CARIBBEAN REGIONAL RESPONSE TEAM GUIDANCE FOR THE DISPOSAL OF CONTACT WATER IN INLAND, OCEAN, AND COASTAL WATERS

Revision: December 13, 2004

INTRODUCTION

The decision to dispose of contact water within inland, ocean, and coastal waters rests with the federal On-Scene Coordinator (OSC) and the Unified Command (UC)¹. This document provides the Caribbean Regional Response Team (CRRT) guidance and decision-making tools to support and assist OSC/UC actions within the region when they are pursuing the disposal of contact water. The information contained within this document was developed strictly to identify issues and provide consistent viewpoints and procedures to assist the OSC/UC and alleviate potential barriers that may inhibit the decision process. This is a planning and preparedness effort and we encourage Area Committee members to incorporate concepts and information from this document into their respective Area Contingency Plans. It is structured in three sections. Section I defines the purpose, authority, and scope of the process. Section II contains the general guidance and procedures that may be considered by the OSC/UC when conducting disposal of contact water on applicable oil spills throughout the Caribbean Region. Section III contains appendices and includes:

- A placeholder for protocols for each state to establish specific conditions or procedures for conducting any disposal of contact water inside commonwealth/territorial waters (3 miles or less from shore), and for special managed areas if applicable, and the approval or final decision process for conducting such operations.
- Decision tree for supporting contact water disposal or decanting operations;
- Suggested procedures, guidance, and standards for the proper contact water disposal or decanting operations;
- Suggested monitoring protocols; and
- Optional Information/Decision checklist for contact water disposal operations.

¹ Contact Water is defined as any water that has come in contact and/or is contaminated with "oil", as defined in the Clean Water Act (CWA) as amended by the Oil Pollution Act of 1990 (OPA 90), Title I – Oil Pollution Liability and Compensation, Sec. 1001. Definitions. (23) "oil" means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredge spoil, but does not include petroleum, including crude oil or any fraction thereof, which is specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601) and which is subject to the provisions of that Act.

SECTION I

Purpose

The purpose of this guidance is solely to support and enhance the OSC/UC's ability to quickly determine the best course of action when addressing the disposal of contact water into inland, ocean, and coastal waters. This guidance outlines the decision-making process, identifies issues, suggests procedures, and provides checklists to help standardize the contact water disposal options. This guidance is a planning and preparedness tool that can be taken in part or in whole and incorporated into various Area Contingency Plans.

As mentioned earlier, the disposal of contact water is an OSC/UC decision and no CRRT concurrence or consultation is necessary. However, the CRRT recognizes that in some instances the physical containment and collection of contact water during significant oil spill incidents is unfeasible or inadequate and the effective disposal of contact water as an oil spill response technique must be considered. These guidelines were developed to allow the federal On-Scene Coordinator and their state On-Scene Coordinator partners, within the Unified Command, to employ concepts or tools from this guidance to help or assist in the disposal of contact waters to:

- Prevent or substantially reduce a hazard to human life;
- Minimize the environmental impact of spilled oil;
- Take full advantage of available containment/collection resources in an effort to enhance the efficiency of the overall removal operation; or
- Reduce or eliminate economic or aesthetic losses which would otherwise presumably occur without the use of this technique.

Authority

Subpart D of the National Oil and Hazardous Substances Contingency Plan (NCP) provides that the federal On-Scene Coordinator (OSC) in consultation with the federal trustee representatives may authorize the disposal of contact waters during oil spills.

Commandant, U.S. Coast Guard has pre-designated the USCG Captains of the Port as federal On-Scene Coordinators (OSC) for coastal zone oil spills and has delegated authority and responsibility for compliance with Section 311 of the Federal Water Pollution Control Act or Clean Water Act, as amended, to them. The EPA has delegated its authority for authorization of disposal of contact water to the EPA representative to the CRRT. The CRRT representatives from the Department of Commerce (DOC), the Department of Interior (DOI), and the State have been delegated authority by their representative agencies or governments to represent natural resource trustee concerns and serve as consultants to the CRRT or OSC on these matters.

Scope

This guidance covers protocols that provide the OSC/UC with procedures and process to pursue the conditional disposal of contact water to enhance response/removal operations for oil spills within the boundaries of the Caribbean Region.

In accordance with response planning regimes required by the Clean Water Act as amended by OPA 90, the responsible party (RP) will be expected to provide sufficient containment, collection, and storage resources in accordance with accepted response plans. The process for disposal and discharge of contact water explained within this document **should be considered a last resort response** to address a lack of available storage resources or to ensure an efficient response.

Conditions for Disposal of Contact Water

The term "disposal of contact water" applies to operations whereby water containing quantities of oil, resembling criteria described in 40 CFR 110 and mostly in the form of oil sheens resulting from oil/water separation activities (e.g., skimming, vacuum removal, etc.) is returned to the inland, ocean, or coastal waters after most of the free oil is contained and separated. This guidance provides consistent and standard procedures for the disposal of contact water operations conducted within the jurisdiction of the Caribbean Region. The authority to authorize the disposal of contact water rests with the federal OSC and may not be delegated. Decisions made in this regard shall be in accordance with procedures developed by the applicable OSC/UC, the Area Contingency Plan (ACP), and consistent with the specific procedures established within Appendix I of this document.

SECTION II

Suggested General Protocol and Guidance

Specific guidance concerning disposal of contact water operations, monitoring, and decision-making are contained in the Appendices to this document. The following general issues are offered for consideration concerning the disposal of contact water operations falling under the provisions of this guidance:

- Health and Safety Concerns Assuring worker's health and safety is the responsibility of
 employers and ultimately the federal OSC who should comply with all Occupational Health
 and Safety Administration (OSHA) regulations. Prior to any disposal of contact water
 operations, a site safety plan should be submitted and approved by the federal OSC and the
 Unified Command.
- Monitors representing the OSC, EPA, federal trustee agencies, the affected State, and the
 responsible party should have the opportunity to monitor disposal of contact water
 operations, when feasible. Further monitoring to establish "Continue/Discontinue" data for

input to the OSC can be conducted in accordance with protocols outlined in the monitoring program contained in Appendix IV.

- Prior to any disposal of contact water operations, the OSC may review the Decision Tree
 contained within Appendix II and complete the checklist contained within Appendix V.
 These tools are optional and have been provided to assist the OSC/UC in consistently
 implementing this response technique.
- The checklist found within Appendix V can be completed for disposal of contact water and provided to interested parties (e.g., the UC, the CRRT, etc.). This checklist provides a standard tool to document all pertinent issues or concerns have been addressed or considered.
- The OSC should continuously evaluate the decision to dispose of contact water.
- Disposal of contact water should be conducted by oil response trained professionals using recognized techniques and technology.
- Mechanical oil recovery equipment and/or materials should be mobilized on-scene, when feasible, for backup and complimentary response capability.
- Disposal of contact water should be conducted in accordance with consultations approved by the DOI and DOC, under section 7 of the Endangered Species Act. Prior to beginning disposal of contact water, an on-site survey should be conducted in consultation with natural resource specialists to determine if any threatened or endangered species are present in the disposal area or otherwise at risk from any disposal operations. Measures will be taken to prevent risk of injury to any wildlife, specially endangered or threatened species. Examples of potential protection measures may include moving the locations of the disposal of contact water to an area where listed species are not present and physical removal of individuals of listed species under the authority of the trustee agency.
- Documentation of disposal of contact water operations may be accomplished within any
 required reports. If an OSC Report or any over report medium is not required as a result of
 the incident, a special report is not necessary to document the disposal of contact water
 operation. If CRRT action is needed to support an operation, a verbal report should be made
 at the next CRRT meeting to review the process.
- Recommendations for changes or modification to this guidance should be presented to the CRRT at any time.

SECTION III

APPENDICES:

- Appendix I Placeholder for protocols for Puerto Rico and the USVI, which establish specific conditions or procedures for conducting any disposal of contact water inside commonwealth/territorial waters (3 miles or less from shore), and for special managed areas if applicable, as well as the final decision-making authority and procedure for a given state.
- <u>Appendix II</u> Decision tree for supporting contact water disposal or decanting operations.
- <u>Appendix III</u> Suggested procedures, guidance, and standards for the proper contact water disposal or decanting operations.
- Appendix IV Suggested monitoring protocols.
- <u>Appendix V</u> Information/Decision checklist for contact water disposal operations.

APPENDIX I

Specific Protocols, Procedures, or Guidance for Puerto Rico and the U.S. Virgin Islands

Separate protocols for each state, which establish specific conditions or procedures for conducting any disposal of contact water inside commonwealth/territorial waters (3 miles or less from shore), and for special managed areas if applicable, as well as the final decision-making authority and procedure for a given state or commonwealth.

• Puerto Rico

No specific protocols at this time.

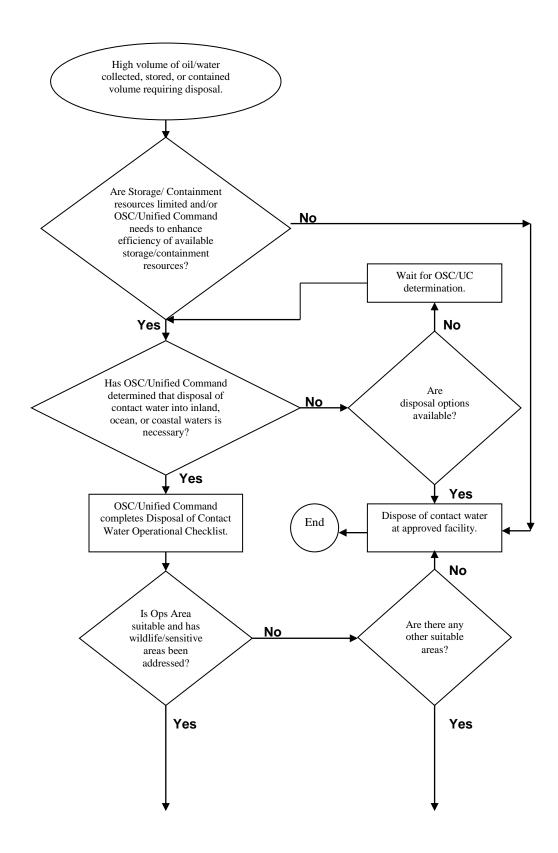
• U.S. Virgin Islands

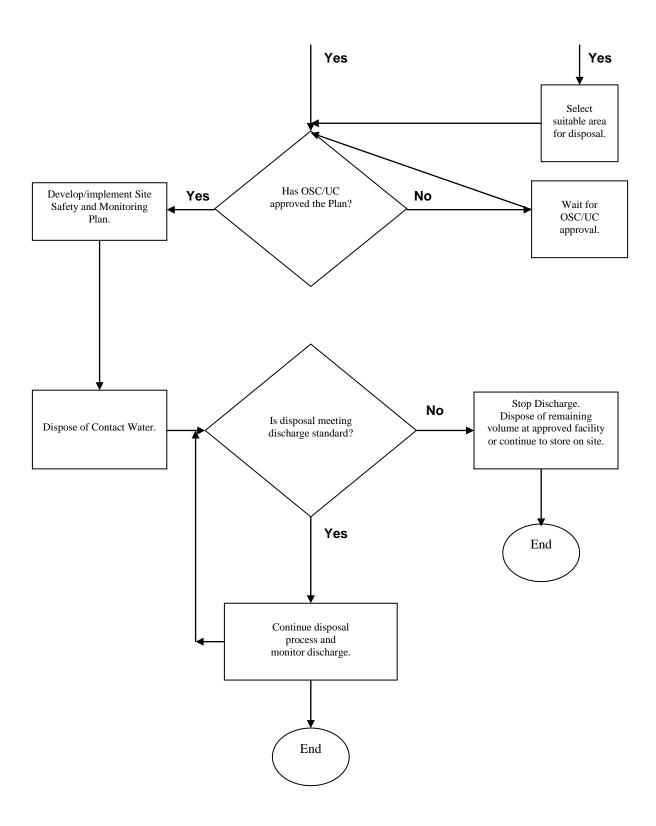
No specific protocols at this time.

APPENDIX II

Disposal of Contact Water Decision Tree

DISPOSAL OF CONTACT WATER DECISION TREE

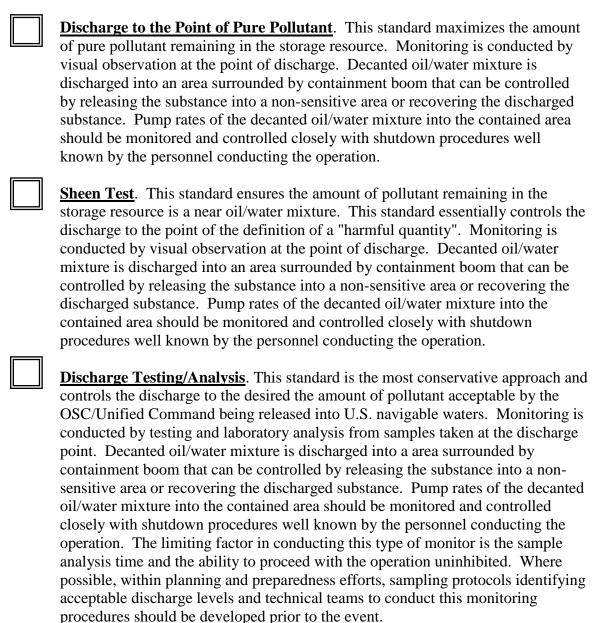




APPENDIX III

Disposal of Contact Water Operational Guidance

Procedures, guidance, and standards for the proper contact water disposal or decanting operations. Given the indicators noted above and other indicators identified during the pollution incident, the OSC/Unified Command must determine a standard for the disposal of contact water into U.S. navigable waters. Any of the following proposals or combinations thereof may be chosen to support the operation. Although these standards are not all inclusive, they may be used as a starting point from which to develop a standard that would best serve the conditions of the pollution incident set before the OSC/Unified Command.



APPENDIX IV

Disposal of Contact Water Monitoring Protocol.

During disposal of contact water operations, there is a need to monitor the operation to ensure that agreed upon standards and provisions are met and maintained during the activity. The objective of monitoring the disposal of contact water is to validate and ensure that the arrangement or setup of the operation is according to a agreed upon design and that the discharge standard developed for the operation is continually enforced.

Elements of a Good Monitoring Program.

Elements of a good monitoring program should include:

- <u>Clear Objectives</u> Define the question(s) to be answered from the monitoring program. They must be able to support decisions on further use of the technique.
- Meaningful Discharge Standard Any tests or standards developed to determine the extent of the acceptable discharge during the disposal of contact water should be operationally feasible to the extent practical. The ability to measure or determine whether the standard has been met should not be so laborious a protocol as to prohibit the possibility of conducting the operation. The discharge standard should be viewed as a "tradeoff" where our goal is to do no further harm by weighing the amount of product "decanted" or returned back to the environment versus the ability to remove, store, and contain greater amounts of pure pollutant on scene more efficiently.
- Monitor Protocol Design At a minimum, the testing/monitoring regime during disposal of contact water should involve replicate observations at both discharge and non-discharge (control) areas before and after the operation. Controls should be similar to the discharge site in all ways except the actual conduct of the disposal of contact water. In some cases, it may be appropriate to use a site (before discharge) as its own control for comparing the effects after the discharge of contact water.
- Trained Team for Preparation and Observation Proper monitoring during the disposal of contact water relies heavily on visual observations and an understanding of the operation's mechanism of action, environmental concerns, and expected or desired results. Thus, it is critical that the team members be both skilled in the design and implementation of the operation and trained in how to observe and monitor. Untrained team members without a background or knowledge in the ultimate objectives and goals of this type of operation will not be able to provide the Unified Command with appropriate protocols and meaningful evaluations of the operations' success, efficiency, effectiveness, and results. OSCs are strongly encouraged to use teams that are pre-identified through their respective planning doctrine.

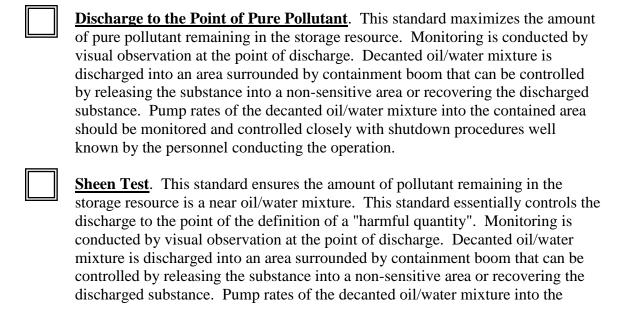
Testing and Monitoring Procedures.

It is suggested that the testing and monitoring protocol follow five (5) levels outlined below. Depending of the questions and concerns that need to be answered during the operation will dictate which discharge measure you will use during Level 1 (this is also addressed in the checklist provided within Appendix V and should already be complete and known before addressing desired monitoring standards). The decision on which protocol you will use may involve the following indicators:

- General environment where the operation is being conducted (e.g., inland, near shore, offshore, etc.);
- The location or proximity of the operation to environmental or economically sensitive resources:
- The availability of appropriate containment and storage for recovered oil; and
- The efficiency of offloading full storage receptacles (e.g., tank barge, dracone, inflatable barge, temporary shore side tanks, etc.).

Level 1: Choosing a Discharge Standard.

Given the indicators noted above and other indicators identified during the pollution incident, the OSC/Unified Command must determine a standard for the disposal of contact water into U.S. navigable waters. Any of the following proposals or combinations thereof may be chosen to support the operation. Although these standards are not all inclusive, they may be used as a starting point from which to develop a standard that would best serve the conditions of the pollution incident set before the OSC/Unified Command.



contained area should be monitored and controlled closely with shutdown procedures well known by the personnel conducting the operation.

Discharge Testing/Analysis. This standard is the most conservative approach and controls the discharge to the desired the amount of pollutant acceptable by the OSC/Unified Command being released into U.S. navigable waters. Monitoring is conducted by testing and laboratory analysis from samples taken at the discharge point. Decanted oil/water mixture is discharged into a area surrounded by containment boom that can be controlled by releasing the substance into a nonsensitive area or recovering the discharged substance. Pump rates of the decanted oil/water mixture into the contained area should be monitored and controlled closely with shutdown procedures well known by the personnel conducting the operation. The limiting factor in conducting this type of monitor is the sample analysis time and the ability to proceed with the operation uninhibited. Where possible, within planning and preparedness efforts, sampling protocols identifying acceptable discharge levels and technical teams to conduct this monitoring procedures should be developed prior to the event.

Level 2: Effectiveness of Protocol Standard. The objective is to determine if the protocol standard is working under the existing field conditions. The protocol standard should be reviewed and approved by agency representatives and operations staff. The response operations should suggest changes to the protocol to make them feasible in the filed while meeting stated goals and objectives. They will also identify the equipment and resources necessary to support the protocol. Measures of effectiveness can be visual, as long as they are objective and well defined (e.g., sheen test, level of oil decanted and discharge, etc.) or based on sampling and chemical analysis. Be sure to evaluate:

- Equipment used to support the operation (e.g., pumps, shutdowns, containment boom effectiveness, etc.);
- What logistics are required and thus potential problems for full-scale operations;
- Physical impacts during the operation (e.g., sea state allowing oil/water separation, ability to safety pump oil from receptacle and control the rate of discharge, etc.); and
- Recoverability of decanted/discharged oil from containment area if the goal or objective is to recapture the bulk of the intended discharge.

Level 3: Effects of the Operation. The objective is to determine if the operation or use of the disposal of contact water protocol of choice results in impacts to natural resources that are likely to cause more harm than the tradeoff of not being as efficient in recovery and containment operations. This monitoring scheme in most cases can be conducted by observing the area of the discharge/containment portion of the operation. The end results of the decanted and discharged pollutant needs to be within the standard identified in the developed protocol. The main question to be answered is: "Is the tradeoff acceptable, given the noticeable increase in the ability to collect and store recovered oil on-scene?" Points to consider include:

- Has the efficiency of the recovery and collection process increased;
- Is the containment site for the decanted/discharged oil in the best feasible area to do the least harm to natural resources; and
- Have descriptive near-shore surveys at the discharge site been conducted to allow a comparison of the operation before and after the initiation of the protocol.

<u>Level 4: Operational First-Use Monitoring</u>. The objective is to determine if full-scale operational use of the selected disposal of contact water protocol is effective and does not have unacceptable impacts. Again, it is necessary to have a detailed monitoring plan for approval by involved agencies. Operations will need to know that monitoring will be conducted, so plans can be made to give the monitoring staff site access and notification as needed.

Level 5: Continued Monitoring. The objective is to routinely monitor the progress of the disposal of contact water operation to assess the need for modifying the protocol used. Field monitors should ensure that the approved methods are being properly implemented. Weather, sea-state, or other physical processes may render approved methods ineffective, requiring either termination of the operation or the adjustment to other methods.

APPENDIX V

Disposal of Contact Water Operational Checklist

The CRRT has developed this "Disposal of Contact Water Operational Checklist" to support and assist the OSC and Unified Command member agencies in their respective decision-making for various contact water disposal operations. This checklist could be used as a guide to ensure all issues and operational standards are addressed.

The checklist separates the operational information into the following "Steps". The completion or the need to address these "Steps" will result in a methodical protocol for decision-making or operational implementation of disposal of contact water procedures. This checklist can also be used as an operational plan for the event. The "Steps" are as follows:

- Step 1: Spill, Pollutant, and Environment Background Information
- Step 2: Evaluating the Need to Dispose of Contact Water
- <u>Step 3</u>: Operational Feasibility Checklist
- Step 4: Operational Acceptability
- <u>Step 5</u>: Controls, Conditions, and Monitoring

Disposal of Contact Water Operational Checklist

Step 1: Spill, Pollutant, and Environment Background Information

General Information:

Α.	Name of Incident:		
В.	Responsible Party (if	known):	
C.	Date and Time of the	Incident:	
D.		Vessel Casualty Facility Incident Tank Truck Incident Transfer Operation (Vessel, Facility, Truck, or Pipeli Explosion Vehicle Accident Blowout Pipeline Mystery Other:	,
E.	Spill Location:		
F.	Distance and Direction water intakes, public Are		
Po	ollutant/Oil Inform	ation:	
	Product(s) Released:		
Н.	Product Details:	Product Name: Viscosity: API Gravity: Pour Point: Percent Evaporation in: 24 Hours - 48 Hours	Oure -

I.	Estimated Volume of Released oil:	gals	bbls
J.	Estimated Volume of oil potentially released:	gals	bbls
K.	. Release Status: Continuous In	termittent	
	One Time Only, Now Stopped? Yes No		
	If Continuous or Intermittent, Specify Rate of Relea	se:ga	ls/bbls per hour
L.	Estimated Surface Area Covered:	acres/sqft	
<u>En</u>	nvironment Information:		
М.	Current Weather: Clear Partly Cloudy Overcast Rain/Fog Inversion		
	24 – Hour Projection:		
	48 – Hour Projection:		
	Wind Speed:		
	Current Wind Speed (mph): Direction (from): Surface	Forecasted	
	24-Hour Projection (mph): Direction (from):		
	48-Hour Projection (mph): Direction (from):		
be	ote: Any information from visual overflights of the slice included here. All additional available information persould be included here.		
	Step 2: Evaluating the Need to	o Dispose Of Col	ntact Water
Ge	eneral Information:		
	 Are there adequate on-scene storage and containm within the area of the proposed operation? 	nent receptacles to facilitate	the recovery of the oil
В.	Considering the spill size, forecasted weather and t there time to deploy additional storage and contain Yes No		
C.	 Considering the spill size, forecasted weather and there time to deploy equipment and resources that 		

	operation? Yes No
D.	At first look and given available resources is there a need to maximize the amount of recovered oil contained in available storage tanks, vessels, bladders, etc. before having to send those resources off scene to be emptied at proper reception facilities? Yes No
E.	Briefly, are the tradeoffs acceptable in conducting a disposal of contact water operation at the spill site given the natural resources and environment or economic sensitivity of the area? Yes No, Please explain:
W	Step 3: Operational Feasibility Checklist eather and Oil Conditions:
	Are weather conditions (e.g., sea-state, current, winds, etc.) acceptable to conduct disposal of contact water operations? Yes No
В.	Are environmental conditions considering safety, type and condition of the oil, the ability of the oil and water to separate, and other factors suitable to conduct disposal of contact water operations? Yes No
Ha	bitats Impacted and Resources at Risk:
A.	Site Owner/Manager (federal/tribal/state/private) notified and consulted? Yes No
	Name: Address: Phone:
В.	State Natural Resource Agency notified and consulted? Yes No
	Name/Agency: Address: Phone:
C.	Applicable Federal Natural Resource Trustees notified and consulted? Yes No
	Department of Interior/U.S. Fish and Wildlife Service/National Parks Service Department of Commerce/National Oceanic and Atmospheric Administration U.S. Forest Service Department of Defense Other:
D.	Surface water intakes and/or public wells: Yes No
E.	Habitat Type(s) Threatened:

	Mangroves	
	Seagrass	
	Coral Reef	
	Wetlands:	
	Estuarine Riverine	
	Lacustrine	
	Palustrine	
	1 aldstille	
F.	Seasonal Concerns: Yes No	
	Comments:	
G.	Biological Resources Present: (describe significant issues such as large concentrations, bree activities, rookeries, designated critical habitat, etc.)	ding
	delivilles, residences, designated critical numbers, etc.)	
	T&E Species, including plants (list):	
	Mammals	
	Waterfowl	
	Wading Birds	
	Diving Birds	
	Shore Birds	
	Raptors	
	Fish	
	Amphibians	
	Other:	
	Comments/Attachments (i.e., ESI Maps, etc.)	
	·	
Н.	Natural Areas (list)	
	National Park:	
	National Wildlife Refuge:	
	National Forest:	
	State Park:	
	State Wildlife Area:	
	Other Natural Areas:	
	Comments:	
١.	Historic, Cultural, and Archeological Resources	
	Unknown	
	Not Present	

	Present, if so, contact FOSC Historic Property Specialist and/or the State Historic Preservation Office (SHPO) pursuant to the Programmatic Agreement on Protection of Historic Properties During Emergency Response.
	Name: Address: Phone:
<u>E</u> q	juipment and Personnel:
A.	Has proposed disposal of contact water site been isolated? Yes No
В.	Is there a Site Safety Plan in place? Yes No
C.	Are the appropriate pump, containment, and other associated equipment on-scene? Yes No
D.	Are the appropriate personnel on-scene? Yes No
Ε.	Personnel trained, equipped with safety gear, and covered by the Site Safety Plan? Yes No
F.	Communications system to communicate with on site personnel and vital operational functions (e.g., shutdown, monitor staff, etc.) available and working? Yes No
Pr	oposed Disposal of Contact Water Operations Plan:
Α.	Proposed Discharge Standard (check the appropriate protocol)
	Discharge to the Point of Pure Pollutant
	Sheen Test
	Discharge Testing/Analysis
В.	Estimated amount of oil involved in operation: Surface Area sq ft, Volume gal/bbl
C.	Estimated amount of oil/water mixture to be discharged: Volume gal/bbl
D.	Estimated duration of the operation: min/hr
D. E.	Estimated duration of the operation: min/hr Method for terminating the operation:
E.	Method for terminating the operation:

Step 4: Operational Acceptability

Evaluation of Anticipated Operation:

۹.	Us	ng an appropriate chart, plot and calculate the following locations and distances:
	1.	Location of proposed operation in relation to the source.
	2.	Location of proposed operation in reference to the nearest sensitive environmental or economic resource.
	3.	Location of proposed operation in reference to nearby human habitation/use areas, (e.g. towns, recreational use areas, airports/strips, roads, etc.)
3.	Ро	pulations of special concern:
	2.	Schools Hospitals Communities
С.	ls t	here a risk of accidental discharge from storage containers on site? Yes No
D.	Are	there additional pollutants present in the oil being recovered? Yes No
Ε.	Will discharged oil during disposal of contact water operations be contained or properly released into an acceptable area? Yes No	
De	ter	mination of Acceptability:
۹.		I the discharged oil/water mixture from the disposal of contact water operation impact a natural ource, sensitive area, or inhabited community? Yes No
	lf I	No, Operation is Acceptable, Proceed to Step 5.
	If `	res, Continue with B.
3.	Ca	n the impact be acceptably managed or are the tradeoffs acceptable? Yes No
		es, implement any protection measures and authorize the operation. oceed to Step 5
	lf I	No, do not authorize the operation.

Step 5: Controls, Conditions, and Monitoring

Operational Controls, Required for All Operations:

A.	Forecasted weather, winds, and sea conditions proper for intended operation? Yes No
В.	Has operation been approved by the OSC/UC? Yes No
C.	Have discharge standards been identified and are they acceptable? Yes No
D.	Is discharge area controlled by establishing a containment plan or the identification of an acceptable discharge area? Yes No
E.	Are proper shutdown procedures in place? Yes No
Pu	blic Notifications:
A.	Public notification implemented or addressed (e.g., radio broadcast, safety zone broadcast to mariners, road closure, etc.)? Yes No
R	Press Releases communicated or addressed? Yes No