

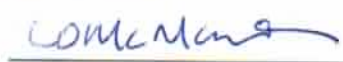
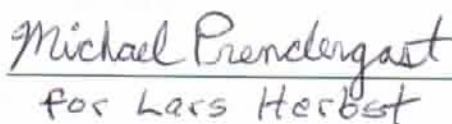



BEST MANAGEMENT PRACTICES
TO PROTECT SEA TURTLES AND MARINE MAMMALS DURING
IN-SITU BURNING OPERATIONS FOR THE
DEEPWATER HORIZON (MC 252) OIL SPILL RESPONSE

Approved by the Area Unified Command

USCG	RADM J. Watson (FOOSC) / RDML R. Nash (DFOOSC)	 _____	<u>7-4-10</u> date
BP	Mr. D. Suttles	 _____	<u>7-4-10</u> date
TOI	Mr. A. Rose	 _____	<u>7-4-10</u> date
BOEM	Mr. L. Herbst	 _____	<u>7/4/10</u> date
LA	Mr. D. Bradshaw	 _____	<u>7/4/2010</u> date

TO: Area Unified Command

FROM: Environmental Unit, Area Command

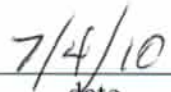
SUBJECT: Best Management Practices During In-Situ Burn Operations for Sea Turtles and Marine Mammals

The following documents detail the Best Management Practices (BMPs) for sea turtles and marine mammals with regards to in-situ burning operations for the Deepwater Horizon (MC 252) response. Guidance to response personnel is offered for skimming and in-situ burn operations and protocols for field observers are also provided. Due to area, environmental, and situational differences amongst the unique operation areas, we recommend that the Environmental Units in the incident commands reserve the authority to amend these BMPs as they deem necessary, and have them approved by their respective commands. These documents have been reviewed and approved by the Area Command Environmental Unit:

1. Best Management Practices to Protect Sea Turtles and Marine Mammals
2. Sea Turtle At-Sea Retrieval Protocol
3. In-Situ Burn Sea Turtle Observer Protocol
4. Instructions for Completing the Marine Species Observation Form
5. Marine Species Observation Form



Lawrence Malnor Environmental Unit Leader – BP



date



William Whitmore Environmental Unit Leader – NOAA



date

**BEST MANAGEMENT PRACTICES TO PROTECT
SEA TURTLES AND MARINE MAMMALS
(In-Situ Burn Operations)**

Sea Turtles

- Sea turtles can be adversely affected during corralling of oil and oiled Sargassum or other converged material by being herded by the booms into oil, turtles may also be in the oil already whether or not there is Sargassum present. The concern with in-situ burning is that any live turtles in the boomed oil and/or oiled Sargassum or other converged material could potentially be burned when the oil is ignited.

Best Management Practices to Reduce In-Situ Burns Impacts to Sea Turtles

- Collection of all live and dead turtles needs to be conducted according to the “Sea Turtle At-Sea Retrieval Protocol” document
- The best possible mitigation measure would be to have turtle rescue vessels (with trained rescue personnel, if available) accompany the burn taskforce into the burn box and to search all material to rescue turtles prior to burning, while oil is being boomed or otherwise is awaiting burning. If this is not possible then the following should be considered:
 - Send turtle rescue vessels (with trained rescue personnel, if available) into the next day’s projected burn box to search for and rescue turtles. Feasibility will depend on the size of the projected area and whether material has already been boomed or otherwise collected.
 - Have a trained observer (if available) or a crew member dedicated to looking for sea turtles (and marine mammals) during corralling operations and record each sighting event, including GPS location, species (if known), description of encounter on the attached form (attachment 2).
 - Contact the Wildlife Hotline (866-557-1401) or your supervisor to report the turtle to the Wildlife Branch immediately.
 - If possible all Sargassum that is not-oiled or is only very lightly oiled should be avoided.
 - If possible a survey should be conducted in the burn area after the burn is complete and all dead sea turtles should be counted and if possible collected.

Marine Mammals

- Marine mammals can be adversely affected by in-situ burns if they are in the burn area during burning. It is expected that marine mammals will avoid the area once the oil is ignited.

Best Management Practices to Reduce In-Situ Burns Impacts to Marine Mammals

- Have a trained observer, if available, or a crew member dedicated to looking for marine mammals that may be affected by the burn or are impacted by oil.
- Contact the Wildlife Hotline (866-557-1401) or your supervisor to report any marine mammal that is impacted by burn operations or that has signs of oil impacts to the Wildlife Branch as quickly as possible.

- If possible avoid burn operations where marine mammals have been spotted, if a marine mammal is spotted during operations, if possible, stop operations until the animal is outside the operations area.

SEA TURTLE AT-SEA RETRIEVAL PROTOCOL

All live and dead sea turtles (includes oiled turtles) should be recorded and retrieved (if possible) and taken to an onshore facility for cleaning and rehabilitation or salvage/necropsy. Animals can be netted at the surface using dipnets or other hoists. Once onboard, sea turtles need to be carefully handled and transported to shore as soon as possible, in accordance with NMFS guidance.

BE SURE TO USE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT
(Gloves, Tyvek suits, boots, and goggles if necessary)

Sea Turtle Retrieval Kit (1 per boat) Includes:

- Large Diameter dip net
- Large Rubbermaid Crate
- Large Cotton Towel
- PPE (Gloves, Tyvek, goggles)



1. Bring turtle on board (dipnets are useful for small turtles less than ~3 ft length). Do not pick up turtles by their flippers, but rather, lift them by grasping both sides of the carapace. If the turtle attempts to evade capture, do not pursue. When handling turtles, be aware of the head and flippers – they will bite and have powerful flippers with claws.
2. Determine position at sea (latitude/longitude coordinates as DD.DDDD).
3. Contact the Wildlife Hotline (866-557-1401) or your supervisor to report the turtle to the Wildlife Branch as quickly as possible.
4. Get the towel wet and put it in the bottom of the transport crate. Place the turtle on top of the towel. Put the crate with the turtle inside in the shade. Do not add more water to the crate.
5. If the turtle appears to be dead, follow the same process but roll the towel up to raise the hind end a few inches higher than the head. Keep the crate in the shade. (Note: live turtles may appear comatose for up to 24 hours!)
6. Deliver the sea turtle (live or dead) to the designated Response Center. Transport turtles in individual containers when possible. Be sure to provide location, date and time data, and a chain of custody form with each turtle.

IN-SITU BURN SEA TURTLE OBSERVER PROTOCOL
(subject to refinement and change as more data is gathered)

The observer will be stationed on the ignition boat and conduct the survey from a position that optimizes visibility. A general header data collection sheet will be filled out by the observer that includes information on the time survey begins, location, sea state, a general description of the oil and habitat, and unique information to track the survey data.

A sea turtle survey includes monitoring of 3 areas prior to the burn including; the area in front of the trawlers, oil concentrated in the boom, and any oil trailing behind the boom. As part of the survey, observers will note the type of oil encountered during the survey, the type of habitat (e.g. sea weed or other aquatic vegetation) encountered during the survey. A powerpoint for trainees explains in greater detail.

Sea turtles encountered during the survey that can be removed from the oil will be captured with a dip net. The sea turtle will be boarded and the observer will provide a cursory assessment of its status. Data relative to condition, location, and survey phase will be recorded. Sea turtles will be placed in a confined area/container and covered with a wet towel to minimize stress if the animal is alive. The sea turtle will be transported to the support vessel and the observer will notify the support vessel to arrange transport the sea turtle back to land.

INSTRUCTIONS FOR COMPLETING THE MARINE SPECIES OBSERVATION FORM

The Marine Species Observation Form has been developed to document information pertaining to the sightings and retrieval of marine species during at-sea operations. The data forms are to be completed by the observer during each dedicated survey. The form will be used for all marine operations involving visual observers. In the event that a field is not applicable indicate this by writing "N/A". In the event that information is unobtainable or unknown write "UK" in the corresponding field and describe the circumstances in the comment section of the data form.

Animals Sighted: Circle yes or no to indicate if any animals were sighted during surveys associated with marine operations.

Animals Retrieved: Circle yes or no to indicate if any animals were retrieved during the course of the marine operation.

Observer #: This is a unique number assigned to each observer by the contractor. e.g. C45

Page ____ of ____: This field is used link all documents associated with each marine operation. Pages should be numbered consecutively and arranged in the order that sightings or retrievals occur during each survey.

Trip #: Trip numbers will be three digit numbers designated by the number of trips the observer has completed as part of this program. For example observer C45's first trip will be 001, the second trip will be 002 and so forth.

Survey #: This is a three digit number assigned by the observer on a trip basis for each of the surveys completed during a trip. A survey is an observation event focused on a single marine effort such as surface skimming or surface burning.

Date: Enter the date that the survey is commenced.

Vessel Name: Indicate the name of the vessel from which observations are being completed.

Type: Indicate the type of vessel from which the observations are being completed.

Location: The fields contained in this section of the data form will capture the start and end position and time relative to the survey platform in which the observer is completing the visual observation and species retrieval. Additional elements such as general location, qualitative description of the oil and habitat type will also be recorded by checking the most appropriate box.

Length of Boom: Recorded in feet this figure should be obtained by asking the Captains of the vessels towing the boom or from the burn team.

Skirt Height: Recorded in inches this field should be obtained from the Captains of the vessels towing the boom or from the burn team.

Start Burn Time: Using the 24hour clock format record the time that the burn in initiated by the burn team.

Weather Description: Indicate one of the following weather conditions: unknown, clear, partly cloudy, continuous layer of clouds, drizzle, rain, showers, thunderstorms, rain and fog, fog or thick haze, or other with a description in the comments section.

Visibility: Estimate in feet the distance of clear visibility across the survey area.

Sea State: Using the Beaufort scale describe the sea state present during the survey.

Animal Observation Summary: This section is used to summarize the condition of each type of animal encountered during a survey.

Sighting and Retrieval-Additional Information: This section is used to log each specimen encountered during the survey.

Spec. #: Indicate the three digit specimen number assigned by the observer on a per survey basis for each animal sighted and/or retrieved during the survey.

Species: Indicate the common name of the species sighted and/or retrieved.

Condition: Note whether the animal was alive "A", deceased "D", or unknown "UK" upon sighting and separated by a hyphen whether the animal was retrieved "R" or stayed "S" at sea. For example if a live animal is encountered and it is retrieved the observer would indicate A-R in the condition field. If the animal is not retrieved and stays at sea the observer must use the comment section to describe the circumstances for leaving the animal at sea.

Photos: Indicate with a "Y" or "N" if digital images of the specimen were taken.

Latitude and Longitude: Using the format of DD.MM.mmm indicate the position of the vessel when the animal is retrieved. In the event that an animal is not retrieved indicate the position of the survey vessel, approximate the distance to the animal in feet and indicate the information in the comment section.

Survey phase: Indicate one of the following:

1. survey of material in front of trawlers
2. survey of material in boomed area
3. survey of material trawling behind boom

Comments: Indicate with a "Y" or "N" whether comments have been included pertaining to the specimen.

Comments: This section should be used to document all observed interactions between animals and gear, list key identification characteristics, to describe behavioral characteristics and any other notable information pertaining to the survey. All information relative to a specimen should be identified by the specimen number.

Specimen Delivery Information: This section is used to document the chain of custody for all specimens that are either transferred at sea or delivered to a shore based facility.

Date Specimen Delivered: Indicate the data that the specimen was transferred or delivered (mm/dd/yy).

Vessel/Organization Name: Indicate the name of the vessel or organization that receives the specimen.

Name of Receiving Individual: Indicate the name of the individual that takes possession of the specimen.

The information contained herein is confidential and should be submitted to NOAA Resources at Risk Environmental Unit at nmfe.ser.emergency.consult@noaa.gov

MARINE SPECIES OBSERVATION FORM		ANIMALS SIGHTED: Y OR N	
		ANIMALS RETRIEVED: Y OR N	
OBSERVER #:		PAGE ____ OF ____	
TRIP #:		DATE (MM/DD/YY):	
SURVEY #:		SKIMMER TYPE:	
OBSERVATION PLATFORM:			
LOCATION	START LAT/LONG (DD.MM.mmm)		START TIME(24hr)
	END LAT/LONG (DD.MM.mmm)		END TIME(24hr)
	SOURCE <input type="checkbox"/> NON-SOURCE <input type="checkbox"/> NEAR SHORE <input type="checkbox"/> BEACH <input type="checkbox"/>		
TARGET OIL		HABITAT TYPES	
HEAVY(dark black/brown) <input type="checkbox"/>		SARGASSUM WEEDLINE: OIL <input type="checkbox"/> NO OIL <input type="checkbox"/> OIL LINE NO SARGASSUM <input type="checkbox"/>	
MEDIUM (brown to peanut color) <input type="checkbox"/>		DISPERSED SARGASSUM: OIL <input type="checkbox"/> NO OIL <input type="checkbox"/> OTHER:	
LIGHT (silver/rainbow sheen, metallic brn) <input type="checkbox"/>		HEAVY CONTINUOUS OIL NO SARGASSUM <input type="checkbox"/>	
Emulsified (orange) <input type="checkbox"/>		DISPERSED PATCHES OF OIL NO SARGASSUM <input type="checkbox"/>	
LENGTH OF BOOM (FT):		SKIRT HIEGHT (INCHES):	
START BURN TIME (24hr):	WEATHER DESCRIPTION	VISIBILITY (FT):	
		SEA STATE:	

ANIMAL OBSERVATION SUMMARY

ANIMAL TYPE	NUMBER OF ANIMALS	
	ALIVE	DECEASED
Sea turtles		
Dolphins		
Whales		
Manatees		
Sea birds		
Other (Specify):		

