

CAN OIL SPILL RESPONSE PLANS BE FUNCTIONAL AND REGULATORY COMPLIANT?

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ABSTRACT 299892:

In the event of an oil spill, rapid and effective response actions are the key to minimizing impacts to the environment and local communities. Consequently, oil spill response plans (OSRPs) should be prepared in a user friendly format that maximizes access to crucial information and focuses on the critical first few hours or days of a response. While existing OSRPs are generally adequate, they typically are not organized logically and contain fairly general information that focuses on the overall response rather than the initial stages. For many plan holders the primary, or in some cases the only, objective when preparing OSRPs is obtaining regulatory approval and believe there is little latitude in deviating from the format or content of previously approved plans to make them more functional.

Following the 2010 Macondo incident in the Gulf of Mexico, the American Petroleum Institute (API) sponsored Joint Industry Task Force (JITF) identified the need to enhance the usefulness of OSRPs. A workgroup was convened consisting of representatives from integrated and independent oil companies and spill response planning consultants to develop a guidance document for preparing OSRPs that are highly functional and regulatory compliant.

The JITF guidance document includes a detailed OSRP outline that provides the intended purpose and recommended content and format for each section. The primary features include:

- Information presented in the general order required when responding to an oil spill
- Focus is on the first 24 hours when guidance is needed the most
- Key information is provided in tabular or graphical formats at the front of each section
- Initial responder health and safety issues are addressed that are often missing in OSRPs
- Similar information is located in the same section to avoid searching multiple sections
- More expansive and detailed information, response guidance and specific cleanup strategies are referenced, as appropriate, in other documents

The guidelines were designed to be Gulf of Mexico centric with the concepts being applicable to all industry sectors and regions of the world. Similar to the Integrated Contingency Plan concept developed in 1996, they can be adapted to comply with multiple oil spill planning regulations. They were, however, designed specifically to comply with the Bureau of Safety and Environmental Enforcement (BSEE) 30 Code of Federal Regulations (CFR) Part 254 and Notice to Lessees NTL 2012-N06. The draft guidelines were reviewed and well received by BSEE and the few regulatory compliance issues they identified were addressed in the final document. Therefore, it is possible to prepare OSRPs that are both functional and regulatory compliant.

INTRODUCTION:

Many OSRPs today, particularly for the Gulf of Mexico, are more compliance documents than functional response plans with room for improvement. The reason can sometimes be traced to the plans being an integral part of the company's permit to operate and, as such, the primary objective is to gain regulatory approval. Consequently the recommended, or in some cases required, plan organization or format in the regulations is utilized to develop the plan along with the minimum required content. Many companies, rightly or wrongly, also believe that modifying the plan organization and/or enhancing the content will jeopardize or delay the approval process. The end result is response plans can become primarily compliance documents with somewhat limited functionality and usefulness.

During the Macondo incident BP, and the oil industry in general, received criticism from the media, congressional committees and regulators for having inadequate OSRPs but no specific material deficiencies were identified. At that time the American Petroleum Institute (API) was forming the Joint Industry Task Force (JITF) consisting primarily of energy company and service provider representatives but a few regulators as well to identify improvement opportunities in industry's oil spill response and preparedness capabilities. One of those opportunities was to enhance OSRPs and subsequently a work group was formed to develop guidelines for preparing more effective and functional response plans. The work group included response planning specialists from several major and independent oil companies as well as a few consulting firms. This paper summarizes the OSRP preparation guidelines developed by the work group, the rationale used and, to some extent, the process by which they were developed.

GUIDELINE DEVELOPMENT PROCESS:

During the formation of the Oil Spill Planning Workgroup, several oil companies nominated their oil spill planning specialists, or in one case a consultant, to help develop the guidelines. The focus was offshore drilling and production operations in the Gulf of Mexico but with general application to global marine oil and gas operations. The workgroup started with a clean sheet of paper to identify the optimum plan organization and content without consideration of existing regulatory requirements. This was an iterative process that continued over several months and a number of meetings. Once the plan organization and content were determined, individual participants prepared specific sections that were integrated into a rough draft of the guidelines.

The guidelines were assessed against the BSEE NTL 2012-N06 with subsequent modifications made to ensure the guidelines were compliant with the NTL and associated regulations in 30 CFR 254. Technical Response Planning (TRP), a spill planning consultant, was retained to refine the guidelines and make further improvements. Over the next several months, additional refinements were made and best practice examples incorporated into the guidelines to aid the user in plan preparation. The final draft was vetted internally by each participating company as well as API and BSEE before producing the final document titled *Guidelines for Offshore Oil Spill Response Plans*, API Technical Report 1145, September 2013.

GUIDELINE DESIGN:

The content of the plan is designed to cover all tiers of oil spill incidents, from a Tier 1 response lasting a few hours or days and requiring limited resources, up to the company's Tier 3 worst credible-case or worst-case discharge. The plan is designed to be a stand-alone document for at least the first 24 hours of a response, with minimal, if any, need to access other response documents. In a sustained response, other external documents, such as Area Contingency Plans, can be referenced, where appropriate, for supplemental information. Additionally, since sustained responses will normally be directed by Unified Command after the first 24-48 hours, the document focuses on the initial response where more guidance is often required.

NEW AREAS OF EMPHASIS:

The guideline seeks to capture improvements based on lessons-learned from recent events and on best practices identified by industry members and organizations. Consequently, it offers emphasis in the following areas traditionally not found in oil spill response plans.

- 1. Health and Safety of Response Personnel and the Public.** Additional guidance on minimizing health and safety risks related to common oil spill hazards is included for initial incident assessment and subsequent activities.
- 2. "Actionable" Plan Content.** Current plans often provide general spill response information but lack detail on their implementation that is most useful to responders. Flowcharts, decision guides, and checklists outlining specific actions are included, along with selected examples, to provide more useable/actionable guidance.
- 3. Initial Response Procedures.** A greater emphasis on initial response actions that should be taken in the first minutes or hours of the incident is included to guide responders through the critical early stages of a response.
- 4. Tier-Level Oil Spill Response Planning.** The tiered approach provides flexibility in developing response strategies and Spill Management Team structure, instead of a "one-size-fits-all" approach. Descriptions of the three-tiers are provided in the guideline and incorporated throughout the document.
- 5. Source Control.** "Source control" (i.e., stopping uncontrolled well flows, tank or pipeline leaks, etc.) is a critical and integral part of the overall response that must be closely coordinated and addressed in the plan.
- 6. Response Management Systems and the Common Operating Picture.** Having a clear picture of the location and status of response activities and resources is essential for effective spill response management. Therefore, a description of the Common Operating Picture system to be used should be provided in the plan.

GUIDELINE FEATURES:

For most oil spill planning regulations, the content, format and organization of the plan is optional provided it contains a cross reference to the appropriate regulatory citations. The content and structure contained herein provides an effective and functional plan, irrespective of recommended outlines in the various regulations, but is compliant with 30 CFR 254.

To maximize effectiveness and functionality, the plan needs to be organized such that critical response information can be quickly accessed and easily understood. The recommended concept for plan organization includes:

- A Quick Guide containing guidelines and key information needed to manage the first few hours of a response.
- Information is provided in the general order needed during a response to enhance functionality, information access and plan layout memorization
- Initial response guidance and information located near the front of the plan, and critical information at or near the front of each section to facilitate quick access.
- Similar information contained in a single section whenever possible to avoid searching through multiple sections to locate all information on a specific topic.
- Information presented in tabular, graphical, checklist or bulleted formats to minimize the need to read through several pages of text.
- Supplemental information referenced in Appendices or other documents as appropriate.

GUIDELINE ORGANIZATION AND CONTENTS:

The following is a summary of the intent and recommended contents of each section of an OSRP to provide a synopsis of what a plan should contain and how it would be organized.

Quick Guide

A Quick Guide should contain guidance and key information needed to manage the incipient phase of the response. It should be a small, separately bound document that is easy to carry and readily available to Spill Management Team members and field personnel. It should also provide clear and concise instructions on immediate safety precautions to be taken.

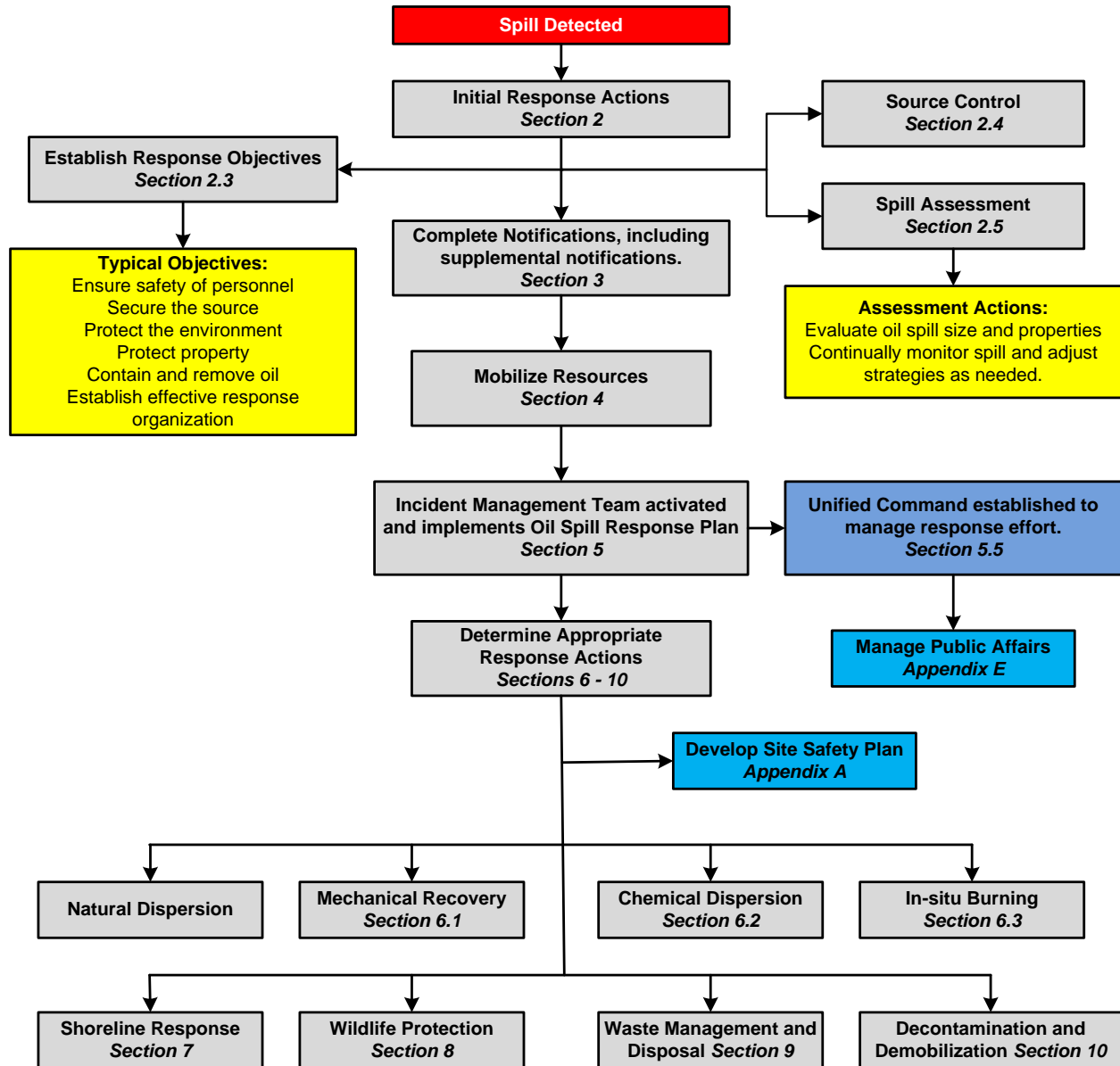
1.0 Policy, Responsibility and Planning Systems

The objective of this section is to explain the scope and purpose of the OSRP in order to clarify its intended use. It should reinforce the company's commitment to an effective response that protects health, safety and the environment, and it should summarize the associated policies, priorities and other response program-related information. Additionally, it should describe relationships to other interrelated plans, the operations and geographical area covered by the plan and regulatory requirements the plan is intended to satisfy.

2.0 Initial Oil Spill Response Actions

This section's purpose is to provide key initial response guidelines near the front of the plan to facilitate quick access and in the general order required during a response. Decision guides and checklists providing actionable information should be used whenever possible in lieu of text and/or general response strategy descriptions. Here are examples of a response strategy decision guide and a Qualified Individual Checklist, which are included in the guidelines, and recommended for inclusion in OSRPs.

Example - General Pattern of Oil Spill Response



For minor (Tier 1) spills, the response is often completed within the first 24 hours, and no further guidance is necessary. For moderate to major (Tier 2 or 3) spills, a Unified Command will normally be formed to direct the response activities, utilizing the OSRP for general guidance. Therefore, it is less critical for detailed guidelines to be provided for the later stages of a response but it is essential that information on ramping-up the response for a Tier 2 or 3 incident is contained in the plan.

Example Qualified Individual Checklist

Qualified Individual
<p>The Qualified Individual serves as the point of contact for notification of spill events requiring response. The Qualified Individual receives the initial report of the incident from the facility, and then ensures that emergency resources are mobilized and agency notifications are completed as required. The Qualified Individual is authorized to commit funding for oil spill response and source control resources.</p>
<ul style="list-style-type: none"> <input type="checkbox"/> Upon notification of incident, obtain critical information, including: <ul style="list-style-type: none"> • Personnel status • Number and types of injuries • Evacuation status • Immediate assistance required • Environmental status (i.e. spill data) • Condition of facility (damage) • Status of response operations • Response resources available or en-route <input type="checkbox"/> Prepare a Spill/Incident Report Form for initial notification, if necessary. <input type="checkbox"/> Ensure all required agency notifications are completed. <input type="checkbox"/> Serve as initial point of contact with agency response personnel. <input type="checkbox"/> Notify the Incident Commander (if different from the Qualified Individual). Recommend level of response required based on initial reports. Consider how the situation could escalate and respond accordingly (incident potential). <input type="checkbox"/> Engage with the Incident Commander to: <ul style="list-style-type: none"> <input type="checkbox"/> Authorize funding of response resources. <input type="checkbox"/> Inform of site hazards and weather conditions. <input type="checkbox"/> Communicate the response priorities and objectives. <input type="checkbox"/> Discuss resources available or en-route. <input type="checkbox"/> Determine what additional resources may be mobilized. <input type="checkbox"/> Attend the initial incident briefing. <input type="checkbox"/> If requested, and if appropriate, serve as representative in the Unified Command. <input type="checkbox"/> Continue to coordinate response activities until relieved. <input type="checkbox"/> Advise the Incident Commander on response strategies and progress. <input type="checkbox"/> Attend all team briefings until demobilized.

3.0 Notification and Contact Information

The intention is to provide a single section containing all company, regulatory and other notification procedures, requirements and responsibilities along with a directory containing contact information for personnel and organizations that must, could or should be notified of a spill. Contact information for OSROs, equipment suppliers, support services, subject matter experts and other resources would be provided in Section 4.0 Response Resources. The contact

directory should be preceded by a notification flow chart and located within the first few pages for quick access. The section divider tab should be colored red to draw the user's attention.

4.0 Response Resources

This section is intended to identify all essential/significant response resources (equipment and personnel) that could be needed in a response along with their sources, associated contact/activation information and equipment inspection and maintenance requirements. Sources of the response equipment and other resources or services and their mobilization times to potential spill locations should be included as well as spill response related technical expertise. Contact information for the above resources should also be included in this section. Where practical, the resources should be segregated by tier and tabularized. An example of an abbreviated table showing the available resources for Tiers 1 and 2 is provided below.

Well capping and containment, specialized contractors and the use of non-traditional resources such as vessels of opportunity and volunteers should also be identified and discussed at least in general terms in this section.

5.0 Response Organization

The intent of this section is to establish interoperability within the company's overall incident management system and to ensure a seamless expansion to a Tier 2 or 3 incident. It should also ensure that all Spill Management Team and other response team members understand their roles and responsibilities and how they relate to the overall response.

Sample Tiered Response Resources Table

Available Resources					
Category	Type/Primary Use	Quantity	Size/Derated Capacity	Location	Owner
Tier 1/Minor Spill Resources					
Boom	Expandi/Offshore	2,000-ft	43-in	Houma	CGA
	Curtain/Nearshore	2,000-ft	24-in	Houma	CGA
	Total	4,000-ft			
Recovery	46-ft OSRV/Offshore	1	5,000 bpd	Houma	CGA
	Total	2	48,000 bpd		
Storage	HOSS Barge/Nearshore	1	4,130 bbl	Houma	CGA
	Barge/Nearshore	1	249 bbl	Houma	CGA
	Total	2	4,379 bbl		
Dispersants	Corexit 9500	2,000 gal		Houma	CGA
In-situ Burning	Hydro Fire Boom System	6	500 Ft.	Galveston	MSRC
Tier 2/Moderate Spill Resources					
Boom	From Above	4,000-ft	Various		

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	Sea Sentry/Offshore	9,460-ft	60-in	Lake Charles – GC Responder	MSRC
	Slickbar/Nearshore	1,000-ft	24-in	Lake Charles	MSRC
	Total	14,460-ft			
Recovery	HOSS/Nearshore	1	43,000 bpd		
	Transrec 350/Offshore	1	10,567 bpd	Lake Charles – Gulf Coast Responder	MSRC
	Total	3	58,567 bpd		
Storage	From Above	2	4,379 bbl		
	OSRV	1	4,000 bbl	Lake Charles – Gulf Coast Responder	MSRC
	Total	3	8,379 bbl		
Dispersants	From Above	2,000			
	Corexit 9500	50,000 gal		Houma	NRC
	Total	52,000			
In-situ Burning	From Above	6	500		
	Hydro Fire Boom System	14	500 Ft.	Fort Jackson	MSRC
	Total	20			

The Spill Management Team organization that will be used for Tier 1, 2 and 3 responses, as applicable, as well as the process for transitioning from tier to tier, should be described and include the use of the Incident Command System and Unified Command concepts. The duties and responsibilities for each team position, at least for the Tier 1 team, should be described. In particular, the Incident Commander and/or Qualified Individual should be included since they are responsible for overall response management and regulatory compliance.

If various organizations, including Oil Spill Removal Organizations and/or contractors, will be utilized to form the Spill Management Team, an explanation should be provided on how they will be integrated and what specific roles they may be pre-designated to fill. Also, if an onsite Tier 1 Spill Response Operating Team is utilized, the team organization, role and relationship with the Spill Management Team should be explained. Additionally, if the company has a Crisis Management Team above the Spill Management Team level, that team's role and structure should be described along with how they will interface with the Spill Management Team.

6.0 On-Water Response

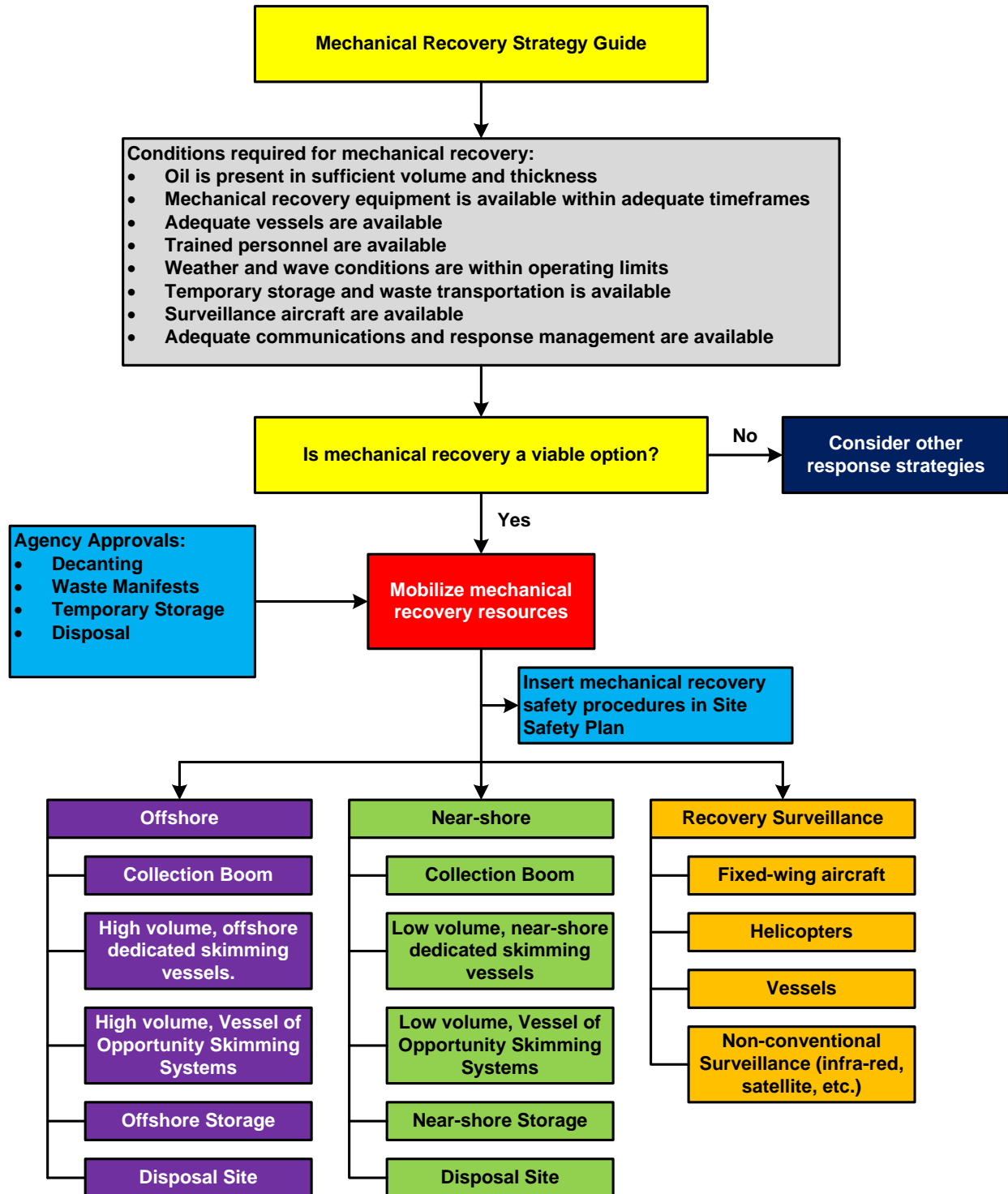
The intent of this section is to provide the Spill Management Team with a basic understanding of strategies, techniques and resources for on-water oil spill containment and removal operations. It should also provide guidance to Spill Response Operating Team members by describing how oil spills will be controlled, contained and recovered on-water, using appropriate response strategies and available resources. The identification of any offshore environmentally or economically sensitive areas and associated protection measures should be

included, as well as decision-trees or flowcharts to guide responders through the on-water response decision-making process such as the example provided below.

7.0 Shoreline Response

The purpose of this section is to provide the Spill Management Team with a basic understanding of strategies, techniques and resources for shoreline protection and cleanup. It should identify

Sample Mechanical Containment and Recovery Flowchart



environmentally, culturally and socio-economically sensitive shoreline areas. It should provide information on general shoreline protection measures, assessment techniques and cleanup strategies, including possible alternative technologies. Other documents, such as Area Contingency Plans, can be referenced for supplemental shoreline protection, assessment and

cleanup information. Similar to Section 6.0 On-Water Response, decision trees, flow-charts and tables should be used whenever possible.

8.0 Wildlife Protection and Rehabilitation

This section should describe how wildlife will be protected, recovered and rehabilitated using appropriate response strategies. Identify contractors, organizations and/or government agencies that can provide or assist with those activities. Also include information on what permits, approvals or trustee involvement may be required to conduct wildlife hazing or capture.

9.0 Decontamination, Waste Management and Disposal

The intent of this section is to describe personnel and equipment decontamination procedures, waste management strategies, and disposal options. The descriptions should include how on-going decontamination of personnel and equipment will be conducted, including what resources are required, as well as how recovered oil and oily solids/liquids and non-oily solids and liquids will be collected, transported and temporarily stored during cleanup operations. Descriptions should also outline available strategies and resources for treatment, final disposal or re-cycling of recovered oil and oily debris, and a checklist or template for developing a waste management plan that is scalable to a Tier 2 or 3 incident.

10.0 Demobilization

This section is intended to describe general strategies and considerations for conducting demobilization operations. Planning should be initiated early in a response to facilitate rapid demobilization of resources that are no longer needed. This can significantly reduce response costs. Checklists and/or templates for developing demobilization plans should be included with guidelines on conducting a post-incident debrief/critique. Following good post-incident procedures is the most effective way to capture lessons learned and improve the OSRP.

Appendix A – Health and Safety Guidelines

The purpose of this Appendix is to provide supplemental information on the most important consideration - protecting the health and safety of oil spill responders and the public. This Appendix should provide the Spill Management Team and Spill Response Operating Team with detailed information on safeguarding personnel during the emergency and post-emergency phases of the response. It also should provide guidance for development of an incident-specific Site Safety and Health Plan, implementing site control and conducting air monitoring.

Appendix B – Facility Descriptions

This Appendix should provide appropriate facility-related information needed for responders in the event of a release. This includes key information such as location, worst credible-case or worst-case discharge(s), throughput, storage capacities, pipeline information, nearby facilities, type(s) and characteristics of oils produced or handled and area maps.

Appendix C – Communications

The intent of this Appendix is to demonstrate that adequate systems are in place to ensure effective communication between field assets, responders, Incident Command Post(s) and company Emergency Operations Centers (if any). It should include descriptions of the primary

and secondary communications systems for the various components of the spill management and tactical response teams as well as radio frequencies.

Appendix D – Documentation

This Appendix should provide a description of the documentation policies, processes and forms to be used during the incident response to support on-going operations, provide a legal record of the response, and facilitate capturing lessons learned.

Appendix E – Public Information and External Relations

A public information and external relations program will be required for any significant oil spill and this Appendix is intended to provide guidance on developing such a program. Plans for collecting, compiling and disseminating incident information to the public and various stakeholders in a timely manner should be included as well as guidelines for establishing and managing a Joint Information Center.

Appendix F – Risk Assessment and Scenario Planning

The purpose of this Appendix is to include a summary of the company's risk exposure to various oil spill incidents and to determine how those spills may impact sensitive areas. This information will allow the company to target spill preparedness capabilities and focus on high-risk scenario planning.

Appendix G – Training, Drills and Exercises

The intent of this Appendix is to describe a company's policy, frequency, procedures, and record-keeping requirements for oil spill response training, drills and exercises. These standards should be designed to ensure that the company can provide qualified oil spill response personnel with adequate core competencies during an incident. It is also important to document the company's training and drill program to facilitate adherence to the program and demonstrate compliance with regulatory requirements.

Appendix H – Prevention and Detection

This Appendix is intended to describe oil spill prevention measures intended to minimize the risk of a spill occurring, as well as describe how spills are detected by facility operators. This is primarily required for facilities in state waters but should be considered for all facilities.

Appendix I – Definitions and Acronyms

The purpose of this Appendix is to provide definitions of terms or acronyms used that will help the user understand the OSRP and the included information.

REGULATORY REVIEW:

The draft guidelines were submitted to BSEE for review and comment to ensure they were aligned with the agency's oil spill response plan requirements and expectations. A meeting was held between API and senior BSEE representatives to explain the guidelines and their intent, and to answer any related questions. The feedback from that meeting was very positive. BSEE did have minor regulatory compliance concerns for a few specific sections and identified a few errors and improvement opportunities, all of which were addressed in the final version of the guidelines. BSEE also offered to reference the guidelines as an alternative to NTL 2012-N06 in

the pending revisions to 30 CFR 254 provided that API made the document an official Recommended Practice. BSEE acknowledged that, per the existing regulation, these or any other guidelines could be used to develop OSRPs provided a regulatory cross reference is included.

SUMMARY AND CONCLUSIONS:

As described in this paper, oil spill response plans can be prepared such that they are effective and functional while still meeting the regulatory requirements. These guidelines were prepared by a group of response planning specialists from integrated and independent oil companies and consulting firms. This collaboration of experts and a review by BSEE added to the comprehensive nature of the guidelines as well as the credibility.

Key features of response plans prepared using these guidelines include:

- Information is provided in a logical sequence (same general order in which it is needed) to make the plan more functional and enhance memorization of plan organization
- Key response information is included at the front of each section and in a graphical, tabular or bulleted format for quick access and comprehension
- Similar information is contained in the same section to avoid searching through multiple sections and aid in memorizing the location of specific information
- Health and safety issues are addressed to protect responders and the public
- Tiered response concept is endorsed with a focus on the initial response when guidance is most needed although information on ramping up to a Tier 2/3 response is also included
- Referencing of other documents for information needed in the first few hours or days is minimized when time and resources for researching other documents are at a premium.
- Actionable versus general response information is included to enhance plan usefulness and effectiveness

In conclusion, the developers of these guidelines firmly believe that following the recommended plan organization and format will result in a more effective and functional OSRP. They acknowledge the content goes beyond the minimum regulatory requirements but feel the additional information is important in guiding and supporting the various oil spill response activities. The full or even partial use of these guidelines can enhance oil spill preparedness and response capabilities while maintaining compliance with the regulatory requirements. A copy of these guidelines is available at: <http://www.oilspillprevention.org/oil-spill-research-and-development-cente>