

## WORK LOCATION HEALTH AND SAFETY PLAN

Prepared by: Mary Elaine Helix/Darren Fong Approval:

Date:

### 1.0 INTRODUCTION

Site Name: Alcatraz Island

Original Safety Plan: Yes X No\_\_ Modification No.

Location:

Alcatraz Island National Park, San Francisco Bay, Marin County, CA

Site Contact: Rudy Evenson Site Phone #: 415 559-8596

Directions to Site: The Alcatraz site is accessible from the Agave Trail at the south end of the island. Alcatraz can only be reached by boat.

#### 1.1 Site/Incident Description

A. Urban \_\_\_ Residential \_\_\_ Commercial \_\_\_  
Industrial \_\_\_ Rural \_\_\_ Remote x Nat'l Park \_\_\_  
Active \_\_\_ Inactive \_\_\_ Landfill \_\_\_

B. Spill x Air Release \_\_\_ Fire \_\_\_  
HW Site \_\_\_ Other: \_\_\_

C. Containers involved? \_\_\_ Yes \_\_\_ x No 58,000 gallons spilled into the San Francisco Bay.

Describe condition: Spill occurred Nov 7, 2007 so oil has been in the environment one month and is in a highly weathered state.

D. Site size: Portion of island with rocky intertidal long term monitoring sites. See map attached. Terrain: rough/island Weather: only will attempt in appropriate seas for transport to site.

E. Map attached: Yes x No

1.2 Summary Site History:

Alcatraz is part of the Golden Gate National Recreation Area, a National Park Service unit. Public tours are conducted daily which include boat ride the island and tour of the prison. On one side of the island are natural rocky intertidal habitats which are monitored on a long term basis by Park Rangers, generally in the fall and spring. These have been monitored for 15 years. A long-term monitoring site was also established by the University of California, Santa Cruz using the biodiversity protocol in 2005. In addition to rocky intertidal resource, the island contains a rich array of other biological resources and cultural resources.

1.3 Background Information Sources (Report Titles, Names, Dates):

Contact the Golden Gate National Recreation Area.

1.4 Scope of Work:

A. Emergency Response  Air Sampling  Bioassessment   
Contractor Oversight  Treatability Study  Soil Gas Sampling  
Geophysical Monitoring  Well Sampling   
Lagoon Sampling  Sediment Sampling  
Surface Water Sampling  Walk Through Assessment

<u>Task Description</u>	<u>Date of Activity</u>
1. To reoccupy the long term rocky intertidal site established by the UCSC SWAT team in 2005 to determine abundance and condition of intertidal	11/6/07, 11/7/07

plants and animals. Methods include transects, plots, measurements, photos, field notes.

2. To reoccupy the long term rocky intertidal plots established by the National Park Service biologists and determine abundance and condition of plants and animals. Methods include transects, plots, measurements, photos, field notes.
3. To determine occurrence, location and quantity of oiling in the intertidal.
4. To note ephemeral effects of oiling on rocky intertidal plants and animals.

## 2.0 PERSONNEL

NPS biologists  
 UCSC biologists  
 NPS site safety officer

## 3.0 TASK/OPERATION SAFETY AND HEALTH RISK ANALYSIS

### 3.1 Chemical/Exposure Hazards

<input type="checkbox"/>	Inhalation	<input type="checkbox"/>	Ingestion	<input checked="" type="checkbox"/>	Skin contact
<input type="checkbox"/>	Biological	<input type="checkbox"/>	Explosive	<input type="checkbox"/>	Pressure sensitive
<input type="checkbox"/>	Radioactive	<input type="checkbox"/>	Flammable	<input type="checkbox"/>	Water reactive

### 3.2 Physical Hazards

Heat	<input type="checkbox"/>	Scaffolds	<input type="checkbox"/>	Excavations/trenches
Noise	<input type="checkbox"/>	Weights/lifting	<input type="checkbox"/>	Underground utilities
Cold	<input checked="" type="checkbox"/>	Pressured air	<input type="checkbox"/>	Compressed gases
Boating	<input checked="" type="checkbox"/>	will take Park service boat to island		
Overhead hazard			<input type="checkbox"/>	Unguarded floor
Ladders	<input type="checkbox"/>	Building entry	<input type="checkbox"/>	Heavy machinery
Confined space				
Diving (attach dive plan)	<input type="checkbox"/>			

Other: rough terrain, waves, carrying gear, slippery terrain

- 3.3 The following table provides a summary of chemical, biological, and physical hazards that could potentially be encountered by personnel during each task.

**TASK RISK ANALYSIS: PHYSICAL HAZARDS OF CONCERN**

<b>PHYSICAL HAZARD</b>	<b>TASK</b>	<b>EXPOSURE CONTROL PROCEDURES</b>

<p>1a. Uneven, steep terrain</p> <p>1b. Determine if conditions are safe</p> <p>1c. Heavy lifting/carrying weight</p>	<p>1. Getting to the site</p>	<p>1a. Use good judgment in determining appropriate access point. Take note of loose rocks and vegetation and other hazards when hiking or climbing down steep terrain. Beware of packs or equipment throwing off balance. Let someone know where you will be working and when you plan to return. Use buddy system.</p> <p>1b. Observe ocean conditions for swell and waves. Note if all surfaces are wet and therefore likely to be slippery. Note the presence of pinnipeds to protect them and to avoid surprises and possible bites. Note escape routes in case of high waves, or areas that might be cut off with rising tide. Check the tide chart and know status of tide.</p> <p>1c. Distribute gear among team to lessen load on any one person. Be aware of back conditions of individual team members so injury is avoided. Reduce amount of gear or make more trips as appropriate to ensure load is appropriate.</p>
<p>2a. Slippery surfaces</p> <p>2b. Large waves</p> <p>2c. Hazardous marine life</p> <p>2d. Sun exposure</p> <p>2e. Cold</p>	<p>2. Conducting survey</p>	<p>2a. Wear proper footwear, sized appropriately, preferably closed- toe with non-skid soles, intended for water wear. Move slowly and deliberately making sure footing is secure, staying away from algal mats including blue-green algae (often forms a black layer in high intertidal). Don't jump onto wet rocks. Preferentially step "low and wet", rather than "high and dry." Beware of packs or equipment throwing off balance.</p> <p>2b. Pay heed to the adage "Never turn your back to the sea", always keep an eye on conditions and don't take risks on shore edges. Use common sense- if the waves look unsafe, don't take the risk. Where possible, if a team member needs to collect data (count seastars, for example) with their back to the ocean, appoint another team member to watch waves.</p> <p>2c. Most hazards come from sticks by sea urchin spines or fish spines, or from crab pinches. Use caution with picking up organisms or reaching into pools. Don't reach where you can't see.</p> <p>2d. Intertidal areas can get very hot, especially on south facing beaches. The sun reflects off the cliffs and water increasing exposure. Drink plenty of water, wear sunscreen, wear appropriate clothing especially a brimmed hat.</p> <p>2e. Hypothermia can be a problem at any time, but especially when the wind is blowing or if it is cloudy or rainy. Standing in pools or getting splashed by waves increases the heat loss. Wear warm clothes, in layers, especially a warm hat and wind protection. Wear rain gear if warranted. Stay hydrated and eat snacks, such as trail bars for energy.</p>

#### 4.0 PERSONNEL TRAINING REQUIREMENTS

Consistent with OSHA's 29 CFR 1910.120 regulation covering Hazardous Waste Operations and Emergency Response, all site personnel will be trained in accordance with the requirements. At a minimum, all personnel will be trained to recognize the hazards on-site, the provisions of this SHSP, and personnel responsible for safety at this site.

##### 4.1 Site Specific Training Topics

The following topics will be discussed by the NPS Field Response Coordinator prior to commencement of onsite activities:

Site Hazards       Emergency Procedures

Other:  4-hour Hazwoper training ;  Supervisor with 24 hour training

#### 5.0 PERSONNEL PROTECTIVE EQUIPMENT

##### 5.1 Protective Ensemble

Tasks: Rocky Intertidal Sampling

Tyvek in oiled areas

Gloves: in oiled areas

Additional Protective Clothing:

<input checked="" type="checkbox"/> Rain Gear	<input type="checkbox"/> Hard Hat Liner	<input checked="" type="checkbox"/> Personal Flotation Device (optional)
<input type="checkbox"/> Fireman Boots	<input type="checkbox"/> Insulated Coveralls	<input type="checkbox"/> Splash Shield
<input checked="" type="checkbox"/> Non-slip shoes	<input checked="" type="checkbox"/> layered clothing	<input checked="" type="checkbox"/> visor or hat

##### 5.2 Justify levels of protection selected:

Oil where present is significantly weathered the exposure method is skin contact. Tyvek may be appropriate to minimize spreading of oil. Non-slip shoes or rubber boots appropriate for working in a rocky intertidal environment critical. Warm clothing, sun protection needed for open ocean conditions. Personal flotation device will be brought with field personnel and use on-site will be dependent on local conditions (e.g., hi surf and within 10 ft of water).

#### 6.0 AIR MONITORING

Not applicable due to stage of spill, condition of oil and open ocean conditions.

#### 7.0 MEDICAL MONITORING

All personnel are expected to maintain a current status with respect to their medical monitoring program.

#### 8.0 SITE CONTROL

8.1 Buddy system is required for all site work involving levels of protection or potentially representing a risk to personnel.

8.2 Site communications plan:

Hand Signals

Cell Phone

### 8.3 Nearest Medical Assistance

Several NPS rangers on Alcatraz are trained First Aid responders. Also, many of the UC field team have current certificates for CPR and First Aid.

**For emergencies on the island, 1<sup>st</sup> dial 415-561-4913 or 911**

The two closest hospitals and contact information are provided below:

San Francisco General Hospital  
24-emergency service number: 415-206-8111  
1001 Potrero Ave

Kaiser Permanente Hospital  
Emergency Department number: 415-833-2000  
2425 Geary Blvd (cross street Divisadero)

Maps are attached.

The following personnel on-site have current certification on CPR and/or First Aid.

<u>NAME</u>	<u>CPR EXPIRATION DATE</u>	<u>FIRST AID EXPIRATION DATE</u>
See attachment		

### 9.0 DECONTAMINATION PLAN

Describe decontamination sequence for each level of protection to be used on-site.

#### Level C

Step 1 Boot Wash

Step 2 glove removal

Step 2 Suit (TYVEK or other) removal

### 10.0 CONTINGENCY PLANNING

10.1 Identify location of the following during the site orientation.

First Aid Kit: with team Eye Wash:  
 Stretcher: at visitors center Emergency Shower:  
 Fire Extinguisher:  
 Public Telephone:  
 Site Telephone:  
 Mobile Telephone: with the team  
 Two-Way Radios:  
 Telephone Contact Lists:  
 SCBA's:  
 Escape Packs:  
 Evacuation Routes:

3 AED are located on the island (Dock Office, Law Enforcement Office, and Ambulance). There are 2 designated first aid stations that include basic first aid equipment as well as oxygen tanks, gurneys, backboards, etc. These first aid stations are located at the Dock Office right at the docks and the Law Enforcement Office in the Cell House on the island.

## 10.2 Emergency Contact/Notification System

The following list provides names and telephone numbers for emergency contact personnel.

<u>Organization</u>	<u>Contact</u>	<u>Telephone</u>
Ambulance:	San Francisco Ground Ambulance ...	800-650- 4003 1-800-550- SJAS (7527)
Police:	FOR ALL EMERGENCIES DIAL 911	
Fire:		
State Police:	emergency call 911; non emergency call 415 338-7200	
Hospital #1:		
Hospital #2:		
Poison Control Center		
Regional EPA:		
State Authority:		
<b>CHEMTREC</b>		<b>(800) 424-9300</b>
TSCA HOTLINE		(202) 554-1404
RCRA HOTLINE		(800) 424-9346
CDC	(DAY)	(404) 452-4100
	(NIGHT)	(404) 329-2888
BUREAU OF ALCOHOL, TOBACCO & FIREARMS		(800) 424-9555, (202) 566-7777
<b>NATIONAL RESPONSE CENTER</b>		<b>(800) 424-8802</b>
PESTICIDE INFORMATION SERVICE		(800) 858-7378
BUREAU OF EXPLOSIVES, A.A. RAILWAYS		(202) 639-2229
FEDERAL EXPRESS - HAZARDOUS MATERIAL INFO		(901) 922-1666

## 10.3 Medical Emergencies

Any person who becomes ill or injured in the exclusion zone must be decontaminated to the maximum extent possible. If the injury or illness is minor, full decontamination should be completed and first aid administered prior to transport. If the patient's condition is serious, at least partial decontamination should be completed (i.e., complete disrobing of the victim and redressing in clean coveralls or wrapping in a blanket.) First aid should be administered while awaiting an ambulance or paramedics.

Any person being transported to a clinic or hospital for treatment should taken with them information on the chemical(s) they have been exposed to at the site. This information is included in Section 3.0 of this plan. Map is attached to the back of this document.

## 10.4 Fire or Explosion

In the event of a fire or explosion, the local fire department should be summoned immediately. Upon their arrival, the designated personnel will advise the fire commander of the location, nature, and identification of the hazardous materials onsite.



If it is safe to do so, site personnel may:

- o Use fire fighting equipment available onsite to control or extinguish the fire; and,
- o Remove or isolate flammable or other hazardous materials which may contribute to the fire.

#### 10.5 Spill or Leaks

In the event of a spill or a leak, site personnel will:

- o Inform their supervisor immediately;
- o Locate the source of the spillage and stop the flow if it can be done safely; and,
- o Begin containment and recovery of the spilled materials with sorbent (vermiculate, etc.).

#### 11.0 CONFINED SPACE

- No confined space entry anticipated.
- Confined spaces may be encountered in the following locations/during completion of the following tasks:
  
- Attach confined space entry procedures.



<b>People</b>	<b>First Aid</b>	<b>CPR</b>	<b>Oxygen administration</b>
Pete Raimondi	1/15/2008	1/15/2008	1/15/2008
Dave Lohse	expired	expired	
Christy Bell	4/11/2009	6/8/2008	4/14/2008
Maya George	4/11/2009	6/8/2008	4/14/2008
Karah Cox	6/8/2010	6/8/2008	
Hilary Hayford	8/10/2008	expired	
Laura Anderson	5/5/2009	5/5/2009	5/5/2009
Kyle Walters	3/9/2010	3/9/2008	
Haven Livingston	11/1/2008	5/1/2009	
Dan Orr	5/18/2010	5/18/2008	
Melissa Redfield	1/19/2008	1/19/2010	
Karli Woodward	4/30/2009	4/30/2009	
Laura Reinhard	10/16/2009	11/6/2008	11/14/2008
Tish Conway-Cranos	4/8/2010	10/4/2008	
Lindsay Starrett	expired	expired	
Kristen Kusic	4/30/2009	4/30/2009	4/30/2009
Rani Gaddam	7/1/2009	7/1/2008	

x= current



12.0 ACKNOWLEDGMENT

I have read, understood, and agreed with the information set forth in this Health and Safety Plan and will adhere to the protocols specified herein.

[Signature]  
UC Santa Cruz representative

[Signature]  
Signature

12/07/07  
Date

UCSC OSHA Site Safety Coordinator  
[Signature]  
UCSC Field Team leader

Signature  
[Signature]  
Signature

Date  
12/7/07

Rob Gruhot  
NPS Safety Officer

[Signature]  
Signature

Date  
12/6/07

Lindsay Starratt  
Field Team Member

[Signature]  
Signature

Date  
12/7/07

Karli Woodward  
Field Team Member

[Signature]  
Signature

Date  
12/7/07

HILARY HAYFORD  
Field Team Member

[Signature]  
Signature

Date  
12.7.07

Field Team Member

Signature

Date

Field Team Member

Signature

Date

Damon Fong  
NPS on-site leader

[Signature]

12/7/07

