

Standard Operating Procedure



SOP # 45474	Blood Borne Pathogen Cleanup
Revision #	v.1.0
Implementation Date	
SOP Owner	Safety
Approved By	
Diagram or Manual Reference	

Purpose

Dealing with biohazardous materials can be a challenging and potentially dangerous task. A response or accident site affected by hazardous substances requires proper cleanup to ensure the safety of responders and restoration of the affected area. These procedures will take you through the biohazard cleanup process, safety precautions, and considerations for effective and thorough cleanup.

Scope

This SOP is applicable to;

- All OSRV Captains and Personnel who are assigned to work on SEAPRO's Oil Spill Response Vessels.

Prerequisites

Personnel shall have successfully completed;

- Introduction to Bloodborne Pathogens

On the SEAPRO University website.

Responsibilities

Development and maintenance (updates) to this SOP are the responsibility of SEAPRO's Safety Manager. Contact via e-mail at; safety@seapro.org.

Tools

- Nitrile gloves (inner)
- Puncture resistant gloves (outer)
- Protective encapsulating suit (Tyvek)
- Eye protection
- Foot protection w/boot covers
- N-95 respirator
- Face shield (optional)
- Sharps container
- Garbage can w/double 10 mil liner
- Disinfectant wipes and rags
- Shovel
- Bleach solution (10:1)
- Weed sprayer
- Bio-hazard labels

Step-by-Step Procedure

1. Assess the affected area to determine the extent of the contamination. Determine the type and severity of the biohazardous materials present. This includes identifying bloodstains, bodily fluids, chemical spills, or other potentially infectious substances. Check for any compromised surfaces or materials that may require special attention i.e. broken glass, sharp metal, syringes and intravenous drug paraphernalia.

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2. Don the appropriate personal protective equipment, including gloves, protective encapsulating suits, eye protection, and respirators necessary to protect the biohazard cleanup technicians from exposure to hazardous materials.
3. The affected area must be sealed off to prevent the spread of contamination to other parts of the work area. Place cones, pilons or obstructions around the contaminated area to prevent unauthorized access until the decontamination is completed.
4. Remove all contaminated materials using the tools referenced above or equipment such as, biohazard bags, sealed containers, disposal boxes, or sharps containers to securely collect and transport the waste.
5. Use specialized cleaning solutions (bleach solution) to clean and disinfect all surfaces in the affected area. Once contamination is removed and area is disinfected rinse liberally with water.
6. Decon the technician and tools and dispose of the PPE with the contaminated materials at the nearest medical facility that accepts infectious materials.

Controls

Only trained personnel are permitted to execute these procedures. If no authorized SEAPRO personnel are available, contact the local fire department. Response operations are halted until all biohazards have been removed from the worksite.

Field Level Risk Assessment

Response workers could encounter sharps and other intravenous drug paraphernalia when working in harbors, populated beaches and areas frequented or encamped by the homeless. The initial site assessment, and any subsequent assessments prior to work activities should include the inspection for syringes (sharps) and other possible blood bourn contaminated objects and materials. Additionally, any injury accident where blood or other bodily fluids/materials are released must be handled under these procedures.

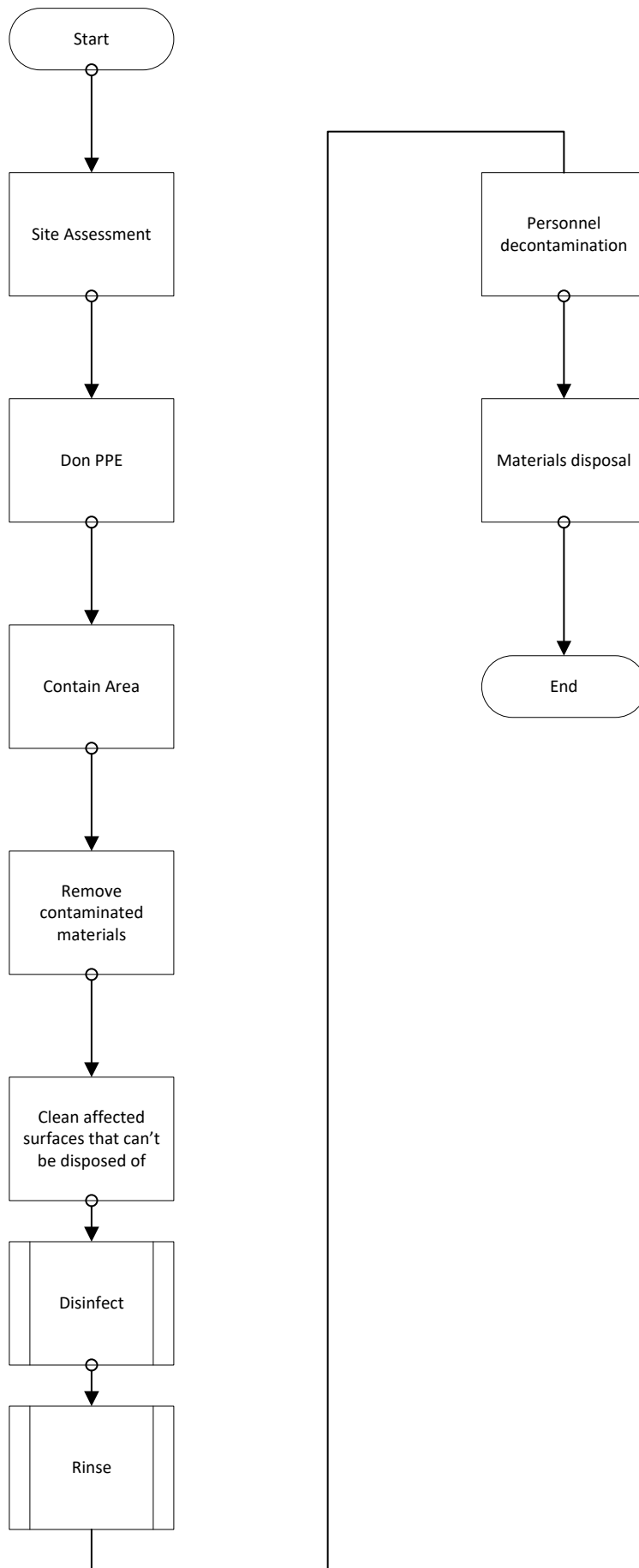
Checklist

- Assessment
- PPE
- Containment
- Removal
- Cleaning
- Disinfection
- Rinsing
- Personnel decontamination
- Disposal

References to JSA Analysis

Attached.

Process Flow Diagram



Job Hazard/Safety Analysis (JH/SA)

Work Category: Spill Operations

Work Location: Spill Site

Date: 2024-07-01

Task Description: Biohazard Cleanup

JHA No.: 45474.01

Sequence of Job Steps	Identified Hazards and Critical Behaviors	Recommended Procedures
Site assessment	Syringes, sharps, contaminated materials. Do not contact until proper PPE is worn.	Observe and document.
Don PPE	Surfaces may be slippery. Don protective equipment only in area without possible contamination contact.	Don using standard procedures trained in HAZWOPER class.
Seal off and secure contaminated area	Surfaces may be slippery. Ensure proper lifting, bending and rotation techniques are employed when placing cones, pilons and barriers.	Use proper footwear in areas where shoreline, beaches, decks and walkways may be wet or vegetation, algae and tide pool sea life. Avoid lifting and turning when deploying barrier materials. Caution tape should be waist to chest high to avoid tripping hazards.
Remove contaminated materials	Sharps, syringes, broken glass, sharp objects, decks, walkways and accident scenes may be contaminated with biohazards. Collect and place in approved containers.	Secure removed material in biohazard bags, sealable containers, disposal boxes and sharps containers. Containers should be sealed prior to transport.
Disinfect surfaces and areas	Biohazard fluids may appear to be clear liquid. Treat all surface areas not removed and contained as contaminated and disinfect.	Spray surfaces with disinfectant and rinse with clean water.
Doff and dispose PPE	Cleanup tools and PPE should be disinfected and disposed of with contaminated materials collected during the cleanup operation.	Spray disinfectant solution on PPE and cleanup tools. Rinse with clean water. Collect rinsate. Doff disinfected PPE using care not to touch unprotected skin while removing. Dispose PPE and tools with collected biohazard materials.

Transport and dispose biohazard containers	Biohazardous materials must be sealed and kept upright to prevent leaking. Wear proper PPE to prevent contamination in the event a container is breached or leaks. Use proper lifting techniques when loading, unloading or moving containers to avoid back and soft tissue injury.	Lift properly and use carts, dollies or forklifts when moving collected materials for disposal.
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Biohazard Cleanup Operational Safety Risk Map

ID	Safety Hazard Identification					Safety Risk Assessment			Safety Risk Mitigation		
	Safety Item or Hazard	Element	Root Cause	Worst Consequence	Type of Finding	Severity	Probability	Risk Level	Corrective Action	Preventive Action	Responsible Party
1	Site Assessment contaminated area entry	People	Awareness	Harm to people due to contamination	Minor	Catastrophic	Remote	Unacceptable	Use caution when entering	Observe from outside the contaminated area	PIC
2	Biohazard contact	People	Improper PPE donning	Technician exposure, contamination. Harm to people	Minor	Catastrophic	Remote	Unacceptable	Don PPE prior to cleanup operations. Use only approved procedures for wearing PPE.	Don PPE in a stable clean environment. Avoid slippery surfaces outside the contaminated zone.	PIC
3	Contaminated materials and surfaces	People	Work area may be slippery and unstable	Harm to people due to contamination or injury due to accident	Minor	Major	Remote	Acceptable	Proper contact with contaminated materials.	Use caution when walking in wet and potentially slippery areas.	PIC
4	Chemical exposure burns	People	Contact with clean up chemicals and disinfectant solution	Harm to skin, eyes and mucous membrane	Minor	Minor	Remote	Acceptable	Proper protective equipment and safe work practice	Wear PPE. Avoid skin contact and application activity that results in splashing.	PIC
5	Soft tissue injury	Technical	Improper lifting	Structural damage to body	Minor	Major	Remote	Acceptable	User proper lifting and movement procedures	Lift with the knees. Use mechanical assistance for transporting materials. Use the	PIC

										buddy system for items over 50 lbs.	
6	Vehicular accident	Technical	Situational awareness	Death	Minor	Catastrophic	Remote	Acceptable	Defensive driving	Drive defensively	PIC

Personal Protective Equipment Required for this Task:

Level D (Modified)	Tyvek coveralls, Eye protection, face shield, puncture resistant gloves, N95 respirator, waterproof boots.
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Safety Equipment Required to do this Job: PFD if working within 2 meters of water.

- Fire Extinguisher
- PFD
- Chemical Protective Clothing
- Cork Boots
- Confined Space Permit
- Hot Work Permit
- Hearing Protection