AUTHORIZING SIGNATURES

The following document has been reviewed by the Region III Regional Response Team (RRT III) members and the Executive Committee has approved the document as a final[1] product of the RRT III and acceptable for public release.

Region III RRT Guidance for the Decanting of Contact Water in Inland, Ocean, and Coastal Waters [Final Document]

The RRT III Co-Chairs agree with the recommendation of the Executive Committee and have provided concurrence with their signatures below.

Kevin Boyd
RRT III Co-Chair
United States Environmental Protection Agency

11/28/18
Date

Dave Ormes
RRT III Co-Chair
United States Coast Guard, District 5

11/28/2018
Date

[1] Note: Some documents will be considered "Living" documents that will undergo continual review, vetting, and updates as necessary to reflect relevant information and policy.

REGION III REGIONAL RESPONSE TEAM (RRT3)
GUIDANCE FOR THE DECANTING OF CONTACT WATER
IN INLAND, OCEAN, AND COASTAL WATERS

INTRODUCTION

During spill response operations, mechanical recovery of oil or certain hazardous substances is often restricted by a number of factors, including the recovery system's material/water recovery rate, the type of recovery system employed, and the amount of tank space available on the recovery unit to hold recovered pollutant/water mixtures, referred to as contact water. The longer the pollutant remains on or in the water, the greater its ability to mix into the water column, possibly forming an emulsified mousse or other highly mixed pollutant/water material, which may increase the volume of pollutant recovery, thus requiring significantly more storage space.

Considering the use of decanting operations during a spill requires State and incident-specific RRT approval for use in inland, ocean, and coastal waters. This document provides guidance, decision-making tools, and documentation to support and assist the Federal On-Scene Coordinator (FOSC) and Unified Command (UC) decision-making in conjunction with an incident-specific Regional Response Team (RRT) when considering the operational procedures to be used in decanting contact water during oil and certain hazardous substance spills in inland, ocean, and coastal waters. For this document, discussions of contact water include both oil and certain hazardous substances as described in the Definitions portion of this document.

This document was developed to identify issues and provide consistent viewpoints and procedures to assist the FOSC/UC and alleviate potential barriers that may inhibit the decision-making process. This is a planning and preparedness effort and we encourage Area Committees to incorporate concepts and information from this document into their respective Area Contingency Plans (ACP). The document 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 FOSC/UC when conducting decanting of contact/decant water on applicable oil or hazardous substance spills throughout federal Region III. **Section III** contains five appendices, including the following:

- **Appendix I** – Separate protocols for each State or Commonwealth that establish specific conditions or procedures for contemplating any decanting of contact water inside territorial waters (three [3] miles or less from shore), for special managed areas if applicable and the approval or final decision process for conducting such operations.
- **Appendix II** – Decision tree for supporting decanting operations for contact water.
- **Appendix III** – Suggested procedures, guidance, and standards for the proper decanting operations.

- **Appendix IV** – Suggested monitoring protocols.
- **Appendix V** – Optional Information/Decision checklist for decanting operations for contact water.

DEFINITIONS

This policy addresses the decanting operations associated with contact water generated from incidental discharges and certain hazardous substance releases associated with spill response activities.

Contact Water is defined as any water that has come in contact and/or is contaminated with "oil" or a "hazardous substance," as defined in the Clean Water Act (CWA) as amended by the Oil Pollution Act of 1990 (OPA90), Title I - Oil Pollution Liability and Compensation, Sec. 1001.

Decanting is defined as the process of draining off recovered water from portable tanks, internal tanks, collection wells or other storage containers to increase the available storage capacity for recovered oil. When decanting is conducted properly, most of the petroleum can be removed from the water. Decanting is most often thought of in the context of large spills to open water; however, it can also be necessary during land-based spill responses where oil is spilled into ponds or streams or when there are large volumes of water from snowmelt during spring thaw. Decanting may be necessary on water or on land if the available temporary storage capacity is insufficient to hold the total volume of recovered oil/water mixtures. Decanting is currently recognized as a normal part of response operations that is appropriately addressed in Area Contingency Plans (see National Contingency Plan Revisions, 59 Federal Register 47401, Sept. 15, 1994).

A ***Discharge*** as defined by Section 311(a)(2) of the CWA, includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, but excludes discharges in compliance with a permit under section 402 of the CWA (National Pollutant Discharge and Elimination System [NPDES]). For purposes of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), discharge also means substantial threat of discharge. Note: Discharge is a term specific to oil spills, whereas "release" connotes a hazardous substance incident.

A ***Hazardous Substance*** means any substance designated pursuant to 40 Code of Federal Regulations (CFR) Part 302. In accordance with this guidance, the hazardous substances under consideration for decanting operations are those listed substances that do not dissolve into the water column and remain separate or can be released from the water after settling. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance in the first sentence of this paragraph. The term also does not include natural gas, natural gas liquids, liquified natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

Incidental Discharge means the release of oil and/or oily water or hazardous substance that does not dissolve in water within the response area in or near the area where oil recovery activities are taking place. Incidental discharges include, but are not limited to, the decanting of oily water; oil and oily water returns associated with runoff from vessels and

equipment operating in an oiled environment; the wash down of vessels, facilities, and equipment used in the response; as well as those hazardous substances that do not dissolve in water. Incidental discharges, as addressed by this policy, do not require additional permits and do not constitute a prohibited discharge. See 33 CFR 153.301, 40 CFR 300 for more detail.

Oil means oil of any kind in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredge spoil (Section 311(a)(1) of the CWA). Oil, as defined by Section 1001 of the OPA90 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 dredged 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 (CERCLA) (42 United States Code [U.S.C.] 9601) and which is subject to the provisions of that Act. Note: Oil does not include propane, liquefied petroleum gas (LPG) or liquefied natural gas (LNG).

A ***Release***, as defined by Section 101(22) of CERCLA, means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant). Note: the "environment" for CERCLA releases includes the water, ground, and air, not just water and adjoining shorelines, as is the case for the CWA/ OPA90.

The visual appearance of a surface ***Oil Slick*** is defined in the Bonn Agreement Oil Appearance Code (2009). The document describes the correlation between the visual appearance of oil spilled on water based on known oil thickness. Slick thickness colors range from silver, rainbow, metallic, and transitional dark, to dark and will change over time as the slick spreads and undergoes weathering. Note: A discharge of 15 parts per million (ppm) cannot be seen on the water.

Color Code	Visual Appearance / Description	Layer Thickness (micrometer [µm])
Sheen	thin oil film, silvery grey in color – all spilled oils will appear the same	0.04 to 0.30
Rainbow	range of colors (yellow, pink, purple, green, blue, red, copper, orange, etc.); all spilled oils will appear the same	0.3 to 5.0
Metallic	a homogenous color – dependent on the light and sky conditions; a blue sky will be mirrored in the oil	5 to 50
Discontinuous True Color	broken in nature with thinner and thicker areas within the slick; the true color of the oil will gradually dominate	50 to 200
True Color	slick will reflect the true color of the oil	> 200

ACRONYMS

µm ..... micrometer
ACP ..... Area Contingency Plan
bbl. ..... barrel
CWA ..... Clean Water Act
CERCLA ..... Comprehensive Environmental Response, Compensation, and Liability Act
CFR ..... Code of Federal Regulations
DEP ..... Department of Environmental Protection
DNREC ..... Department of Natural Resources and Environmental Control
DOC ..... Department of Commerce
DOEE ..... Department of Energy and Environment
DOI ..... Department of Interior
ESA ..... Endangered Species Act
EPA ..... United States Environmental Protection Agency
ERC ..... Emergency Response Coordinator
FOSC ..... Federal On-Scene Coordinator
gal ..... gallon
GPS ..... Global Positioning System
HPS ..... Historic Property Specialist
MARPOL ..... International Convention for the Prevention of Pollution from Ships
NHPA ..... National Historic Preservation Act
LNG ..... liquefied natural gas
LPG ..... liquefied petroleum gas
MDE ..... Maryland Department of the Environment
NCP ..... National Oil and Hazardous Substances Pollution Contingency Plan
NPDES ..... National Pollutant Discharge and Elimination System
NPL ..... National Priorities List
OSC ..... On-Scene Coordinator
OSHA ..... Occupational Safety and Health Administration
OSRO ..... Oil Spill Response Organization
OPA90 ..... Oil Pollution Act of 1990
ppm ..... parts per million

RP.....Responsible Party
RPM.....Regional Project Manager
RRT.....Regional Response Team
SDS.....Safety Data Sheet
SHPO.....State Historic Response Officer
SOSC..... State On-Scene Coordinator
UC.....Unified Command
U.S.C.....United States Code
USCG.....United States Coast Guard
VDEQ..... Virginia Department of Environmental Quality
VGP.....Vessel General Permit

SECTION I

PURPOSE

The purpose of this guidance is solely to support and enhance the ability of the FOSC/UC to effectively and efficiently determine the best course of action when addressing the decanting of contact water into inland, ocean, and coastal waters. **The decanting of contact water is a decision to be made by an incident-specific RRT in conjunction with the FOSC/UC.** This guidance outlines the decision-making process, identifies issues, suggests procedures, and provides checklists to help standardize the contact water decanting options. Decanting should only be authorized when it is essential to the continuing recovery of oil or certain hazardous substances after evaluating the environmental tradeoffs and if potential impacts will be minimized through this practice. This guidance is a planning and preparedness tool that can be taken in part or in whole and incorporated into various ACPs.

The RRT recognizes that in some instances, the physical containment and collection of contact water during oil and some hazardous substances spill incidents are not feasible or are inadequate, and the effective decanting of contact water as a spill response technique must be considered. These guidelines were developed to allow the FOSC and their State/Commonwealth On-Scene Coordinator (SOSC) partners within the UC, to employ concepts or tools from this guidance to help or assist in the decanting of contact waters to meet the following objectives:

- Prevent or substantially reduce a hazard to public health and safety.
- Minimize the environmental impact of spilled oil and/or some hazardous substances.
- Take full advantage of available containment/collection resources to enhance the efficiency of the overall removal operation.
- Reduce or eliminate economic or aesthetic losses which would otherwise presumably occur without the use of this technique.

During the Deepwater Horizon spill, the United States (U.S.) Environmental Protection Agency (EPA) Comprehensive Liquids Waste and Materials Management Plan stipulated, "*During oil skimming operations, the objective is to collect oil with a minimal amount of water." Decanting operations on water are conducted under the approval and permitting of the incident's UC. The mix of oil and water that is collected offshore is stored in an appropriate container and the water that settles out is decanted back to sea while the container is still offshore*."

The use of decanting is an effective way to deal with recovered water during oil spill operations and has benefits in terms of efficiency and safety (enabling less handling and

more time spent recovering oil from the waters' surface rather than transiting to and from the intermediate waste handling facility.[1]

AUTHORITY

Subpart D of the NCP (40 CFR 300) under the Emergency Phase provides that the FOSC, in consultation with federal trustee representatives, may authorize the decanting of contact waters during oil spills based on storage capacity needs for the response. The EPA and the U.S. Coast Guard (USCG) shall predesignate FOSCs for all areas in each region.

The USCG has pre-designated the USCG Captains of the Port as FOSCs for coastal zone oil spills and has delegated to them authority and responsibility for compliance with Section 311 of the Federal Water Pollution Control Act or CWA, as amended. The USCG provides FOSCs for oil discharges, including discharges from facilities and vessels under the jurisdiction of another federal agency, within or threatening the coastal zone. The USCG shall also provide FOSCs for the removal of releases of hazardous substances, pollutants, or contaminants into or threatening the coastal zone, except as provided in paragraph (b) of this section.

The EPA has delegated its authority for authorization of decanting of contact water to the EPA co-chair to the RRT in Region III. EPA also provides FOSCs for discharges or releases into or threatening the inland zone and shall provide remedial project managers (RPMs) for federally funded remedial actions. EPA will also assume all remedial actions at National Priorities List (NPL) sites in the coastal zone, even where removals are initiated by the USCG, except as provided in paragraph (b) of 40 CFR 300.120.

The RRT representatives from the Department of Commerce (DOC), the Department of Interior (DOI), and the State/Commonwealth have been delegated authority by their representative agencies or governments to represent natural resource trustee concerns and serve as consultants to the RRT or FOSC on these matters.

For oil, International regulation regarding the discharge of oil from vessels is contained in Annex I of the MARPOL Convention[2]. The Convention prohibits the discharge into the sea of oil or oily mixtures from ships, except where: '*the oil content of the effluent without dilution does not exceed 15 parts per million.*'

Any such discharge shall be subject to the approval of the national, regional, and area planning document in whose jurisdiction it is contemplated the discharge will occur. Local

[11] IPIECA and the Joint Industry Project JIP 17 – "The use of decanting during offshore oil spill recovery operations" (http://www.oilspillresponseproject.org/wp-content/uploads/2016/02/JIP-17-Decanting.pdf.) provides a very useful guidance on decanting.

[2] International Convention for the Prevention of Pollution from Ships is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes.

regulation and guidance should always be sought prior to carrying out any decanting operations.

The CWA promulgated the implementation of water quality standards and contamination limits for a wide range of pollutants including oil and grease. Specifically, the EPA, in 40 CFR Ch. 1, prohibits, "the discharges of oil that cause a film or sheen upon or cause discoloration of the surface of the water." The U.S. FOSC is granted an exclusion from the NPDES permit requirement for discharges under 40 CFR 122.3(d) which covers, "Any discharge in compliance with instructions of an On-Scene Coordinator pursuant to 40 CFR 300 – The National Oil and Hazardous Substances Pollution Contingency Plan or 33 CFR 153.10(e) –Pollution by Oil and Hazardous Materials."

SCOPE

This guidance covers protocols that provide the FOSC/UC with procedures and processes to pursue the conditional decanting of contact water to enhance response/removal operations for oil spills within the boundaries of Region III.

In accordance with response planning regimes required by the CWA as amended by OPA90, the responsible party (RP) will be expected to provide sufficient containment, collection, and storage and decanting resources in accordance with accepted response plans. The process for decanting contact water explained in this document **should be considered one of the response tools** to address a lack of available storage resources and to ensure an efficient response.

CONDITIONS FOR DECANTING OF CONTACT WATER

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

SECTION II: SUGGESTED GENERAL PROTOCOL AND GUIDANCE

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

- Safety and Health Concerns – Assuring worker's health and safety is the responsibility of employers and ultimately the FOSC who should comply with all Occupational Safety and Health Administration (OSHA) regulations. Prior to any decanting of contact water operations, a site safety plan should be submitted and approved by the FOSC and the UC.
- Monitors representing the FOSC, EPA, federal trustee agencies, the affected State/Commonwealth, and the RP should have the opportunity to monitor the contact water operations, when feasible. Further monitoring to establish "Continue/Discontinue" data for input to the FOSC can be conducted in accordance with protocols outlined in the monitoring program contained in **Appendix IV**.
- Prior to any decanting of contact water operations, the FOSC may review the Decision Tree in **Appendix II** and complete the checklist in **Appendix V**. These tools are optional and have been provided to assist the FOSC/UC in consistently implementing this response technique.
- The checklist found in **Appendix V** can be completed for decanting of contact water and provided to interested parties (e.g., the UC, the RRT, etc.) with approval of the UC. This checklist provides a standard tool to document that all pertinent issues or concerns have been addressed or considered.
- The FOSC should continuously evaluate the decision to decant contact water.
- Decanting of contact water should be conducted by trained response professionals using approved techniques and technologies.
- Decanting of contact water should be conducted in accordance with consultations approved by the DOI and DOC, under Section 7 of the Endangered Species Act (ESA)[3] and away from shorelines / historic sites protected under the National Historic Preservation Act (NHPA). Prior to beginning decanting of contact water, a consultation with natural resource specialists should be initiated to determine if any threatened or endangered

[3] The National Historic Preservation Act (NHPA) categorical exclusion is to qualify for a categorical exclusion, the requested exclusion (i.e., decanting) must not have the potential for an adverse effect that cannot be mitigated or resolved (extraordinary circumstances). Extraordinary circumstances cause an action, that would otherwise qualify for a categorical exclusion, ineligible because of impacts to sensitive resources. In these instances, further analysis is required to determine the nature and extent of impacts. This analysis may take the form of an EA or initiation of the Section 106 process. Extraordinary circumstances include potential impacts to sensitive resources, such as, but not limited to: Wetlands, Critical habitats, Migratory birds, Threatened or endangered species, Brownfields, Coastal areas, Hazardous waste sites, Protected lands such as parks and lands managed by Federal agencies, Cultural resources, or Historic properties. If the request qualifies for a categorical exclusion and there are no extraordinary circumstances or other environmental requirements identified, no further environmental documentation is required.

species are present in the discharge area or otherwise at risk from any discharge operations. Reasonable measures shall be taken to prevent risk of injury to any wildlife, especially endangered or threatened species. An example of a potential protection measure may include, but is not limited to, adjusting the location of decanting contact water to an area within the impacted body of water where listed species are not present.

- Documentation of contact water decanting operations will be required to address any state codes and regulations as well as federal reporting requirements. If an FOSC Report or any other report medium is not required because of the incident, a special report is not necessary to document the decanting of contact water operation. If RRT action is needed to support an operation, a verbal report should be made at the next RRT3 meeting to review the process.
- Recommendations for changes or modifications to this guidance should be presented to the RRT3 at any time and forwarded to the Area Committees in Region III to address and incorporate into their planning documents.

SECTION III: APPENDICES

- **Appendix I** – Separate protocols for each state or commonwealth, which establish specific conditions or procedures for conducting any decanting of contact water inside 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.
- **Appendix II** – Decision tree for supporting contact water/decanting operations.
- **Appendix III** – Suggested procedures, guidance, and standards for the proper contact water/decanting operations.
- **Appendix IV** – Suggested monitoring protocols.
- **Appendix V** – Information/Decision checklist for contact water decanting operations.

APPENDIX I – SPECIFIC PROTOCOLS, PROCEDURES, OR GUIDANCE FOR EACH FEDERAL REGION III STATE/ COMMONWEALTH

Separate protocols for each state or commonwealth, which establish specific conditions or procedures for conducting any decanting of contact water inside 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.

Delaware

Case-by-case basis; Department of Natural Resources and Environmental Control (DNREC) determination (SOSC).

District of Columbia

Case-by-case basis; Department of Energy and Environment (DOEE) determination (SOSC).

Maryland

Case-by-case basis; Maryland Department of the Environment (MDE) determination (SOSC).

Pennsylvania

The Commonwealth of Pennsylvania Guidance for the Decanting of Contact Water

The commonwealth of Pennsylvania strongly adheres to the caveat that the decanting of contact water as explained in this guidance should be considered a last resort response. If it is possible to hold the water at least briefly, the Department of Environmental Protection (DEP) State On-Scene Coordinator (SOSC), Emergency Response Coordinator or his delegate for the appropriate DEP regional office must be consulted prior to discharge. The DEP regional office may be able to offer advice on a less sensitive discharge point or even a nearby municipal or industrial facility which could accept the water.

The appropriate DEP Regional Director has the decision-making authority within the DEP region's jurisdiction. The SOSC has the total authority of the Regional Director in responding to the incident in question. In this capacity, he directs response efforts and coordinates all other efforts at the scene of a discharge or release. When the Emergency Response Coordinator (ERC) is on-scene, he/she will normally be the SOSC. In the absence of the ERC, the Assistant ERC will normally serve in this role. Other DEP employees may also be assigned this role to ensure there is always a single person in charge of the Department's operation at any one time.

Where there is no ability to hold the contact water and it must be discharged immediately to allow continued spill cleanup, the "sheen test" should be used. This standard essentially controls the discharge to the point of the definition of a

"harmful quantity." A harmful quantity of discharged oil is one that violates water quality standards, causes a film or sheen on the surface of the water or adjoining shoreline, or causes a sludge or emulsion to be deposited beneath the surface of the water (40 CFR §110.3).

Virginia

Discharge of Oily Contact Water in Virginia State Waters

The discharge of oil into or upon state waters, lands or storm drain systems within the Commonwealth of Virginia is prohibited. "Oil" means oil of any kind and in any form, including, but not limited to, petroleum and petroleum by-products, fuel oil, lubricating oils, sludge, oil refuse, oil mixed with other wastes, crude oils and all other liquid hydrocarbons regardless of specific gravity. For the statutory definition of oil, see § 62.1-44.34:14 Definitions of the Code of Virginia.

Virginia law allows for an exception to this prohibition if a discharge of oil is authorized by the federal on scene coordinator and the Executive Director of the Virginia Department of Environmental Quality or his designee in connection with activities related to the recovery of spilled oil where such activities are undertaken to minimize overall environmental damage due to an oil spill into or on state waters. However, this exception shall in no way reduce the liability of the person who initially spilled the oil that is being recovered. (see § 62.1-44.34:23. A. (viii) of the Code of Virginia.)

Otherwise, the discharge of any material or pollutant which alters the physical, chemical or biological properties of any state waters or renders such waters harmful, detrimental or injurious to the public health, safety or welfare, or to the health of animals, fish or aquatic life is prohibited except as authorized by a permit or certificate issued by the Virginia State Water Control Board. (See § 62.1-44.3 and § 62.1-44.5. of the Code of Virginia.)

Information as to application for the appropriate permit or certificate, or the availability of permitted facilities which may be able to accept contact water can be obtained from the respective regional office of the Virginia Department of Environmental Quality. The location, jurisdiction, and telephone numbers of VDEQ regional offices can be found at www.deq.state.va.us.

West Virginia

Case-by-case basis; State input required.[4]

[4] Reference West Virginia (WV) reporting requirements for decanting to the spill line are provided in WV Code of State Rules (CSR) 47-11-2.2a (https://apps.sos.wv.gov/adlaw/csr/ruleview.aspx?document=8298).

APPENDIX II – DECANTING OF CONTACT WATER DECISION TREE

Decision tree for supporting requests for contact water decanting or decanting operations is provided on the following two pages.

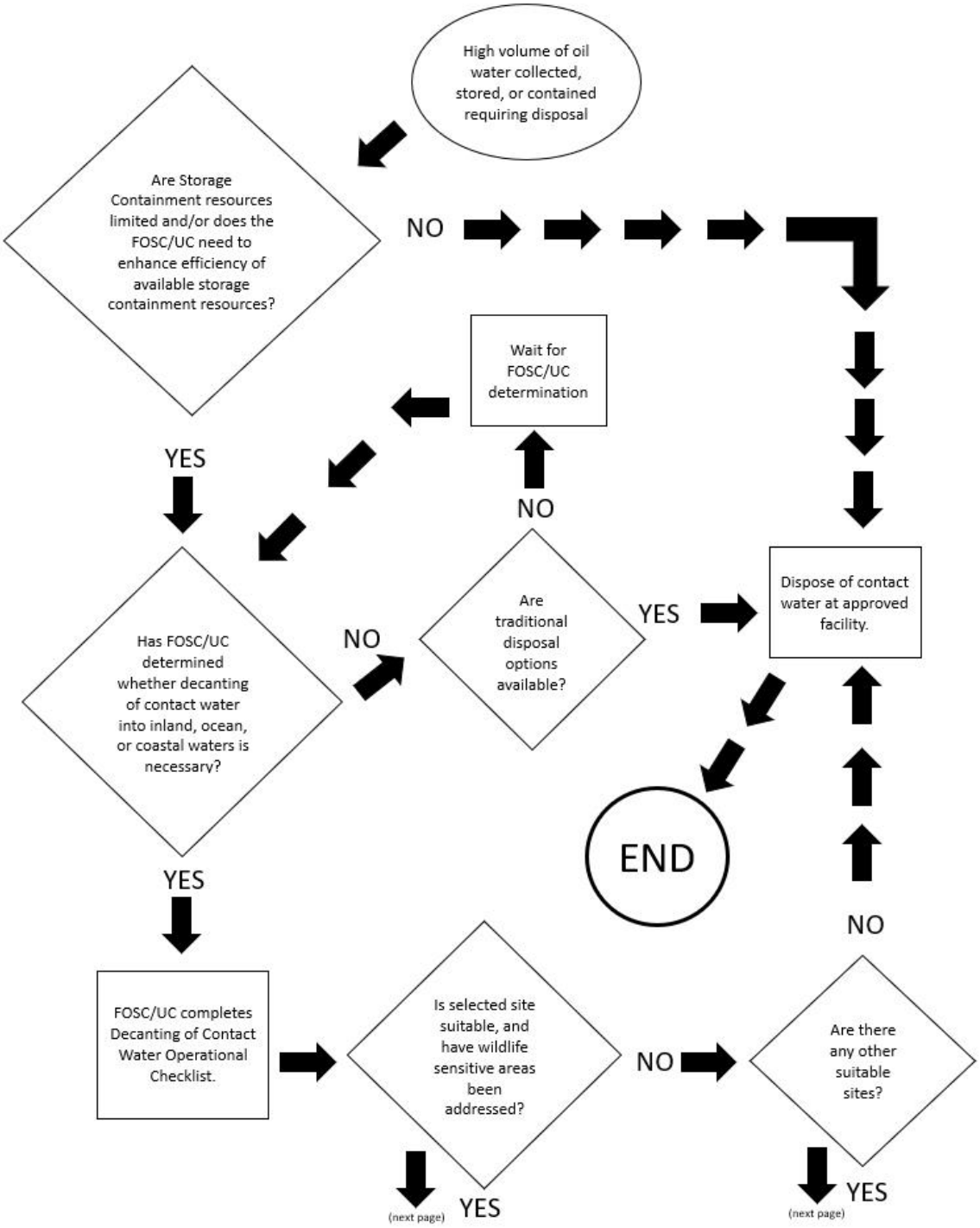

Figure 1. Decision Tree for Decanting Contact Water

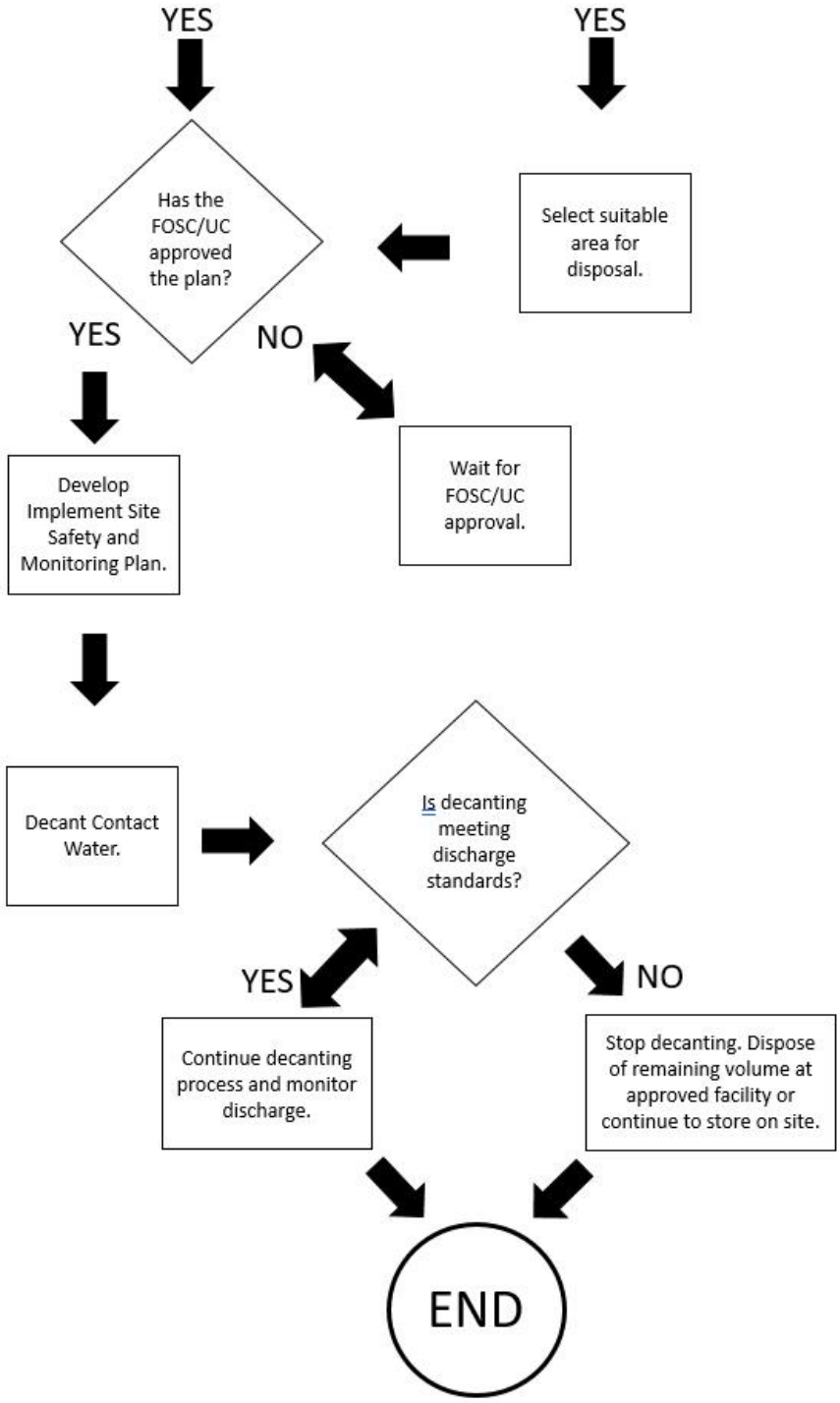

Figure 2. Continued.

APPENDIX III – DECANTING OF CONTACT WATER OPERATIONAL GUIDANCE

Given the indicators noted above and other indicators identified during the pollution incident, the FOSC/UC must determine a standard for the decanting of contact water into U.S. waters. It may be one or a combination of these standards depending on where this decant operation is taking place (inside containment versus outside containment). 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 under consideration by the FOSC/UC.

Annex I of the International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978 (MARPOL 73/78) limits the discharge of oil into the oceans to 15 ppm when a ship is en route. However, there is provision under the MARPOL Convention for an exemption in the case of oil spill operations, "*the discharge into the sea of substances containing oil, approved by the Administration, when being used for the purpose of combating specific pollution incidents in order to minimize the damage from pollution. Any such discharge shall be subject to the approval of any Government in whose jurisdiction it is contemplated the discharge will occur*."

In the U.S., the EPA's 2008/2013 Vessel General Permit (VGP) for Discharges Incidental to the Normal Operation of Vessels[5] also addresses discharges of oil, including oily mixtures, from ships subject to MARPOL. Such discharges must have concentrations of oil less than 15 ppm. EPA has utilized the visual sheen test as a reliable indicator as to whether oil, including oily mixtures, is not being discharged in quantities that may be harmful.

- **Sheen Test** – This standard ensures the decanted contact water does not result in a sheen (defined as a silvery, metallic, colored or iridescent sheen). This standard essentially controls the discharge to the point of the definition of a "harmful quantity" as defined in Section 311 of the CWA [Title 33, Chapter 26, Subchapter III, Section 1321, Oil and Hazardous Substance Liability], and as amended by OPA90. A **harmful quantity** of discharged oil is one that violates water quality standards, causes a film or sheen on the surface of the water or adjoining shoreline, or causes a sludge or emulsion to be deposited beneath the surface of the water (40 CFR §110.3). Monitoring is conducted by visual observation at the point of discharge. Because of normal decanting procedures into boomed product areas, this test may not provide adequate/accurate identification of sheen test.

[5] The EPA Vessel General Permit (VGP) became effective on December 19, 2013. The 2013 VGP will not be reissued prior to its December 18, 2018 expiration date but will be administratively continued and remain in effect until a new permit is issued. Owners/operators of vessels operating under the administratively continued permit are expected to comply with the terms and conditions of that permit.

- **Visual Monitoring of Decant Water to determine presence of pollutants** – This standard maximizes the amount of pollutant remaining in the storage containment resource. Monitoring is conducted by visual observation at the point of discharge. The decanted oil/water mixture is discharged into an area within the containment boom that can be controlled by releasing the substance into an approved area or recovering the discharged substance. Pump rates of the decanted oil/water mixture into the contained area are to be monitored and closely controlled with immediate shutdown criteria and procedures known by personnel conducting the decanting operation.
- **Discharge Testing/Analysis** – This standard is the most conservative approach and controls the discharge to the desired amount of pollutant acceptable by the FOSC/UC being released into U.S. waters. Qualitative and/or quantitative monitoring for oil products or hazardous substances can be conducted by visually observing samples, testing, or field analysis from samples taken at the discharge point. The limiting factor in conducting this type of monitoring 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 procedure should be developed prior to the event.

APPENDIX IV – DECANTING OF CONTACT WATER MONITORING PROTOCOL

The discharge operations must be in accordance with the approved Site Decant Plan.

ELEMENTS OF A GOOD MONITORING PROGRAM

Elements of a good monitoring program should include the following:

- **Clear Objectives** – 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 decanting 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 "trade-off" where our goal is to do no further harm by weighing the amount of product "decanted" or returned to the environment versus the ability to remove, store, and contain greater amounts of spilled product on scene more efficiently.
- **Monitor Protocol Design** – The development of a monitoring protocol for the specific incident conditions.
- **Trained Personnel for Decanting and Observation** – Proper monitoring during the decanting of contact water relies heavily on visual observations by Oil Spill Response Organization (OSRO) operations personnel onboard the skimming/decanting vessel with an understanding of the decanting operation's mechanism of action, environmental concerns, and expected or desired results. Ultimately, the UC-approved incident Decant Plan will provide direction on the requirements for decanting and monitoring. Thus, it is critical that the monitoring/operation personnel be both skilled in the design and implementation of the decanting operation and trained in how to observe and monitor; in most cases, the trained OSRO personnel will monitor the decant operations while state/federal regulatory personnel will monitor downstream. FOSCs are strongly encouraged to use personnel who are pre-identified through their respective planning doctrine. OSRO responders are also trained and have practiced effective decanting during responses.

TESTING AND MONITORING PROCEDURE

It is suggested that the testing and monitoring protocol follow the five (5) levels outlined below. The questions and concerns that need to be answered during the operation will dictate which discharge measure will be used during Level 1 **(This procedure is also addressed in the checklist provided in Appendix V and should already be complete and known before addressing the desired monitoring standards)**. The decision on which protocol will be used 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/hazardous substances.
- The efficiency of offloading full storage receptacles (e.g., tank barge, Dracone, inflatable barge, temporary shore-side tanks, etc.).

It's a good best practice for the response operations to conduct field monitoring of these operations. The response organization has the right to monitor and change the process as necessary.

Level 1: Choosing a Discharge Standard

Given the indicators noted above and other indicators identified during the pollution incident, the FOSC/UC must determine a standard for the decanting of contact water into waters of the U.S. 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 under consideration by the FOSC/UC.

Refer to discussion in Annex III of the MARPOL Convention for detailed information on discharge standards.

Level 2: Effectiveness of Protocol Standard

The objective is to determine whether 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 field while meeting the 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., sea state, sheen test, level of oil/hazardous substance decanted and discharge, etc.) or based on sampling and chemical analysis. Be sure to evaluate the following:

- The equipment used to support the operation (e.g., pumps, shutdowns, containment boom effectiveness, etc.).
- The logistics required and potential problems for full-scale operations.
- Physical impacts during the operation (e.g., sea state, allowing oil and hazardous substances/water separation, ability to safely pump oil from receptacle and control the rate of discharge, etc.).

Level 3: Effects of the Operation

The objective is to determine whether the operational use of decanting is likely to cause more harm than the tradeoff of having to provide more contact water storage 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 need to be within the standard identified in the developed protocol. The main question to be answered is as follows: "*Is the tradeoff of efficiency versus potential impact acceptable, given the noticeable increase in the ability to collect and store recovered oil on-scene?*" Points to consider include the following:

- Whether the efficiency of the recovery and collection process meets stated goals.
- Whether the containment site for the decanted/discharged oil or hazardous substance is in the best feasible area to do the least harm to natural resources.
- Whether descriptive near-shore surveys at the decanting site have been conducted to allow a comparison of the operation before and after the initiation of the protocol. If the decanting site is within the area of containment, it may not be readily determined whether the efficiency is appropriate.
- If natural separation (settling) time is being allowed prior to decanting and what the discharge volumes will be.

Level 4: Operational First-Use Monitoring

The objective is to determine whether full-scale operational use of the selected decanting 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.

Level 5: Continued Monitoring

The objective is to routinely monitor the progress of the contact water decanting operation to continually 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 adjustment to other methods.

APPENDIX V – DECANTING OF CONTACT WATER OPERATIONAL CHECKLIST

The RRT3 has developed this "Decanting of Contact Water Operational Checklist" to support and assist the FOSC and UC member agencies in their respective decision-making for various contact water decanting operations. **The Operations Section completes this form.** This checklist could be used as a guide to ensure all issues and operational standards are addressed. This document will provide justification to the FOSC/UC for recommendations from the Operations Section with input from the OSROs.

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 decanting 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
- **Step 3**: *Operational Feasibility Checklist Weather and Oil Conditions*
- **Step 4**: Operational Acceptability
- **Step 5**: Controls, Conditions, and Monitoring

Decanting of Contact Water Operational Checklist

Step 1: Spill, Pollutant, and Environment Background Information

General Information:

A. Name of Incident:	
B. Responsible Party (if known):	
C. Date and Time of the Incident:	
D. Type of Incident: (*check*)	☐ Vessel Incident ☐ Facility Incident ☐ Tank Truck Incident ☐ Pipeline Incident ☐ Rail Incident ☐ Vehicle Accident ☐ Explosion ☐ Blowout ☐ Mystery ☐ Other:
E. Spill Location:	
Global Positioning System (GPS) or other coordinates if available	

F. Distance and Direction to nearest human use areas (e.g., schools, hospitals, recreation areas, surface water intakes, public wells, etc.):

Area	Distance	Direction

Pollutant/Oil Information:

G. Product(s) Released: (*check*)	☐ Heavy Crude ☐ Bunker C / #6 Fuel Oil ☐ Medium Crude ☐ Diesel / #2 Fuel Oil ☐ Jet Fuels ☐ Gasoline ☐ Other (please specify):	
H. Product Details: *(If Safety Data Sheet [SDS] is available, attach to this checklist)*	Product Name:	
	Viscosity:	
	API Gravity:	
	Pour Point:	
	Immediate Hazards known with the product:	
	Percent Evaporation in:	24 Hours: 48 Hours:
I. Estimated Volume Material Released:	Gallons:	
	Barrels:	
J. Estimated Volume of Material Potentially Released:	Gallons:	
	Barrels:	
K. Release Status: (*check*)	☐ Instantaneous ☐ Continuous ☐ Intermittent	
One Time Only, Now Stopped?	☐ Yes ☐ No	
If Continuous or Intermittent, Specify Rate of Release:	[gallons (gals)/barrels (bbls) per hour]	
Estimated Surface Area Covered:	[acres/square miles]	

Step 2: Evaluating the Need to Dispose Of Contact Water

General Information:

A. Are storage containment resources limited and/or does the FOSC/UC need to enhance efficiency of available storage containment resources?	☐ Yes ☐ No
B. Considering the spill size, forecasted weather and trajectories, and the amount of available equipment, is there time to deploy additional storage and containment receptacles if needed?	☐ Yes ☐ No
C. Considering the spill size, forecasted weather and trajectories, and amount of available equipment, is there time to deploy equipment and resources that are needed to support the contact water decanting 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. Is the selected site suitable and have sensitive wildlife areas been addressed? Briefly, are the tradeoffs acceptable in conducting a contact water decanting operation at the spill site given the natural resources and environment or economic sensitivity of the area?	☐ Yes ☐ No
Please explain:	

Step 3: Operational Feasibility Checklist Weather and Oil Conditions:

A. Are weather conditions (e.g., sea-state, current, winds, etc.) acceptable to conduct contact water decanting operations?	☐ Yes ☐ No
B. 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 contact water decanting operations?	☐ Yes ☐ No

Habitats Impacted and Resources at Risk:

A. Has Site Owner/Manager (federal/tribal/state/private) been notified and consulted?			☐ Yes ☐ No
Name:			
Address:			
Phone:		**Email:**	

B. Have State Natural Resource Agency(s) been notified and consulted?			☐ Yes ☐ No
Name:			
Address:			
Phone:		**Email:**	
Name:			
Address:			
Phone:		**Email:**	
Name:			
Address:			
Phone:		**Email:**	

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 Energy ☐ Department of Defense ☐ National Aeronautics and Space Administration ☐ Other:	

D. Are Native American interests present?	☐ Yes ☐ No ☐ Unknown

Bureau of Indian Affairs contact:

Name:	
Address:	
Phone:	

Tribal Contact:

Name:	
Address:	
Phone:	

E. Surface water intakes and/or public wells notified of incident:

☐ Yes

☐ No

F. Habitat Type(s) threatened by decanting operations:

- ☐ Mangroves
- ☐ Seagrass
- ☐ Coral Reef
- ☐ Wetlands:
- ☐ Estuarine
- ☐ Riverine
- ☐ Lacustrine
- ☐ Palustrine

G. Seasonal Concerns:

- ☐ Yes
- ☐ No
- ☐ Comments.....

H. Biological Resources Present: (describe significant issues such as large concentrations, breeding activities, rookeries, designated critical habitat, etc.)

- ☐ T&E Species, including plants (list):
  - ☐ Mammals
  - ☐ Waterfowl
  - ☐ Wading Birds
  - ☐ Diving Birds
  - ☐ Shore Birds
  - ☐ Raptors
  - ☐ Fish
  - ☐ Reptiles
  - ☐ Amphibians

- ☐ Other: .....

Comments/Attachments (i.e., Environmental Sensitivity Index [ESI] Maps, etc.):

I. Natural Areas (list):

- ☐ National Park:
- ☐ National Wildlife Refuge:
- ☐ National Forest:
- ☐ State Park:
- ☐ State Wildlife Area:
- ☐ Other Natural Areas:

Comments:

J. Historic, Cultural, and Archeological Resources

- ☐ Unknown
- ☐ Not Present
- ☐ Present,
  If present, it is recommended that the FOSC contact a Historic Property Specialist (HPS) and/or the State Historic Preservation Office (SHPO) pursuant to the Programmatic Agreement on Protection of Historic Properties During Emergency Response.

Name of HPS/ SHPO:	
Address:	
Phone:	

<u>Equipment and Personnel</u>:

A. Has the proposed decanting of contact water site been isolated?

- ☐ Yes
- ☐ No

B. Is 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

E. Are the personnel trained, equipped with safety gear, and covered by the Site Safety Plan?

- ☐ Yes
- ☐ No

F. Are communications systems used to communicate with on-site personnel and vital operational functions (e.g., shutdown, monitor staff, etc.), available and working?

- ☐ Yes
- ☐ No

Proposed Decanting of Contact Water Operations Plan:

A. What is the Proposed Discharge Standard (check the appropriate protocol)?

- ☐ Discharge to the Point of Pure Pollutant
- ☐ Sheen Test
- ☐ Discharge Testing/Analysis

B. What is the estimated amount of oil involved in the operation?

Surface Area (square feet):	
Volume (gal/bbl):	

C. What is the estimated amount of oil/water mixture to be discharged?

Volume (gal/bbl):	

D. What is the estimated duration of the operation?
.....min/hr

E. What is the method for terminating the operation?.....

F. Does the ability exist to collect discharged substance within containment area (e.g., sorbent pads, boom, etc.) should product be released during decanting?

- ☐ Yes
- ☐ No

G. Are monitoring protocols in place?

- ☐ Yes
- ☐ No

If yes, attach additional monitoring plans/needs and specify the oversight agency.

.....

.....

.....

Step 4: Operational Acceptability

Evaluation of Anticipated Operation:

A. Using an appropriate chart, plot and calculate the following locations and distances:

- ☐ Location of proposed operation in relation to the source.
- ☐ Location of proposed operation in reference to the nearest sensitive environmental or economic resource.
- ☐ Location of proposed operation in reference to nearby human habitation/use areas, (e.g. towns, recreational use areas, airports/strips, roads, etc.)

B. Populations of special concern:

- ☐ Schools
- ☐ Hospitals
- ☐ Nursing Homes
- ☐ Communities
- ☐ Other: _____

C. Is there 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

E. Will the decanting of contact water operation be contained or properly released into an acceptable area?

- ☐ Yes
- ☐ No

Determination of Acceptability:

A. Will the discharged oil/water mixture from the decanting of contact water operation impact a natural resource, sensitive area, or inhabited community?

- ☐ Yes
- ☐ No

If No, Operation is Acceptable, Proceed to Step 5.

If Yes, Continue with B.

B. Can the impact be acceptably managed or are the tradeoffs acceptable?

☐ Yes

☐ No

If Yes, implement any protection measures and authorize the operation. Proceed to Step 5

If No, do not authorize the operation.

Step 5: Controls, Conditions, and Monitoring

Operational Controls, Required for All Operations:

A. Are the forecasted weather, winds, and sea conditions proper for intended operation?

- ☐ Yes
- ☐ No

B. Has the operation been approved by the FOSC/UC?

- ☐ Yes
- ☐ No

C. Have the discharge standards been identified and are they acceptable?

- ☐ Yes
- ☐ No

D. Is the 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

Public Notifications:

A. Have public notifications been implemented or addressed (e.g., radio broadcast, social media, safety zone broadcast to mariners, road closure, etc.)?

- ☐ Yes
- ☐ No

B. Have Press Releases been communicated or addressed?

- ☐ Yes
- ☐ No