



APPENDIX III

MARINE SITE SAFETY PLAN (GENERIC)



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EMERGENCY INFORMATION

(fill all spaces)

Ambulance	911 or _____
Fire	911 or _____
Police	911 or _____
Local Hospital _____	_____
Department of Environmental Protection	(800) 482-0777
Poison Control Center	(800) 442-6305
National Response Center	(800) 424-8802
U. S. Coast Guard (Search & Rescue)	_____
Maine Marine Patrol ME/NH Border of the West Bank of the Kennebec River	(800) 482-0730
Maine Marine Patrol East Bank of the Kennebec River to the West Bank of the Penobscot River	(800) 452-4664
Maine Marine Patrol East Bank of the Penobscot River to the Canadian Border	(800) 432-7381
Site Safety Officer: Name: _____	_____
Contractor: Name: _____	_____
Name: _____	_____
Name: _____	_____
BRWM Emergency Response Training Coordinator (ERTC) Andi Lasselle	(207) 620-4456



1.0 SCOPE AND APPLICABILITY OF THE SITE SAFETY PLAN

The scope of this generic Site Safety Plan (SSP) is to identify, evaluate, and control potential safety and health hazards, as well as provide limited emergency response to accidents during field operations during the initial phase of an oil spill response. A site-specific safety plan will be developed during larger spills and when an Incident Command System (ICS) has been established.

Objectives of this SSP include:

1. Identification and evaluation of potential hazards.
2. Definition of levels of protection required for certain work activities.
3. Establishment and implementation of work zones.
4. Evaluation and implementation of worker protective measures.
5. Formation of emergency action plans for Hazardous Waste Operations sites.
6. Ensuring of medical surveillance.
7. Ensuring personnel training.
8. Design and implementation of decontamination procedures.
9. Enforcement of appropriate record keeping.

The personnel covered by this SSP include Maine Department of Environmental Protection (DEP) Bureau of Remediation and Waste Management (BRWM) employees working on a SARA Title I mitigation site as defined by BRWM Standard Operating Procedure (SOP) Classification of Work Sites, Paragraph 5.1.2, including marine oil spills. When a site-specific safety plan has been developed such as a plan developed within ICS it will replace this generic plan. Other contractors involved with this project may be covered by their own SSPs. This SSP complies with the requirements of the Occupational Safety and Health Administration (OSHA) standards as stated in 29 CFR 1910 with emphasis on subsection 1910.120 (Hazardous Waste Operations and Emergency Response), the applicable portion of CFR 1926 (Safety and Health Regulations for Construction), and any other federal or state statutes or regulations. Amendments to this plan will be made as the contaminant profile information is updated, a change in work status or task is made, or as regulatory requirements dictate. Any changes to the SSP will be brought to the attention of those covered under the plan through additional training by the BRWM Emergency Response Training Coordinator (ERTC).

1.1 Site Background/Description

Specific background information for this site will be added to the Appendices.

- Complete Acknowledgement page Appendix A
- Attach map to Appendix B
- Attach Safety Data Sheets (SDS) to Appendix C
- Attach directions to hospital to Appendix D



1.2 Entry/Exit Procedures

Personnel working on site must follow entry/exit procedures as described in section 3, Site Control. To enter the exclusion or contamination reduction zones, all personnel, including regulatory personnel, must be able to show proof of medical surveillance, show proof of 40-hour HAZWOPER training and appropriate refreshers, show proof of clearance to wear a respirator (where appropriate), read and sign the SSP, and use the personal protective equipment required by this plan.

2.0 PERSONNEL

Safety is affected by the actions of all site personnel. Any site safety concerns should be referred to the Site Safety Officer or the Maine DEP BRWM ERTC, who will also oversee compliance with health and safety regulations by personnel.

The following personnel will be available for consultation at the DEP employee's request:

Office	Name	Phone #
BRWM ERTC	Andi Lasselle	(207) 287-7758
DEP Presque Isle	Jesse Clark	(207) 760-3138
DEP Bangor	Darian Higgins	(207) 941-4575
DEP Portland	John Luongo	(207) 822-6398
DEP Augusta	Nate Thompson	(207) 287-3692

2.1 Site Safety Briefing

Before any work begins, personnel covered under this SSP must attend a safety briefing. This briefing will be presented by the Site Safety Officer. Additional training may occur on a daily basis relative to planned tasks and as events and circumstances arise which require revision of the SSP.

Training topics may include:

- Site characterization
- Chemical and physical hazards present
- Medical surveillance requirements
- Symptoms of overexposure to hazards
- Site control
- Training requirements

Maine DEP personnel must attend this briefing if they need to perform tasks that impact other work on the site.



3.0 SITE CONTROL

Personnel entering or leaving the site must sign-in and sign-out at the entrance with the Site Safety Officer or with logistics if an incident command system has been established. During normal operations, the exclusion or "hot" zone will be designated with a line of hazard tape for shore operations. For off-shore operations, the safety zone will be determined by the U.S. Coast Guard (USCG) and relayed by a "Local Notice to Mariners". The Zone will be enforced by USCG boats. If upgrade to Level C Personal Protective Equipment (PPE) is required, the contamination reduction zone will be identified with yellow caution tape and the decon area will be designated within this zone. Only authorized personnel who meet the training, medical surveillance, and respiratory requirements may enter these zones. All personnel working in these areas must also read and sign the SSP.

Whenever possible, locate the contamination reduction and support zones upwind from the hot zone. If unable, monitoring should be continual or other provisions made to ensure minimum exposure.

4.0 HEALTH RISK ANALYSIS

Substances that may pose a potential hazard have been determined based on previous sampling results from and general knowledge of the materials on a marine oil spill site.

The chemicals of concern at the site are expected to be petroleum products. Since petroleum products are highly volatile, the primary route of entry into the body is inhalation. Petroleum products are highly flammable. Skin absorption and ingestion may be of concern if handling contaminated debris or handling pure product. SDSs shall be attached in Appendix C.

5.0 TASK RISK ANALYSIS

A risk analysis for each field task identified by the SSP, has been conducted.

Tasks include: Inspection for regulatory compliance; Safety and environmental sampling; Instrument use; Surveying & Mapping; Trenching through contaminated soil; Beach assessment; Small boat operation; Boom deployment; and Skimmer operation.

Hazards include: Exposure to contaminated soil/water/air; Excavating equipment; Exposure to cold water environment; Injury from ropes/cables; and Lifting as well as the usual slips trips and falls.



Protective measures and operating procedures to prevent injury:

- Review site safety plan, including any daily revisions to the site safety plan
- Review SDS, and know ionization potential (IP) of suspected chemicals
- Wear appropriate floatation device, and rubber soled safety boots.
- Wear appropriate chemical protective PPE to prevent direct contact exposure and as dictated by splash potential and vaporization of chemicals (gloves, boots, chemical resistant clothing, and respirators).
- Avoid breathing vapors.
- Remain upwind when possible
- Perform vapor checks with combustible gas indicator and photoionization detector (PID). For PID use, use a lamp that is above the IP of the suspected chemicals
- Calibrate and check working order of equipment daily before use.
- Review progress at end of shift.
- Observe excavation from a distance of 5 feet or more, and do not enter excavation.
- Work in pairs or small groups
- Observe USCG rules of the road. Boat operator should wear kill switch to ignition when appropriate.
- Keep extremities clear of ropes and cables.
- Wear back support when lifting.

If contamination exists above permissible exposure limits (PELs) or short term exposure limits (STELs) as identified by air monitoring instruments, inhalation exposure will be prevented with the use of appropriate respiratory protection.

Precautions will also be taken to avoid hazards such as electrical exposure, mechanical exposure, fire/explosion, noise exposure, and thermal stress.

Levels of petroleum vapors above the action level will result in evacuation from the area to prevent the fire/explosion hazard. Responders should avoid noisy environments above 85 dBA as an eight-hour time-weighted average (TWA). When avoidance is not possible, appropriate hearing protection devices must be worn.



5.1 General Safety Precautions

The following general safety rules must be followed by all project personnel:

- Specified use of Flotation and Anti Exposure Clothing as determined by Maine DEP BRWM SOP Guidance for Selection, Use, and Maintenance of Personal Protective Equipment will be worn according to the procedure. See Appendix E of this document.
- Avoid unnecessary contact with contaminated, or potentially contaminated surfaces.
- Eating, drinking, chewing gum or tobacco, smoking or any practice that increases the probability of hand-to-mouth transfer and ingestion of material is prohibited in the exclusion and contamination reduction zones.
- Since medicines can increase the effects of toxic chemicals in exposure situations, medicines should not be used by employees working on site. Personnel who must be on medication shall advise their supervisor prior to beginning work on site.
- The use of alcohol or illegal drugs during the work day will not be tolerated. Any employee who exhibits the effects of alcohol or drugs will be removed from the site.
- Hands and face must be thoroughly washed upon leaving the work area and before eating, drinking, performing bathroom functions or other activities.
- If a water source is not available on site, use waterless cleaner and dispose of paper towels in plastic bags.
- Personnel should shower as soon as possible after protective clothing is removed and the activity for the day has ended. Regional offices or other facilities per special arrangement will be available for showering. **Employees should not wait to shower at home.**

5.2 Heat-related Illness

When chemical resistant clothing is worn, body ventilation and evaporation are greatly reduced. Additional breaks will be scheduled for personnel wearing coveralls in hot weather. Employees should be aware of the effects of heat stress,



provided with adequate liquids, and instructed to observe each other for signs of heat stress during hot weather.

Signs of heat stress are summarized as follows:

- *Heat exhaustion:* clammy skin, confusion, dizziness, fainting, fatigue, heat rash, light-headedness, nausea, profuse sweating, slurred speech, weak pulse.
- *Heat Stroke:* confusion, convulsion, hot dry skin, high temperature (yet may feel chilled), incoherent speech, staggering gait, cessation of sweating, unconsciousness.

These signs can be distinguished with those associated with chemical hazards which are characterized by behavioral changes, breathing difficulties, changes in complexion or skin color, coordination difficulties, coughing, dizziness, drooling, diarrhea, fatigue and irritability. Pulse rates should also be monitored when working in protective clothing.

5.3 Cold-related Illness

Decreased ventilation and evaporation are also concerns in cold weather as undergarments may become soaked and add to the cold. Employees should be aware of the effects of hypothermia, provided with frequent breaks and instructed to observe each other for signs of hypothermia and frostbite.

Signs of cold stress are summarized as follows:

- *Frostbite:* skin changes to white or grayish-yellow; usually affects nose, ears, cheeks, fingers and toes. Blisters may appear later and affected part feels intensely cold or numb. The victim frequently is not aware of frostbite until a pale glossy skin is observed.
- *Mild hypothermia:* abnormal drowsiness, slurred speech, memory lapses, incoherence, and fumbling hands.

5.4 Confined Space Entry

All confined space entries will be planned as outlined in Maine DEP BRWM SOP for Confined Space Entry. NOTE: Oil & Hazardous Materials Responders (OHMRs) are the only personnel allowed to enter a permit-required confined space.



5.5 Excavation Protection

The excavation contractor will be responsible for providing protection against falling into open holes. All excavation will be enclosed and or covered before the end of each work shift. Maine DEP personnel should remain upwind, at least 5 feet from the excavation, have the equipment operator bring soil to the surface and sample from the bucket. Do not ride on a backhoe bucket. *NOTE: Any trench over 4 feet deep is a confined space.*

6.0 TRAINING

Maine DEP personnel working in the exclusion or contamination reduction zones shall be trained pursuant to OSHA 29 CFR 1310.120(e). All workers will have forty hours of training, 24 hours of supervised field experience, annual refreshers, and Maine DEP required training. Documentation of classroom training and alternative training experience must be made available upon entering the site.

7.0 PERSONAL PROTECTION FROM HAZARDS

Personal Protective Equipment (PPE) will be used to minimize potential exposures. PPE will be determined based on Maine DEP BRWM SOPs Guidance for Selection, Use, and Maintenance of Personal Protective equipment, and Site Monitoring. Specified safety equipment and protective clothing will be worn in the exclusion zone at all times.

Maine DEP personnel working on site will be medically approved for site work. Those using respiratory protection will be medically approved for respirator use and be fit-tested annually.

The level of protection provided by PPE selected will be upgraded or downgraded based upon a change in site conditions or later findings. When a significant change occurs, the hazards will be reassessed.

If PID > 750 ppm or the Lower Explosive Limit (LEL) > 10 %, evacuate Maine DEP personnel as specified in Section 11, Accidents and Emergencies.

8.0 MEDICAL SURVEILLANCE

All Maine DEP personnel working on the site have had medical surveillance according to BRWM SOP Respiratory Protection Program, paragraphs 5.2 - 5.2.2.3.

All personnel covered by this SSP must report accidents, injuries, and/or possible exposures to their supervisors as soon as possible. The employee will call for medical support as necessary.



9.0 DECONTAMINATION PLAN

Decontamination (decon) is the removal of contaminants from PPE or site equipment. Decon will be carried out in accordance with Maine DEP BRWM SOP Decontamination Program.

In an emergency, the primary concern is to prevent loss of life or severe injury. Should immediate medical attention be required to save a life, decon should be delayed until the victim is stabilized. However, if decon can be performed without interfering with first aid or life-saving techniques, or should a worker be contaminated with an extremely toxic or corrosive material that has the potential to cause severe injury or loss of life, decon must be performed immediately. If an emergency due to heat-related illness develops, protective clothing should be removed. During an emergency, provision should also be made for protecting medical personnel and disposing of contaminated clothing and equipment.

10.0 SITE COMMUNICATION PLAN

Successful communication between field teams and contact with personnel in the Support zone is essential. The following system will be used to supplement radio and cell phone communications within the exclusion zone:

- Normal verbal communication
- Hand signals as defined below:

SIGNAL	DEFINITION
Hands on top of head	Need assistance
Thumbs up	OK/I am all right/I understand
Thumbs down	No/Negative/I do not understand
Arms waving upright	Send backup support
Grip partner's wrist	Exit area immediately

11.0 ACCIDENTS AND EMERGENCIES

In the event of an exposure, accident, injury, or fire, the following general accident and emergency response procedures are to be followed by all personnel working under the SSP.

11.1 Evacuation and Emergency Response

In the event of an emergency, personnel on the scene shall notify the Site Safety Officer as soon as possible. All personnel will evacuate the area to a location established by the Site Safety Officer. These locations will be situated upwind of the exclusion zone and be designated on a daily basis. All locations will be a safe



distance from the area where the emergency occurred and will be explained during the initial site safety briefing. Following evacuation, the Site Safety Officer will initiate a head count to ensure that all personnel who entered the site have been accounted for.

11.2 Medical Assistance/Emergency Contacts

The Site Safety Officer will contact Police/Fire/Rescue, as necessary. See the Emergency Information at the beginning of this Appendix for a list of emergency numbers.

11.3 Incident Reporting

Following an accident or incident, a report will be completed by Maine DEP personnel at the scene. Information in the report will include, at minimum, the following:

- Name(s) of individuals involved
- Name(s) of witnesses
- Date and time
- Exact location
- Description of incident
- Type of exposure or nature of injury
- Nature of emergency response
- Corrective measure taken to prevent repeat of the incident

All incident reports will be filed with the Maine DEP Emergency Response Training Coordinator.

In the event of a hazardous materials spill or chemical release the Site Safety Officer will make appropriate notifications.

11.4 Emergency Medical Treatment Procedures

Any individual who becomes ill or injured while working within the exclusion zone must be decontaminated to the maximum extent possible. Injured or ill personnel must be transported by ambulance to a medical facility. Maine DEP personnel should not transport ill/injured employees in a personal vehicle unless the illness/injury is minor or no other help is available.

11.5 Fire or Explosion

In the event of fire or explosion, the Fire Department and the Site Safety Officer must be notified immediately. Fire extinguishers may then be used for small incipient stage fires. **OTHERWISE EVACUATE!**



11.6 Spills and Leaks

Personnel will report any spills or leaks to the Site Safety Officer. Should a spill or leak occur that is a threat to human health or a release to the environment, the person observing the spill will:

1. Evacuate or request evacuation of all persons at risk
2. Inform the Site Safety Officer

11.7 Emergency Equipment and Facilities

The following equipment will be available:

- First aid kit
- Fire extinguisher
- Fire blanket
- Emergency Flares
- Life ring



APPENDIX A - ACKNOWLEDGMENT PAGE

Location: _____

I have read and understood the Site Safety Plan. I agree to abide by these safety rules and understand that any violation will result in my removal from the site. I have also completed the required 40-hour training, appropriate refreshers, and am medically approved for hazardous waste site work.

Name:

Date:

_____	_____
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APPENDIX B - ATTACH SITE MAP



APPENDIX C - ATTACH SAFETY DATA SHEETS



APPENDIX D - ATTACH DIRECTIONS TO HOSPITAL



APPENDIX E – SOP: USE, SELECTION AND MAINTENANCE OF PERSONAL FLOTATION DEVICES AND ANTI-EXPOSURE CLOTHING (REVISED 6/3/2013)

1. **INTRODUCTION.** Field staff persons in the Department perform a number of job tasks that require them to work in, on or near water bodies of sufficient depth and breadth to present a drowning hazard. This document sets the policy and procedures for managers and staff to use in the selection and use of PFDs.
2. **APPLICABILITY.** It shall be the policy of the Department that all staff persons wear approved flotation devices while in any boat, vessel, or when working where drowning may be a hazard.
3. **PURPOSE.** This document establishes basic guidance for the use, selection and maintenance of personal flotation devices and anti-exposure clothing to be used by Department personnel for protection from drowning while working on, in or near water bodies.
4. **DEFINITIONS.**
 - a. **ANTI-EXPOSURE COVERALLS.** Anti-exposure coveralls are U.S. Coast Guard (USCG) approved Special Use Type V Personal Flotation Device coveralls made of urethane coated nylon external fabric covering a closed-cell foam interlining to provide thermal protection.
 - b. **DEPARTMENT.** Department refers to the Department of Environmental Protection.
 - c. **FULL IMMERSION OR SURVIVAL (“GUMBY”) SUIT.** A Full Immersion or Survival (“Gumby”) Suit refers to a dry suit manufactured from neoprene fabric that provides buoyancy and warmth in cold water. It is donned and used only when a boat or vessel needs to be abandoned in an emergency and rescue help is not immediately available.
 - d. **PERSONAL FLOTATION DEVICE (PFD).** A Personal Flotation Device (PFD) is a buoyant device designed to keep a person afloat in water.
 - i. **Type I PFD:** Offshore use in open-ocean, rough or remote waters when rescue may be slow in coming.
 - ii. **Type II PFD:** Near shore use and general use for calm, inland waters.
 - iii. **Type III PFD:** General and recreational use on inland waters and specific recreational activities.



- iv. **Type IV:** Throwable rescue flotation device; not meant for wearing. Required to be carried on boats of 16 foot or greater length.
 - v. **Type V:** Various constructions – inflatable, hybrid inflatable and buoyant foam devices for special uses or conditions. May be acceptable for use on marine waters. Must be worn for the purpose specified on the individual PFD.
5. **SCOPE.** This SOP shall apply to all Department staff persons and governs the selection, purchase, use and maintenance of PFDs by Department personnel.
6. **EXEMPTION TO THIS STANDARD.**
- 6.1. Department staff persons traveling in commercial vessels such as State Ferries are exempt from this policy. Staff persons are expected to follow any safety procedures set forth by the owner/operator of the boat or vessel.
 - 6.2. Department staff persons engaged in diving and snorkeling operations, and while wearing the required wet suits, are not required to wear PFDs when so suited. When unsuited and in transit to the diving/snorkeling site, Department staff persons must wear the PFD appropriate for the conditions.
7. **INSTRUCTION.**
- 7.1 A Type I, Type III or Type V USCG approved PFD will be worn whenever any Department staff person is working or traveling in or on a boat, vessel or worksite where there is a real or potential risk of falling into the water where one could drown.
 - 7.2 A Type I PFD, Type III PFD or Type V PFD is required for use on marine waters for commercial vessels and recommended for use on recreational vessels. Government-owned and operated vessels are considered commercial class.
 - 7.3 PFD identifications: All PFDs shall be marked with the minimal identification of “DEP” in either black or white block letters against the safety orange, approximately 2 ½ inches tall, and located on the backside of the PFD. Additional identification may be added as required, such as designating a PFD to an individual or to a particular vessel. Each PFD must have Type I retro-reflective material: at least 200 square centimeters (31 square inches) on the front and at least 200 square centimeters (31 square inches) on the back. If the PFD is reversible, the reversible side must also have the same.
 - 7.4 The use of anti-exposure coveralls is required:



- When working or traveling in a boat or vessel when the water temperature is 50 degrees F (20 degrees C) or less; or when the combined water/air temperature is less than 120 degrees F (49 degrees C).
- When performing dockside or shoreline operations when temperature conditions exceed those listed above.

7.5 The most qualified person on site, the lead person, or the functional supervisor may provide an exception to the use of Anti-exposure coveralls. An alternate PFD is still required. Considerations include:

- Scope of work
- Location of work
- Distance to shore or rescue
- Rescue time
- Weather and/or sea conditions.

7.6 A full immersion or survival suit (Gumby suit) must be available for all operations in a boat or vessel operated in ocean waters or waters below 50 degrees F (10 degrees C) where rescue or movement to a place of warming, in the event of the boat or vessel becoming incapacitated through sinking or overturning, may be delayed more than 15 minutes.

7.7 Staff persons whose tasks may require them to work in conditions requiring the use of PFDs must be instructed annually in this guidance and be able to demonstrate competency in their ability to don, doff and care for any PFD they may be required to use. Selection of the PFDs shall be by appropriate type from a State-recognized and approved vendor and in accordance with U.S. Coast Guard requirements. Care of the PFDs shall be according to the manufacturer's directions.

8. REFERENCES.

8.1 Requirements for lifesaving equipment: [Title 46 CFR, Part 25, Subpart 25.25 Life Preservers and Other Lifesaving Equipment.](#)

8.2 Good explanation of PFD types and requirements: [USCG Rescue and Survival Systems Manual](#)