STANDARD SITE SAFETY PLAN
FOR EMERGENCY/POST-EMERGENCY PHASE COASTAL OIL SPILLS

TABLE OF CONTENTS:

ATTACHMENTS

A. SITE DESCRIPTION:

Site generally referred to as: M/V Torm Mary spill

Location: Sabine and Naches River at Port Author Texas_____
_____

_____

Surrounding population: XX_ industrial, ___residential,
___rural, ___un-populated, ___other: Riverway_____

Topography: xx___rocky, __xx_sandy beach, XX docks, ___cliffs,
XX_marshes, ___ other:_____

Primary Hazards:
_XXChemical Exposure
___Fire/Explosion
___Oxygen Deficiency
___Confined/Enclosed Space Entry
___Ionizing Radiation
___Biological Hazards
XX_Safety Hazards
XX_Heat Stress
___Cold Exposure
XX_Noise
XX_OTHER:Slips/Trips/Falls/Weather Exposure_____
_____

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 attachment _____.

__Pathways for hazardous substance dispersion:_____

__xx___Household trash and oily waste must be segregated

B. WORK PLAN AND ENTRY OBJECTIVES:

1. All work shall be conducted in accordance with procedures established during pre-entry briefings and attached work plans.
XX_A work plan is provided as attachment: Daily ICS IAP forms.

XX_ 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 or IAP.

C. SITE ORGANIZATION:

DEFINITIONS:

OSC: The On-Scene Coordinator (OSC) is the pre-designated federal official responsible for incident management in accordance with the national contingency plan. The OSC's designated rep serves as the on-site supervisor for USCG pers.

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.

FUNCTION	NAME and PHONE(if appropriate)
FOSC Commander:	CAPT Richie - MSO Port Author, TX COPT
FOSC's On-Site rep/supervisor:	LCDR R. Ogrydziak
Site Safety and Health Officer:	LT K. Pounds
Site Safety and Health Supervisor(s):	See the posted organization on-site/workplan/briefing log.
Public Affairs Officer:	LT Bird/CWO Wine
Scientific Support Coord:	Richard Wingqrove
National Pollution Fund Center Case Officer:	
BOA Contract Supervisor:	
State rep:	Ross Penton TGLO
Local reps:	
Other Fed/State/Local reps:	
	TGLO
	US Fish & Wildlife
RP's Rep:	Capt. Singh
RP's On-Site rep:	Dave Barry
RP's On-Site Contract Supervisor:	Joe Ledbetter
RP's Safety and Health Officer:	Brian Gallant
RP's Safety and Health Supervisor(s):	Tommy Dugan
Other R.P. reps:	
	John Lane
	Randy Henry
	Jack Coyle
	Lionel Johnson

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 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 OJT min.) except as noted below.
___Guidelines for assessment of training/qualification requirements has been provided as attachment: _____.

JOB DESCRIPTION:	TRAINING LEVEL:
Oil Recovery	40 Hour Tech Level
Boat Operations	Operator Qual
Skimmer Operations	Operator Qual
Booming Operations	Operator Qual
Vac Truck Operations	Operator Qual

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 a 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. The site safety map includes the location of items such as: zone boundaries, 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.
XX A Site Safety Map is provided as attachment _____.

E. HAZARD EVALUATION:

1. CHEMICAL HAZARDS (check appropriate category of oil, attach generic information sheet, and attach specific MSDS when available).

___ Oil containing benzene and/or other high vapor pressure chemicals.
XX_ Hazard information is provided as attachment _01____.

___ Oil that does not contain benzene.
___ 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. ENVIRONMENTAL MONITORING FOR CHEMICAL 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).

MONITOR:	FREQUENCY:
XX Combustible gas	___continuous, _hourly, _xx daily, OTHER:
_XXOxygen	___continuous, __ hourly, _XX daily, OTHER:
__ H2S dosimeter	___continuous, ___hourly, ___ daily, OTHER:
_xx_ H2S level	___continuous, __hourly, _xx daily, OTHER:
__ HNU	___continuous, ___hourly, ___ daily, OTHER:
__ OVA	___continuous, ___hourly, ___ daily, OTHER:
__ WBGT	___continuous, ___hourly, ___ daily, OTHER:
__ Noise	___continuous, ___hourly, ___ daily, OTHER:
xx OTHER: LEL	___continuous, ___hourly, _xx daily, OTHER:

3. Additional hazards may be encountered on site and shall (along with any other applicable hazards found during the site survey) be marked on the attached maps.

F. GENERAL SAFE WORK PRACTICES:

The following safe work practices shall be adhered to while on site (check those that are appropriate & add any additional).

xxBUDDY 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 or other suitable devices to indicate that they need assistance in areas where personnel may be obscured from supervisors (e.g. high grass, boulders, or warehouse areas).

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

xxFIRES. 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.

xxLIGHTING. 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.)

xxSLIPPERY 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.

xxWORK 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.

xxHEAT STRESS. Supervisors 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. At least a half hour rest during the shift is appropriate, more time, if determined necessary by supervision.

xx__Further guidelines are provided as an attachment.

F. GENERAL SAFE WORK PRACTICES: (continued).

__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: _____.

xxHIGH 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. (Skimming ops, vacuum truck ops, etc.)

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

xxTRAP 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.

_xx_WEATHER. In the event of inclement weather, the field supervisors will be contacted with respect to stopping work or having workers seek shelter, etc..

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

xxUV LIGHT EXPOSURE. Sunscreens of protection factor 15 (or greater), and UV tinted safety glasses shall be made available for response personnel as needed. Caps are also required for all personnel working in the field.

xxHELICOPTER OPERATIONS. Pilots shall provide safety briefing for all passengers.

xxMOTOR VEHICLES. Drivers shall maintain a safe speed at all times, and shall not be allowed to operate vehicles in a reckless manner. Seat belts are to be worn while operating all vehicles.

___A vehicle safety briefing is provided as attachment _____.

__ALL TERRAIN VEHICLES (ATV's). 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 ATV's outside of areas and lanes specified by the site safety supervisor.

F. GENERAL SAFE WORK PRACTICES: (continued).

xxDRUM 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.

xxTemporary holding/staging areas for drums and containers containing waste materials shall be constructed to contain spillage, run-off, or accidental releases of materials.

xxManual 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 hot work 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 _____.

xxPOISONOUS\INFECTIOUS INSECTS, BITES, STINGS, PLANTS.

___ BEE STINGS (also hornet or wasp bites)

___ POISONOUS SPIDERS (black widows or brown recluse)

___ TICKS (carriers of rocky mountain spotted fever, and lymes disease)

___ ANIMAL BITES (infection hazard, and/or rabies from some common sources such as: skunks, prairie dogs, foxes, bats, dogs, cats, raccoons, and cows).

xx_ SNAKE BITES (pit vipers (e.g., rattlesnakes and water moccasins); and coral snakes)

xx_ 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)

F. GENERAL SAFE WORK PRACTICES (continued).

GENERAL PREVENTION:

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

xx_ Personnel should be provided with
___long sleeved clothing
xx_insect repellent as appropriate
xx_snake leggings

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

xx_ 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.

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

xx_ 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: _____.

PERSONAL PROTECTIVE EQUIPMENT (PPE):
The following PPE ensembles shall be used while on site.
__See the PPE ensemble descriptions provided as attachment _____.

LOCATION:	TASK:	Circle appropriate LEVEL:
Water Operations	Oil Recovery	
GENERAL	monitors/supervisors	***D***
	shoreline cleanup crew	D
	vac truck crews	D
	high pressure wash crew	D
	abrasive cleaning crew	D
	hot water wash crew	D
	boat drivers	D
	boat crews	D
	skimmer crews	D
	boom crews	D
	sampling teams	D
	survey teams	D
	product pumping	D
	Dispersant crews	D
	bioremediation crews	D
	bird/mammal capture	D
	bird/mammal hazing	D
	bird/mammal transport	D

G. PERSONAL PROTECTIVE EQUIPMENT (PPE)(CONTINUED):

COLD ZONE	response personnel	D
	visitors	D
	_____	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.

XX See the decon and layout provided as attachments (_05).

I. SANITATION & PERSONAL HYGIENE:

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

__For further information see attachment (04).

J. EMERGENCY PROCEDURES:

1. GENERAL. In all cases when an onsite emergency occurs, 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.

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

XXFire departments listed under communications section have been contacted. Port Arthur FD has been contacted and is attending meetings.

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

__ATSDR has been contacted to notify of site operations.

__Police forces listed under communications section have been notified. Jefferson County PD is assisting at the Park.

J. EMERGENCY PROCEDURES (CONTINUED):

2. Emergency Medical Procedures:

- o Contact designated EMTs or ambulance crews if needed.
- o Do not attempt to move seriously injured personnel, call for an ambulance to come to the injured person.
- XX For bites, stings, or poisonous animals/plants notify the EMT and report to supervisor.
- o The closest hospital for regular emergencies is:

Mid Jefferson
(409-721-3337)

- o The closest hospital for chemical exposure emergencies is:

Mid Jefferson 409-721-3337
St. Mary 409-985-7431

- o Contact ATSDR (404) 639-0615 (24 hr) for chemical exposure emergencies

3. Emergency Fire Procedures:

- o DO NOT attempt to fight fires other than small fires. A small fire is generally considered to be a fire in the early stages of development, which can readily be extinguished with personnel and equipment in the immediate area in a few minutes time.
- o DO NOT take extraordinary measures to fight fires.
- o YOU MUST sound the appropriate fire signal if fire can not be put out quickly.
- o Alert nearby personnel to call fire department (911).
- o Notify supervisor.
- o When the fire alarm is sounded, personnel shall immediately leave the work area WITH THEIR ASSIGNED BUDDY, to the pre-designated assembly point by the designated evacuation route (see evacuation routes and assembly point below).
- o 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.

J. EMERGENCY PROCEDURES (CONTINUED):

Evacuation.

EVACUATION & FIRE SIGNAL(S):

FIRE/FIRE/FIRE_____

_____

PRIMARY EVACUATION ROUTE:

Site Dependent_ _____

_____

SECONDARY EVACUATION ROUTE:

_____

_____

ASSEMBLY POINT:

Park/Boat Launch_____

K. COMMUNICATIONS.

1. General signals:

X_THUMBS UP: I'm OK / I agree.
X_THUMBS DOWN: don't agree.
X_HANDS ACROSS THROAT: out of air / trouble breathing
X_GRAB HAND/ARM: come with me
X_HANDS ON HEAD: I need assistance

2. Radio communications:

Working:
freq:____81_____, chnl:_____ (_x_VHF __UHF __CB _____OTHER)

Emergency:
freq:_____16____, chnl:_____ (_x_VHF __UHF __CB _____OTHER)

freq:____23_____, chnl:_____ (_x_VHF __UHF __CB _____OTHER)

K. COMMUNICATIONS (Continued):

3. Phone communications: see IAP for Phone list.

On-Scene Coordinator:
(_____)_____(_voice _fax _cellular _pager _home)
(_____)_____(_voice _fax _cellular _pager _home)

Incident Commander:
(_____)_____(_voice _fax _cellular _pager _home)
(_____)_____(_voice _fax _cellular _pager _home)

Site Safety and Health Officer:
(251)680-8006 _____(_voice _fax _cellular _pager _home)
(508)737-6855_____(_voice _fax _cellular _pager _home)

Agency for Toxic Substance and Disease Registry (ATSDR)
(404)639-0615 (24 hr) (voice) 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: Jefferson County PD 409-835-8411
(_____)__911_____(_voice _fax _cellular _pager _home)

Fire:
(_____)__911_____(_voice _fax _cellular _pager _home)

Ambulance/EMT/Hospital: Goldstar Amb. 409-729-7911
(409-721-3337__Hosp.___)___911_____(_voice _fax _cellular _pager _home)

(_____)_____(_voice _fax _cellular _pager _home)

OTHER NUMBERS:
(_____)_____(_voice _fax _cellular _pager _home)

(_____)_____(_voice _fax _cellular _pager _home)

(_____)_____(_voice _fax _cellular _pager _home)

(_____)_____(_voice _fax _cellular _pager _home)

L. SITE SAFETY BRIEFINGS/MEETINGS:

1. 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.

2. Personnel will also receive regular briefings before each work 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/or Safety Officer. At a minimum these meetings will describe the work to be accomplished, discuss safety procedure changes, and note any items which 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: 09_____.

M. The SITE SAFETY OFFICER:

The Site Safety Officer for this incident is:

Brian Gallant RP Safety Officer
LT Kenny Pounds USCG

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:

FOSC:

_____

DATE: _____

TGLO:

_____

DATE: _____

RP:

_____

DATE: _____

ATTACHMENT (01): HAZARD INFO FOR OILS (WITHOUT BENZENE)

Some oils that generally do not contain benzene (except as a minor constituent or contaminant), include: kerosenes, diesels, military JP5, commercial JET A, bunker C, & fuel oils (1 thru 6).

(1) These oils are composed of an indefinite petroleum distillate content typically including PolyAromatic Hydrocarbons (PAHs). The concentration of these products will vary widely depending on the source of the oil, weathering, and aging.

(2) HAZARD DESCRIPTION: May cause dermatitis by skin contact; nausea by inhalation; and eye irritation by contact. Benzo(a)pyrene is a skin contact hazard and potentially may cause skin cancer with chronic skin contact.

(3) BASIC PRECAUTIONS: Wear chemical resistant clothing as necessary to protect against skin or eye contact; periodically change protective clothing that has oil on it; immediately change clothing that is showing evidence of oil penetrating to your skin; and wash skin with soap and water when changing into street clothing, before eating/drinking, or when exiting to a contamination reduction zone. Flush eyes with water if oil gets in them. If ingested do not induce vomiting—contact a physician.

ATTACHMENT (02): SITE SAFETY MAP(S)

See IAP

ATTACHMENT (03): HEAT STRESS CONSIDERATIONS (SHORT FORM)

HEAT STROKE. Heat stroke is the most serious of health problems associated with working in hot environments. It occurs when the body's temperature regulatory system fails and sweating becomes inadequate. The body's only effective means of removing excess heat is compromised with little warning to the victim that a crisis stage has been reached.

A heat stroke victim's skin is hot, usually dry, red or spotted. Body temperature is usually 105 degrees F or higher, and the victim is mentally confused, delirious, perhaps in convulsions, or unconscious. Unless the victim receives quick and appropriate treatment, death can occur.

Any person with signs of symptoms of heat stroke requires immediate hospitalization. However, first aid should be immediately administered. This includes removing the victim to a cool area, thoroughly soaking the clothing with water, and vigorously fanning the body to increase cooling. Further treatment, at a medical facility, should be directed to the continuation of the cooling process and the monitoring of complications which often accompany the heat stroke. Early recognition and treatment of heat stroke is the only means of preventing permanent brain damage or death.

HEAT EXHAUSTION. Heat exhaustion includes several clinical disorders having symptoms which may resemble the early symptoms of heat stroke. Heat exhaustion is caused by the loss of large amounts of fluid by sweating, sometimes with excessive loss of salt. A worker suffering from heat exhaustion still sweats but experiences extreme weakness or fatigue, giddiness, nausea, or headache. In more serious cases, the victim may vomit or lose consciousness. The skin is clammy and moist, the complexion is pale or flushed, and the body temperature is normal or only slightly elevated. In most cases, treatment involves having the victim rest in a cool place and drink plenty of liquids. Victims with mild cases of heat exhaustion usually recover spontaneously with this treatment. Those with severe cases may require extended care for several days. There are no known permanent effects.

HEAT CRAMPS. Heat cramps are painful spasms of the muscles that occur among those who sweat profusely in heat, drink large quantities of water, but do not adequately replace the body's salt loss. The drinking of large quantities of water tends to dilute the body's fluids, while the body continues to lose salt. Shortly thereafter, the low salt level in the muscles causes painful cramps. The affected muscles may be part of the arms, legs, or abdomen; but tired muscles (those used in performing the work) are usually the ones most susceptible to cramps. Cramps may occur during or after work hours and may be relieved by taking salted liquids by mouth.

FAINTING. A worker who is not accustomed to hot environments and who stands erect and immobile in the heat may faint. With enlarged blood vessels in the skin and in the lower part of the body due to the body's attempts to control internal temperature, blood may pool there rather than return to the heart to be pumped to the brain. Upon lying down, the worker should soon recover. By moving around, and thereby preventing blood from pooling, the patient can prevent further fainting.

HEAT RASH. Heat rash, also known as prickly heat, is likely to occur in hot, humid environments where heat is not easily removed from the surface of the skin by evaporation and the skin remains wet most of the time. The sweat ducts become plugged, and a skin rash soon appears. When the rash is extensive or when it is complicated by infection, prickly heat can be very uncomfortable and may reduce a worker's performance. The worker can prevent this condition by resting in a cool place part of each day and by regularly bathing and drying the skin.

TRANSIENT HEAT FATIGUE. Transient heat fatigue refers to the temporary state of discomfort and mental or psychological strain arising from prolonged heat exposure. Workers unaccustomed to the heat are particularly susceptible and can suffer, to varying degrees, a decline in task performance, coordination, alertness, and vigilance. The severity of transient heat fatigue will be lessened by a period of gradual adjustment to the hot environment (heat acclimatization).

PREPARING FOR WORK IN THE HEAT

Adjustment to heat, under normal circumstances, takes about a week, during which time the body will undergo a series of changes that will make continued exposure to heat more endurable. With each succeeding daily exposure, hazardous physiological responses will gradually decrease, while the sweat rate will increase. When the body becomes acclimated to the heat, the worker will find it possible to perform work with less strain and distress.

Gradual exposure to heat gives the body time to become accustomed to higher environmental temperatures. Heat disorders in general are more likely to occur among workers who have not been given time to adjust to working in the heat or among workers who have been away from hot environments and who have gotten accustomed to lower temperatures. Hot weather conditions of the summer are likely to affect the worker who is not acclimatized to heat. Likewise, workers who return to work after a leisurely vacation or extended illness may be affected by the heat in the work environment. Whenever such circumstances occur, the worker should be gradually reacclimatized to the hot environment.

Heat stress depends, in part, on the amount of heat the worker's body produces while a job is being performed. The amount of heat produced during hard, steady work is much higher than that produced during intermittent or light work. Therefore, one way of reducing the potential for heat stress is to make the job easier or lessen its duration by providing adequate rest. Rather than be exposed to heat for extended periods of time during the course of a job, workers should, wherever possible, be permitted to distribute the workload evenly over the day and incorporate work-rest cycles. Work-rest cycles give the body an opportunity to get rid of excess heat, slow down the production of internal body heat, and provide greater blood flow to the skin.

REST AREAS. Providing cool rest areas in hot work environments considerably reduces the stress of working in those environments. There is no conclusive information available on the ideal temperature for a rest area. Rest areas should be as close to the work area as possible, and provide shade. Individual work periods should not be lengthened in favor of prolonged rest periods. Shorter but frequent work-rest cycles are the greatest benefit to the worker.

DRINKING WATER. In the course of a day's work in the heat, a worker may produce as much as 2 to 3 gallons of sweat. Because so many heat disorders involve excessive dehydration of the body, it is essential that water intake during the workday be about equal to the amount of sweat produced. Most workers exposed to hot conditions drink less fluids than needed because of an insufficient thirst drive. A worker, therefore, should not depend on thirst to signal when and how much to drink. Instead, the worker should drink 5 to 7 ounces of fluids every 15 to 20 minutes to replenish the necessary fluids in the body. There is no optimum temperature of drinking water, but most people tend not to drink warm or very cold fluids as readily as they will cool ones. Whatever the temperature of the water, it must be palatable and readily available. Individual drinking cups should be provided—never use a common drinking cup.

Medical Monitoring. Goldstar Ambulance is providing a BLS ambulance near the vessel area. An additional ambulance will be staged at the Park. EMS personnel, in addition to treatment and transporting the ill and injured, will provide monitoring of field personnel to ensure that there is no heat related problems. EMS personnel will determine by interviews, what other testing may be required. This might include blood pressure, pulse, temperature, etc. This will be done as field personnel arrive in the staging areas after being in the field.

REST BREAKS. Field supervisors are responsible for the workers. A work/rest regime will be established by the supervisors for their zone, based on the tasks being performed as well as the weather, workers, etc. (Example: for each hour worked, a five to ten minute break).

Workers will get at least 8 hours of rest between shifts. Exceptions can be made with the approval of the Ops Section Chief and the Safety Officer.

ATTACHMENT (04): SANITATION REQUIREMENTS

A. Potable water. An adequate supply of potable water, or other drinking fluids, shall be maintained at all times throughout the site. Containers for drinking fluids shall be capable of being tightly closed, and equipped with a tap. These containers must also be labeled in such a manner that the contents are not accidentally used for other purposes. Where single service cups are supplied, the unused cups shall be maintained in a sanitary container; and a separate disposal container provided for used cups.

B. Non-potable water. Water intended for uses other than drinking or washing shall be identified in a way that it is not accidentally used for drinking, washing, or cooking. There shall be no cross-connection of potable and non-potable water supplies.

C. Toilet facilities. Toilet facilities shall be provided at a minimum in accordance with Table H-120.2 (Toilet Facilities) of 29 CFR 1910.120(n).

1. 20 or fewer people: 1 facility
   20-200 people: 1 toilet seat, and 1 urinal per 40 persons
   more than 200 people: 1 toilet seat, and 1 urinal per 50 persons

2. Toilets shall be provided such that they are readily accessible from all work areas. Mobile crews with ready access to toilet facilities using their own transportation do not need to have toilet facilities located at their temporary work sites. Toilets will be cleaned daily.

3. Sewage shall be handled in accordance with local health codes using one of the following means:
   - sanitary sewer,
   - chemical toilets,
   - recirculating toilets,
   - flush toilets.

D. Food handling shall be conducted in accordance with the requirements of local jurisdiction. Caution will take place when dealing with food that has been left out. Supervisors will monitor this closely, and food will be discarded when appropriate.

E. Washing Facilities. Washing facilities shall be readily accessible by all employees. In addition to sanitary cleaning, these facilities shall be so equipped that they can be used to remove oily residues from the skin. Washing facilities shall be maintained free of contaminants above exposure limits, and as free as practical from oily residues.

F. Showers. For operations lasting more than 6 months, showers and changing rooms must be provided in accordance with 29 CFR 1910.120(n)(7); and 29 CFR 1910.141(d)(3) and 1910.141(e).

ATTACHMENT (05): DECONTAMINATION OF OIL SPILL PPE

Personnel with contaminated clothing and equipment shall leave the Work Area by following the check marked decon procedures:

_X__ Wipe off or clean oily equipment and PPE clothing.

__X___PPE will be removed and discarded prior to workers leaving the site.

_X__ Inspect PPE clothing for rips or other damage. Inspect the inside of PPE clothing for signs of oil penetration. Discard PPE if it is damaged or oil is observed on the inside of the PPE.

_____

__X_ Store oily equipment in contaminated equipment storage.

_____

___ Store oily PPE clothing in labeled lockers.

_____

__X_ Discard oily articles in appropriate trash bins.

_____

___ Remove, clean, and inspect respirators.

_____

___ Store cleaned respirators in respirator storage.

_____

___ Place cloth coveralls in laundry basket or discard if excessively dirty.

_____

__X_ Wash face and hands with soap and water.

_____

ATTACHMENT (05): DECONTAMINATION OF OIL SPILL PPE

Check marked equipment will be used for decontamination areas:

___ decon shelter

___ banner tape for setting off "Contamination Reduction Zone" or "Warm Zone"

___ placards and markers for setting off "Contamination Reduction Zone" or "Warm Zone"

___ saw horses, wood stakes, hammers, and nails

___ area for new/clean equipment storage

___ area for new PPE storage

___ area for clean cloth coverall storage

___ hangers for oily PPE clothing

___ lockable storage for street clothing

_x__ waterless soap

___ soapy water for respirators

___ sterilizing solution for respirators

___ plain water for respirators

___ clean plastic bags for respirator storage

___ towels and / or paper towels

___ sorbent pads

__x_ cleaning rags

_x__ lined bins for oily debris

_x__ trash cans and trash bags for other debris/garbage

Trash and oily debris must be segregated. Oily debris will be marked as hazardous waste.

ATTACHMENT (06): PPE ENSEMBLE DESCRIPTIONS

LEVEL D ENSEMBLE

__XX_ cloth coveralls or tyvek
XX or long sleeved coveralls

_XX__ resistant (see note 2) steel toe/shank safety boots with textured bottoms

_XX resistant gloves (as needed) OPTION: leather gloves (if no contact with oil)

___ hard hat (all personnel in designated areas)

_X_ ball cap or suitable head covering for sun protection

XX safety glasses (as required by Site Safety Officer) OPTION: with tinted lenses (as required for sunlight)

XX PFD (all personnel on or near water)

___ quart bottle to carry fluids (during heat stress alerts)
_X__ hearing protection (in noisy areas)
___ insect repellent (in designated mosquito/tick areas)
__X_ sunscreen (as needed for sunlight)
___ whistle or noise maker(in designated areas)
NOTES:

1) "AS NEEDED" means to use when and in such a way so as to prevent significant skin contact with oil.

2) "RUBBER"/"RESISTANT" means chemical resistant material which resists oil penetrating to the skin or cloth garments underneath. Neoprene is a common material which is resistant to many oils.

3) Respiratory protection is used in this ensemble as a safe work practice while working around carcinogens in order to keep low exposures as low as reasonably attainable. For spill response involving oils that may still contain benzene in particular this may be used while working in close proximity to spilled product until benzene has weathered away (typically the first day).

ATTACHMENT (07): SAFE WORK PRACTICES FOR HELICOPTERS

I. BASIC SAFE WORK PRACTICES FOR ALL PASSENGERS/GROUND CREWS:

A. Passengers should receive a safety briefing from helicopter operators including safety features and equipment, their location on the individual aircraft, water landing procedures when appropriate, and emergency information cards before taking off.

B. Passengers or ground crew members approaching helicopters shall stay in a crouched position, and shall be in clear view of the pilot while approaching or departing a helicopter.

C. Passengers and ground crew should approach/depart from the FRONT of the helicopter ONLY when signaled by the pilot; and should NEVER walk under or around the tail.

D. Loose fitting clothing, hats, hard hats, or other gear which might be caught in rotor down wash must be secured or removed within 100 feet of operating helicopters.

E. Passengers shall maintain a distance of 50 feet from helicopters while rotors are turning. Ground crew should also maintain this distance unless specific work practices are developed for closer work.

F. Passengers shall wear seat belts at all times.

G. Passengers and ground crew shall wear hearing protection (including communications headsets, or helmets) at all times around operating helicopters.

H. Passengers shall generally assist the pilot in watching for other traffic or ground obstacles as directed by the pilot.

I. During emergency landings in water:

1. Do not exit until rotor blades stop turning or pilot signals all clear.
2. Do not inflate life preservers until outside of the helicopter.

II. SAFE WORK PRACTICES FOR CARGO HANDLING ARE FOUND IN 29 CFR 1910.183 AND INCLUDE:

A. Use proper slings and tag lines in accordance with 29 CFR 1910.183(c) and 1910.184.

B. Testing and use of cargo hooks and electrically operated cargo hooks shall be performed in accordance with 29 CFR 1910.183(d) and (i).

C. Static charge on suspended loads shall be dissipated with a grounding device before ground crew touch the suspended load unless protective rubber gloves are being worn.

D. External loads shall not be lifted unless determined to be within the helicopter

manufacturer's recommended rating.

E. Communications shall be maintained in accordance with 29 CFR 1910.183.

F. Ground and flight crew members shall be familiar with, and use the manual signaling system described in 29 CFR 1910.183.

ATTACHMENT (08): SAFE WORK PRACTICES FOR SMALL BOATS

A. Ensure that all boats comply with the appropriate state and federal regulations. In addition to the items discussed below certain types of vessels will require such items as USCG approved fire extinguishers, backfire flame control, powered ventilation, sound signaling devices (different from emergency signals), navigation lights/ signals, pollution placards, and marine sanitation devices.

B. Boat operators should familiarize themselves, and passengers with safety features and equipment on their boats.

C. Boats should be operated by qualified individuals.

D. Life jackets, work vests, mustang suits, or other appropriate Coast Guard approved Personal Flotation Devices (PFDs) should be worn by personnel in small boats.

1. Use of mustang suits is particularly critical under conditions of cold stress.

2. Types of Personal Flotation Devices (PFDs):

TYPE I. Off-shore life jacket provides the most buoyancy. It is effective for all waters and intended specifically for open, rough or remote waters where rescue may be delayed.

TYPE II. Near-shore buoyancy vests are intended for calm, inland water or where there is a good chance of quick rescue.

TYPE III. Flotation aids are good for calm, inland water, or where there is a good chance of quick rescue. Examples: float coats, fishing vests, and ski vests.

TYPE IV. These are throwable devices, not intended to be worn or to replace those that are worn.

TYPE V--SPECIAL USE. These are intended for specific activities (according to the conditions on the labels). Some examples: deck suits, mustang suits, work vests, and hybrid PFDs below.

TYPE V--HYBRID INFLATABLES. These PFDs contain a small amount of inherent buoyancy and an inflatable chamber. Performance equals that of a Type I, II, or III PFD (as noted on the label) WHEN INFLATED.

E. Small boats should generally not be operated for oil recovery after sunset. If this is required or poses minimal risk, routes of operations should be carefully prescribed, individual boats should maintain a communication schedule with a shore base; and should be fully equipped with appropriate running lights, emergency signals, and personnel onboard should be wearing emergency night signaling devices.

F. Distress signals (three or more for day and three or more for night) should be carried onboard all vessels. These devices may be required by regulation. They may be stored onboard or issued to individuals. If stored onboard they should be in a sealed, watertight, orange container marked "DISTRESS SIGNALS".

1. USCG approved pyrotechnic visual distress signals include red flares (hand-held or aerial), orange smoke (hand-held or floating), and launchers (for aerial red meteors or parachute flares). PYROTECHNIC DEVICES SHOULD NOT BE USED NEAR FLAMMABLE PRODUCT SPILLS.

2. Non-pyrotechnic distress signals are not approved individually but need to meet certain

requirements. They should be in serviceable condition, readily accessible, and certified by the manufacturer as complying with USCG requirements. These devices include orange distress flags, and electric distress lights.

3. Distress flags are day signals only. They must be at least 3 x 3 feet with a black square and ball on an orange background.

a. Electric distress lights are for night use only. These devices automatically flash the international SOS code (... _ _ _ ...) so a flashlight IS NOT considered a distress signal. Under inland navigation rules a high intensity strobe light is considered a distress signal.

b. It is a violation of regulations to display visual distress signals on the water except when assistance is required.

G. Boat operators must keep their supervisors informed of their area of operations, especially when they change their work area (if plans call for a boat to move to another location during a shift, the operator should advise their supervisor of their actual time of departure).

H. Boat operators should never anchor their boats by the stern. This is typically the lowest point on the boat due to design and/or loading, and is often squared off making it vulnerable to swamping.

I. Portable fuel tanks should be filled outside of the boat. All sources of ignition in the area of fueling (e.g., engines, stoves or heat producing equipment, and electrical equipment) should be secured while fueling.

J. Strict adherence to the buddy system must be observed in small boats; and all boats should be in direct visual or radio contact with a shore base at all times.

K. To avoid slipping on wet decks or falling in small boats, personnel should remain seated while boat is underway. Horseplay and speeding must be strictly prohibited. Personnel should keep their center of gravity as low as possible while working in small boats.

L. Boat operators must also ensure that boats are not overloaded. The capacity should be marked on a label on the boat. If it is not a general rule of thumb is:

LENGTH x WIDTH / 15 = PEOPLE (150 lbs)

Since equipment adds to the weight it should be considered as well. Weight should be distributed evenly.

M. Personnel working in or operating small boats should be equipped with appropriate shoes/boots designed to help maintain traction on wet surfaces.

N. Safety sunglasses, and hearing protection should be worn by personnel working in or operating small boats where appropriate.

O. Fixed ladders or other substantial access/egress should be provided at boat transfer locations exceeding several feet.

P. Depending on the specific nature of the operations (e.g., work in remote areas), other emergency equipment which should be considered such as: anchors, radios, bailers, first aid kits, and additional means of propulsion (e.g., paddles).

Q. Workers should be cautioned about using their legs as fenders, or getting their hands, arms, or legs between vessels or between vessels and docks or fixed structures.

ATTACHMENT (09): MONITORING DATA SHEET

DATE: _____
TIME: _____
PERSON COLLECTING DATA: _____

INSTRUMENT: RESULT/ Location

Combustible gas _____
_____
Oxygen _____
_____
CO _____
_____
LEL _____
_____

_____

Chemical specific (colorimetric tubes/meters

_____ _____
_____ _____
_____ _____
_____ _____
_____ _____
_____ _____
_____ _____
_____ _____

Cloud cover:
__Clear __Partly Cloudy __Mostly Cloudy __Cloudy

ATTACHMENT 10

INJURY/ ILLNESS/NEAR MISS REPORT FORM

Date of Report_____ Originator of Report _____

Person Involved _____ DOB _____

Social Security Number _____

Address _____

City, State, Zip _____

Phone number _____

Person to be notified _____

Relationship _____

Company Name _____

Supervisor's Name _____

Nature of Injury/illness _____

Action(s) taken

_____

_____

Status of Individual

_____

Please provide any documentation with this report. This includes a report from the worker, his/her supervisor, and treatment if any.

This form is to be maintained and filed with the safety information data.