not imply that there are any restrictions on personal travel, activities, or actions by the individuals.
- At least one person on ER staff will be designated the primary on-call responder outside of normal working hours.
- The primary on-call individual will keep a pager and cell phone activated and available. The pager and cell phone shall never be turned off or placed out of hearing range.
- The primary on-call individual will remain within call-back range (inside or within a half-hour drive of Rhode Island) at all times or arrange for the transfer of on-call duty.
- If paged, a call back is expected immediately and required within fifteen (15) minutes. The individual's on-call may be subject to audits to ensure they are in compliance with the call back requirements.
- All on-call individuals must have ready access to a telephone. On-call individuals shall have their assigned cellular telephone and a phone card immediately available at all times.



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- The on-call individual shall have at a minimum the on-call schedule, a telephone directory, and appropriate reference materials immediately available at all times.
- The on-call individual will gather and assess all pertinent information concerning the incident from the dispatcher.
- Individuals serving as primary for on-call duty will not consume alcohol, take any controlled substances or take any medication that will impair his or her physical or mental abilities. If on-call individuals become sick to the point where they cannot continue on-call duty, they will report that condition immediately to the Emergency Response Administrator or his or her designee.
- The on-call individual must maintain personal readiness to respond to emergency situations and incidents with their assigned PPE and the appropriately equipped DEM response vehicle.
- Response mobilization is expected immediately. The actual response must begin no later than thirty (30) minutes after receiving the request for assistance. This will require on-call individuals to have immediate access to the response vehicle or to carry their response gear and reference materials in their personal vehicle during their on-call period. If the on-call individual becomes unable to respond, the on-call individual shall immediately notify the DEM Emergency Response Administrator or his or her designee.
- On-call individuals cannot take personal sick leave and still remain on-call. If the oncall individual is off-work due to personal or family illness or injury at the end of his or her workday and takes sick leave, the employee cannot be on-call that evening. The on-call individual must obtain prior approval from his or her supervisor to return to on-call duty.
- All on-call individuals must complete the training and medical monitoring requirements as specified in the *RI DEM Respirator Policy and Program*.
- Failure to adhere to the above on-call requirements or violation of these requirements may subject the individual to disciplinary action and removal from the ER team.

On-Call Scheduling

• By the first working day of every month, the Emergency Response Administrator or his or her designee will develop an On-Call Schedule for the month. Copies will be distributed to ER Staff, to the Director's Office, and to the DEM Division of Law Enforcement.



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- Staff members who are unable to meet scheduled on-call responsibilities must inform the ER Administrator or his or her designee as soon as possible, certainly no later than 48 hours before those responsibilities were scheduled to begin.
- If a member of the Emergency Response staff takes on-call duty for another person, that change must be (in advanced):
 - Reported to the Emergency Response Administrator or his or her designee
 - Reported to the Division of Law Enforcement
 - Recorded in a revised On-Call Schedule
- Disciplinary actions for the failure to meet any of the on-call requirements will be in accordance with State policies and or union contract provisions.

Emergency Call-In Premium Pay

When called in to report for work after having left their DEM workplace and outside their regular scheduled hours, DEM employees who are union members shall be compensated pursuant to union contract provisions. If their return to DEM duty exceeds four hours, they will receive pay for the actual hours worked – figured from the time they responded to the call to the time they were relieved of duty, portal to portal. These hours (Exception Code 404) must be reported on the appropriate time sheet.

Authorized Overtime

The Emergency Response Administrator or his or her designee may direct a member of the Emergency Response staff to work beyond scheduled hours. This implies staying on-site late or arriving early, resulting in total hours that exceed full-time (7 hours per day and 35 hours per week). Authorized overtime hours must be reported on the appropriate time sheet.

Communications

- ER personnel are responsible for regularly reporting their location and the incident status to the ER Administrator or his or her designee.
- A pager and cell phone shall be available to all ER personnel and on-call team members.
- Since all ER staff may be called at any time, regardless of on-call schedules, the pager and cell phone should be available and activated at all times, unless the person is traveling in excess of 3-hours driving time from the state of Rhode Island.
- At all times during the workday, ER staff shall carry activated cell phones.
- During off hours, cell phones may be placed on charger but must be left on.



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- When using a cell phone in direct connection (radio) mode, ER staff shall use established radio communication standards. (See appended "Guide to Radio Communications Standards for DEM Emergency Responders").
- ER staff may be assigned phone cards for use if conventional landline communication is necessary.
- Personnel are responsible for the proper use of assigned communication equipment and for keeping it in good working condition.

Case Tracking

- The ER computer system will assign a case number to each incident, once it is logged in. Case numbers are formatted in eight digits (______). The first four digits represent the calendar year, and the last four digits represent the order of the incident (beginning with 0001 and so forth). ER personnel are responsible for tracking incidents by this case number.
- Case numbers are specific to an incident. Two separate incidents occurring at the same location will be assigned two separate case numbers. If the incident is an extension of a previous incident, then the case will be considered the same. If the incident is at the same location but a different situation exists (one that is not related to the previous incident) the incident would receive a new case number.
- Case numbers will be entered on all documents attached to an incident. Unless otherwise specified, case numbers will always be entered at the top of the first page of forms or maps. Photographs will have the case number, date, and location entered on the back.

Emergency Response Attire

When they arrive at the scene of an incident, ER staff should dress in a way that:

- Identifies them as DEM employees
- Promotes a professional appearance
- Contributes to personal safety

Such attire is appropriate during field responses, outreach, and training programs. Otherwise, personnel should dress appropriately for the office and for meetings.

DEM identification badges are provided to ER staff. They are to be used for purposes of identification at the scene of an incident. Badges shall be used for official DEM business only.

- The badge may be displayed during a response or in the office.
- Do not wear the badge while off-duty.
- Do not use the badge to obtain special favors.



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- Although ER staff are not sworn officers and unarmed, they may be mistaken for law enforcement officers. Therefore, the ER badge should not be worn when entering public places, such as banks or stores.
- Since the badge is assigned to a position (vs. person), employees leaving ER or moving to other offices (upgrades or transfers) will turn the badge in to the Emergency Response Administrator or to the Office of Human Resources.

Emergency Response Vehicles

ER on-call team members are assigned vehicles. They may be subject to emergency call back from their residence at any time. Each ER employee is also subject to DEM policies on ER vehicles:

- Persons assigned a vehicle must acknowledge that they have read, understand, and will follow DEM policies on ER vehicles.
- Red and white emergency lights, siren, and radios will be installed only with the approval of the ER Administrator.
- ER staff may refuel ER vehicles at state fuel stations. Refueling at any other site will be at the staff member's own expense.
- Only State-authorized bumper stickers, tags, or signs may be displayed on DEM vehicles.
- Response equipment will be kept organized and periodically re-supplied. For sport/utility type vehicles, equipment must be secured to prevent shifting that may injure the driver during operation of the vehicle.
- The person assigned the vehicle is responsible for maintenance.
- Vehicles shall be kept clean and neat in appearance.

<u>Vehicle Use</u>

- ER employees will follow posted speed limits.
- Red lights and siren normally will not be used while traveling to the incident. Red light and siren usage is only to assist the SOSC to gain access through blocked or stalled traffic and to increase visibility along highways.

Vehicle Equipment

Each DEM response vehicle will be maintained with a supply of tools, sampling equipment, monitoring equipment, sorbents, empty containers, PPE, and expendables. ER staff are expected to customize their equipment supplies based on their responsibilities and level of



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training. As a base equipment list, each DEM response vehicle will typically contain at least the following:

- Hand Tools
 - Steel Round-Point Shovel
 - Non-Sparking Square-Point Shovel
 - Shop Broom
 - Non-Sparking Bung Wrench
 - Drum Up-Ender
 - Socket Wrench with 15/16 Inch Socket
- Absorbents and Neutralizers
 - Loose Oil Absorbent clay or similar product
 - Acid/Base Neutralizer
 - Sorbents pad and boom types
 - Sampling Equipment
 - Stainless Steel Scoop/Spoon
 - Hand Auger bucket-head type
 - Stainless Steel Pan/Bucket
 - Glass Sampling Rods
 - Pipettes and Droppers
 - Stainless Steel or Polypropylene Dipper
 - Wide-Mouth Glass Jars 8, 16, and 32 ounces
 - Labels for Sample Jars
 - 40 ml VOC Vials
 - Cooler
 - Field Testing Equipment
- Safety Equipment
 - Appropriate PPE and Respiratory Protection
 - Escape Pack (if necessary)
 - First Aid Kit
 - Traffic Safety Vest
- Miscellaneous
 - Various Tapes (barrier, evidence, duct, etc.)
 - Empty Containers (to overpack other containers or materials)
 - Extra Drum Bungs
 - Fire Extinguisher
 - Non-Sparking Flashlight
 - Camera



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- GPS Unit
- Binoculars
- Map of the State
- Rain Gear
- Visqueen
- Traffic Cones
- Bug Spray and Sunscreen
- Paper Towels
- Permanent Marker Pens
- HazMat References and DEM ER Forms
- Various Disposable Bags (Trash, Ziplock, etc.)
- Jumper Cables or Charger
- Measuring Tape

Due to contamination concerns, responders normally should not carry pre-cleaned sample jars, pre-cleaned sampling equipment, or pre-cleaned tools with them in the response vehicles. All pre-cleaned supplies should be obtained as needed from a contract lab or a secure storage area.

Media Management

Public understanding of how well an incident is being handled will depend on information that news media provide. Since ER personnel, sooner or later, will have to speak to the media, this section is to assist them with media relations.

ER responders are authorized to speak with the media only about incidents in which they are directly involved. Staff may also direct inquiries from the public to the DEM Office of Technical and Customer Assistance. It provides public-information support through the RI DEM site and pamphlets (chiefly introductions to various DEM divisions and policies on select functions, such as licenses and permits, wildlife and forest management, boating and seafood safety, agricultural marketing, fishing regulations, etc.)

DEM Communications Office

All contacts with news media should be promptly reported to the DEM Communications Office. The primary responsibility of the Communications Office is planning, coordinating and tracking all news media contacts. This will ensure the SOSC presents a message that is accurate and consistent with DEM's stance on the issue or event. The following are some



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additional policy points the DEM Communications Office expects Emergency Responders to follow:

- Notify the Communications Office immediately of any incident or situation that involves DEM ER and that is or may become news worthy. This includes events that interest politicians (e.g., involving a local plant or employer), events that have been news media favorites in the past (oiled birds washing ashore), or events where a group of citizens are alleging health problems related to the event (nuisance landfills).
- Although the Communications Office may send a person to assist the SOSC with media relations during a high-profile event, the SOSC will still be expected to give live interviews to the news media.
- Prior to release to the news media, all non-emergency written news releases, advisories, or fact sheets must be reviewed by the Communications Office. The material should be submitted at least eight (8) work hours prior to the anticipated release. The Communications Office can also help with distribution.
- Any inquiries from the news media that the SOSC cannot handle must be referred to the Communications Office.

The DEM Communications Office will not relieve the SOSC from talking with the news media, but they can assist the SOSC with presenting a professional and informative picture of the event.

Guidelines for Media Relations

Developing effective media coverage requires a coordinated public information plan and people who are available, knowledgeable, and skilled in communication.

- Be cooperative with the news media. Make yourself available, do not hide or evade, and never distort the truth. Return telephone calls promptly.
- Whenever possible, prepare for a news media interview. Brush up on the facts.
- Avoid acronyms, abbreviations or technical jargon. Remember: Your audience is going to be the general public, not first responders or scientists. Use plain language that everyone is apt to know.
- Stick to the facts and issues that are the responsibility of DEM ER. Refer other issues to the appropriate person/agency. It is best to have a spokesperson for each entity present at the incident to answer questions. For example, health



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effects should be referred to the Health Department; fire-fighting issues should be referred to the Fire Department or Fire Marshal, etc.

- Try to determine the reporter's aim. Is the reporter friendly, neutral, or adversarial?
- Never say "No comment" or provide evasive answers. If you cannot answer a question, explain why or, if appropriate, tell them you don't know.
- Don't discuss insurance or liability issues. Don't speculate as to the cause of the event unless you are absolutely positive, and don't exaggerate.
- Misquoting is a common problem for many persons. Organize your thoughts before you talk and speak slowly and distinctly.

Completion of Forms

The proper completion of DEM forms and reports is essential and may even impact the outcome of an administrative hearing, civil action or criminal case. The following policies apply for completing forms and reports:

- All fields in the forms shall be completed. In any field that does not apply, write "N/A "or draw a line drawn through the field. If something is unknown, identify it as unknown.
- Identify latitude and longitude.
- Get the name of the actual individual reporting the incident. Be sure also to get an affiliation and telephone number in case we need to call back for additional information. If notification of DEM ER comes through the DEM Division of Law Enforcement, keep a copy of the DLE log and mark "DLE" as the source.
- Complete as much information as possible about the responsible party. As a minimum, get the company name, address, contact name, and telephone number. If you talk to the responsible party, ask for their insurance company name, telephone number, and policy number, if applicable.
- If the incident involves a vehicle, record the driver's name and license number, the plate number, VIN number, and make of the vehicle. If a vessel, get the vessel registration number and name.
- In narratives and reports:
 - Be clear and concise.
 - Focus on who did what, where, when, and why and on how events unfolded.
 - Write in the first person.
 - Write in the past tense.
 - Cover events in the order in which they happened. Do not shift from present to past or past to present.



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- Write in the active rather than passive voice.
- Write in a dispassionate, straightforward, objective voice.
- Feature specific facts and details, especially those that might be the basis for a generalization. Avoid speculative, figurative, personal, or unattributed generalizations.
- Use military time.
- When a FOSC is notified, identify the agency (USCG or EPA), the Coordinator's name and rank or title, the NRC report number, date reported, time reported, and the FOSC response.
- Do not abbreviate words or titles unless the abbreviation is known to the majority of people, such as "U.S.A." or "etc."
- Every incident needs a resolution.
- Maps from the Internet assist with identifying the exact location of an incident and its characteristics. See:

DEM maps at: <u>http://www.state.ri.us/dem/maps/index.htm</u> Oil Spill Planning and Response at: <u>http://zog.doa.state.ri.us/ospar_detail.htm</u> RIGIS data at: <u>http://www.edc.uri.edu/rigis-spf/rigis.html</u>

- Attach accident reports or any other documents that pertain to the incident.
- If the incident is over and there will be no more entries or action, print in capital letters, "NO FURTHER ACTION."
- To assure legibility, all forms must be completed on a computer.
- Always proofread the form and/or report before submittal.

Reimbursement of Expenses

The DEM is required to seek reimbursement for all expenses incurred during an emergency response. DEM is also authorized to take appropriate enforcement action to recover those costs. Cost recovery is normally the responsibility of office rather than field personnel. DEM will seek reimbursement from one of two sources: directly from the responsible party or from the federal government.

Responsible Party Reimbursement

DEM will normally recover all ER costs and expenses from the responsible party. Costs and expenses may include the following (see *Investigation Expense Report* form):



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- Personnel wages when beyond regular working hours (authorized overtime or call-in). Wages are calculated by multiplying the hourly base rate (including benefits) for the applicable position times the number of hours on site.
- Equipment usage. The Master Price Agreement has established rates for various pieces of equipment and expendables.
- Vehicle mileage.
- Photography.
- State contractor costs.
- Laboratory analysis.
- Telephone calls and Faxes.
- NRDA costs.

The Office of ER may decline to pursue cost recovery if it finds the amount involved too small or the likelihood of recovery too uncertain. Generally, it is ER's policy not to pursue reimbursement of amounts under \$200 for inland incidents. For incidents impacting Rhode Island waters, DEM is normally required to seek cost recovery, regardless of the amount.

The Process:

- DEM incurs costs from response and cleanup actions.
- An agency letter signed by the DEM ER Administrator is mailed to the responsible party requesting reimbursement to the Department.
- The responsible party at this point has three options:
 - 1. Pay DEM, in which case the process is terminated.
 - 2. Write the Department and request a hearing in accordance with the administrative rules.
 - 3. Fail to respond to the DEM letter, in which case the incident case will be turned over to a collection agency.

Payment of Costs

Payment is due within 30 days of receipt of a letter from DEM requesting cost recovery. A copy of the letter (which contains a cost recovery number) must accompany a check made payable to the State of Rhode Island General Treasurer. It must be submitted to:

DEM Office of Management Services 235 Promenade Street, Suite 340 Providence, RI 02908



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Oil Spill Liability Trust Fund Reimbursement

The Oil Pollution Act of 1990 (OPA 90) authorizes reimbursement to state governments for any discharge of oil that impacts or substantially threatens to impact navigable waters when the responsible party is unknown, refuses to take containment or cleanup action, or fails to reimburse the state for response expenses within 90 days. The fund created by OPA 90 is called the Oil Spill Liability Trust Fund (OSLTF) and is managed by the U.S. Coast Guard, National Pollution Funds Center. The same costs and expenses that DEM would seek from a responsible party are eligible for reimbursement from the National Pollution Funds Center.

The National Pollution Funds Center requires the following conditions to be met by the state before submitting a claim to the OSLTF:

- There has been a discharge or substantial threat of discharge of oil.
- The spilled substance must be known or proven to be oil. Oil is defined by OPA 90 as oil of any kind or in any form including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoils, or any fraction which is specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of Section 101(14) of CERCLA.
- The discharge must impact or threaten to impact navigable waters. Navigable water is interpreted to mean any waters that are in or eventually lead to coastal waters (Atlantic Ocean). For example, a storm sewer that leads to a ditch that leads to a creek that empties into a bay, which connects to the Atlantic Ocean is considered navigable water.
- The discharge will harm the environment by damaging or destroying state or federal resources, which can include wildlife and their habitat.
- The discharge is cleanable and the cleanup is conducted in accordance with the NCP.
- A claim cannot be submitted to the National Pollution Funds Center while DEM is pursuing cleanup costs from the responsible party. If the responsible party is unknown, DEM must document the efforts taken to discover the responsible party.
- The RI SOSC has followed proper response procedures, including:
 - Contact the National Response Center immediately (within two hours) at the following number:
 - (800) 424-8802
 - $\circ~$ Immediately contact the on-call Federal On-Scene Coordinator for the EPA or USCG.
 - \circ $\,$ Demonstrate that DEM has coordinated its response with EPA or USCG.



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In the coastal zone, the USCG Captain of the Port is the designated Federal OSC, and in the inland zone, EPA Region I Response and Removal Branch OSCs are the Federal OSC.

The DEM ER Administrator or his or her designee is designated as the state representative for any reimbursement requests from the State of Rhode Island.

In documenting a claim for reimbursement of the state's response costs from the OSLTF, the state must provide:

- Evidence of the Incident, including:
 - The State On-Scene Commander's report or his/her justification of why there is no SOSC report.
 - $\circ~$ Information on when the State notified USCG or EPA and who was contacted.
 - Newspaper reports describing the incident (contemporaneous, not historical).
 - Witness accounts of the spill.
- General Information
 - A detailed description of actions taken.
 - A letter, signed by a state official, granting the person who signed the claim the authority to bind the government in a settlement; OR a copy of such a letter of authorization previously filed with NPFC
 - Analysis of the spilled substance showing that it was oil and that it was not contaminated with CERCLA substances.
 - A complete investigation file on the responsible party.
 - A map of the impacted area and/or a description of it sufficient to locate the threat to navigable waters.
 - A report from the FOSC that the response activities were necessary, appropriate, and consistent with the NCP.
- Contractor Costs (using cost data from the Master Price Agreement in effect at the time of the incident)
 - Delivery tickets, receipts, invoices, or similar records with descriptions of the work performed and a daily breakdown of activities and costs.
 - Paid invoices for subcontractors and material suppliers.



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4.2 - Forms

The following forms can be found on the RI DEM website:

- 4.2.1 <u>Investigative Report</u>
- 4.2.2 <u>Investigative Expense Report</u>
- 4.2.3 <u>Chain of Custody</u>
- 4.2.4 <u>Time Sheet Authorized Overtime</u>
- 4.2.5 <u>Time Sheet Emergency Call-In Premium Pay</u>
- 4.2.6 <u>Report on Inspection of Natural Resource Impact</u>
- 4.2.7 <u>Permission to Inspect</u>
- 4.2.8 <u>Access to Agreement</u>
- 4.2.9 <u>ER Site Safety Plan</u>

4.3 - Guide to Radio Communications Standards

Communications among DEM Emergency Responders vary with the severity of the incident at hand. They range from simple and straightforward to intense and complex. Flexible standards have been established to guide radio communications accordingly. At one extreme (such as an exchange between regular workmates about a minor incident) the protocol may be nearly (but not quite) as informal as in ordinary conversation. At the other extreme (such as among teams from several agencies responding to a major incident) the protocol may be nearly (but not quite) as formal as in a military operation.

See, for example, the Combined Communications-Electronics Board, *Allied Communications Publication 125F*, 5 September 2001, at the following link: <u>http://www.dtic.mil/jcs/j6/cceb/acps/acp125f.pdf</u>

The following, adapted from *ACP-125F*, is intended to guide on-air communications as circumstances require.

General Procedure

- Maintain constant radio watch unless specific instruction or permission has been received to the contrary. Ensure that the correct frequency is in use and that at least one person is assigned to monitor the radio, regardless of the circumstances. Radio procedures presume that stations can respond to a call.
- Answer all calls as promptly as possible.



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- Listen carefully before transmitting to ensure that the frequency is clear and to accommodate troubled stations.
- Use correct speech technique (described below).
- Initiate radio contact by identifying the callsigns of the person you aim to reach and yourself.
- Release the Pressel (PTT/push-to-talk switch) promptly and ensure that the radio returns to the receive condition.
- Keep messages clear, orderly, and concise, brief and to-the-point. Do not lose your temper or use profanity.
- Use callsigns and recognizable abbreviations or codes when referring to personnel or locations.
- Clearly state your intention and the information you wish to convey. Insofar as possible, plan the message ahead. Written notes reduce the risk of error.
- Use the primary channel only for urgent substantive communication or to establish contact before shifting to a secondary channel. Keep primary channels as free as possible.
- Standard procedure words (prowords) may be used in place of whole sentences. Prowords are easily used and recognized words or phrases with a specific predetermined meaning. (See appended glossary of common prowords). For example:

ROGER = "I have received your last transmission satisfactorily."

OUT = "This is the end of my transmission to you, and no answer is required or expected"

• End each transmission by saying the proword "OVER," and end radio contact by saying the proword "OUT."

<u>Speech Technique</u>

- I. Use of Audio Equipment
 - In transmission, position the microphone as close to the mouth as possible.
 - For reception, particularly in noisy or difficult conditions, the use of headsets is preferable to loudspeakers.
- II. Method of Speech Key words to remember; Rhythm, Speed, Volume and Pitch (RSVP)



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- Rhythm. Use short sentences divided into sensible phrases (vs. pauses after each and every word) that maintain a natural rhythm. When pausing, release the Pressel to minimize transmission time and to permit stations to break in as necessary.
- Speed. Speak slightly slower than for normal conversation. Slow down by increasing the length of pauses between phrases, especially if a message is to be written down by the recipients or if conditions are difficult. (Altering the gaps between words will create an unnatural, halted rhythm that is difficult to understand.) Never speak faster than the station experiencing the worst reception conditions can be expected to receive.
- $\circ\,$ Volume. Speak at a volume as for normal conversation. Shouting causes distortion.
- Pitch. To improve clarity, pitch the voice slightly higher than for normal conversation.

Aids to Accuracy

- I. Rules for Spelling
 - Use the following International Phonetic Alphabet to spell out words or acronyms that may not transmit clearly.

A — Alpha	N — November
B — Bravo	0 — Oscar
C — Charlie	Р — Рара
D — Delta	Q — Quebec
E — Echo	R — Romeo
F — Foxtrot	S — Sierra
G — Golf	T — Tango
H — Hotel	U — Uniform
I — India	V — Victor
J — Juliet	W — Whiskey
K — Kilo	X — X-ray
L — Lima	Y — Yankee
M — Mike	Z — Zulu

- Callsigns and coordinates should always be spelled out phonetically.
- Spelling out may also be necessary to communicate obscure or unpronounceable words or abbreviations. They may be spelled out after the proword, "I SPELL." If



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the word is pronounceable, say it before and after spelling it out. In difficult conditions it may more effective to use full words than to risk having to spell out an abbreviation.

- II. Rules for Figures
 - Begin radio contact by saying callsigns digit-by-digit.
 - Figures in the text of a message may be spoken as in normal speech, but when conditions are difficult or when misunderstanding is likely or dangerous, figures should be spoken digit-by-digit, preceded by the proword "FIGURES." This proword warns that figures follow immediately, to help distinguish them from other similarly pronounced words.

Radio Checks, Signal Strength and Readability

Whenever using a radio for the first time or when there is doubt about its performance, the simplest check that can be done is what is known as a "radio check." Radio checks should be carried out periodically during periods of low traffic.

Initiating a Radio Check:

- The person initiating a radio check should say the following:
 - The callsign of the station being called.
 - The words "THIS IS."
 - The callsign of the station calling.
 - The prowords "RADIO CHECK" (meaning, "What is my signal strength and readability? How do you hear me?")

Signal Reporting:

- The responder should answer:
 - "ROGER" (meaning "I have received your last transmission satisfactorily.") Strength of signals and readability need not be exchanged unless one station cannot clearly hear another. So, the omission of comment on signal strength and readability is understood to mean that reception is LOUD and CLEAR.
 - If reception is other than loud and clear, it must be described with prowords for signal strength and readability, such as:

Signal Strength		
LOUD	Your signal is strong.	
GOOD	Your signal is plainly audible.	
WEAK	I can hear you, but with difficulty.	



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FADING	At times your signal fades so much that			
	continuous dependable.	reception	is	not
NOTHING HEARD	I cannot hear	you at all.		

Readability		
CLEAR	Excellent quality.	
READABLE	Good quality; no difficulty in reading you.	
DISTORTED	Having problems reading you due to distortion.	
WITH INTERFERENCE	Having trouble reading you due to interference.	
INTERMITTENT	Having trouble reading you because your signal is intermittent.	
NOT READABLE	I can hear that you are transmitting but cannot read you at all.	

Transmitting a Message

- When communication reception is satisfactory, message parts may be transmitted only once.
- When communication is difficult, callsigns should be transmitted twice. (Phrases, words, or groups may be transmitted twice after use of the proword WORDS TWICE. Reception may be verified by use of the proword READ BACK.)

<u>Relay</u>

- The proword RELAY used alone indicates that the station called is to redirect the message to all addressees.
- The proword RELAY TO followed by an address designator indicates that the station called is to relay the message to the stations indicated. When more than one station is called, the callsign of the station designated to perform the relay will precede the proword RELAY TO.
- The proword RELAY THROUGH allows a station to indicate a third station that can relay a message.



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- The proword THROUGH ME allows a third station to indicate that it is in contact with the required station and able to relay the message.
- In all cases whether the originating station can or cannot hear the relaying station

 the relaying station must inform the originating station if it has not been able to
 relay the message.

Repetitions

- Before receipting a message that is unclear, stations should request repetitions. For this purpose, the proword SAY AGAIN may be used alone or in conjunction with prowords that identify the portion of the message that is unclear (e.g., ALL BEFORE, ALL AFTER, FROM, TO, WORD BEFORE, WORD AFTER). In complying with requests for repetitions, the transmitting station must identify the portion that is being repeated.
- When it is necessary to ask for repetitions after a message has been receipted, identify the message being queried as well as the portion required.

Corrections

- When an operator makes an error while transmitting a message, he or she should use the proword CORRECTION, followed by the last word or phrase correctly transmitted. Then continue transmission.
- If an operator discovers an error in a message after it has been receipted, he or she should send an abbreviated service message, identifying the message and the portion to be corrected.

Cancelling Messages

- During the transmission of a message (anytime up to the ending proword OVER or OUT), the message may be cancelled by use of the prowords: DISREGARD THIS TRANSMISSION OUT.
- A message that has been completely transmitted can only be cancelled by another message.



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Do NOT Answer Transmissions

- When it is imperative that the called stations do not answer a transmission, the proword DO NOT ANSWER will be transmitted immediately following the call, and the complete transmission will be sent twice, the full transmission ending with the proword OUT.
- DO NOT ANSWER transmissions must be authenticated.

<u>Read Back</u>

- To ensure that a message has been accurately received, the originating station may request that all or part of the message be read back, using the proword READ BACK and identifying the segment (READ BACK TIME, READ BACK GRID, READ BACK TEXT, etc.)
- Specify which stations are to read back by saying their call numbers before the proword READ BACK. Remaining stations should keep silent. When callsigns do not precede the proword READ BACK, all recipients are to read back.
- If the station reading back does so incorrectly, the originating station will call attention to the error by using the proword WRONG, followed by the correct version.

<u>Receipt</u>

- Receipt indicates a message has been delivered. A receipt may be affected as follows:
 - In abbreviated procedures, if no confusion is likely to arise, a return transmission may be considered a receipt.
 - After each message or string of messages, the receiving station transmits proword ROGER.
 - In the case of a message requiring acknowledgment, the use of the proword WILCO constitutes a receipt. (The meaning of WILCO includes that of ROGER.)
- To increase the speed of handling collective calls, one (and only one) station in the net may be directed to receipt for the message. Other stations may still request repetition.
- Either the originating or receiving station may indicate a wish to add another transmission with the proword MORE TO FOLLOW in the message ending or receipt.


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Acknowledgement of Messages

- It is the prerogative of the originator to request an ACKNOWLEDGMENT to a message from any or all addressees of that message. (An acknowledgment should not be confused with a reply or receipt.)
- The request for acknowledgment of a message normally is included in the text of that message.
- If the message has been transmitted, the request for acknowledgment will constitute a new message.
- Acknowledgments are originated only by the addressee to whom the request for acknowledgment was made.
- A prompt reply referring to the message may serve in lieu of an acknowledgment.

Verifications

- When requested by an addressee, the originating station will verify with the originator and send the correct version.
- When a message to a number of addressees is queried by one station and found to be incorrect, the corrected version must be sent to all addressees.

Break-In Procedure

- A station having a message of higher precedence than the transmission in progress may break in and thus suspend that transmission in the following manner:
 - FLASH Break in at once and transmit the message (b and c below).
 - IMMEDIATE May break in at once and pass the message. If necessary, a preliminary call may be made before transmitting the message.
 - PRIORITY As for IMMEDIATE except that only long ROUTINE messages should be interrupted.
- When spoken three times, these prowords, mean, "Cease transmissions immediately. Silence will be maintained until the station breaking in has passed the message."



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COMMON PROWORDS (STANDARD PROCEDURE WORDS)

Proword	Meaning
ACKNOWLEDGE	Confirm that you have received my message and will comply (WILCO).
AFFIRMATIVE	Yes/Correct.
NEGATIVE	No/Incorrect.
ALL AFTER	Everything that you (I) transmitted after
ALL BEFORE	Everything that you (I) transmitted before
BREAK – BREAK – BREAK!	All stations will immediately cease transmission. The station breaking in has an urgent message. (Used only in extreme emergency.)
CORRECT	You are correct.
CORRECTION	The correct version is
WRONG	Your last transmission was incorrect; the correct version is
DISREGARD THIS TRANSMISSION – OUT	This transmission is an error; disregard it.
DO NOT ANSWER – OUT	Station(s) called are not to answer this call, acknowledge this message, or transmit in connection with this transmission.
FIGURES	Numbers follow (in this message).
MESSAGE.	I have an informal message for you.
MESSAGE FOLLOWS	I have a formal message which should be recorded (e.g. written down).
OVER	I have finished my turn. I await a response.
OUT	Go ahead, transmit. I have finished my transmission.
ΟυΤ ΤΟ ΥΟυ	I have nothing more for you. No reply is expected. Do not reply. I will now call another station on the net. (<i>Note: OVER and OUT are never used together.</i>)



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READ BACK	Read back the following message to me exactly as received.
I READ BACK	The following is my reply to your request to read back.
RELAY TO	Transmit the following message to all addressees or to the address immediately following.
RELAY THROUGH	Send this message by way of callsign to
ROGER	I have received your last transmission satisfactorily.
ROGER SO FAR?	Have you received this part of my message satisfactorily?
SAY AGAIN	Repeat all of your last transmission.
SAY AGAIN ALL (WORD) AFTER (BEFORE)	Repeat portion of message indicated.
I SAY AGAIN	I am repeating my transmission or portion indicated.
SEND	Go ahead with your transmission.
SEND YOUR MESSAGE	Go ahead; I am ready to copy.
SILENCE – SILENCE – SILENCE!	Cease all transmission immediately and maintain until lifted. (Used by Communications Officer or Network Operator.)
SILENCE LIFTED	Silence is lifted. Net is free for traffic.
SPEAK SLOWER/FASTER	Adjust the speed of your transmission.
I SPELL	I shall spell the next word phonetically
THROUGH ME	I am in contact with the station you are calling. I can act as a relay station.
MESSAGE PASSED TO	Your message has been passed to
UNKNOWN STATION	The identity of the station calling or with whom I am attempting to establish communication is unknown.
VERIFY	Verify entire message (or portion indicated) with the originator and send correct version. (Used only at discretion of or by the addressee to which the questioned message was sent.)



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I VERIFY	That which follows has been verified at your request and is repeated.
	(Used only as a reply to VERIFY).
WAIT (OR WAIT – WAIT)	I must pause for a few seconds.
WAIT OUT	I must pause longer than some seconds and will call you again when ready.
WILCO	I have received and understood your message and will comply. (<i>Used only by the addressee.</i>)
WORD AFTER	The word of the message to which I refer is the following
WORLD BEFORE	The word of the message to which I refer was the preceding
WORDS TWICE	Communication is difficult, so transmit ("ting") each phrase twice
	(Used as an order, request, or information.)

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Section 5 Emergency Response Sampling Procedure

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Emergency Response Sampling Procedures

Section 5 Outline		
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5.3	Sample Collection	
5.4	Packing and Shipping	
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5.1 - Purpose and Types

General Considerations

This document sets forth procedures for situations in which the SOSC (or a DEM contractor working under SOSC direction) collects samples. Examples of such situations include responding to spills, abandoned containers or materials, and illegal dumping. This document does not require the collection of samples but provides guidance for doing so when an SOSC deems it appropriate.

In all cases, it is ultimately the SOSC's responsibility to ensure that sampling activities are conducted in accordance with accepted scientific procedures. The SOSC has the option to select and adapt such protocols to best suit the particular situation and the resources available. Each SOSC should strive to obtain specialized training on sampling.

This document is not intended to be a substitute for more detailed sampling protocols.

In the following, there are numerous references to "evidentiary sampling" and "enforcement cases", both actions covered by criminal, civil, or administrative codes. These codes share some common features, and samples that meet criminal standards would also meet civil/administrative and disposal standards. But the reverse is not necessarily true. In this document, special emphasis is placed on evidence samples because relevant, legally mandated standards are more stringent.

Purposes for Sampling

There are 3 main purposes for which an SOSC might decide to collect samples:

1) **Information**. These are situations in which a sample is collected solely to provide information to help with response and not to be used as evidence in an enforcement



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action. For example, a SOSC may collect a sample for field or lab tests that indicate the material's hazard to responders or suggest a containment strategy. Such sampling entails the least stringent procedures and does not require adherence to rules for handling evidence.

- 2) **Disposal**. This is sampling intended to determine how to dispose of a material. Depending on the situation it may resemble informational sampling, but it is usually slightly more stringent. The most common scenario for the SOSC is the collection of a waste sample to be sent to a contractor for initiating disposal arrangements. Since the DEM contractor is required to follow certain quality assurance (QA) procedures, it is appropriate to ensure the SOSC also follows the correct QA procedures, including the use of proper containers, chain-of-custody, etc. The aim is to ensure that the sample is truly representative of the waste and to minimize the potential for error.
- 3) **Criminal/ Enforcement**. These are samples that are collected for administrative, civil, and or criminal enforcement action. Standards for sampling procedure, documentation, and security are stringent. Although cases may never proceed to a trial, the SOSC and other RI DEM representatives and employees must be prepared from the start to provide testimony, if required, defending sampling activities. Some samples collected under emergency conditions might fail to meet stringent standards, and in such cases the sample is not necessarily invalid but opposing counsel will likely challenge its validity and admissibility in court. Therefore, whenever possible, standard, evidentiary sample collection and handling procedures should be followed.

Types of Samples

There are some sampling activities that are beyond the scope of emergency response, unless the appropriate equipment, personnel, and procedures are available. For example, storage tank sampling may require uniquely specialized techniques and equipment. The most common types of samples that a SOSC will collect include:

- Abandoned Materials. This type of sampling mainly draws material from abandoned containers of various types and sizes or non-containerized loose material.
- **Spills**. This type of sampling draws material from container spills, vehicle accidents, illegally dumped materials, etc.
- **Soil**. The SOSC may occasionally collect a soil sample in areas of visible soil contamination. The intent of such sampling is to determine if a discharge has actually happened and if further work is needed. This sampling is not intended to assess the extent of contamination, but merely to assure that initial response is appropriate. The SOSC may also sample areas that have been cleaned to verify



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that actions meet cleanup standards. The samples may consist of visibly contaminated soil and non-contaminated background samples.

- **Surface Water**. These samples are normally collected as a result of a spill that has impacted a surface water body. Sampling techniques must be adapted to the type of material that was spilled. Surface sampling would be appropriate for products lighter than water (petroleum products), water column samples for materials that mix with the water (pesticides, corrosives), and bottom samples for materials heavier than water (many chlorinated solvents).
- **Groundwater**. DEM ER normally does not collect groundwater samples, except during soil removal and when the groundwater level is high enough to seep into the bottom of a response excavation. In that case the sampling procedures would be the same as for surface waters. There may be occasions when a SOSC will want to collect a sample from a well, but sampling wells is generally not an emergency response function. (The importance of proper sampling of wells cannot be overemphasized. Even though the well that is sampled may be correctly located and constructed, special precautions must be taken to ensure that the sample taken is representative of the groundwater at that location and that the sample is neither altered nor contaminated by the sampling and handling procedures.)

Types of Chemicals

The DEM ER encounters many types of chemicals in a wide range of situations. Most incidents involve materials that EPA, USDOT, NFPA, or OSHA regulations deem hazardous. The concentrations may extend from 100% to a few ppm, but the vast majority of ER's samples contain concentrations that exceed regulated thresholds. At the beginning of an incident, the identity and hazard of a material generally fall into one of three categories:

- 1) **Known**. These are materials in which there is a high level of confidence that the nature and identity of the material is known. Many incidents fall into this category. For example, fuel spilled from a labeled tanker or a vehicle's fuel tank, or a chemical spilled from a labeled raw material container at a facility or in transit. A sample may be collected for field tests to verify its identity and to learn more about its properties (e.g., in preparation for proper disposal) or it may be collected in anticipation of enforcement action.
- 2) **Partially Known**. These are materials whose identity or nature is incompletely known or is known but with uncertain confidence. Confirmation is required through further investigation, field-testing, or laboratory analyses, depending upon the circumstances.
- **3) Unknown**. These are materials whose identity or nature is nearly or entirely unknown. Many abandoned materials are unknown, at least initially, until a sample



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is collected. Unknowns are presumed to be hazardous materials until determined otherwise. An unknown becomes a partially known or a known material as further information is obtained.

Safety Considerations

ER staff should only collect samples when the proper safety guidelines and applicable state and federal regulations are followed – generally, when conditions for sampling are safe and when the necessary personal protective equipment is available. No activity is important enough for the SOSCs to injure themselves. In particular, the ER staff must not put themselves in danger just to collect a sample of a material. For a fuller discussion of DEM safety policy and procedures see the Department's *Emergency Response Site Safety and Health Plan.*

Record Management

This section discusses the records that need to be made and kept for various types of sampling activities, as well as labeling and chain-of-custody requirements.

Field Notes

The SOSC must maintain a daily record of significant events, observations, and measurements during field investigations and sampling activities. These field notes are intended to provide a record that is sufficient to enable the SOSC to reconstruct events and activities that occur during projects and to refresh memory (e.g., if called upon to give testimony during enforcement actions). They should be kept as permanent state records. If referred to in a legal proceeding, field notes are admissible as evidence and subject to cross-examination. They therefore must be maintained in a professional manner. Field notes for sampling activities must include:

- Date and time of sampling,
- Name of the sampler and (if evidentiary) witness
- Sample number (or other identification),
- Address or location (latitude and longitude, GPS),
- Source of material,
- Sample type and description,
- Suspected hazards in sample,
- Results of any field tests,
- Description of how the sample was taken and equipment used,



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- Disposition of the sample, and
- Other pertinent details.

All notes are to be written in waterproof ink. If an error is made, the SOSC may make a correction by crossing out the error and entering the correct information, but the errors should never be obliterated. Instead, errors should be corrected, initialed, and dated by the individual who made the original entry.

Sample Labels

Sample labels must be placed on each container. Use the label that accompanies the new container or another label with sufficient space for identifying the sample. Each sample or set of containers from that sample should have a unique identification number. The most important information on a sample label is the number, date and time, location, sampler's name, type of sample (composite, grab, etc.) and preservatives used. To provide for the safety of others that will be handling the sample, it is a good idea to identify any suspected hazards. If a DEM contractor is used, then samples should be labeled with the ER case number and a sequential number. If samples are collected for which no contractor number is applicable, then the SOSC should devise a logical numbering system and document the number in field notes and associated records.

Chain-of-Custody

A sample is under custody if one or more of the following criteria is met:

- The sample is in the sampler's possession.
- It is in the sampler's continuous view after being in possession.
- It was in the sampler's possession and then was secured in a locked area to prevent tampering.
- It is in a secure designated area.

Chain-of-Custody Form

Chain-of-Custody forms are sheets of paper that describe each sample and track the transfer of a sample from the point of collection to its final destination – typically a laboratory or evidence locker. The form shows the name, date, time, signature, and organization of each transfer as well as the name of the sampler and a witness. This form is the most important paperwork item in evidence sampling, but it is also recommended for any sample that is being sent to a laboratory or may be in the future. The form is a legal document and may be examined in any enforcement proceeding by counsel, who may investigate the handling of



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the samples, looking for inconsistencies. An otherwise good analytical result may be inadmissible in an enforcement proceeding if the defense successfully challenges the chain-of-custody.

- SOSCs must always have access to a blank form in case the need arises.
- Any chain-of-custody record can be used, but a form was specifically designed for ER's use and contains space for information that is likely to be relevant.
- All chain-of-custody forms should be written in waterproof ink.
- Any errors should be handled exactly as an error in the field notes: It should be crossed out and the correct information entered, initialed, and dated. Erroneous information should never be discarded.

Transferring Samples

When a sample is transferred, the individual relinquishing and receiving it should sign, date, and note the time on the form. The method of shipment and other pertinent information should be entered in the "Remarks" section of the chain-of-custody form. If the samples are split with a potential responsible party, that event -- including the name of the person taking the split -- should also be noted in the "Remarks" section of the chain-of-custody record. A separate chain-of-custody record must accompany the potential responsible party's samples, too. A witness to the delivery should be obtained.

Photographs

Photographs of the site where samples were collected and of the samples themselves often help a judge and jury understand the original appearance of the site and samples. For all photographs taken, record the date, time, ER case number and photographer directly on the back of the picture. The photographer should review photographs or slides and compare them to the field notes, to assure that the notes and photographs match.

5.2 - Sampling Equipment

Since ER SOSC's often engage in sampling activities, a supply of basic sampling equipment must be readily available. These items should be in sufficient quantities to perform the necessary tasks and be carried in a response vehicle or stored in a secure site (a contract lab, DEM office, etc.) until needed.



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Collection Equipment

A variety of equipment should be available from a secure storage site for use by the SOSC, as suggested below. These items can be provided to contractors or fire departments at the discretion of the SOSC. Much of the equipment should be of the disposable type to minimize cleaning, for QA and safety reasons. Additional items may be added as needed.

- Solids Collection. Items for collecting samples of solids:
 - Hand Shovels Stainless steel & disposable plastic
 - Stainless Steel Scoop/ Spoon
 - o Tube-Type Soil Sampler
 - Hand Auger Bucket head type
 - Stainless Steel Pan/ Bucket
- Liquid Collection. Items should for collecting samples of liquids:
 - Sample Rods and Contaminated Liquid Waste Samplers (Coliwasa) both glass and disposable plastic
 - Pipettes and Droppers disposable plastic
 - Bailers disposable plastic and Teflon
 - Rope and Stout String
 - Stainless Steel or Polypropylene Dipper
- **Sample Jars and Containers**. An assortment should be readily available. To eliminate possible contamination or reaction of future samples, new sample containers should be used each time, and each should be used only once. New containers may be used out-of-box for information and disposal sampling activities. However, evidence sample containers must be pre-cleaned by the SOSC or purchased as pre-cleaned. Glass containers should have Teflon-lined lids. Recommended sample containers to secure include:
 - $\circ~~40$ ml VOC Vials Both clear & amber
 - \circ $\:$ Wide Mouth Glass Jars 8 & 16 ounce $\:$
 - Regular Glass Jars 8 ounce & 1 liters
 - Plastic Jars Assorted sizes
 - o 1-gallon Metal Cans

<u>Cleaning Guide</u>

In general, the SOSC should arrange for a secure supply of pre-cleaned sampling materials from a DEM-approved vendor. This will eliminate the need for the SOSC to handle, store, and use cleaning materials. Nevertheless, the SOSC will eventually need to clean some sampling supplies. Remember that cleaning procedures probably will be challenged in an



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enforcement case. Consequently, the person who cleans an item must be prepared to testify about cleaning procedures.

- Materials
 - For normal emergency response purposes, the following minimum-purity cleaning materials can be used:
 - Lab detergent
 - Deionized water
 - 10% nitric acid
 - Spectral-grade isopropanol or acetone.

A secure supply should be obtained from DEM or DEM-approved vendors. Do not reuse cleaning materials and dispose of all wastes and wastewaters properly.

• Cleaning Procedures

DEM normally acquires sample containers as needed from a contract laboratory that precleans them. All cleaning should be done under a fume hood or outdoors, using Level D protection at a minimum. Since nitric acid is a corrosive oxidizer, and isopropanol and acetone are flammable, be careful! After cleaning an item, handle and store it in a manner that prevents contamination. Items should be wrapped in new aluminum foil or in a new sealable plastic bag.

- $\circ \ \ \text{Glass Items}$
 - 1. Wash with lab detergent and rinse with tap water.
 - 2. Rinse with nitric acid if metals are a parameter, if not, go to #4.
 - 3. Rinse with tap water.
 - 4. Rinse with deionized water.
 - 5. Rinse twice with solvent and allow to air dry.
 - 6. Package to prevent contamination.
- Stainless Steel Equipment
 - 1. Wash with lab detergent and rinse with tap water.
 - 2. Rinse with deionized water.
 - 3. Rinse twice with solvent and allow to air dry.
 - 4. Package to prevent contamination.
- \circ Plastic or Teflon
 - 1. Wash with lab detergent and rinse with tap water.
 - 2. Rinse with nitric acid if metals are a parameter, if not, go to #4.
 - 3. Rinse with tap water.
 - 4. Rinse with deionized water and allow to air dry.
 - 5. Package to prevent contamination.



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Note: Plastic pipettes or droppers should not be cleaned due to the difficulty of cleaning and drying them. Use only as new in box.

5.3 – Sample Collection

Sampling Procedures

This section describes how to collect various types of samples in common response situations. An SOSC may alter these procedures, as appropriate, on a case-by-case basis. But regardless of the specific sampling method or equipment used, some basic sampling and handling principles apply:

- Preserve health and safety! Consult the *ER Site Safety and Health Plan*.
- Before commencing collection of samples, thoroughly evaluate the site. Observe landmarks, hazards, reference and possible sample points.
- Record pertinent observations in your field notes. Include a sketch, when appropriate, identifying sample points.
- Prepare all sampling equipment and sample containers properly prior to entering the site.
- Have aluminum foil handy to provide protective wrapping, if necessary.
- Have absorbents handy to control spills.
- Place containers for receiving samples on a flat, stable surface.
- Collect samples first from those areas that are suspected to be the least contaminated and work to areas of most contamination, thereby minimizing the risk of cross contamination.
- Collect samples and securely close containers as quickly as feasible.
- Where possible, record field observations at a safe on-site location rather than from the sampling point itself.
- If a sampling plan has been used, follow the plan in every detail. Document all steps in the sampling procedures. This is especially important in the event of a criminal investigation.
- For potentially hazardous samples, be sure to clean the outside of the sampling containers prior to packaging them for transportation.
- Label all sample containers with the date and collector's initials.
- Complete all chain-of-custody documents and record information in the field notebook.
- Sampling equipment that is reused should be decontaminated between samples.





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The following procedures apply to all five types of sampling activities, but informational sampling can be smaller in volume (from a few milliliters for field tests to 8 ounces).

I. Drum or Container Sampling

- 1. Approach and open the drum or container only if it is possible to do so following the DEM *ER Site Safety and Health Plan*. Pay particular attention to "Specific Hazard Attachment: Drums."
- 2. Select the sample container that is appropriate for the type of sample you will be obtaining. If Volatile Organic Compounds (VOCs) are to be a parameter, use a VOC vial, especially if the material is aqueous or of other nature that would allow easy volatilization. If the material is VOC contaminated soil, use an 8-oz. wide-mouth jar with a Teflon-lined cap.
- 3. Select the appropriate sample rod or Coliwasa for the chemical to be sampled. Slowly insert a sample rod or Coliwasa into the drum. Go to the bottom of the drum in order to obtain a representative sample of all the layers that may be present.
- 4. If viscous materials are encountered, be careful about the possible breaking of the glass rod. More than one attempt may be needed, or a core sampler may be necessary.
- 5. Using a gloved hand, cap the end of the rod with a thumb; then quickly withdraw the rod from the drum.
- 6. Place the bottom end of the rod into a sample container and slowly release the thumb control to allow the material in the sample rod to flow smoothly into the sample container. Put the sample container nearby or atop the drum to lessen the chance of spillage.
- 7. Repeat the procedure until the desired amount of sample has been obtained. If VOCs are a parameter, fill the sample container completely to the top to minimize volatilization of the sample.
- 8. Place the rod back into the drum momentarily and close the sample container immediately.
- 9. Dispose of the rod,
 - $\circ~$ If acceptable to the disposal facility, break the rod and leave it in the drum
 - Package it with other debris from the site, such as used PPE
 - If certain that the material is not a hazardous waste, discard it as a solid waste
- 10. Close the drum.



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- 11. Label the sample container and the drum in a manner that allows them to be referenced to each other.
- 12. Place the sample container in a shipping container (e.g., a cooler) for transportation.
- 13. Repeat this procedure for each drum to be sampled.

II. Soil or Sludge Sampling

The type of soil sampling the SOSC will normally need to obtain is a surface grab sample at a spill site, a composite sample of a soil pile, or confirmation sampling in an excavation. (DEM OSCs rarely need to obtain deep soil corings, so that aspect will not be discussed.)

- 1. Select a sample container with a sufficiently wide mouth to facilitate filling. It must be made of glass and have a Teflon or aluminum-foil seal.
- 2. Use a clean stainless-steel scoop, spoon, or auger to gather the desired sample.
- 3. If the area is large or not visibly homogeneous, composite several samples within the contaminated area.
- 4. The sample should be as free as possible of twigs, rocks, or other debris.
- 5. If VOCs are intended to be a parameter, it is important to minimize their volatilization. Avoid unnecessarily agitating or disturbing the soil sample. To minimize headspace volatilization, fill the sample container as completely as possible.
- 6. Close, seal, and label the sample container.
- 7. Place it in a shipping container for transportation. Ice is not generally required for soil samples, but ice may be used at the discretion of the sampler. However, to preserve their integrity all cyanide and VOC samples must be cooled to 4°C.

III. Composite Solid Sampling

The aim of this procedure is to composite random samples of solids (e.g., soil, debris, hazardous materials, or fluff) drawn from several locations in a pile.

- 1. Survey the pile. Measure dimensions with rolling tapes.
- 2. Mark the corners of the pile with wooden stakes.
- 3. Mark the boundary of the pile with caution tape.
- 4. Working clockwise, split the pile into four (4) quadrants.
- 5. Working clockwise, split each quadrant into four (4) squares.
- 6. Randomly select two (2) squares in each quadrant to be sampled.



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- Take sixteen (16) grab samples in each square and put them in a clean 5-gallon bucket. Fill a labeled, 2-gallon Ziplock bag with material from the 5-gallon bucket. Place the remaining contents of the 5-gallon bucket into a 55-gallon drum.
- 8. Use a backhoe to quarter the pile from the center point to each corner.
- Take sixteen (16) grab samples from the resulting trench. Put them in a clean 5-gallon bucket. Fill a labeled, 2-gallon Ziplock bag with material from this bucket. Put the remaining contents of the 5-gallon bucket into the 55-gallon drum.
- 10. Take a final sample from the center point of the pile. Take sixteen (16) grab samples, from top to bottom at the center point, and put them in a 5-gallon bucket. Fill a labeled, 2-gallon Ziplock bag with material from this bucket. Put the remaining contents of the 5-gallon bucket into the 55-gallon drum.
- 11. Mix the contents of the 55-gallon drum by laying it on its side and rolling it clockwise for ten revolutions. Fill a clean, labeled 5-gallon container with the mixed contents of the drum.
- 12. Secure all samples (the 2-gallong Ziplock bags and the 5-gallon composite container) for later transport to an analytical laboratory.

IV. Spill Sampling

If the spill has already soaked into the ground, follow the steps for soil sampling. If the material has pooled or is spread out on the soil, follow the steps outlined below.

- 1. Approach spills in compliance with the *ER Site Safety and Health Plan*.
- 2. Depending on the type of material spilled, choose the appropriate sample collection tool and container.
- 3. Use a pipette or dropper, scoop, bailer, or another sample jar to collect the spill material. (Alternately, rather than using transfer tool, dip the sample container directly into the pooled material. This will require decontaminating the outside of the sample container to remove any potentially hazardous residue. This alternative is not recommended for unknowns or extremely hazardous materials.) To minimize volatilization when VOCs are a parameter, carefully pour the sample down the side of the sample container. When working with a solid or a sludge exposed to air, it is best to remove carefully the first 1-2 cm of material prior to collecting the sample.
- 4. Depending upon the nature of the spill, it may be advisable to composite material from several locations within the spill area. Use a Teflon or stainless-steel bowl or tray for mixing the composites.



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- 5. Fill the sample container with a stainless-steel spoon, scoop or spatula with the desired amount of sample.
- 6. If the material is aqueous and VOCs are to be a parameter, use a VOC vial and fill it completely. If the material has a significant percentage of solvent, fill the container to approximately 90% capacity to allow for vapor pressure.
- 7. Check that the Teflon liner is present in the cap. Secure the cap tightly and label the container.
- 8. Place the sample in a shipping container for transportation.

V. Surface Water Sampling

Often, spilled materials (especially liquids) find their way into bodies of water. The resulting behavior of the material depends on its physical and chemical properties. Materials that are lighter than water will form pools atop calm pockets or float downwind/downstream of the spill site. Materials that are heavier than water will sink and collect in the greatest depths. Material that is water-soluble will diffuse throughout the water column. Hence, sampling must be suited to the material spilled and its behavior after it enters the water.

- 1. Approach spills in compliance with the *ER Site Safety and Health Plan*.
- 2. Select the appropriate sampling equipment and containers for the material spilled and the target parameters.
- 3. Use a pipette, dropper, bailer, weighted-bottle sampler, or sample container to collect the material or water sample. Samples from shallow depths can be collected by merely submerging the sample container. Simply position the container mouth so that it faces upstream. To avoid stirring up sediment, the sampler should be positioned downstream. Of course, the outside of the sample container must be cleaned before packing.
- 4. Fill the sample container with the desired amount of sample. It may be necessary to use multiple containers to get enough.
- 5. Check that a Teflon liner (if required) is present in the cap, close, and label the sample container.
- 6. Place the sample in a shipping container for transportation. Water samples for VOCs, cyanide and low-level inorganics must be cooled to 4^oC with ice. (Do not use ice when shipping dioxin samples.)

VI. Groundwater Sampling

The SOSC may occasionally need to sample groundwater from a well, a particularly exacting science. For sampling objectives to be met, the SOSC must know before field activities begin



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what contaminants may be present and their behavior in the subsurface groundwater environment. In addition, the SOSC must consider accessibility and construction of the well, the depth to the water, and the availability of power and appropriate equipment.

- 1. The sample withdrawal device should be completely inert to the suspected contaminant and easy to clean.
- 2. All sampling devices should be thoroughly cleaned before use or dedicated to the particular well throughout the sampling period. A dilute hydrochloric acid rinse, followed by successive rinses with deionized water, acetone, and distilled water, is recommended.
- 3. The static water level in the well should be measured and recorded at the time of sampling. In wells where the depth is unknown, the bottom of the well should be established by sounding.
- 4. To obtain a truly representative sample of groundwater, a volume of stagnant water in the well must first be purged. The recommended length of time required to pump or bail a well before sampling depends on the well and aquifer characteristics, the type of sampling equipment being used, and the parameters being sampled. A common procedure is to pump or bail the well until at least three to five well volumes have been removed. Purging is considered complete when any one of the following criteria is met:
 - Three well volumes have been removed and pH, temperature, and specific conductance become stable. (Stabilization of field parameters is defined as "consecutive readings within 5% taken at least five minutes apart". Even if field parameters have not stabilized after five well volumes, purging is considered complete.)
 - Five well volumes (field parameters not monitored) have been removed; and/or
 - At least one purge was fully dry.
 - Except for low-recovery wells, all wells must be sampled within six hours of purging.
- 5. Select proper sample containers for the parameters of concern.
- 6. Securely fasten all lanyards to down-hole equipment. Bailer lanyards must be handled in such a manner that they do not touch the ground.
- 7. Remove the cap from the sample container, being careful not to touch the inside of the cap or lay the cap on the ground. (At no time must the inside of the container come in contact with anything other than the sample.) Fill the container by tilting it slightly, so the sample gently runs down a side. To minimize aeration, fill the



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container to approximately one inch of the top (unless it is a VOC vial, in which case, see "VOC Vials" below).

- 8. Check that the Teflon liner is present in the cap. Replace the cap on the container and label the sample.
- 9. Place the sample into a cooler and, if appropriate, cool it to 4^oC.

Other Sampling Considerations

I. VOC Vials

Samples that are to be tested for VOCs are best collected in VOC vials to minimize loss of volatile compounds. This is especially true with aqueous samples or other materials that may allow for easy loss of VOCs.

To properly fill a VOC vial:

- The vial should be completely filled to prevent any volatilization.
- Extreme caution must be taken when filling the vial to avoid agitation or turbulence that may allow the loss of VOCs.
- Gently pour the sample down the side of the vial to fill.
- Fill the vial completely to the top, so that a convex meniscus forms atop the vial. As the cap is put on, some loss of the sample will occur, but this prevents the formation of airspace in the vial.
- Invert the vial and tap it gently to look for air bubbles. If bubbles are observed, repeat the procedure.

If the material to be sampled has significant vapor pressure, such as a concentrated solvent, a VOC vial is not recommended. Remember to only fill the sample container to approximately 90% full.

II. Sampling Various Material Classes

Some concerns for sampling various classes and types of hazardous materials commonly encountered in emergency response are given below. The sampling table at the end summarizes more details with regard to the sampling of various materials.

This information may not be applicable for all materials in every potential situation. It is intended for use as a guide only.



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- **Explosives**. Handling explosives requires specialized equipment and training. DEM ER personnel should normally avoid handling such material. When explosives are present or suspected, contact the state Fire Marshall for assistance.
- **Gases**. DEM ER personnel should not sample gas cylinders. As with explosives, gas cylinder sampling requires specialized equipment and training that DEM ER staff may not have. Contact a contractor for assistance. The only type of gas products that an SOSC may have need to sample (for field applications) are common consumer spray cans. Testing of spray cans would best be accomplished by sending the entire can to a contract laboratory rather than conventional sampling methods.
- Flammable Liquids. These materials are usually easily identified in the field and are easily verified through field tests. The main sampling concern is to prevent accidental ignition of the material. Keep all containers closed except when adding or removing contents and conduct sampling activities away from any source of ignition. Since many flammable liquids (especially wastes) are mixtures, often with distinct layers, it is important to sample all the layers. Be aware that some flammable materials may actually be a carrier for another material that may present an entirely different hazard (such as a pesticide). Many flammables are also lipophilic and easily absorbed through the skin, and or they are highly volatile and represent an inhalation hazard. Even though such materials are often common, proper PPE should always be worn.
- **Flammable Solids**. Many of these materials are quite reactive and may burn quickly or almost explosively. Some are dangerously air- or water-reactive. SOSCs must exercise extreme caution to prevent any accidental ignition or reaction. When sampling, keep all water and ignition sources away. A field test of water reactivity is recommended to determine sample handling, labeling, and packaging needs. Gather the sample as gently as possible to minimize friction. Keep a fire extinguisher and dry absorbent nearby.
- **Oxidizers**. These materials can also be quite reactive and ignite other materials. Many are also corrosive. Prior to any sampling, a field test with pH and oxidizer papers is recommended. Separate oxidizers from organic and corrosive materials as much as possible to prevent accidental reactions. Heavy metals may also be a concern.
- **Organic Peroxides**. These materials belong a division of oxidizers that are reactive and may result in fires. Ether peroxides that form from ethers can also be shock sensitive and should be handled as explosives rather than peroxides. Some organic peroxides are dissolved in other materials such as solvents and stabilized to inhibit reactions. Prior to sampling, field test for ignitability with peroxide paper.



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- **Poisons**. Some exhibit other hazards such as flammability or corrosivity. Since mixtures may be present, be sure to sample all layers.
- **Biological Agents**. Contact the Department of Health for assistance. DEM ER SOSCs sample and screen suspected biological agents for radioactivity and volatility. Department of Health officials determine whether the material poses a medical risk (e.g., for infectious disease).
- **Radioactive**. The DEM ER OSC should never have to sample radioactive materials. Refer all incidents to the Department of Health. The SOSC should use a radiation detector to identify radioactive hazards at incidents, especially abandoned-material sites.
- **Corrosives**. When above certain concentrations, some corrosives emit visible fumes. Corrosives are usually single-phase materials, but the bottom of waste-corrosives containers may hold solids that contain heavy metals. The SOSC should use pH paper to estimate the pH and categorize the material as an acid or an alkali prior to full-scale sampling of the material.
- **Other Regulated Material (ORM)**. Contaminated waste oils and many other non-flammable listed wastes are common to this class. Aqueous materials with multiple layers are frequently encountered; so be sure to sample all layers.

III. Sample Security

When conducting sampling activities -- especially evidentiary sampling -- the SOSC must ensure the security of each sample. Tampering, accidental mix-up, or improper handling must be prevented. If challenged, the SOSC may have to testify about how the sample was collected, handled, secured, and transported while the sample was in the custody of the SOSC. (Basically, a person has custody of a sample when the sample is in the person's possession or in immediate supervised view or locked in a secure area.) Therefore, the SOSC needs to maintain the security of each sample before, during, and after collection.

- Samples in general should be closed immediately upon collection to prevent any contamination, volatilization, spillage, or other effects.
- Each sample must be kept in the sampler's possession until it is completely packaged for transport to a secure area.
- The sampler must not hand the sample to another person without recording it on a chain-of-custody form. Otherwise the legal chain-of-custody and security is broken.
- The sample must not be left unlocked while the sampler goes to another area for any purpose.



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- As soon as possible after collection, the sample container should be secured with evidence tape over the lid and sides so that it cannot be opened without breaking the tape. Evidence tape is perhaps the single best method to ensure the security and integrity of the sample. It can validate a sample's security even if the sample is out of the sampler's view or if the chain-of-custody is broken.
- The SOSC or his/her designee should witness the sampling procedure, sign the chain-of-custody form, and initial and date the evidence tape at the time of placement.
- Be sure to mark the container with a sample number or other identification as soon as possible or use a pre-numbered container prior to sampling to prevent a mix-up when collecting more than one sample.
- Unless absolutely necessary, avoid opening of evidence samples after they are sealed.
- Any samples that might be collected for field testing should be kept in different containers and stored apart from evidence samples. This will prevent any contamination of the evidence sample.

Other Samples

The size and number of samples to collect mainly depends on the type of analysis to be conducted but also on the type of material and number of duplicate samples needed. It is generally better to have too much sample than not enough, especially since obtaining additional sample material may be difficult, expensive, time-consuming, or even impossible.

I. Duplicate Samples

Duplicate samples are recommended for evidence samples, in case additional sample is needed or the defense wishes to conduct its own tests. Duplicate evidence samples do not necessarily have to be of the same volume. The tests that DEM may have to conduct are often more extensive than what is needed to prove a certain point. Duplicate samples that are found later to be unneeded are easily disposed. A good rule of thumb to use, especially if you are unsure whether a duplicate will be needed, is to collect a duplicate 8 ounce minimum for each waste stream. Duplicate samples need to follow the same collection procedures, security and chain-of-custody as other evidence samples. Other notes for duplicate samples include the following:

- Since samples with a high vapor pressure should have a 10% outage, a duplicate sample may be needed if the containers are too small.
- The ER OSC should check with a DEM waste disposal contractor for parameters when preparing samples for disposal.



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• To determine the minimum amount for evidence samples, refer to the sampling table at the end of this document. Since those amounts do not include duplicates or amounts that may be needed for disposal analysis, adjust accordingly. If it is not possible to collect those minimum amounts (as from a drum that has only a small amount of material) than collect as much sample as possible and conduct a few basic field tests to help select parameters that concentrate on enforcement goals as a priority, followed by disposal parameters.

II. Background Samples

Background samples are rarely needed for disposal and information samples, but are sometimes valuable in verifying the completion of cleanup activities or for enforcement actions.

- A background sample can be collected to show that the background soil or surface water is as clean or cleaner than the incident site.
- A background sample should be collected for enforcement cases in general, unless other evidence eliminates the need.
- Background soil samples can be unnecessary for emergency response purposes, especially when visible contamination exists and a cleanup has been established.

III. Sample Blanks

Sample blanks are samples of deionized or distilled water or of other known media that are treated in the same manner as the unknown sample. They are subsequently analyzed to identify possible sources of contamination during collection, preservation, shipping, handling, or analyses. Sample blank containers should be the same type and cleanliness as that of the other samples.

- Sample blanks rarely, if ever, need to be collected by an ER OSC for information and disposal sampling activities or for cleanup verification.
- Sample blanks are recommended for enforcement cases that entail samples of water or other dilute types.

IV. Composite Samples

Composite samples are mixtures of more than one fraction of material collected at various locations within a given area. Compositing is widely used in emergency response to reduce laboratory costs and turn-around time. Sometimes compositing is done in the field, and other times it is done in the laboratory after receipt and review of the samples. Compositing



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can be a beneficial tool, but it must be applied with due regard to the circumstances and purpose.

- Materials are normally composited when they are similar or identical in nature and when the resulting analytical results are taken to represent the materials.
- Composites can be used for both disposal and evidence samples.
- When compositing materials, the most important concern is the compatibility of the materials. Care must be taken to avoid combining materials that will cause any type of reaction. Such reactions could be dangerous and, even if not dangerous, could change the nature of the materials and thereby influence the laboratory analysis and interpretation of the data. Therefore, during and after field collection, mix some of the materials and watch for any changes, heat, fumes, smoke, polymerization, precipitation, color or phase changes, etc. If reactions occur, then re-sample individually rather than composite.
- In order to avoid potential problems when mixing samples, only composite materials that appear to be similar by both visual checks and field tests. For example, do not composite acids with alkalis or organics with non-organics.
- Even compositing somewhat similar materials can be detrimental. For example, paint thinner and waste oil are compatible, but the mixture might affect the flash point and other parameters, so it may be necessary to handle each as separate hazardous waste for disposal purposes. It is best only to composite materials of the same apparent constituents, such as oils with oils or paints with paints, but not oils with paints.
- Another concern to be considered when compositing is the potential dilution of • constituent contaminants. This can affect all types of samples and can skew conclusions about one or more of the sources. Even if source concentrations vary, if the concentration of contaminant in every source exceeds a particular level of concern (such as the standard for defining a hazardous waste), then mixing these materials together will not dilute the contaminant below the standard. For example, mixing two wastewater streams (one with 10 ppm and the other with 20 ppm chromium) will not reduce the composite level below the 5-ppm hazardous waste standard. However, mixing materials when one or more has a level below the standard can cause a dilution of concern that would result in an incorrect conclusion. Such incorrect conclusions can result in improper labeling and disposal of materials and can adversely affect enforcement cases. The dilution factor can be countered by multiplying the laboratory result of the composite by the dilution factor to get a maximum possible value for any of the individual samples. This maximum value can be used as the laboratory result or as a range for making disposal decisions.





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- The laboratory is usually the best place to do compositing prior to analysis. But fairly accurate volumes can also be obtained using laboratory equipment (such as graduated cylinders, pipettes, etc.) in the field. More experienced SOSCs may be able to "eyeball" the compositing by using same-sized jars or sample rods and making a best effort to obtain equal volumes. While this is acceptable, it is not recommended for everyone.
- Materials may be composited in the field but only for information or disposal samples, never with evidence samples that require greater accuracy.
- Unknowns should generally not be composited, unless field observations and field tests show them to be very similar and compatible. Knowns and partially knowns may be composited, if they are similar and compatible.
- An option to consider, particularly when dilution is a concern, is to collect a composite sample and individual samples, and then to request not only certain parameters for the composites but also a few other parameters of special concern for the individual samples. This approach could be necessary in an enforcement action, to allay dilution concern. It may result in extra disposal costs, but the savings in laboratory costs and time typically outweighs any extra disposal cost.

Sample Preservation

The purpose of preservatives is to keep the sample's target parameters as they were at the time of collection, thus preventing unintended changes (precipitation, chemical or bacteriological degradation, absorption into the walls of the container, oxidation or reduction, etc.). Emergency response sampling usually deals with waste and other concentrated materials in which the lack of a preservative will generally not significantly affect the integrity of the sample. So, the use of preservatives in emergency response sampling is not as critical as it is in other types of sampling, such as groundwater sampling. However, there may be borderline concentrations in which the lack of a preservative may give a result that is falsely under a standard. This can affect disposal procedures and can also hamper an enforcement case. Therefore, whenever appropriate, the DEM SOSC should obtain from contract laboratory sample containers that are pre-filled with the appropriate preservative.

Chemical Preservatives

The chemicals that may be used as a preservative include:

- Nitric Acid, ACS grade
- Sodium Hydroxide, ACS grade, pellets
- Sulfuric Acid, ACS grade



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- Hydrochloric Acid, ACS grade
- Sodium thiosulfate, ACS grade, crystalline
- Mercuric chloride, ACS grade, powder

For ER purposes, DEM will most often use nitric or sulfuric acid. They are added to sample containers in the following amounts:

- Surface water: 4ml (1:1) acid per liter
- Groundwater:5ml (1:1) acid per liter
- Dilute aqueous samples for metals should be acidified with concentrated nitric acid to a

pH < 2 (Note: As a QA procedure for evidence samples, the acid should also be tested for the same metals.)

The sampling table at the end of this SOP gives some suggested preservatives whenever preservatives are going to be used. Whenever the SOSC uses pre-preserved bottles for sampling, it is recommended to check the pH of the preserved sample to ensure the pH meets the EPA criteria. If it is not possible to use a preservative for logistical, time or any other reason, then the SOSC should proceed with the sampling with knowledge that the analyses could be incorrect.

Sample Cooling

The most common preservative measure for emergency response sampling is to cool the samples with ice packs or cold packs to 4^{0} C.

- Never use ice to cool materials that are known or suspected to be water reactive.
- Whenever possible, dilute aqueous samples should be cooled, especially in preparation for low- or medium- level organic analysis and low-level inorganic analysis.
- VOC vials of dilute aqueous samples should also contain an appropriate preservative.
- All cyanide samples must be shipped on ice.
- Concentrated waste samples generally do not need to be preserved, but it is nevertheless good practice to cool them.

Selection of Parameters

Parameters are the target analytical chemicals or characteristics for which a sample will be analyzed. Informational, disposal and evidence samples may dictate overlapping or totally different parameters. Due to the time and costs involved in laboratory analyses, the selection



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of parameters needs to be carefully considered. The choice of parameters also affects the sampling procedures and equipment used. The most common DEM ER need for analytical testing is for identification and disposal of abandoned materials. Typically, it is not necessary to completely identify all constituents. Rather, the purpose is to obtain enough information to conduct a hazardous waste determination and to arrange the proper disposal of the material. The DEM ER has set up some standardized analytical groups for a few common waste types, but for most waste types, parameters are selected on a case-by-case basis.

The selection of parameters and testing can be minimized through the use of field tests, visual observation, experience, applicable label information (if accurate), sampling compositing (where appropriate), estimating parameters (where possible instead of using laboratory tests), and other means. For hazardous waste determinations in emergencies, DEM allows experience, knowledge, and evaluation of the material to influence the selection of parameters. It is not necessary to run a full analytical scheme for all parameters on all materials. For unknowns, the sample should be tested for all TCLP metals and volatiles (TCLP can be done as "totals" without the expensive leaching procedure for disposal samples), ignitability and corrosivity (if not already determined by field test), and any other pertinent parameters. For partially knowns and knowns, knowledge and experience can be used to select or eliminate certain parameters, or sometimes even to forgo all laboratory analysis and simply profile the waste for disposal, usually as a hazardous waste

The DEM waste disposal contractor largely determines what parameters are necessary for disposal of wastes through them. These parameters are not necessarily needed in full every time, but are a list of parameters often chosen for those types of wastes. In fact, the disposal options and approvals are determined as much by physical characteristics of the waste as by chemical concentrations. The disposal facility is more concerned with things such as percent water, number of layers, viscosity and physical state. Analyses should concentrate only on parameters that are needed to get disposal approval and yet meet applicable regulations.

Another way to save costs on disposal analytical is to delete or limit the use of the leaching procedure such as the TCLP extraction, and run totals instead (solid samples). Since totals are always greater than leached values, the use of those values would be conservative. The cost of the waste being disposed of as a hazardous waste as a result of using these values is more than offset by the laboratory cost savings. Obviously, evidence samples should never be handled this way since TCLP extraction procedure is required to prove it is or is not a hazardous waste.

Another method to decrease the number of parameters and sometimes eliminate laboratory analyses is to use generator's knowledge of the material to complete the material profile sheet for disposal approval. This typically entails the assumption that the material is



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hazardous rather than non-hazardous and estimating the concentration of certain parameters based on field tests or prior experience. Based on ER's experience analyzing and disposing of various waste materials, there are often situations that profiling in lieu of performing analyses is viable, particularly for the more common materials. Materials for which this is an option include paint-related wastes, corrosives, fuels and waste oils. Be sure to check with the disposal contractor before profiling in this manner and review the hazardous waste list to be confident that no other waste codes are likely to apply.

Parameters for Enforcement Cases

Analytical testing for evidence samples is the most crucial testing. When choosing parameters, the SOSC must first determine what needs to be proven to support a particular citation. Often, the case requires only one or a few parameters to prove a particular point.

For example, a simple flash point test would show a lacquer thinner to be a hazardous waste, without the need for a full testing scheme. On the other hand, if the goal is to prove that a defendant discharged a particular material, then the parameters would include that material (or components of that material), plus other parameters that might be needed to distinguish the material from other similar materials. For example, to prove a gasoline discharge, choose such typical parameters as aromatics and methyl tert-butyl ether; to distinguish this discharge from a paint thinner with similar aromatics, add acetone and MEK and possibly alcohols that would be present in a paint thinner but not in gasoline.

If the goal is to prove that a waste is a RCRA hazardous waste, fewer test parameters may be necessary. Remember: Defense attorneys will likely take every opportunity to cloud a case. A simple flash point or pH test is enough to prove that ignitable or corrosive wastes are hazardous. However, a listed hazardous waste typically requires more analyses to prove the identity or concentration of a waste. A listed waste also requires some proof of the source or process for generating the waste.

If the goal is to prove willful pollution, then it is necessary to show actual pollution; not just potential pollution. Doing so will require soil or water samples. Pollution charges are better supported when the pollution is a violation of some numerical standard rather than guidance or a goal. Frequently, these cases end up as a battle of the experts, in which case a typical jury has neither the scientific background to understand the issues nor the patience to sit through relevant instruction.

In choosing the laboratory to conduct tests that will be introduced as evidence, the SOSC should consider the possibility that laboratory personnel may also be required to testify.



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- To ensure proper handling of samples and paperwork, notify the laboratory when shipping or delivering evidence samples.
- A joint disposal and evidence situation may require collecting two samples. Send the disposal sample to one laboratory and the evidence sample to another laboratory.

5.4 - Packing and Shipping

Packing Procedures

This section provides suggestions for packing and shipping samples. The SOSC may use alternative packaging, as long as the same safety and security goals are met. Some of these suggestions may not apply to all situations, but all samples should be packaged in a manner that

- Minimizes the potential for leaks and breakage, especially for hazardous material samples.
- Meets USDOT regulations for transport of hazardous material.

When selecting a packaging procedure, the SOSC should consider the suspected or known hazards in the sample. For packing purposes, samples fall into two types:

- Environmental samples. These are samples that are not expected to contain high levels of hazardous materials and that would not pose a threat during transportation. They include drinking water, groundwater, surface water, background samples, soil, sediment, and wastewater effluent. USDOT does not regulate the shipment of non-hazardous environmental samples; so those samples may be packaged as described below to preserve their integrity.
- **Hazardous material samples**. These samples contain hazardous materials and must be packaged to meet certain labeling, marking, and shipping regulations. Noted that preservatives used in some environmental samples may cause the samples to be regulated as a hazardous material, particularly where the pH of the sample is preserved to < 2 or
 - > 12. Pre-preserved sample containers are also considered hazardous materials.

Samples should be packaged for shipment on a common carrier as follows:

1. Place the sample container in a thick, new, clear plastic bag with a zipper closure. Do not put incompatibles together. As much air as possible should be squeezed from the bag before sealing. Bags may be sealed with evidence tape for added security.



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- 2. A common picnic cooler is typically used as a shipping container for samples. In preparation for shipping samples, the drain plug should be taped shut from the inside and the outside. For extremely hazardous samples, each sample can be placed in another container such as a paint can filled with an absorbent. The lid must be sealed, typically with metal clips, filament strapping, or evidence tape. Be sure to place arrows on the can to indicate which end is up. The outside of each can must contain the proper USDOT shipping name and UN/NA identification number of the sample. These paint cans can then be placed in a cooler as described below.
- 3. Place the bottles (or cans) in the lined cooler. Put ice packs around the sample (if appropriate) and fill the rest of the remaining space in the cooler with absorbent for cushioning and leakage control. Cardboard separators may be placed between the bottles as an alternative to loose packing or ice packs.
- 4. Securely close the liner bag and tape it shut.
- 5. Place a copy of the chain-of-custody form inside a plastic bag, sealed, and taped to the inside of the cooler lid. The sampler should also keep a copy of the chain-of-custody form. The SOSC should notify the laboratory if the sample is suspected to contain any substance toward which laboratory personnel should take extra safety precautions.
- 6. Close the cooler and tape it securely shut with strapping tape. For evidence samples, evidence tape should be used in place of (or in addition to) strapping tape on the outside of the cooler.
- 7. Mark the cooler with arrows and "This End Up." Mark the cooler with the name, address, and other details that the common carrier requires. Mark the proper shipping name, the USDOT identification number, and the hazard class, as appropriate for the material being shipped. Most samples will qualify as a limited-quantity package. The shipping description for those samples must include "limited quantity" in the description.
- 8. The cooler is now ready for shipping via common carrier to a contract laboratory. Verify that the common carrier accepts hazardous materials. United Parcel Service (UPS) normally accepts labeled hazardous-material packages and delivers them the next day. Federal Express and other carriers may also accept hazardous materials, but check with them before shipment. Be sure to comply with USDOT hazardous material regulations, if applicable.

Shipping Procedures

The USDOT regulates the shipment of hazardous materials, including samples. Since some of the samples collected by a SOSC could be expected to be a hazardous material, the USDOT regulations must be followed.



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U.S. DOT Regulations

The SOSC must determine if a sample is a hazardous material prior to transportation. If the sample is a known material that is identified or listed in the 49 CFR 172.101 Hazardous Material Table, then the sample must be packaged, marked, labeled and shipped accordingly. However, if the samples are partially known or unknown, the SOSC must select a transportation category in accordance with the USDOT classification scheme:

CLASS	MATERIAL
1	Explosives
2	Gases – flammable, non-flammable, and poisonous
3	Flammable and Combustible Liquids
4	Flammable Solids
5	Oxidizers and Organic Peroxides
6	Poisons and Infectious Substances (etiologic agents)
7	Radioactive Materials
8	Corrosives
9	Miscellaneous (material that is a hazard but that does not fit in any
	other hazard class)
ORM-D	Other Regulated Material (material that presents a limited hazard
	during transportation due to its form, quantity, or packaging)

In addition, according to 49 CFR 172.101(c)(12) and 172.402(h), when there is a reasonable doubt as to the hazard class and labeling requirements and laboratory testing is needed, the material may be assigned a tentative class and description based upon the defining criteria and hazard precedence, or the SOSC's knowledge of the material. Information obtained from field tests may be used to help classify the material.

- Many of DEM's samples will be flammables and corrosives, with some poisons and ORMs. If a sample is unknown, then -- at a minimum -- quick field tests for pH, oxidizer, water solubility, and ignitability should be done to help determine the shipping class. If the material is not flammable, an oxidizer, water reactive or corrosive, it most likely should be classified as a poison (pesticide, cyanide, or a very toxic material) or class 9 (chlorinated solvents, TCLP wastes, soils, or miscellaneous hazardous wastes). Keep in mind that a toxic hazardous waste often does not meet the USDOT definition of poison.
- The packing instructions described earlier should meet all the USDOT packaging standards in most situations that an SOSC encounters. Be sure not to package incompatible materials together in the same package.



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- The USDOT shipping paper requirements can be met by using the common carrier's form, a DEM Shipping Paper, or even a hazardous waste manifest form. More than one exterior package may be listed on a single shipping paper. Use only USDOT authorized abbreviations on a shipping paper.
- To meet the USDOT labeling requirements:
- Use the applicable 4"x4" DOT hazard label(s) on the sample itself or its container. Another label must be put on the outside of the sample carrier (but not on the bottom).
- The USDOT proper shipping name and marking requirements are met by marking the appropriate information on the sample and the outside of the sample carrier, near the hazard label. The words "Laboratory Samples" should also be marked on the outside of the carrier.
- Write the shipping name in the format: "Shipping Name", "Hazard Class", "UN/NA #", "Packing Group". The shipping name must also include the letters "RQ" if the package holds a reportable quantity of a hazardous material. (Such a quantity would be rare for samples, but not impossible since some reportable quantities are one pound.) Whenever the shipping name contains "n.o.s.", put in parentheses the main one or two compounds, or suspected compounds that give the material its hazard.

5.5 – Field Testing

Purpose of Field Testing

A field test is basically an analytic procedure that is conducted outside of the laboratory using portable instruments, kits, or other testing materials. It can be broad or limited in scope, depending on the situation and information to be obtained. Field testing can be used to:

- Gain real-time information for making health and safety decisions for first responders
- Estimate the extent of contamination
- Refine sampling plan. Depending on the incident, , for example, field tests may help to:
 - Adjust the scope of sampling activities.
 - Identify or eliminate lab parameters. (Note: A positive field test can be used to eliminate parameters, but a negative or borderline or inconclusive field test should not be relied upon except in obvious cases, such as a wastewater showing neutral on pH paper.)
 - Make compositing decisions.
 - Tentatively identify or categorize unknown or suspected materials.



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- Determine if laboratory analyses are necessary. (Note: Field tests are not as sensitive, specific, or accurate as laboratory methods, so it cannot take the place of laboratory analyses in all situations. All evidence samples will need to be verified by laboratory analyses.)
- Help determine when cleanup actions appear adequate.

Field Instruments

All materials that appear to be aqueous should be tested with pH paper in the field, either during or after sample collection. It is recommended that all samples be evaluated for corrosivity, ignitability, oxidizer and water solubility at a minimum, either by field test or knowledge of the material. (See HazCat Kit below.) Further testing may also be considered depending on the situation and results of the first round of tests. This can be done by the SOSC or whoever is collecting the sample.

Avoid using smell to identify or categorize materials. Any odors that are detected in an area or near a sample should be evaluated as a potential sign of danger or of a need for personal protection equipment. A smell may provide clues to the identity of the material, but it is unreliable for identification purposes and can be dangerous. Continued inhalation of materials with odor is not recommended unless the SOSC is certain that exposure is not harmful. The use of respiratory protection to minimize potential exposure during sampling is recommended. Do all field testing outdoors in open air, and use small quantities of sample material to decrease the amount of airborne material.

The DEM SOSCs also have access to several field instruments. They include vapor detectors, combustible gas/oxygen indicators, radiation detectors, and a HazCat Kit. Each field testing device has distinct strengths, weaknesses, care and use requirements that are detailed in its manual. These instrument manuals should be a responder's main source of information. The following is a summary of key features and maintenance requirements.

AIM Detector

DEM uses the LOGIC Series Gas Detector by AIM. Most AIMs have a combination oxygen sensor unit and a multi-gas sensor unit. A chlorine sensor is also available. The multi-gas sensor is a non-specific metal oxide sensor that detects various hydrocarbon based gases and vapors. The detection limits range from 0% to 100% of the LEL. The oxygen sensor is an electrochemical sensor with a detection range of .1% volume to 25% volume. Key inspection and maintenance issues include:



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- Battery life is eight to ten hours. Full recharge requires about six hours.
- Replace the oxygen sensor every year. Replace the combustible sensor every two years, sooner for dusty or acidic usage. (Very high concentrations can "numb" sensors, and organo-lead compounds can "poison" sensors. Combustible gas detectors have a wide margin of error and are not always reliable, tending to under read a concentration.)

Note: The SOSC should refer to the AIM User's Manual for specific operating instructions.

Photoionization Detectors

DEM uses two different brands of PIDs: the Photovac Microtip and the RAE Systems MultiRAE. PIDs measure the total concentration of volatile organic compounds (VOCs) and other gases in the air by utilizing an ultraviolet light (UV) source to ionize the airborne contaminant(s). A fan or pump draws air into the detector of the instrument where the contaminants are exposed to UV light and the resulting ions are collected and measured. For example, a reading of 50 ppm indicates that there are approximately 50 ppm of total ionizable compounds present. Even when calibrated for a specific compound, the instrument is direct reading only if there are no other compounds present.

The Photovac Microtip is DEM's older PID model. It is a microprocessor-controlled instrument for measuring the presence of photoionizable chemicals in the air at ppm levels. Key inspection and maintenance issues include:

- Battery life is about seven hours.
- If not used regularly, charge once per month for 8-72 hours.
- Full battery recharge requires about eight hours.
- Calibrate with isobutylene before each use.
- Clean UV lamp window every 24 hours. (A dirty window or bulb will affect the accuracy of the instrument.)
- Replace the inlet filter every 240 hours of operation, or more often in dusty environments.

The SOSC should refer to the Photovac User's Manual for specific operational instructions.

The MultiRAE is a compact and lightweight PID. It has a monitor for oxygen/LEL, VOC, and toxic gas (CO, H₂S, SO₂, NO, NO₂, CL₂, NH₃, HCN, PH₃) that can be custom calibrated. Key inspection and maintenance issues include:



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- Maximum continuous operating time of about 10 hours.
- Runs on alkaline batteries, Ni-Cd batteries, or continuously when plugged into charger or 12 volt adapter.
- Full battery recharge requires about 10 hours.
- Will operate in 0% 95% humidity.

The SOSC should refer to the MultiRAE User's Manual for specific operational instructions.

Radiation Detector

DEM uses a Radiation Alert Monitor 4. This instrument is used to screen for radioactive materials. It will detect alpha, beta and gamma radiation. The instrument needs regular battery changes to keep it functioning properly. The SOSC should refer to the user manual for specific operational instructions.

Colorimetric Indicator Tubes

Colorimetric indicator tubes (Drager Tubes) consist of a glass tube impregnated with an indicating chemical. The tube is inserted into a piston or bellows type pump. At a predetermined rate, a fixed volume of air is drawn into the tube. The contaminant reacts with the indicator chemical in the tube, producing a change in color whose length is proportional to the concentration of the contaminant. Colorimetric indicator tubes have the disadvantage of only screening for specific chemical groups and have poor accuracy. Nevertheless, colorimetric indicator tubes are still valuable, especially when trying to identify a chemical.

- Colorimetric tubes have expiration dates, but they will usually work adequately for qualitative usage long after the expiration date.
- If a negative result is obtained during usage, verify the working condition by using it on a known source. For example, if testing for ammonia, the tube should change color from yellow to purple. If the tube remains yellow, indicating a negative test, try it on some ammonia in your HazCat Kit to verify that it will change to purple. If it doesn't, the tube is bad.

<u>HazCat Kit</u>

The HazCat Kit (a registered trademark) can be used to categorize and sometimes to identify unknown liquids and solids. It relies on a flow chart of qualitative and a few semi-


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quantitative chemical tests. Laboratory verification is still necessary, but field tests can be used to help:

- Provide quick, inexpensive information about the incident;
- Choose samples for collection;
- Identify or eliminate lab parameters;
- Assist with composite-sampling determinations;
- Assist cleanup activities; and
- Provide tentative information while awaiting lab results.

The SOSC should refer to the HazCat Kit User's Manual for specific operational instructions.

The most common tests include:

- **Ignition Test**. The ignition test is used to estimate the approximate flash point of the material. A lit match is held over the sample (of which about 1 ml is placed on a watch glass or in a foil cup). A material with a flash point less than the current ambient temperature (e.g. flammable liquid) will ignite. If the flame must be touched to the sample to ignite it, then it is combustible (or possibly flammable, if this test is done in a cool environment).
- **pH Test**. pH paper is used to estimate the pH of aqueous samples (and of water test mixtures).
- **Oxidizer Test**. Oxidizer paper is used to identify materials with potential oxidizer hazards. For best results, add 1 drop of dilute hydrochloric acid to the KI/starch paper, then touch it to the sample. An oxidizer will turn the paper purple/black. (This test is extremely sensitive to chlorine/bleach type materials and will indicate a positive even for concentrations too small to be an oxidizer hazard).
- Water Solubility Test. A water test is used to determine how a material behaves in water, i.e. its reactivity and solubility. Place a few ml of water in a test tube, add a few drops of sample to the water, shake, and observe if the sample reacts, dissolves, floats, sinks, suspends, or emulsifies.
- **Peroxide Test**. Peroxide paper is used to test for organic and in-organic peroxides. The paper is moistened and then touched to the material. A blue color is positive. This test can be applied to crystals around a container's lid to screen for potentially explosive organic peroxides. (Note: The paper has an enzyme and is sensitive to prolonged heat. Refrigerate all but a few papers to be kept in the kit. Check the kit supply weekly with household hydrogen peroxide and replace papers with a fresh supply as needed.)
- **Sulfide Test**. Sulfide paper is used to detect hazardous sulfide ions. Touch the paper to the sample; a brown to black color is positive.



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• **Evaporation**. To measure the evaporation and volatility of a substance, place a small amount on a watch glass or other suitable surface. While conducting other tests, watch its rate of evaporation.

Other Useful Tests

- **Char Test**. The char test is used to differentiate organic vs. inorganic samples. Place a small amount of the material in a test tube and heat it with a propane or butane torch. There are many things to look for, but the main item is charring, indicative of organic materials. The pH and oxidizer tests can also be applied to the smoke to get more information.
- **Chloride Hot Wire Test (Bielstein Test)**. The chlorine hot wire test is used to detect > 500 ppm chlorinated organics. Heat a copper wire in a torch flame until no green flame is visible and allow it to cool a few seconds. Touch the wire to the sample and then place into the flame. A green color is positive.
- **Water Detection Test**. Water paper is used to determine if a sample contains water. (Note: This test does not work well in concentrated acids.)
- **Iodine Crystal Test**. The iodine crystal test is used to categorize hydrocarbon solvents. Add a small iodine crystal to a few ml of sample in a test tube and shake. The colors are listed in the following table:

COLOR	INDICATES	EXAMPLES
burgundy red	saturated	benzene, toluene,
		xylene,
		chlorobenzenes,
		trichloroethylene,
		PCBs
purple	unsaturated	hexane, mineral
		spirits, kerosene,
		trichloroethane
yellow/orang	oxygenated	alcohol, ketone,
e		acetates
yellow/red	polar	toluene/acetone mix
	aromatic	or mixture
brown/mudd	mixture	The crystal will turn
У		PCBs red at about 30
		ppm



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- **Metals Precipitation Test**. The metals precipitation test is used to screen for heavy metals, such as lead, mercury, etc. The reagents are sodium hydroxide and sodium sulfide solutions. They can be made by dissolving a few crystals of the solid in a test tube with distilled water. Add a few drops of sample to the reagent and look for any formation of a precipitate (often white with hydroxide; black with sulfide). The reagents can be mixed or ran separately (i.e., in two tests). A ppt. indicates a strong possibility of heavy metals.
- **Prussian Blue Test**. The Prussian blue test is used to detect >10 ppm cyanides. It involves the mixing of ferrous ammonium citrate and ferrous ammonium sulfate in water, and adding the sample. Add a few drops of dilute hydrochloric acid and look for a deep blue color indicating cyanide.
- **Chlorobenzene Gas Test**. The chlorobenzene gas test is used to screen for PCBs. It is a quicker, more sensitive test than the PCB kits that use a sodium fusion reaction/chloride detection (that chloride salts easily interfere). Heat the sample in a test tube until it smokes. Use a chlorobenzene detector tube (with its pre-tube, as needed, to remove acid gases). Draw the smoke through the tube. A positive color change indicates PCBs or other chlorinated aromatics. The stronger the result, the greater the concentration. This method does not estimate the concentration, but is sensitive to a few ppm, and would warrant laboratory analysis.
- **Hydrochloric Acid Gas Test**. The hydrochloric acid gas test is used to detect the breakdown of chlorinated organics when heated in a test tube. Use the HCl detector tube on the smoke, as above. This test, like the chlorobenzene test, is only qualitative but sensitive to about 7 ppm chlorinated organic.

<u>HazCat Safety</u>

The most difficult part of using these tests is the actual collection of the sample, discussed elsewhere in these *Emergency Response Sampling Procedures*. The use of the HazCat kit involves only a few ml of sample, so the potential hazards are reduced. However, since the sample may be hazardous and some of the kit's reagents are hazardous, the SOSC is expected to adhere to strict safety procedures. Safety procedures are more fully discussed in *The Emergency Response Site Safety and Health Plan*, but the general precautions for HazCat testing include:

- Do all field tests outside the "hot zone".
- Do all tests in a well-ventilated area or outdoors, positioned upwind of the samples and test.
- Be careful about handling ignitable materials near flames used in testing.



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- Keep a small box of baking soda (sodium bicarbonate) handy, for neutralizing acids used in testing or spillage.
- When testing unknowns, use level B personal protection.
- When materials are tentatively identified, use the level of personal protection appropriate for that material. (For example, paints, solvents, non-fuming acids or pesticides may require up to level C personal protection. Waste oil may require only level D.) A good rule of thumb is to dress for maximum protection and downgrade as further information becomes available to justify it.
- The use of odor to categorize a sample is not recommended, especially prior to conducting field tests. If an odor is noticed during any activity, do not ignore the information, but use it to help determine the potential safety steps to be taken.

HazCat Kit Maintenance

Most of the reagents in the kit are stable and will last for many years. (The dates on the bottles are the date of manufacture, not an expiration date.) The manual gives details on how to test each reagent. Most reagents can be tested annually, except those that are sensitive, as described below.

- When maintaining the kit, wear gloves and eye protection. Squeeze bottles gently to check for cracks and brittleness. Look for leakage. Bottle checks should be completed quarterly.
- Drager Tubes. Drager tubes have expiration dates, but they will usually work adequately for qualitative usage long after the expiration date. If a negative result is obtained during usage, then verify the working condition by using it on a known source.
- Peroxide Paper. Peroxide paper tends to be heat sensitive. Heat destroys the enzyme used in the manufacture of the paper. Therefore, keep only a few papers at a time in the kit, and the rest in the refrigerator, where they will last for years (even past the expiration date). If the paper turns a light brown color, it is probably bad. Check with household hydrogen peroxide to verify usefulness. Check the papers kept in the kit about once every two to three months.
- Other Sensitive Reagents. Some reagents tend to be heat sensitive and eventually go bad. Most of them are organic reagents dissolved in methanol (CAUTION: FLAMMABLE). Reagents for the following procedures should be tested about every three months to determine usefulness:
 - o Iron Test
 - Lead Test
 - Chromium Test



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- Fluoride Test
- Nickel Test
- \circ Cadmium Test
- \circ The Cyanide Test



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Section 6:

Plans for Specific Types of Incidents



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Plans for Specific Types of Incidents

Section 6 Outline	
6.1	Hazardous Materials and Environmental Protection Plan
6.2	Oil Spill Plan
6.3	Wildlife Incident Response
6.4	Fish Kill Plan
6.5	Hurricane Plan
6.6	State Forest Fire Plan
6.7	Emergency Response Procedures on State Beaches
6.8	Animal Disaster and Animal Care Plan
6.9	Animal Disease Plan
6.10	Mosquito-Borne Zoonotic Disease Plan
6.11	Radiological Emergency Ingestion Exposure Pathway Plan
6.12	Drought Plan
6.13	Plant Health Emergency Management Plan
6.14	Continuity of Operation Plan (COOP) for DEM

6.1 – Hazardous Materials and Environmental Protection Plan

Find the Hazardous Materials and Environmental Protection Plan.

Attachment A: <u>DEM Notifications and Support</u> Attachment B: <u>Notifying the National Response Center (NRC)</u> Attachment C: <u>Mutual Aid in Rhode Island</u> Attachment D: <u>Sample Broadcast Announcements</u>

6.2 – Oil Spill Plan

Find the multi-page oil spill incident command structure or the single-page one.

6.3 – Wildlife Incident Response

Find the <u>Protocol for DEM Response to a Report of an Environmental Incident on Narragansett</u> <u>Bay</u>.

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Information on potential rabies exposure found (DEM) or Diseases Rabies (RIDOH).

Information on resolving issues with backyard wildlife.

Information on protocols for incidents involving coyotes.

Find a list of Licensed Rhode Island Nuisance Wildlife Control Specialists.

Find information on the prohibition of relocating wildlife in Rhode Island.

Find information on <u>animal-proofing households</u>.

Find information regarding the following wild animals below:

- <u>American Black Bears</u>
- <u>American Woodcock</u>
- <u>Bats</u>
- <u>Beavers</u>
- Bobcats
- <u>Canada Geese</u>
- Eastern Coyotes
- Fishers
- <u>Foxes</u>
- Frogs and Toads

- <u>Mute Swans</u>
- Osprey
- Porcupine
- Rabbits
- <u>Raccoons</u>
- <u>River Herring</u>
- Salamanders
- <u>Shrews</u>
- <u>Skunks</u>

- Snakes
- Squirrels and Chipmunks
- <u>Turtles</u>
- Virigina Opossums
- <u>Vultures</u>
- White-tailed Deer
- Wild Bees
- Wild Turkeys
- <u>Woodchucks</u>

6.4 – Fish Kill Plan

Find the Fish Kill Response Standard Operating Procedure (SOP).

Find the Fish Kill Notification form.

Find the Fish Kill Response Equipment checklist.

Find the Fish Kill Investigation Report Spreadsheet (Microsoft Excel) or form (PDF).

Find the Fish Kill Counting Record Table.

All of the forms found under Section 6.4 are conveniently bundled together.





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6.5 – Hurricane Plan

Find instructions on closing the Port of Galilee and or Newport.

Find instructions on securing state parks and or beaches.

6.6 – State Forest Fire Plan

Find the State Forest Fire Plan.

6.7 – Emergency Response Procedures on State Beaches

Find the procedures for emergency response to state beaches.

6.8 – Animal Disaster and Animal Care Plan

Find the Animal Disaster and Animal Care Plan.

Find a link for city and town assistance in preparing for emergency animal care.

Find a document on Animal Health Resources (FEMA).

Find information on emergency sheltering for livestock.

Find a press release on animal emergency preparedness.

Find a press release on animal emergency response action.

Find a press release on animal emergency remediation.

Find advice for animal owners facing emergencies, and additional information.

Find an informational brochure on animal emergency preparedness.

Find <u>advice on evacuation with domestic animals</u> and more information for both <u>motels</u> and <u>kennels</u> during emergency situations.



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Find emergency preparedness information for the following animals below:

- <u>Household pets</u>
- <u>Livestock</u>
- <u>Horses</u>
- Birds and exotic animals

Find emergency response information for the following animals below:

- Household pets
- <u>Livestock</u>
- <u>Horses</u>
- Birds and exotic animals

Find emergency remediation information for the following animals below:

- Household pets
- <u>Horses</u>

Find a template for a lost animal poster (or word doc version).

Find a pet emergency information sheet.

Find advice for coping with the loss of a pet.

Find the Rhode Island guide to the operation of emergency pet shelters.

Find forms regarding emergency animal care below:

Pet Owner Sheltering Agreement (6-8-F01) Animal Record (6-8-F02) Equine Record (6-8-F03) Animal Daily Care (6-8-F04) Animal Sign-out and Sign-in (6-8-F05) Bite Report (6-8-F06) **Bite Protocol (6-8-F07)** Authorization for Emergency Veterinary Care (6-8-F08) Shelter Release to Veterinary Care (6-8-F09) Failure to Comply Notice (6-8-F10) Animal Sighting and Rescue Request (6-8-F11) Permit to Enter Property for Recovery (6-8-F12) Truck Manifest for Emergency Evacuation (6-8-F13) State of RI General Release of All Claims (6-8-F14) Volunteer Duty Roster (6-8-F15) Staff Sign-in and Sign-out (6-8-F16)



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Log of Volunteer Hours (6-8-F17) Phone Log (6-8-F18) Shift Situation Report (6-8-F19) Shelter Situation Report (6-8-F20) Supply Request (6-8-F21) Donations Received (6-8-F22)

Find signage regarding emergency animal care below: <u>Control Your Pet</u> (6-8-S01) <u>Arrow</u> (6-8-S02) <u>Registration Area</u> (6-8-S03) <u>Banding Area</u> (6-8-S04) <u>Dog Walk Area</u> (6-8-S05) <u>Loading Area</u> (6-8-S06) <u>Isolation Area</u> (6-8-S07) <u>Exit</u> (6-8-S08) <u>Bite Warning and Quarantine</u> (6-8-S09)

6.9 – Animal Disease Plan

Find the Animal Disease Plan.

6.10 – Mosquito-Borne Zoonotic Disease Plan

Find the Mosquito-Borne Zoonotic Disease/ Eastern Equine Encephalitis (EEE) Plan.

6.11 – Radiological Emergency Ingestion Exposure Pathway Plan

Find the Radiological Emergency Ingestion Exposure Pathway Plan.

Also find radiological emergency guidelines (APHIS, NAHEM).

6.12 – Drought Plan

Find the <u>DEM Roles in drought response</u>.

Find the drought response plan for the Division of Agriculture.

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Find the Agricultural Wetlands Permit Application from the Division of Agriculture.

6.13 – Plant Health Emergency Management Plan

Find the Plant Health Emergency Management Plan.

6.14 – Continuity of Operation Plan (COOP) for DEM

Find the Continuity of Operation Plan (COOP).

Refer to the following appendices for additional information below:

Appendix A: <u>Risk Assessment for Divisions of DEM</u> (6-14-A)

Appendix B: <u>DEM Records Management Liaisons</u> (6-14-B)

Appendix C: <u>Leadership Succession for DEM Offices</u> (6-14-C)

Appendix D: <u>Recovery Services, Supplies, and Vendors</u> (6-14-D)

Find the Pandemic Flu Annex.

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Section 7 Safety and Health



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Safety and Health

Section 7 Outline	
7.1	Emergency Response Site Safety and Health Plan
7.2	Personal Protective Equipment (PPE)
7.3	Specific Hazard Attachments
7.4	Respirator Policy and Program

7.1 – Emergency Response Site Safety and Health Plan

Find the Emergency Response Site Safety and Health Plan <u>HERE</u>.

7.2 - Personal Protective Equipment (PPE)

Find detailed information on emergency response personal protective equipment (PPE) <u>HERE</u>, and a summary of the information <u>HERE</u>.

7.3 – Specific Hazard Attachments

Find information on the following hazards below:

```
All Hazards (7C-1)

Animal Bites (7C-2)

Benzene (7C-3)

Cold Stress (7C-4)

Confined Space Entry (7C-5)

Drums (7C-6)

Heat Stress (7C-7)

Helicopter (7C-8)

Hydrogen Sulfide (7C-9)

Insect Bites And Stings (7C-10)

Plants And Marine Animals (7C-11)

Pregnancy (7C-12)

Small Boats (7C-13)

Vehicle Operation (7C-14)
```

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7.4 - Respirator Policy and Program

- A) Find a detailed overview of the Rhode Island DEM Respirator Policy and Program <u>HERE</u>.
- B) Find certain protocols and standard operating procedures involving respirators below:

Orientation Program on Respirator Training and Fit Testing (7D-2-1) Respirator Fit Test Protocol (7D-2-2) Selection of a Respirator for Comfort (7D-2-3) Respirator Face Piece Fit Testing (7D-2-4) Sensitivity Check (7D-2-5) Test Chamber Design (7D-2-6) Qualitative Fit Test – Isoamyl Acetate Test (7D-2-7) Qualitative Fit Test – Isoamyl Acetate Test (7D-2-7) Qualitative Fit Test – Stannic Oxychloride Irritant Smoke Test (7D-2-8) Functional Fit Test – Positive Pressure Test (7D-2-9) Functional Fit Test – Negative Pressure Test (7D-2-10) Proper Cleaning and Storing of Respirators (7D-2-11)

C) Find forms involving respirators below:

Respirator Medical Recertification Request (7D-3-1) Employee Respirator Use Profile (7D-3-2) Physician's Opinion Letter – Medical Respirator Certification (7D-3-3) Respirator Fit Test Data Collection Form (7D-3-4) Respiratory Equipment Inspection Checklist (7D-3-5) Required Information for Employees Using Respirators When Not Required Under the Standard (7D-3-6) Medical Evaluation Questionnaire for Respirator Use (7D-3-7)

D) Additional respirator programs and protocols can be found below:

Personal Protective Equipment for Go Kits in Animal Disease Response (6-9-7) Infection Protection for Workers in Environments That Present a Risk of AI Exposure (6-9-AI-P01) Comparison of Air-Purifying Respirators For Protecting Poultry Workers (6-9-AI-P02) PPE in Biologically Hazardous Environments (USDA Operational Guidelines) Respirator Plan For Office of Emergency Response (7D-4-1)

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Section 8 Job Aids for Incident Command System (ICS)



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Job Aids for Incident Command System (ICS)

Section 8 Outline		
8.1	All Team Members	
8.2	Incident Command Section	
8.3	Operations Section	
8.4	Planning Section	
8.5	Logistics Section	
8.6	Finance and Administration Section	

8.1 - All Team Members

Find a job aid for all team members responding to an incident requiring ICS formation <u>HERE</u>.

For more information, reference the United States Coast Guard (USCG) Incident Management Handbook <u>HERE</u>.

8.2 – Incident Command Section

Find job aids for team members of the command section of ICS below:

Incident Commander (8-2-1) Deputy Incident Commander (8-2-2) Information Officer (8-2-3) Safety Officer (8-2-4) Liaison Officer (8-2-5) Agency Representative (Section to be determined) (8-2-6)

8.3 - Operations Section

Find job aids for team members of the operations section of ICS below:

<u>Operations Section Chief</u> (8-3-1) <u>Staging Area Manager</u> (8-3-2) <u>Protection and Recovery Branch Director</u> (8-3-3)



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Near-shore Protection Group Supervisor (8-3-4) Strike Team or Task Force Leader (8-3-5) Onshore Recovery Group Supervisor (8-3-6) Disposal Group Supervisor (8-3-7) Decontamination Group Supervisor (8-3-8) Wildlife Branch Director (8-3-9) Wildlife Rescue Group Supervisor (8-3-10) Wildlife Rehabilitation Group Supervisor (8-3-11)

8.4 – Planning Section

Find job aids for team members of the planning section of ICS below:

Planning Section Chief (8-4-1) Situation Unit Leader (8-4-2) Resource Unit Leader (8-4-3) Documentation Unit Leader (8-4-4) Environmental Unit Leader (8-4-5) Technical Specialist Unit Leader (8-4-6) Demobilization Unit Leader (8-4-7)

8.5 – Logistics Section

Find job aids for team members of the logistics section of ICS below:

Logistics Section Chief (8-5-1) Support Branch Director (8-5-2) Supply Unit Leader (8-5-3) Facilities Unit Leader (8-5-4) Ground and Vessel Support Unit Leader (8-5-5) Service Branch Director (8-5-6) Medical Unit Leader (8-5-7) Communications Unit Leader (8-5-8) Food Unit Leader (8-5-9)

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8.6 - Finance and Administration Section

Find job aids for team members of the finance and administration section of ICS below:

Finance/Administration Section Chief (8-6-1) <u>Time Unit Leader</u> (8-6-2) <u>Procurement Unit Leader</u> (8-6-3) <u>Cost Unit Leader</u> (8-6-4) <u>Compensation/Claims Unit Leader</u> (8-6-5)



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Section 9 Plan Templates for Oil Spill Response



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Plan Templates for Oil Spill Response

Section 9 Outline		
9.1	Equipment Decontamination Plan	
9.2	Oil Disposal Plan	
9.3	Oil Spill Site Safety Plan	
9.4	Spill Demobilization Plan	

9.1 – Equipment Decontamination Plan

Find the DEM Emergency Response Equipment Decontamination Plan <u>HERE</u>.

9.2 – Oil Disposal Plan

Find the DEM Emergency Response Oil Disposal Plan <u>HERE</u>.

9.3 – Oil Spill Site Safety Plan

Find the DEM Emergency Response Oil Spill Site Safety Plan <u>HERE</u>.

9.4 - Spill Demobilization Plan

Find the DEM Emergency Response Spill Demobilization Plan <u>HERE</u>.

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Section 10 Forms for Incident Command System (ICS)



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Forms for Incident Command System (ICS)

- The Emergency Response Incident Safety Plan can be found <u>HERE</u>.
- The Emergency Response Incident Safety Plan Worker Acknowledgement Form can be found <u>HERE</u>.
- Information on ICS form routing can be found <u>HERE</u>.
- Incident Command System (ICS) forms are conveniently compiled in an Excel workbook <u>HERE</u>.
- Individual ICS forms are found below:

IAP Cover Sheet - Incident Action Plan (10-4)

ICS Executive Summary (10-5)

ICS General Plan (10-6)

ICS Initial Incident Information (10-7)

ICS 201 – Incident Briefing (10-8)

Template for <u>ICS 201 in MSWord</u>

ICS 202 – Incident Objectives (10-9)

Template for ICS 202 in MSWord

ICS 203 – Organization Assignment List (10-10)

Template for ICS 203 in MSWord

ICS 204 – Division Assignment List (10-11)

Template for ICS 204 in MSWord

ICS 204a – Assignment List Attachment (10-12)

ICS 205 – Incident Radio Communications Plan (10-13)

Template for ICS 205 in MSWord



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ICS 205a - Communications List (10-14)

ICS 206 – Medical Plan (10-15)

Template for ICS 206 in MSWord

ICS 207 – Organizational Chart (10-16)

Template for ICS 207 in MSWord

ICS 208 - Schedule of Meetings (10-17)

ICS 209 – Incident Status Summary (10-18)

Template for ICS 209 in MSWord

ICS 209-1 – Incident Status Update (10-19)

ICS 209-2 – IAP Marine Situation Status Summary (10-20)

ICS 210-OS - Status Change (10-21)

ICS 211 – Incident Check-in List (10-22)

Template for <u>ICS 211 in MSWord</u>

ICS 211e-OS – Check-in List (Equipment) (10-23)

ICS 211p-OS – Check-in List (Personnel) (10-24)

ICS 213 – General Message (10-25)

Template for <u>ICS 213 in MSWord</u>

<u>ICS 214 – Unit Log</u> (10-26)

Template for ICS 214 in MSWord

<u>ICS 214a – Individual Log</u> (10-27)

<u>ICS 215 – Operational Planning Worksheet</u> (10-28)

Template for <u>ICS 215 in MSWord</u>

ICS 215a – Incident Action Plan Safety Analysis (10-29)

Template for ICS 215a in MSWord

ICS 216 - Radio Requirements Worksheet (10-30)

Template for ICS 216 in MSWord



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- ICS 217 Radio Frequency Assignment Worksheet (10-31)
- <u>ICS 218 Support Vehicle Inventory</u> (10-32)

Template for <u>ICS 218 in MSWord</u>

ICS 220 - Air Operations Summary (10-33)

Template for ICS 220 in MSWord

ICS 221 – Demobilization Checkout (10-34)

Template for ICS 221 in MSWord

ICS 222 – Supply/Materials Request (10-35)

ICS 223 – IAP Health and Safety Message (10-36)

ICS 224 – Crew Performance Rating (10-37)

Template for ICS 224 in MSWord

ICS 225 – Incident Personnel Performance Rating (10-38)

Template for ICS 225 in MS Word

- ICS 226 Long Term Planning Activities Worksheet (10-39)
- ICS 230-OS Daily Meeting Schedule (10-40)

<u>ICS 231-OS – Meeting Summary</u> (10-41)

ICS 232-OS – Resources at Risk Summary (10-42)

<u>ICS 232a-OS – ACP Site Index</u> (10-43)

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Emergency Response Plan Appendices



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Emergency Response Plan Appendices

Appendices Outline		
A.1	Oil Spill Field Operation Guide (FOG)	
A.2	Rhode Island Oil Spill Science Plan (RIOSP)	
A.2.1	DEM and URI Cooperation	
A.2.2	Scientific Support for Environmental Emergency Response (SSEER)	
A.2.3	National Resource Damage Assessment (NRDA) Procedures and Terms	
A.2.4	Standard Operation Procedures (SOPs)	
A.2.5	Equipment	
A.2.6	Forms	
A.3	Glossary of Abbreviations and Definitions	

A.1 – Oil Spill Field Operation Guide (FOG)

Find the Oil Spill Field Operation Guide (FOG) <u>HERE</u>.

A.2 – Rhode Island Oil Spill Science Plan (RIOSP)

The Rhode Island Oil Spill Science Plan (RIOSP) outlines how DEM obtains scientific support from Scientific Support for Environmental Emergency Response (SSEER) during an emergency. For additional information on the University of Rhode Island (URI) and DEM cooperation, refer to the following information and reference the SSEER website <u>HERE</u>.

A.2.1 - DEM and URI Cooperation

Find the Memorandum of Understanding between DEM and URI <u>HERE</u>.

Find the work order <u>HERE</u>.

A.2.2 – Scientific Support for Environmental Emergency Response (SSEER)

Find the roster of support scientists for SSEER (2016) HERE.

Find the NRDA expertise of regional scientists (2003) <u>HERE</u>.

Find a list of contractors recommended by regional scientists (2003) <u>HERE</u>.





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A.2.3 - National Resource Damage Assessment (NRDA) Procedures and Terms

Find the NRDA Procedures and Terms <u>HERE</u>.

A.2.4 - Standard Operating Procedures (SOPs)

Find a list of SOPs below:

Spill Modeling (App 2-4-1) Water Sampling (App 2-4-2) Sub-tidal Sediment Sampling (App 2-4-3) Intertidal Infauna Sampling (App 2-4-4) Biota/Tarball Stranding Documentation (App 2-4-5) Spill Source Sampling (App 2-4-6) Shellfish Tissue Sampling (App 2-4-7) Salt Marsh Reconnaissance (App 2-4-8) Intertidal Sediment Sampling (App 2-4-9)

<u>A.2.5 – Equipment</u>

Find the Initial Field Response Kit checklist <u>HERE</u>.

Find the list of equipment for protocols <u>HERE</u>.

<u> A.2.6 – Forms</u>

Find a list of additional forms below:

Work Order for Scientific Support Water Sample Field Log (App 2-6-1) Sub-tidal Sediment Field Log (App 2-6-2) Shoreline Segment Identification Data Sheet (App 2-6-3) Biota/Tarball Stranding Data Sheet (App 2-6-4) Spill Source Chain-of-Custody Form (App 2-6-5) Salt Marsh Reconnaissance Data Sheet (App 2-6-6) Intertidal Sediment Field Log (App 2-6-7)

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A.3 – Glossary for Abbreviations and Definitions

Find the glossary of abbreviations and definitions from the ERP <u>HERE</u>.