

**STANDARD SITE SAFETY PLAN
FOR EMERGENCY/POST-EMERGENCY PHASE COASTAL OIL SPILLS (4/93)**

A. SITE DESCRIPTION

Site generally referred to as: _____

Location: _____

Surrounding population: ___ industrial, ___ residential,
___ rural, ___ unpopulated, ___ other: _____

Topography: ___ rocky, ___ sandy/gravel beach, ___ cliffs, ___ marshes, ___ docks,
___ other: _____

Primary Hazards:

- ___ Chemical Exposure
- ___ Fire/Explosion
- ___ Oxygen Deficiency
- ___ Confined/Enclosed Space Entry
- ___ Ionizing Radiation
- ___ Biological Hazards
- ___ Safety Hazards
- ___ Heat Stress
- ___ Cold Exposure
- ___ Noise
- ___ Other: _____

Pathways for hazardous substance dispersion: _____

___ *Pathways have been noted on the site safety map provided as Attachment* ____.

See procedures for handling drums, containers, and spill containment, provided as Attachments _____.

B. WORK PLAN AND ENTRY OBJECTIVES

1. Work Plan: All work shall be conducted in accordance with procedures established during pre-entry briefings and attached work plans. *A work plan is provided as Attachment* .

2. Entry Objectives: Daily objectives may include site surveys, mechanical cleaning, oil recovery, booming, dispersant application, wildlife rehabilitation/hazing, and related activities. Detailed objectives shall be developed daily, and shall be described during the pre-entry safety briefing.

C. SITE ORGANIZATION

1. Definitions:

OSC: The On-Scene Coordinator (OSC) is the pre-designated Federal, State, Local, or Responsible Party official responsible for incident management in accordance with the Unified Plan. The OSC's designated rep serves as the on-site supervisor for response personnel.

SSHO: The Site Safety and Health Officer (SSHO), often referred to simply as the Site Safety Officer, is the single individual responsible for developing and implementing the OSC's site-specific site safety and health plan.

SSHP: Site Safety and Health Supervisor(s) (SSHP) is a mandatory position under 29 CFR 1910.120. The SSHP, often referred to simply as the Site Safety Supervisor, is the individual(s) in the field responsible for enforcing the SSHO's site-specific site safety and health plan. An SSHP must be on-site at all times while the SSHO may be with the OSC or at other locations.

2. Positions:

| <u>function</u> | <u>name and phone (if appropriate)</u> |
|-------------------------------|--|
| FOSC: | _____ |
| SOSC: | _____ |
| LOSC: | _____ |
| RPOSC: | _____ |
| Incident Commander: | _____ |
| OSC's On-Site rep/supervisor: | _____ |
| FOSC Rep: | _____ |
| SOSC Rep: | _____ |
| LOSC Rep: | _____ |
| RPOSC Rep: | _____ |

Site Safety and Health Officer: _____
Site Safety & Health Supervisor(s): See the posted organization on-site/workplan/briefing log.

Public Affairs Officer: _____

Scientific Support Coord: _____

National Pollution Fund Center Case Officer: _____

BOA Contract Supervisor: _____

Other Federal/State/Local reps:

RP's representative: _____

RP's On-Site rep: _____

RP's On-Site Contract Supervisor: _____

RP's Safety & Health Officer: _____

RP's Safety & Health Supervisor: _____

Other R.P. reps: _____

D. SITE CONTROL

- 1. Anyone entering or departing a Work Area shall report to the site supervisor or designated representative.**
- 2. No person shall enter a site without subscribing to this or another appropriate Site Safety and Health plan.**
- 3. The buddy system is mandatory for everyone on site.**
- 4. Training:**
 - a. In general, all personnel on-site shall be trained adequately to perform their assigned tasks safely. The general training level requirement is technician level and/or routine site worker (40 hrs and 3 days on-the-job training minimum) except as noted below.

JOB DESCRIPTION:

TRAINING LEVEL:

| | |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

_____ *Guidelines for assessment of training/qualification requirements has been provided as Attachment _____.*

b. All personnel entering the site shall be fully informed about applicable hazards and procedures on site. See section L. below for on-site informational briefings program.

5. Site Boundaries: Control boundaries have been established in the site safety map below according to the following guidelines:

- a. The HOT ZONE, or EXCLUSION ZONE, is the area where contamination or product hazards are expected.
- b. The WARM ZONE, or CONTAMINATION REDUCTION ZONE, is a transition area between the HOT ZONE and the COLD ZONE. It is the area where DECONTAMINATION is conducted for personnel and equipment leaving the HOT ZONE.

c. The COLD ZONE, or SUPPORT ZONE, is an area adjacent to the WARM ZONE that is intended to remain safe and as free of contamination as possible.

6. Site Safety Map: The site safety map includes the location of items such as: zone boundaries, decontamination station, washing, toilet/hygiene facilities, first aid equipment, fire extinguishers, command posts, equipment staging/storage, eating/rest areas, animal rehab/hazing stations, and locations of identified hazards.

____ *A Site Safety Map is provided as Attachment* ____.

7. Decontamination: Field decontamination of injured workers is essential prior to transport to a medical facility. Hospital decontamination stations have not been established within the State of Alaska to support patients contaminated during oil or hazardous substance response operations.

E. HAZARD EVALUATION:

1. Chemical Hazards: Check appropriate category of oil, attach generic information sheet, and attach specific MSDS when available. Check all applicable below:

____ Oil containing benzene and/or other high vapor pressure chemicals.

____ *Hazard information is provided as Attachment* ____.

____ Oil that does not contain benzene and/or other high vapor pressure chemicals.

____ *Hazard information is provided as Attachment* ____.

____ Hydrogen sulfide (from sour crude oil or anaerobic decay of organic materials).

____ *Hazard information is provided as Attachment* ____.

____ Dispersant applications.

____ *Hazard information is provided as Attachment* ____.

____ Bioremediation application.

____ *Hazard information is provided as Attachment* ____.

2. Exposure/Risk Assessment Monitoring For Chemical and Physical Hazards: The following monitoring shall be conducted with monitoring equipment calibrated and maintained in accordance with the manufacturer's instructions (electronic equipment shall be calibrated before each day's use).

| <u>MONITOR</u> | <u>FREQUENCY</u> |
|--------------------------|--|
| ____ Combustible gas | ____ continuous, ____ hourly, ____ daily, ____ <i>Other:</i> _____ |
| ____ Oxygen | ____ continuous, ____ hourly, ____ daily, ____ <i>Other:</i> _____ |
| ____ H2S dosimeter | ____ continuous, ____ hourly, ____ daily, ____ <i>Other:</i> _____ |
| ____ H2S meter | ____ continuous, ____ hourly, ____ daily, ____ <i>Other:</i> _____ |
| ____ HNU | ____ continuous, ____ hourly, ____ daily, ____ <i>Other:</i> _____ |
| ____ OVA | ____ continuous, ____ hourly, ____ daily, ____ <i>Other:</i> _____ |
| ____ WBGT | ____ continuous, ____ hourly, ____ daily, ____ <i>Other:</i> _____ |
| ____ Noise | ____ continuous, ____ hourly, ____ daily, ____ <i>Other:</i> _____ |
| ____ Organic Vapor | ____ continuous, ____ hourly, ____ daily, ____ <i>Other:</i> _____ |
| ____ <i>Other:</i> _____ | ____ continuous, ____ hourly, ____ daily, ____ <i>Other:</i> _____ |

3. Additional Hazards: Additional hazards may be encountered on site, and these along with any other applicable hazards found during the site survey must be marked on the attached maps.

F. GENERAL SAFE WORK PRACTICES. The following safe work practices shall be adhered to while on site. Please check those that are appropriate and add any additional ones:

___BUDDY SYSTEM. The buddy system shall be observed inside the Work Area (EXCLUSION and CONTAMINATION REDUCTION ZONES). Personnel must work within sight of their assigned partner at all times. A partner shall be assigned by the site safety supervisor as personnel check in. Personnel shall use whistles to indicate that they need assistance in areas where they may be obscured from supervisors (e.g. high grass, boulders, or warehouse areas) as noted on the Project Map.

___OCCUPATIONAL MEDICAL MONITORING. Personnel shall be enrolled in an occupational medical monitoring program in accordance with 29 CFR 1910.120.

___FIRES. Each restriction zone and associated contamination reduction zone shall have at least one each of the following:

- a fully charged Class A fire extinguisher for ordinary fires,
- a fully charged Class B fire extinguisher for liquid fires, and
- a hand held fog horn to alert personnel.

The above items shall be maintained in a readily accessible location, clearly labeled in red, and with the location noted on the project map. An ABC or AB fire extinguisher can be substituted for an A or B fire extinguisher.

___LIGHTING. Fixed or portable lighting shall be maintained for dark areas or work after sunset to ensure that sufficient illumination is provided. (See TABLE H-120.1 of 29 CFR 1910.120(m) for Minimum Illumination Intensities.)

___SLIPPERY ROCKS AND SURFACES. All personnel in the work area shall wear chemical resistant safety boots with steel toe/shank and textured bottoms (neoprene is a common material that is fairly resistant to many oils). Boat operators may substitute clean deck shoes with textured soles kept free of oil on cloth/leather uppers.

___SLIP-TRIP-FALL HAZARDS. In addition to proper footwear, personnel will be briefed to be wary of tripping hazards. Safety belts and lifelines will also be worn when working at heights. Proper safety precautions will be taken when working with ladders.

___WORK NEAR WATER. All personnel working in boats, on docks, or generally within 10 feet of water deeper than 3 feet, shall wear Coast Guard approved personal flotation devices (PFDs) or work vests.

___HEAT STRESS. The site safety and health supervisor shall generally be guided by the ACGIH guidelines in determining work/rest periods. Fluids shall be available at all times and encouraged during rest periods.

___*Further guidelines are provided as Attachment: _____.*

___COLD STRESS. The site safety and health supervisor shall generally be guided by the ACGIH guidelines in determining work/rest periods. Workers shall be provided with adequate warm clothing, rest opportunities, exposure protection, warm and/or sweet fluids shall also be available during rest periods. For prolonged water temperatures below 59 degrees F, or a combined water and air temperature less than 120 degrees F, exposure suits shall be worn by personnel working/traveling in small boats, and immersion suits shall be available for vessel operations other than small boats.

___*Further guidelines are provided as Attachment: _____.*

___HIGH NOISE LEVELS. Hearing protection shall be used in high noise areas (exceeding 84 dBA--generally where noise levels require personnel to raise their voices to be heard) designated by the site safety supervisor.

___ELECTRICAL HAZARDS. Electrical hazards are designated on the site map, and shall be marked with suitable placards, barricades, or warning tape as necessary.

___TRAP HAZARDS. Open manholes, pits, trenches, or similar hazards are noted on the site map. The site safety supervisor shall ensure that these locations are periodically checked during the day.

___MUD. Dangerous mud flats posing a trap hazard shall be designated on the site safety map as areas off limits to personnel. Mark these locations with banner tape, barricades, or other marking equipment.

___CARBON MONOXIDE. Equipment operators shall ensure that personnel do not linger or work near exhaust pipes.

___UV LIGHT EXPOSURE. Sunscreens of protection factor 15 (or greater), and UV tinted safety glasses shall be made available for response personnel as needed.

___HELICOPTER OPERATIONS. Pilots shall provide safety briefing for all passengers. Helicopter procedures are provided as attachment:_____.

___MOTOR VEHICLES. Drivers shall maintain a safe speed at all times, and shall not be allowed to operate vehicles in a reckless manner.

___A vehicle safety briefing is provided as attachment_____.

___ALL TERRAIN VEHICLES (ATVs). Drivers shall maintain a safe speed at all times, and shall not be allowed to operate vehicles in a reckless manner. ATV drivers shall not operate ATVs outside of areas and lanes specified by the site safety supervisor.

___DRUM HANDLING AND SPILL CONTAINMENT.

- Drums and containers must be handled in accordance with 29 CFR 1910.120. Containers must be labeled and constructed in accordance with EPA (40 CFR 264-265, and 300), and DOT (49 CFR 171-178) regulations.
- Temporary holding/staging areas for drums and containers containing waste materials shall be constructed to contain spillage, run-off, or accidental releases of materials.
- Manual lifting and handling of drums and containers shall be kept to a minimum. To the extent possible, mechanical devices, drum slings or other mechanical assisting devices designed for that purpose shall be used.

___*Safe-lifting procedures are provided as Attachment_____.*

___*Drum-handling procedures are provided as Attachment_____.*

___CONFINED SPACES. Confined spaces will not normally be entered by response personnel during oil spill response operations. If a confined space must be entered or hotwork conducted on a confined space, a specific confined space entry work plan and confined space work authorization checklist will be developed for that operation.

___*A confined space work plan is provided as Attachment_____.*

___*A confined space work authorization checklist is provided as Attachment_____.*

___POISONOUS/INFECTIOUS INSECTS, BITES, STINGS, PLANTS.

___ Bee Stings (also hornet or wasp bites)

- ___ Animal Bites (infection hazard, and/or rabies from some common sources such as: foxes, bats, dogs, cats, and cows).
- ___ Marine Stings and Punctures (jellyfish, man-o-war, anemones, corals, hydras, urchins, cone shells, stingrays, and spiny fish)
- ___ Poisonous Plants (poison ivy, oak, or sumac)

General Prevention:

___ During morning safety briefings, provide information on the location of hazards and how to deal with problems.

___ Personnel should be provided with

___ long sleeved clothing

___ insect repellent

___ Personnel should inspect each other for signs of infected bites during breaks when working in designated areas.

___ Personnel with allergies to bee stings or insect bites may suffer a medical emergency if bitten. Supervisors on site should be prepared to deal with these medical emergencies.

___ Personnel with severe allergies must work in areas away from known/suspected hazards.

___ Personnel with allergies to bee stings or other insect bites should notify their supervisors AND the site safety supervisor when reporting on this site.

___ *Personnel shall be briefed on procedures in accordance with the guidelines provided as Attachment: _____.*

___ **BEAR SAFETY/USE OF FIREARMS.** Confrontation with bears exhibiting aggressive behavior can be life-threatening for employees engaged in field work at remote sites. State regulations allow taking of bears in defense of life after other measures fail. Personal safety is the foremost consideration in bear encounters, but all reasonable alternative methods of deterring an aggressive bear shall be employed. These include retreat, noise making, chemical repellents, and detonation of flares, if feasible.

Proper training of personnel should cover the following at a minimum:

- Avoiding bear encounters.
- Interpreting bear behaviors.
- Handling, maintaining and using non-lethal repellents.
- Handling, maintaining and using firearms.
- Requirements of the State Defense of Life and Property Regulations.

___ *Bear safety/firearms handling procedures are provided as Attachment _____.*

The Alaska Department of Environmental Conservation has also developed a document entitled "Bear Safety/Firearms Program Guidance" for ADEC personnel.

G. PERSONAL PROTECTIVE EQUIPMENT (PPE).

1. Levels of Protection:

- **Level A:** Should be worn when the highest level of respiratory, skin, and eye protection is needed.
- **Level B:** Should be worn when the highest level of respiratory protection is needed, but a lesser level of skin protection.
- **Level C:** Should be worn when the criteria for using air-purifying respirators are met.
- **Level D:** Should be worn only as a work uniform and not on any site with respiratory or skin hazards. It provides no protection against chemical hazards.

____ See the PPE ensemble descriptions provided as Attachment ____.

2. The following PPE ensembles shall be used while on site:

| <u>Location:</u> | <u>Task:</u> | <u>Level (circle):</u> |
|------------------|-------------------------|------------------------|
| GENERAL | Monitors/supervisors | A B C D |
| | Shoreline cleanup crew | A B C D |
| | Vacuum truck crews | A B C D |
| | High pressure wash crew | A B C D |
| | Abrasive cleaning crew | A B C D |
| | Hot water wash crew | A B C D |
| | Boat drivers | A B C D |
| | Boat crews | A B C D |
| | Skimmer crews | A B C D |
| | Boom crews | A B C D |
| | Sampling teams | A B C D |
| | Survey teams | A B C D |
| | Product pumping | A B C D |
| | Dispersants crews | A B C D |
| | Bioremediation crews | A B C D |
| | Bird/mammal capture | A B C D |
| | Bird/mammal hazing | A B C D |
| | Bird/mammal transport | A B C D |
| | _____ | A B C D |
| | _____ | A B C D |
| _____ | A B C D | |
| _____ | A B C D | |
| COLD ZONE | Response personnel | A B C D |
| | Visitors: | A B C D |
| | _____ | A B C D |
| | _____ | A B C D |
| | _____ | A B C D |

H. DECONTAMINATION PROCEDURES

Contaminated personnel and personnel entering contaminated areas shall be decontaminated in accordance with the instructions of the site safety and health supervisor.

____ See the Decontamination Guidelines and Layout provided as Attachments ____.

I. SANITATION & PERSONAL HYGIENE

Potable water, non-potable water, toilets and personal hygiene facilities shall be readily available.

____ For further information see Attachment ____.

J. EMERGENCY PROCEDURES

1. General: In all cases when an onsite emergency occurs, immediate notification will be made via the quickest means available. Personnel shall not reenter the work area or restart work until:

- ❖ the condition resulting in the emergency has been investigated by supervisory personnel, and has been corrected;
- ❖ hazards have been reassessed; and
- ❖ site personnel have been briefed on any changes in the operation and site safety plan.

____ Hospitals listed under communications section have been contacted (chemical emergency hospital agrees to take patients from site).

____ Fire departments listed under communications section have been contacted.

____ Ambulance services listed under communications section have been contacted (note those which will take chemical emergencies).

____ ATSDR has been notified of site operations.

____ Police forces listed under communications section have been notified.

2. Emergency Medical Procedures:

- ❖ Contact designated EMT (see the posted organization/work plan).
- ❖ Do not attempt to move seriously injured personnel, call for an ambulance to come to the injured person.
- ❖ For bites, stings, or poisonous animals/plants follow the procedures provided in Attachment ____.
- ❖ The closest hospital for regular emergencies is:

(see K. Communications, below, for phone number)

- ❖ The closest hospital for chemical exposure emergencies is:

(see K. Communications, below, for phone number)

Contact ATSDR (404) 639-0615 (24 hr) for chemical incidents.

3. Emergency Fire Procedures:

- ❖ DO NOT attempt to fight fires unless it is a small fire. A small fire is generally considered to be a fire in the early stages of development that can readily be extinguished in a few minutes time with personnel and equipment in the immediate area.
- ❖ DO NOT take extraordinary measures to fight fires.
- ❖ YOU MUST sound the appropriate fire signal if fire cannot be put out quickly.
- ❖ Alert nearby personnel to call fire department.
- ❖ Notify supervisor.
- ❖ When the fire alarm is sounded, personnel shall immediately leave the work area WITH THEIR ASSIGNED BUDDY and proceed to the pre-designated assembly point using the designated evacuation route (see evacuation routes and assembly point below).
- ❖ The Site Supervisor OR the Fire Department shall ensure that the fire is extinguished and a temporary fire watch has been posted BEFORE restarting work.

4. Evacuation:

EVACUATION & FIRE SIGNAL(S):

PRIMARY EVACUATION ROUTE:

SECONDARY EVACUATION ROUTE:

ASSEMBLY POINT:

K. COMMUNICATIONS.

1. General signals:

- __ THUMBS UP: I'm OK / I agree.
- __ THUMBS DOWN: Don't agree.
- __ HANDS ACROSS THROAT: Out of air/trouble breathing
- __ GRAB HAND/ARM: Come with me
- __ HANDS ON HEAD: I need assistance
- __ BOTH HANDS ON WAIST: Leave area immediately

2. Radio communications:

Working:

freq: _____, chnl: _____ (_VHF _UHF _CB _____OTHER)

Emergency:

freq: _____, chnl: _____ (_VHF _UHF _CB _____OTHER)

freq: _____, chnl: _____ (_VHF _UHF _CB _____OTHER)

3. Phone communications:

On-Scene Coordinator:

(_____) _____ (_voice _fax _cell _pager _home)

(_____) _____ (_voice _fax _cell _pager _home)

Incident Commander:

(_____) _____ (_voice _fax _cell _pager _home)

(_____) _____ (_voice _fax _cell _pager _home)

Site Safety and Health Officer:

(_____) _____ (_voice _fax _cell _pager _home)

(_____) _____ (_voice _fax _cell _pager _home)

Agency for Toxic Substance and Disease Registry (ATSDR)

(404) 639-0615 (24 hr) (voice) ext 0655 (fax)

Case officer: _____

ATSDR can provide emergency medical and toxicological information, assist in determining procedures for potential chemical overexposures, and can provide on scene assistance for certain chemical emergencies.

Police:

(_____) _____ (_voice _fax _cell _pager _home)

Fire:

(_____) _____ (_voice _fax _cell _pager _home)

Ambulance/EMT/Hospital:

(_____) _____ (_voice _fax _cell _pager _home)

(_____) _____ (_voice _fax _cell _pager _home)

OTHER NUMBERS:

(_____) _____ (_voice _fax _cell _pager _home)

(_____) _____ (_voice _fax _cell _pager _home)

(_____) _____ (_voice _fax _cell _pager _home)

(_____) _____ (_voice _fax _cell _pager _home)

L. SITE SAFETY BRIEFINGS/MEETINGS.

1. Initial Briefing: All personnel, employees, contractors, and subcontractors shall be provided with an initial site safety briefing to communicate the nature, level and degree of hazards expected on site and to present the emergency response plan.

2. Shift & Other Briefings: Personnel will also receive regular briefings before and after each shift, before making a LEVEL A/B hot zone entry, and when significant changes are made in the work procedures or safety plans. These site safety meetings/briefings shall be held by the Site Supervisor. At a minimum these meetings will describe the work to be accomplished, discuss safety procedure changes, and note any items that need to be passed to other crews. General safety training topics should also be covered based on points raised in previous meetings and the site safety plan attachments.

_____ *A briefing log is provided as Attachment: _____.*

M. THE SITE SAFETY OFFICER.

The Site Safety Officer for this incident is:

_____.

The responsibilities of the SITE SAFETY OFFICER include (but are not limited to):

- coordination of all safety and health concerns for the entire work site;
- keeping this plan current; and
- liaison with site safety officers from other organizations.

N. AUTHORIZATIONS:

SITE SAFETY OFFICER:

DATE: _____

ON SCENE COORDINATOR:

DATE: _____