

Section 3253

Surface Washing Agent Plan

- References:
- (a) [Regional Response Team \(RRT\) VI Emergency Response Preapproval Guidelines to Decontaminate Vessels and Hard Structures in Port Areas Using Surface Washing Agents signed 9 July 2003](#)
 - (b) [Resources at Risk for Pre-Approved Areas within Central Texas Coastal Region dated November 2013](#)
 - (c) [Endangered Species Act Technical Assistance Comments on Surface Washing Agents and Surface Washing Locations in Central Texas, National Marine fisheries Service, dated 2 August 2013](#)
 - (d) [Threatened and Endangered Species Comments including Designated Critical Habitats within Port Locations for the Upper Houston Ship Channel, Bayport Ship Channel, Freeport, Texas City Ship Channel, and Galveston Ship Channel, U.S. Fish and Wildlife Service, 22 August 2013](#)

This plan outlines requirements for the use of surface washing agents within the Central Texas Coastal Area, to include specific procedures to be followed in areas where the use of NCP Product Schedule approved “lift and float” surface washing agents has been preapproved.

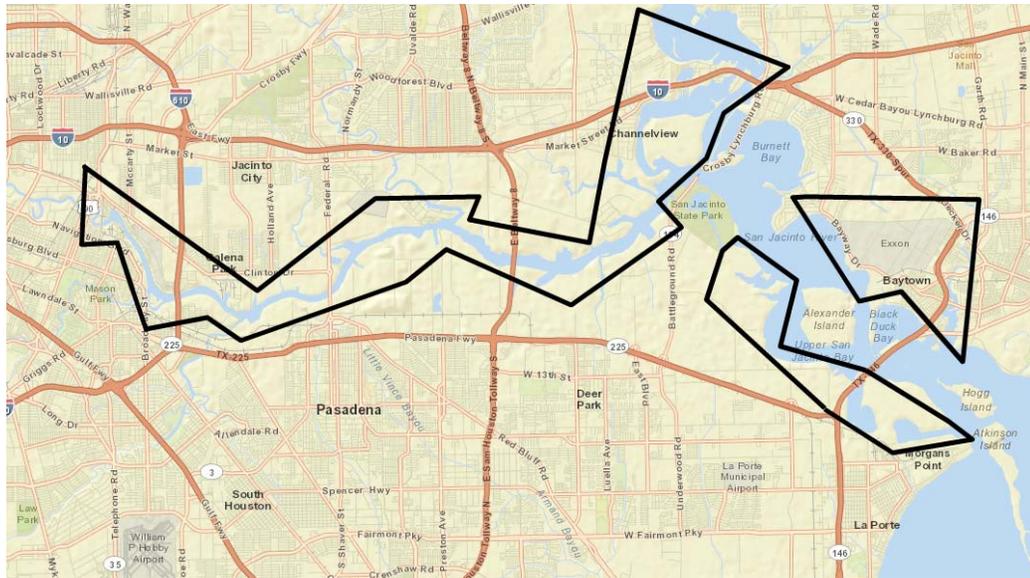
Regarding pre-approved locations in the Central Texas Coastal area, the United States Coast Guard (USCG), in coordination with the Texas General Land Office (TGLO) and the Texas Parks & Wildlife (TPW), sought to expedite the RRT VI approval process in 2013 as a result of continuous successful local interagency efforts in the safe evaluation and effective use of surface washing agents to enhance the cleaning and demobilization of oiled vessels during several spill events in industrial port areas within Houston, Galveston, Texas City and Freeport. Specifically, pre-approved areas were established for the use of surface washing agents in locations where such use in accordance with reference (a) would not adversely affect the environment, whereby approval authorization would be given by the Federal On-Scene Coordinator (FOSC) versus the RRT. Consultation with our federal and state trustees have greatly assisted our Area Committee in identifying locations where the use of surface washing agents would not adversely impact the environment or species therein. Furthermore, consultation with our trustees has also helped re-emphasize important steps that must be followed in both deciding whether to use surface washing agents and the parameters to be followed during the application of surface washing agents.

The industrial areas identified within the Central Texas Coastal Area for the pre-approved use of “lift and float” surface washing agents for oil cleanup and recovery operations of vessel hulls and hard structures include the Upper Houston Ship Channel, Bayport Ship Channel, Texas City Ship Channel, Galveston Channel, and Freeport Ship Channel. The shorelines in these pre-approved areas are dominated by hard man-made structures (including riprap) with some smaller isolated marshes, fine-medium grained sand beaches, and scarps. The following maps illustrate the boundaries of these pre-approved locations.

3253.1 Pre-Approved Locations for Surface Washing Agents in the Central Texas Coastal Area of Operations

Note: The boundaries depicted in the following preapproved locations are coarsely delineated. The FOSC or designated representative on-scene shall assess and ensure that the use of surface washing agents within these areas, in consultation with the Texas General Land Office and the Texas Parks and Wildlife, meet the intent of this pre-approval.

A. Upper Houston Ship Channel Pre-approved Areas



B. Bayport Ship Channel Pre-approved Area



3253.2 Surface Washing Agent Operations Guidance in Pre-approved Areas

1. All procedures set forth in Section 3253.3 shall be followed with the exception of requesting concurrence of the Regional Response Team VI for the use of surface washing agents in the designated pre-approved areas. FOSC approval is still required prior to the authorization to commence surface washing agent operations.
2. For the purposes of this pre-approval, approved “lift and float” surface washing agents as per the NCP Product Schedule are the only surface washing agents authorized for consideration in the pre-approved areas. The FOSC shall review the properties of the particular surface washing agent (i.e. MSDS) and ensure that the use of the surface washing agent selected, and the application technique, will not adversely impact the environment (in accordance with reference (a)). [To clarify the importance of this statement, refer to reference (c). NMFS cited an example of how one particular product was found not to be appropriate for the particular environment in the Tampa, FL area. Please also consider that this example is not meant to eliminate a surface washing agent choice by the FOSC, but only to share an example of how a particular surface washing agent may not be the best choice in a particular environment.]
3. For the purpose of this pre-approval, surface washing agent operations are limited to vessel hulls and hard structures within the designated pre-approved areas.

3253.3 Minimum Requirements for Use of Surface Washing Agents

In accordance with the RRT VI guidelines set forth in reference (a), the following steps are the minimum requirements which must be addressed prior to the consideration and implementation for the use of surface washing agents in the Central Texas Coastal area.

1. Conventional approaches have been tried, but failed to meet the cleanup objectives. [The cleanup objectives are not restricted only to the degree of oil removal or “degree of cleanliness.” Often during a response, the need to enhance the rate of cleaning by using a chemical agent is justified as long as there is minimal additional risk to environmental resources. Cleaning the hulls of large commercial vessels oiled by the spill such that they can be released to return to commerce would be an example where the rate of cleaning to a desired standard might benefit from the use of surface washing agents.]
2. Only approved surface washing agents listed on the NCP Product Schedule should be considered for oil cleanup and recovery operations.
3. Consultation with the Environmental Unit or natural resource protection managers to determine if any additional restrictions or additional safety precautions are required in the proposed operation. [At a minimum, the Texas General Land Office, Texas Parks and Wildlife, NOAA Scientific Support Coordinator, and current ESI maps and wildlife information must be consulted prior to conducting cleanup operations involving surface washing agents. Specifically, highlighting the content in references (b) through (d), it should be asked of the Texas Parks and Wildlife of any new information concerning federally threatened and endangered species and critical habitats, notably least terns, piping plovers and sea turtles.]
4. Cleanup areas requiring the use of surface washing agents shall be boomed off. [Boom shall be placed as appropriate to both prevent potential oil and/or surface washing agents from escaping the cleanup area, and to establish a perimeter to prevent potential fish, marine mammals, and other marine life from entering the cleanup site.]

5. A trained observer shall be posted to ensure the safety of all responders involved in the surface washing agent cleanup operations. Additionally, the trained observer posted shall also ensure that the use of surface washing agents will not pose harm to the surrounding environment, including any marine life and/or sensitive shoreline. Trained observers will report any potential harmful impacts immediately to the FOSC or designated representative. [Trained observers are considered trained after having read/reviewed this Section in its entirety and after having consulted with the Texas Parks and Wildlife on scene representative. The use of trained observers shall be listed and addressed in the proposed surface washing agent plan.]

6. Surface washing agent operations are not intended to be used in or near sea grass areas.

7. In consideration of the safety of workers assigned to the application of surface washing agents, and in consideration of the protection of the environment, it is preferred that surface washing agents are applied during daylight hours.

8. Ensure that the oil spill removal organization/spill management team develops an approved work plan in writing for use that includes worker safety precautions. [This plan should be in writing to the FOSC, should be incorporated into the Incident Action Plan, and in compliance with reference (a). The work plan can be formatted in accordance with company standards, or may be in the form of an ICS-204 work assignment form (an example has been provided in Section 3253.6).]

9. It is a requirement that the FOSC ensure all provisions of this Section are met, and to notify the RRT VI of any decision to use surface washing agents in a timely manner for concurrence. An after action report is also required. At a minimum, the monitoring checklist found in Section 3253.4 should be completed to aid in generating this report. [The level of detail in the after action report would be dictated by the response and any lessons learned that would aid future decision-making. The after action report can be generated by the RP or by federal or state personnel, but the report must be approved by the FOSC or their representative prior to being submitted to the RRT. In the past, the NOAA SSC or USCG FOSCR has often been tasked with this responsibility.]

3253.4 Checklist for Monitoring Surface-Washing Operations

- The product to be used is on the NCP Product schedule and is a “lift and float” agent.
- Confirm that the correct product is being used by:**
 - MSDS
 - drum labels
 - invoices
 - spray packs
- Provide visual monitoring to ensure that the surface-washing agents are being applied as recommended.**

Technique I: Spray and Wipe

- Spray agent on sorbent pad then wipe
- Spray agent on oiled surface, then wipe with pad
- Other:

Technique II: Spray and Flush

- Apply agent, flush with high pressure (>100psi) ambient or hot (90° to 171° F) water
- Apply agent, then steam clean (water temp > 171°F)
- High pressure or hot water wash to remove bulk of oil, then apply agent, then low pressure wash to remove residual stain
- Other:

Evaluate effectiveness:

- Can the flushing pressure and temperature be reduced without loss of effectiveness?
- What fraction of the treated (removed) oil is recovered?

Document any observed negative effects or future recommendations (impacted animals, for example): _____

Reminders

- Photographic documentation is recommended, but not required.
- If subsurface plumes are observed, water sampling should be requested.
- If high pressure flushing is employed, water sampling is required under this pre-approval guidance document to assess hazards to the aquatic environment.
- If sampling is being conducted, record the oil concentrations in the water adjacent to the treated areas.

3253.5 Approved Techniques in Pre-Approved Areas

Technique I:	Spray and Wipe	
Description:	There are two ways to use this technique, spraying agent on a sorbent pad then wiping the oiled surface or spraying agent directly on the oiled surface and then wiping with sorbent pad. This technique is most useful on small accessible thin bands of oil and “bath tub rings” above the waterline of vessels and other hard surfaces.	
Spray Chemical on Sorbent Pad then Wipe		
Advantages:	Disadvantages:	
Uses less chemical agent	Individual workers come in close contact with chemical	
Minimal or no oil and chemical transported to the water	May take longer than high pressure flushing techniques	
No need for on-water recovery	Labor intensive	
No additional equipment needed other than sorbent pads, sprayer, and a platform to work from	Less effective if the product requires contact or soak time	
Good during periods of high wind (over spray minimized)		
Spraying Agent on Oiled Surface then Wiping		
Advantages:	Disadvantages:	
Generally less time consuming than spray pad and wipe technique	May require on water recovery as some of the oil will rapidly run down vertical surfaces and come in contact with the water (sorbent boom and/or pads at the contact point between the structure’s surface and the water may serve this function)	
No additional equipment needed other than sorbent pads, sprayer and platform to work from	Workers come in close contact with agent and may pose an inhalation hazard	
	Time consuming (but generally faster than cleaning without chemicals)	
	Labor intensive	
	May require contact or “soak” time based on manufacturer’s recommendations	

Technique II:	Spray and Flush	
Description:	The basic form of this technique is simply applying the surface washing agent using a low pressure garden type hand held sprayer followed by flushing the mobilized oil from the hard surface with water hoses. Removed oil is flushed into a containment boom system and collected using either sorbents or a skimming system. This technique has been demonstrated as useful on porous structures such as concrete pilings and large oiled surfaces. The pressure and temperature of the water flushing system can be highly variable, but low pressure and ambient water temperatures are preferred since they are more easily available and reduce the potential for physical oil dispersion into the water column.	
Variations:	<ol style="list-style-type: none"> 1. Apply agent then use low pressure (<10 psi) ambient or hot water (between 90 and 171* F) to wash. 2. Apply agent then use high pressure (>100 psi) ambient or hot water (between 90 and 171*F) to wash. 3. Apply agent then use steam cleaning (water temperatures > 171*F) Note, steam cleaning is generally used in conjunction with very high pressure systems (often >2000 psi), but water volumes generated are very low relative to flushing systems. 4. High pressure ambient or hot water wash the surface to remove the bulk of the oil, apply surface washing agent, then low pressure wash to remove residual stain. 	
Ideally, the use of chemical agents should enhance the use of lower water pressures and cooler water temperatures to achieve the same degree of oil removal relative to high pressure steam cleaning. High pressure systems should only be used if lower pressure systems fail to achieve the cleanup goals. The same is true with water temperature: a good practice is to start with ambient water and increase temperature only if required. For some applications, high pressure flushing of the bulk of the oil from the surface followed by product treatment and low pressure flushing have been highly successful and minimize the amount of chemical agent required. Hot water and steam cleaning systems will increase worker inhalation exposure.		
Advantages:		Disadvantages:
Can remove oil from large areas effectively	Require more equipment to include containment boom	
Less manpower required (more efficient for larger areas)	Must recover oil flushed onto the water's surface	
Fewer workers come in direct contact with chemical agent	Higher pressures increase physical dispersion of both oil and chemical agent into the water column and will require sample collection	
Soak time less of an issue due to time it takes to cover a large area with the agent prior to flushing	Concerns for over spray to include collateral public and occupational worker exposure during windy conditions.	

1. Incident Name M/T ELIA		2. Operational Period (Date/Time) From: 0800 To: 1800		ASSIGNMENT LIST ATTACHMENT	
			ICS 204a-CG		
3. Branch			4. Division/Group		
5. Strike Team/Task Force/Resource (Identifier)		6. Leader		7. Assignment Location	
8. Work Assignment Special Instructions, Special Equipment/Supplies Needed for Assignment, Special Environmental Considerations, Special Site Specific Safety Considerations					
<p>SITE LOCATION: Exxon (Baytown), Dock #5 SITE DESCRIPTION: Industrial APPROVED AGENT: PES -51</p> <p>GENERAL SAFETY</p> <ul style="list-style-type: none"> * All required Personal Protective Equipment shall be utilized at all times during decontamination operations. * In the event that the decontamination team feels that they can not operate safely due to weather or other considerations, they shall cease operations and report the circumstances to the supervisor immediately. * All operations shall be conducted with adequate lighting - during daylight. <p>OPERATIONS</p> <ul style="list-style-type: none"> * The primary focus of this operation will be to safely clean up the oil residual on the hull of the M/T ELIA and the Exxon Baytown facility pier in an efficient and organized manner. * Decontamination (clean up of oil on each of the hulls) will commence only after ensuring the proper placement and setup of the containment and sorbent boom around the vessel. Boom will be continuously monitored for effectiveness. * The use of surface washing agents shall be performed in accordance with the "RRT VI Emergency Reponse Pre-approved Guidelines to Decontaminate Vessels and Hard Structures in Port Areas Using Surface Washing Agents (January 2003)". * As per the RRT document: THE APPROVED TECHNIQUE FOR APPLICATION OF OF THESE APPROVED SURFACE WASHING AGENTS IS: <ol style="list-style-type: none"> 1. Spray the agent onto a sorbent pad, or rag, that must be used to apply the agent to the contaminated surface. 2. Wipe the oiled surface continuously until clean. 3. After surface is clean dry wipe the area to ensure oil is cleaned and to remove any product residue. 4. Once the surface washing agent has been applied, additional water shall NOT be used to flush the affected area. 5. A Representative of the U.S.C.G. shall be available during every stage of the surface washing agent application in order to ensure that the approved application technique is being used and that the operations is being carried out in a safe and responsible manner. 6. If any negative effects from the application are observed, the use of surface washing agents shall cease immediately until a determination is made by the FOOSC with regards to further use. 7. No other surface washing agent shall be used other than the approved agent - PES 51. 8. All materials shall be properly bagged and/or disposed of at an approved facility. 9. Any floating oil allowed to float into the boomed area shall be collected, removed and properly disposed of. 10. The vessel owner's representative will certify that the vessel has been properly decontaminated. <p>EQUIPMENT</p> <ol style="list-style-type: none"> 1. Containment Boom 2. Sorbent Boom 3. PES 51 (Surface Washing Agent) 4. Personnel Protective Equipment 5. Small Boat <p>COMMENTS</p> <p>All other conventional methods have been attempted and/or discussed. Due to the nature and thickness of the oil, using sorbents without a surface washing agent as well as various flushing types is determined to be insufficient at removing oil from the vessels hull.</p> <p>It is believed by USCG that utilizing a surface washing agent as described for this response will not likely result in any impacts to threatened or endangered species and the services will not be consulted on this action.</p> <p>CONTACTS LCDR Kevin Boyd - 832-256-3275</p>					
Approved Site Safety Plan Located at:					
9. Other Attachments (as needed)					
<input type="checkbox"/> Map/Chart		<input type="checkbox"/> Weather Forecast/Tides/Currents		<input type="checkbox"/> _____	
<input type="checkbox"/> _____		<input type="checkbox"/> _____		<input type="checkbox"/> _____	
10. Prepared by:		11. Reviewed by (PSC):		12. Reviewed by (OSC):	
Date/Time		Date/Time		Date/Time	