

R/V Bay Hydro II

**Shipboard Oil
Pollution Emergency
Plan
(SOPEP)**

Shipboard Oil Pollution Emergency Plan (SOPEP): Bay Hydro II

Preamble:

This Shipboard Oil Pollution Emergency Plan (hereafter referred to as the “Plan”) is a written guide on the initial response to an oil spill on a NOAA small boat vessel. All vessels covered by this plan are public vessels of the United States of America, operated by the National Ocean Atmospheric Administration (NOAA) under 300 gross tons. This plan was developed to ensure the highest level of protection to the environment, public health, welfare of the United States, and other areas throughout the world in which NOAA operates. Though public vessels are exempt from many of the environmental protection regulations that affect commercial (i.e., non-public) vessels, NOAA chooses voluntarily to meet or exceed these requirements within the constraints of NOAA's mission. This contingency plan is designed to meet or exceed federal and foreign response planning requirements. This program is built on a series of plans starting with ship's individual plans, shore and fleet command plans, regional, and area plans.

In addition, the Federal Waterways Pollution Control Act of 1973, as amended, requires reporting of all spills that cause a visible sheen on or visible emulsion or sludge below the surface of the water. All OHS spills into the water occurring within the limits of the Exclusive Economic Zone (EEZ) of the United States must be reported to the National Response Center (NRC). Compliance with the letter and spirit of the law is NOAA policy.

This plan provides guidance for spill notification and response, and lists points of contact for all coastal States (as compiled by the International Maritime Organization (IMO) and USCG Captain of the Port (COTP) Zones). Key organizations requiring notification and/or providing response services/assistance are described below.

The following crew members are in charge in the event of an oil spill- actual or probable- to bring the accident under control, limit outflows, organize onboard clean-up procedures, and determine the additional personnel needed. Arrangements should be made that in case of sudden unavailability of superior ranks other available ranks are prepared to take over.

Introduction:

1. The purpose of this plan is to provide a specific contingency plan for all aboard the “R/V Bay Hydro II” to follow in the event of any oil pollution incidents or probable oil pollution incidents. This SOPEP accomplishes that by providing the following:
 - Procedures to report an oil pollution incident
 - Coastal State Contacts and Port Contact Lists to be contacts in the event of an Oil Pollution Incident
 - Response actions to reduce or control the discharge of oil following an incident
 - Coordination with national and local authorities in combating oil pollution
 - Promote a practiced response when faced with an oil spill

2. This plan is available to assist the R/V Bay Hydro II personnel in dealing with an unexpected discharge of oil. This Plan provides the necessary chain of events and contacts that must occur in the event of a probable or actual oil discharge that results in any chance of pollution in the environment.

3. This Plan contains all information on the operational instructions required by the “Guidelines for the development of the Shipboard Oil Pollution Emergency Plan” as developed by the Organization (IMO) published under the MEPC.54 (32) and amended by MEPC.86 (44).

4. The VOC and other relevant on-shore contacts should have a copy of the vessel’s SOPEP to be able to effectively use if circumstances prevent effective reporting a response from on-board crew.

5. Any changes to the Plan can be completed by the OIC and/or primary operator. Other managers and operators must be notified of any changes or updates to this SOPEP. The information in this document will be reviewed and updated annually along with the Risk Assessment during inspections. It is vital to keep all contacts up to date to not limit the efficacy of the plan.

How to correctly maintain for annual checks:

- The OIC is responsible for maintaining the SOPEP and making sure that the contingency plan is correctly done in the event of a spill and that the vessel stays within compliance of the Plan.
- Call the numbers to make sure they are still active (OSRO and financial contacts should be prioritized-hour estimate to complete)
- Check the NOAA structure to make sure all players are still employed in the same position
- Check USCG OSRO list to make sure OSRO status maintained and still active
- Offer to inspector to be seen and assessed

Section 1: SOPEP at a Glance

This section provides basic information on the R/V Bay Hydro II, a diagram of important landmarks on the vessel, environmentally sensitive areas around the home port, and a flow chart on immediate actions in response to a spill event.

1.1 Basic Ship Information on the Bay Hydro II:

Vessel name: R/V Bay Hydro II

Name of Home Port: Calvert Marina, Solomons, MD

GPS Location/Address (if in port): 14485 Dowell Rd., Solomons, MD 20688

Hull Number: S5401

Size (ft.): 57 ft.

Principal Characteristic: Catamaran

Travel Area/radius: 350 nm

Oil Countermeasures Onboard: absorbent pads

Number of fuel tanks: 2 Integrated #2 Diesel tanks, one per hull aft of engine spaces

Quantity of fuel in *each* tank when 95% full: 587 gallons 100% full: 618 gallons

Motor Oil Quantity of oil in *each* generator when full: 5 quarts

Hydraulic Oil aboard when tanks are full: 35 gallons

Types of Hydraulic Oils:

Steerage: Sea Star Hydraulic Steering Fluid; HA 5440

A Frame: ISO 30

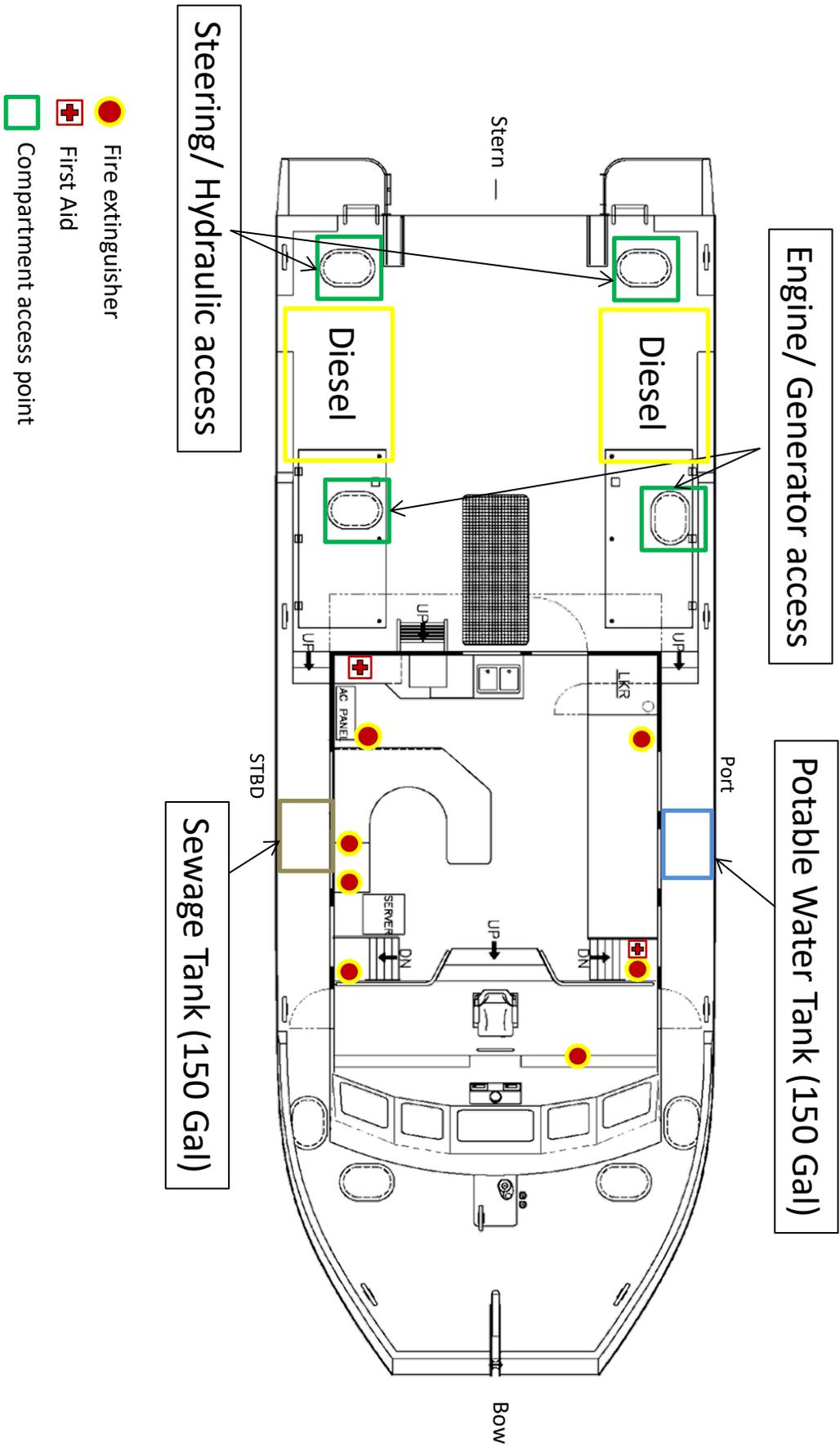
Crew size: 3 people (OIC, JOIC, Survey Tech)

Any transient people/scientists: Up to 9

General Compliance Law and Policy effective for this ship: VGPs, and all applicable federal regulations applicable such as the Clean Water Act (CWA), Clean Air Act (CAA)

General Notification Organizations: United States Coast Guard (USCG), National Response Center (NRC), Maryland Department of the Environment (MDE)

Diagram:



1.2 Notes/Specs on Diagram:

Legend:

- Engine:
(2) MTU Series 60 740 HP Diesel Engines

- Generator:
(2) Northern Lights M843NW3 Diesel 12KW Generators

- Bridge Communications:
(2) VHF radios
Iridium Satellite phone
(2) Handheld VHF radios
OIC/JOIC Cell Phones (dependent of coverage)
Internet (dependent on cell coverage)

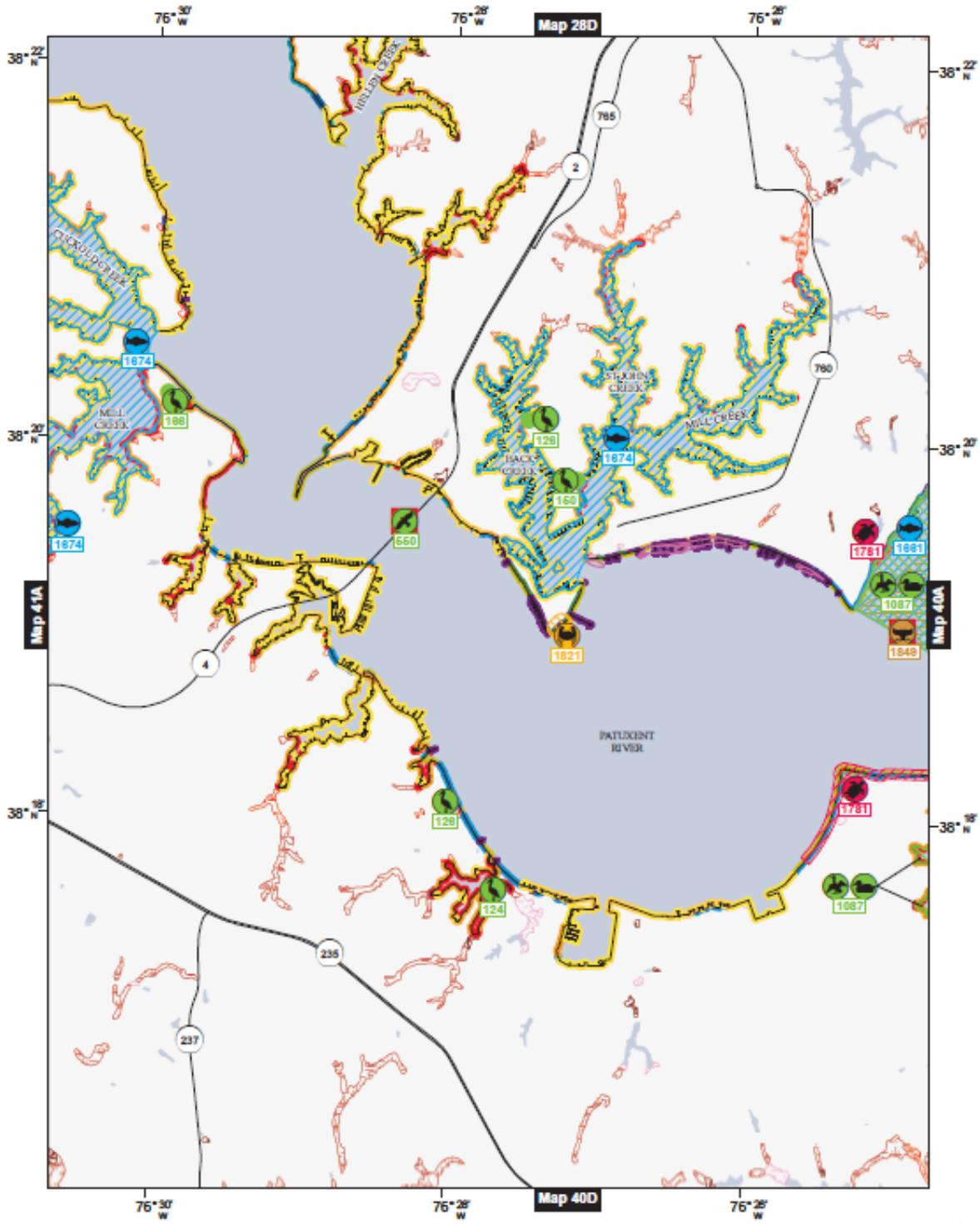
1.3 Basic Environmental Sensitivity Information:

The Patuxent River area has many sensitive areas that should be considered in the event of a spill in-port. Outside of the port, other sensitive areas in the Office of Response & Restoration (OR&R) database should be referenced along with other knowledgeable response resources. Below is a list of protected areas around the home port that should be noted.

Environmentally sensitive areas in travel range: Mallows Bay – Potomac River (NMS), Fort McHenry (NM), Colonial NHP), Calvert Cliffs State Park, Pt Lookout SP, St. Clements Island SP, Saint Mary’s River SP, Sand Pt SP, Janes Island SP, Wye Island State NRMA, Sassafras State NRMA, Elk Neck SP, Susquehanna SP, North Point SP, Hart-Miller Island SP, Kitopeke SP, False Cape SP, First Landing SP, York River SP, Black Walnut Point NRMA

Database for multiple states and their sensitive areas (Home Port):

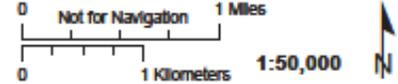
<https://response.restoration.noaa.gov/maps-and-spatial-data/download-esi-maps-and-gis-data.html>



Map 40B
Central Bay



SEE BACK OF MAP
for details about mapped species and
other species that occur in mapped area.
Data Published: September 2016



1.4 Shipboard Oil Pollution Emergency Plan - Summary Flowchart

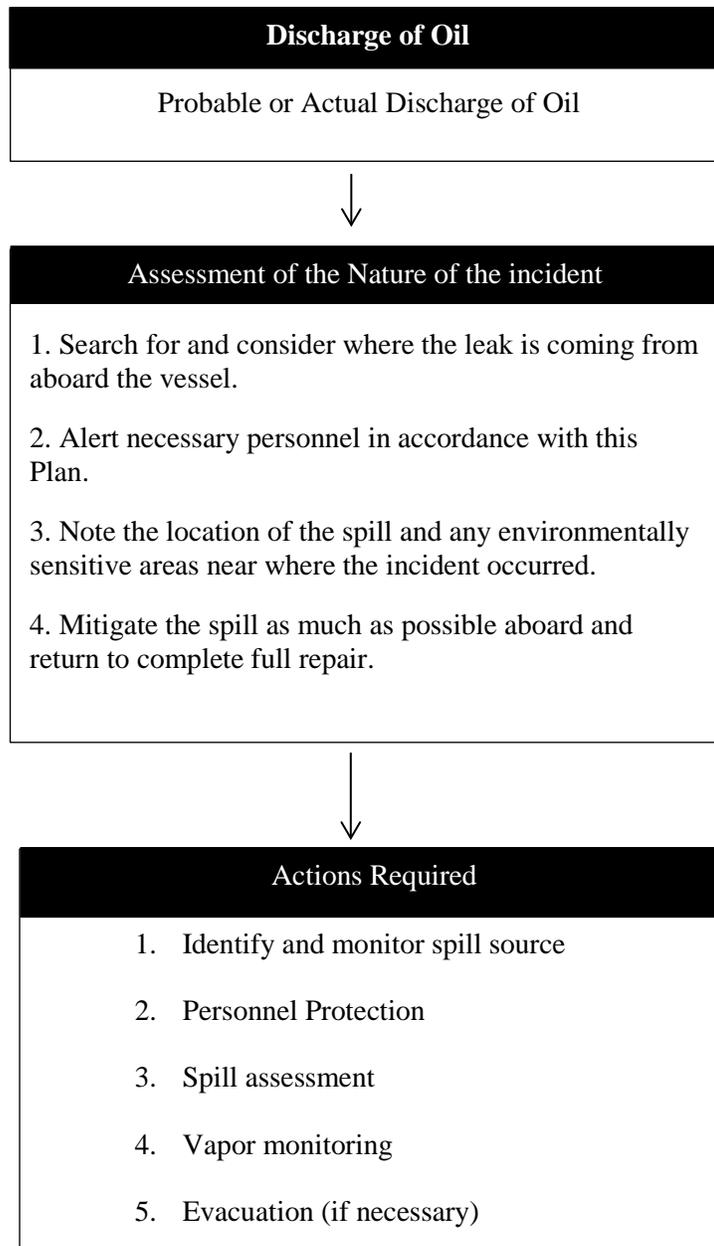
This flow diagram will document the specific course of actions that the aboard crew should follow in responding to an oil spill emergency. This flow chart should be referenced immediately in response to a spill incident.

Additionally, the necessary contacts are listed as needed in a response scenario.

Whenever possible, notification to the National Response Center should be by voice. Other parties that may be involved in the response to the incident will also appreciate a "heads up" telephone call prior to the spill report.

DO NOT DELAY transmission of initial reports while gathering information. Updated reports can be transmitted later as more information is obtained. Remember: The more information you can provide in a timely manner, the better outside agencies will be able to assist in the containment and removal of the spill. The more you understand of what is expected, the better information you can provide.

SOPEP Response Flowchart



Reporting:

Action to Control Damage:

By designated Crewmember

Measures to minimize the escape oil and threat the marine environment

When to report:

- All probable and actual spills

How to report:

- Onboard radio or other quick method
- Report all previous movement and current ship location

Primary Contacts

- Contact the USCG NRC Hotline (24-hr): 1-800-424-8802
- Maryland State Authorities (24-hour): 1(866) 633-4686
- USCG local RCC: Norfolk, VA
Phone: 1-757-398-6231
- Vessel VOC:
Phone:
Cell: 240-638-6637
Email: ocs.bhii@noaa.gov

If in port, notify the port contact:

- Refer to port contact list
 - Port #1 (Home Station):
Calvert Marina
410-326-1035

What to report:

- Initial report of the incident
- Follow-up reports
- Characteristics of the oil spilled
- Weather and sea conditions
- Slick movement
- Assistance required for:
 - Salvage
 - Lightering capacity
 - Mechanical Equipment
 - Chemical dispersant/degreasant

Navigation Measures:

- Alter course/position and/or position
- Change of list and/or trim
- Anchoring
- Setting aground
- Initiate Towing
- Assess safe haven requirements and access to ports with the USCG
- Weather/tide swell forecasting
- Slick monitoring only visually
- Record of events and communications taken

Seamanship Measures:

- Safety assessment and precaution
- Advice on priority countermeasures/preventive measures
- Damage to stability and stress consideration
- Set-up shipboard response:
 - Leak sealing
 - Fire fighting
 - Handling of shipboard response equipment (available)
 - Contacting contractors when necessary

Steps to Initiate External Response

- Refer to Coastal State Contact List for Local Assistance
- Refer to the small boat interest contact list
- External clean-up resources required
- Continued monitoring of activities

Secondary Contacts

State Contacts:

State's often have minimums for reporting spills. Consult the state minimum chart or MSDS forms for the reportable quantities.

Maryland Department of the Environment (PRIMARY STATE CONTACT):

Phone: 1-866-633-4686 (Emergency)

Financial:

Contact Office of Coast Survey supervisors immediately to activate assistance with procurement:

CDR Jay Lomnicky, Chief, National Response Branch (202) 641-1801

Matt Kroll, Deputy Chief, Navigation Services Division (240) 533-0063

Port Contacts:

Name of institution/person to be contacted	Names of Contact	Means of Contact	Remarks
Calvert Marina	Port Master: Matt Gambrell	Phone: 410-326-4251 410-610-4800 (emergency) calvertmarina@olg.com	Owner/Manager

NOAA Response:

NOAA Emergency spill contact:

Emergency Response Division (ERD) Phone (24-hour): 206-526-4911

US Coast Guard Secondary:

Coast Guard stations Sector Maryland NCR:

Phone: **410-576-2583 (Response)**

1-800-424-8802 (National Response Center, 1st contact)

(Oil Spill Removal Organization) OSROs

Contractor Name	Minimum Spill for Mobilization	Location	Emergency Contact Line	Estimated Arrival Time
Clean Harbors Environmental Services (Laurel Field Services)		Laurel MD	Emergency Line: 800-645-8265 24-Hr. Line: 301-939-6000	2 Hr
Clean Harbors Environmental Services (Chesapeake Field Services)		Chesapeake, VA	Emergency Line: 800-645-8265 24-Hr. Line: 757-545-1958	3-4 Hr
Miller Environmental Group		Baltimore, MD	Emergency Line: 800-394-8606	2 Hr
Marine Spill Response Corp		Baltimore, MD	24-Hr. Line 703-326-5600	2 Hr
Hepaco		Baltimore, MD	Emergency Line: 800-888-7689	2 Hr

Section 2: Reporting Requirements

2.1 General

The reporting requirement of this section complies with those regulations 37 of MARPOL 73/78, Annex 1.

When the ship is involved in a possible or actual oil spill event, the crew must report the incident per the force of MARPOL, the USCG, and the federal law about the incident immediately to the nearest coastal state (R/V Bay Hydro II : Maryland) by the fastest means of telecommunication (R/V Bay Hydro II: on board radio and/or cell/ sat phone).

The intent of these requirements are to ensure that the state of Maryland and federal authorities are informed of any incident that could have contributed to any oil pollution, or the threat of oil pollution of the marine environment, as well as of, assistance of salvage measures, so the appropriate action must be taken.

The State of Maryland **does not** require specific spill clean-up procedure in the event of a spill incident. They do have state specific oil spill forms and expect to be notified within 24 hours of the spill occurring.

2.2 Actual Discharge

The crew is obliged to report any spill or possible spill to the state of Maryland.

- From damage to the ship
- From damage to the ship's equipment
- For the purpose of securing the safety of a ship or saving a life at sea

2.3 Probable Discharge

The crew must report even if no actual discharge occurred but there is a probability that one has occurred. This has to be at the discretion of the crew what "probable" is in each individual case of the vessel they are aboard and if the report should be completed on this probable spill. There can be no rule for this.

Due to the judgement- based decision of a probability report, there are certain guidelines put forth on when a probable report should be reported.

- Damage, failure or breakdown which affects the safety of the ship (e.g. collisions, grounding, fire, explosion, structural failure, flooding, etc.)
- Failure or breakdown of machinery or equipment which results in impairment of the safety of navigation (e.g. failure or breakdown of steering, propulsion, electrical generating system, essential shipborne navigation aids, etc.)

Additionally, the crew should take into consideration the nature of the damage failure or breakdown in the ship, machinery or equipment as well as the ship's location, proximity to land, weather, state of the sea, and traffic density. Then compare these to the chances or discharge increasing in particular certain conditions. If there is any doubt, the report should be filed to the Maryland state spill authorities, federal personnel, and any other

additional contacts should be updated as the situation progresses and if the chances of spill increase or decrease and events play out.

2.4 Reporting and Notifying Maryland State Authorities:

The State of Maryland has no minimum reporting requirements. Maryland follows the EPA minimum reporting guidelines. **Note: all reportable quantities of hazardous materials are listed on the last page of the MSDS.**

2.5 Information Required

As required in article 8 and Protocol 1 MARPOL 73/78 Convention, the crew or any others who have charge over the vessel should report the particulars of any pollution incident. In this context, the International Maritime Organization (IMO), in 1997, adopted Resolution A.851 (20) “General Principles for Ship reporting Systems and Ship reporting Requirements, including Guidelines for Reporting Incidents Involving Dangerous Goods, Harmful Substances and/or Marine Pollutants.

The intent of the Resolution aforementioned I to enable the state of Maryland, federal agencies, financial interest, and the operating network are informed of any incidents of discharge from any vessels that could give rise to oil pollution, or threat pollution in the marine environment, as well as of assistance and salvage measures, so that the appropriate action may be taken in every case scenario.

All of these measures mentioned below still require the crew/operators to use sound judgement to make sure that any incident or probable discharge of oil is reported as quickly as possible in the prevailing situation.

The Resolution is, particularly, important in formatting the initial report and the follow-up reports to conform to all guidance mentioned in the Resolution. All reporting whether initial or follow-up, should follow IMO’s reporting format as outlines below and should contain the information in the following chart. The information referenced in this chart is general information and does not take into account any state/local requirements on an initial report to the authorities.

Function	Explanation
Small Boat	<u>R/V Bay Hydro II</u> , WDE6545, American
Date and Time (UTC) of event	A 6-digit group giving day of month (first 2 digits), hours and minutes (last four digits)
Position	A four-digit group giving latitude in degrees and minutes suffixed with N or S, and a 5-digit group giving longitude in degrees and minutes suffixed with E or W.
Position	True bearing (first 3 digits) and distance (state distance) in nautical miles from clearly identified landmark (state landmark)
True Course	A 3-digit group

Speed at time of incident	In knots and tenths of a knot as a 3-digit group
Route Information	Details of intended track
Radio Communications	Full details of radio stations (names) and frequencies being guarded
Time (UTC) of next report	A 6-digit group as under BB above
Defects, damage, deficiencies, other limitations	Brief details of conditions of the ship as relevant
Description of Pollution or possible overboard discharge	Brief details of pollution; this should include the type(s) of fuel oil, an estimate of the quantity discharged, whether the discharge is continuing, the cause of the discharge and, if possible, an estimate of the movement and area of slick
Weather conditions	Brief Details of weather and sea conditions prevailing including wind force and direction and relevant swell details.
Ship's representative and/or Owner	Name, address telex, and telephone number of the small boat's owner and representative (charterer, manager or operator of the ship and their agents)
Ship's size and type	Details of length, breadth, and type of small boat as well as draught
Miscellaneous and additional information	Any other information including relevant details such as brief details of incident, need for outside assistance, action being taken to limit further discharge; details of any personnel injuries sustained, details of P&I Club and local correspondent.

2.6 Initial Report Form:

The initial report form is the information that will be asked of the reporting person between reporting to the USCG NRC and the Maryland State authorities. Within the State of Maryland, there is an "actionable oil" form and is a report needed if a spill is classified as "actionable". In the State of Maryland, an "actionable" oil spill is a spill creating a sheen.

Initial Response Form

Name of Vessel Operator: _____

Reported By: _____

Contact info of reporting person: _____

Is NOAA responsible for the spill? _____

Date: _____ **Time:** _____

Vessel Name: _____

Hull number: _____

Vessel type: _____

Location: _____

Flag: _____

Class Society: _____

Builder: _____

Year: _____

Brief Description of casualty/Incident Description:

Incident cause:

Tides at the time of casualty/Incident:

Structural details (double/single bottom):

Number of Fuel tanks:

Hazardous Cargo Spill?: _____

Type of Material spilled: _____

Estimate the amount of hazardous materials released:

Currently being cleaned? _____

Latitude _____ **Degrees:** _____ **Minutes:**

Longitude: _____ **Degrees:** _____ **Minutes:**

Type of bottom (mud/sandy/etc.): _____

Condition of Vessel's propulsion: _____

**Aim/Intent of salvage
operation** _____

Speed at time of the incident (In knots):

Route information (Last port of call, next port of call):

Type of communication to report the incident (Cell/Sat/Radio):

Length: _____ **Beam/Breadth:** _____ **Draft/Beam:**

**Street name or Common land
mark:** _____

Fuel onboard: _____ **Fuel capacity at 95%:**

Oil Description:

Length of Oiling Area: _____

Width of Oiling Area: _____

Percent Cover: _____

Position Above High Tide Line: _____

Position Between High Tide Line and Water: _____

Clean Up Considerations Access (Vehicle, Foot, Boat, Other):

Drafts (strandings) before Fwd: Aft: _____

Drafts (strandings) after Fwd: Aft: _____

Seen dead fish or wildlife?: _____

Wave conditions: Height: _____ **Direction:** _____

Wind Conditions: _____ **Direction:** _____

Sheen: Length: _____ **Width:** _____

Direction of Sheen movement: _____

Water temperature (if known): _____

Air temperature (if known): _____

Fire?: Yes/No

Injuries? : Yes/No

Initial Action Taken: _____

Release secured?: Yes/No

Release duration? (include units of time): _____

Rates of release? (Include units per time): _____

Time USCG was notified: _____

Time state/local agencies were notified: _____

Time NOAA VOC notified: _____

2.7 Expanded Contact List:

This section provides more contacts unable to be listed on the flow chart placed earlier in this document. It contains the expanded state contact, financial, ship interest, OSRO, and Port Contact lists.

Most importantly,

In any spill emergency:

- The nearest coastal radio station
- The designation reporting station (NRC-if phone service is available)
- The nearest Rescue Co-ordination Centre (RCC) (Channel 16 Radio Communication)
 - USCG RCC Database:
USCG local RCC: Norfolk, VA
Phone: 1-757-398-6231

Regional State Department:

Maryland Department of the Environment

1-866-633-4686 (emergency)

MDE.webmaster@maryland.gov (non emergency)

Reporting Oil Spills to NOAA

The *NOAA Office of Response and Restoration (OR&R)* is a “center of expertise for, preparing for, evaluating, and responding to emergencies in the coastal environment, including oil spills...” (NOAA OR&R). The OR&R should also be notified of any spills that occur in US domestic waters. The Emergency Response Division should be notified first the next offices should be notified in the numbered order:

- (1) Emergency Response Division (ERD)
- (2) OR&R Headquarters
- (3) Assessment and Restoration Division (ARD)
- (4) Marine Debris Division (only if debris is released into the environment)

(OR&R) Emergency Response Team Contact Information:

Address: NOAA Office of Response and Restoration
Emergency Response Division

Frank Csulak
NOAA SSC
74 Magruder Road
Highlands, New Jersey 07732
Phone: 732.872.3005

OR&R Headquarters

NOAA Office of Response and Restoration
1305 East-West Highway
Silver Spring, Maryland 20910
Phone: 301.713.3038
Fax: 301.713.4389
Email: orr.webmaster@noaa.gov

Assessment and Restoration Division (ARD)

NOAA Office of Response and Restoration
Assessment and Restoration Division
7600 Sand Point Way NE
Seattle, WA 98115-0070
Phone: 206.526.6317
Fax: 206.526.6865
Email: ard.webmaster@noaa.gov

Marine Debris Division

NOAA Office of Response and Restoration
Marine Debris Division
1305 East-West Highway
Silver Spring, Maryland 20910
Phone: 301.713.2989
Fax: 301.713.4389
Email: marinedebris.web@noaa.gov

Section 3: Pertinent Financial and Spill Contacts

All procurement procedures must be in line with the standards in the Service Contract Act (in the appendix). The important standard is that micro-procurements are under \$2,500.00 and will not need any authorization as long as the Bankcard holder is authorized to use the funds. The ECO should always be notified, but for smaller purchases, the field delegates or a contracting officer can be contacted. With larger

purchases, Small Acquisitions can be used. For any purchases greater than 150K, the deputy director must be contacted to authorize the expenditure.

When using any of the federal funds, each Bankcard holder must use the Card Authorization form (in the appendix) and this form is submitted to Acquisitions and Grants Office.

The Acquisitions officer database:

http://www.ago.noaa.gov/docs/ago_staff_directory_division.pdf

Link to Service Contracting Act:

http://www.ago.noaa.gov/acquisition/docs/cam_1313_301_revised_february_2015.pdf

Bankcard submission contact link: <http://www.ago.noaa.gov/acquisition/bankcard.html>

This contact list is done in increasing monetary power of each agent. Each Agent requires an Acquisitions Liaison to confirm funds being available before any are disbursed. *Staff at Headquarters/Office of Coast Survey Procurement and CFOs will handle disbursement requests on our behalf.*

3.1 Financial Contacts

Emergency Contact Title	Name of Contact	Contact Information	Remarks
Designate Procurement Authority (DPA) or RMB West Coast (up to 25K disbursement)	Lynn Liogys, Chief Financial Officer, Office of Coast Survey	Office: 240-533-0087 Email: lynn.liogys@noaa.gov	Verbal report immediately, following Contractor Spill Response Team Initiation; provide contact information. If issues are encountered, contact VOC
EAD Acquisition Division, Contracting Officer Up to 150K	<u>Normal working hours</u>	Office: 757-441-6580 Email:	Verbal report immediately following Contractor Spill Response Team Initiation; provide contact information.

Submitting Bankcard help and information:

Commerce BankCard Center	Michael T. McConnell, Chief	Phone: 1-800-782-2233 Phone: 816-823-3847 Fax: 816-274-6995	Contact for info about Bankcard holder abilities and the office for submitting Card Authorization forms for fund acquisitions.
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3.2 Port Contacts

For the ship in port,

If any oil spills occur during the boat's stay in port, whether operation or as a result of an incident, the Officer in Charge should inform the appropriate local agencies (e.g. National Response Center, Terminal/Port Authorities, etc.) without undue delay. The financial Contacts listed previously are important to contact in this situation to provide clean-up funds as well.

If the boat is engaged in a regular service between port/terminals, the crew or any other person aboard delegated by the crew should provide a list with the relevant Port Contact Addresses for each port served regularly of Authorities/Persons and/or terminals dealing with oil spills. It is critical that this list is frequently updated (Addresses, names, and best contact information needed).

If a change in the ship's range of travel or a change in the persons/Authorities of the ports/terminals served regularly takes place the crew or any other person aboard delegated by the crew is required to issue a new list.

Addresses obtained in this way should be documented aboard in the form that the Officer in Charge considers most effective and should be attached to the plan.

These contacts are specifically for having an in-port spill, but the financial Contacts remain constant for aid in cleaning and managing the spill along with the federal and state authorities that must be notified.

R/V Bay Hydro II Port Contact Information:

Name of institution/person to be contacted	Names of Contact	Means of Contact	Remarks
Calvert Marina	Matt Gambrill	Phone: 410.326.4251 410.610.4800 (emergency)	Matt is the owner, but anyone in the office should be able to help as needed.

3.3 Ship Interest Contacts

For Ship Interest Contacts it is necessary to have information at the crew's disposal in case of an oil spill for informing the home office of vessel, sanctuary, and other federal agencies. Since the NOAA small boats do not have a private subcontractor the appropriate clean-up measures have to be met within the organization. Report to the appropriate clean-up contacts and get clearance for increased expenditure to clean the oil slick. (*Refer to OSRO contacts and financial contacts section*)

To avoid duplication of reports, co-ordinate the Plan with crews and the Plans with NOAA on-shore groups to make sure they agree on who is responsible for informing the various Ship Interested contacts. The head of the crew should usually be the primary for contacting the Ship Interest Contacts, but the Officer in Charge, Owner, or Operator are all viable options depending on how each vessel is run.

Ship Interest Contacts:

- a) R/V Bay Hydro II Owner/operator contacts

Name of institution/person to be contacted	Names of Contact	Means of Contact	Remarks
BHII OIC	LTJG Sarah Chappel	Phone: 240-638-6637	
BHII JOIC	LTJG Patrick Debrousse	Phone: 202-302-6292	
Chief, NRB	CDR Jay Lomnicky	Phone: 240-641-1801	

Section 4: Steps to Control Discharge:

Ship personnel will most probably be in the best position to take quick action to mitigate or control the discharge of oil from their ship.

Therefore, this plan provides the crew with clear guidance on how to accomplish this mitigation for a variety of situations.

It is the OIC's responsibility to initiate a response in the event of a discharge of oil or substantial threat of discharge of oil actual or probable into the waters.

In no case action should be taken that in any way could jeopardize the safety of personnel either onboard or ashore.

The following enumeration specifies different kinds of possible operational spills with regard to reactions to be taken.

In the event that on-board mitigation tactics are not enough to manage and stop the spill to prevent excessive environmental damage. Approved NOAA Small Boats Contractors should be contacted.

A complete list of approved OSROs can be seen at this link:

<http://ocean.floridamarine.org/ACP/SJACP/Documents/Appendices/osros.pdf>

WARNING: All OSRO contact information must be tried and verified before being added to this SOPEP to ensure efficacy in an emergency.

4.1 USCG OSRO List

Contractor Name	Minimum Spill for Mobilization	Location	Emergency Contact Line	Estimated Arrival Time
Clean Harbors Environmental Services (Laurel Field Services)		Laurel MD	Emergency Line: 800-645-8265 24-Hr. Line: 301-939-6000	2 Hr
Clean Harbors Environmental Services (Chesapeake Field Services)		Chesapeake, VA	Emergency Line: 800-645-8265 24-Hr. Line: 757-545-1958	3-4 Hr
Miller Environmental Group		Baltimore, MD	Emergency Line: 800-394-8606	2 Hr
Marine Spill Response Corp		Baltimore, MD	24-Hr. Line 703-326-5600	2 Hr
Hepaco		Baltimore, MD	Emergency Line: 800-888-7689	2 Hr

4.2 Operational spills

4.2.1 Operational Spill Prevention

Crew members shall maintain a close watch for the escape of oil during bunker operations.

Prior to bunker transfer the competent crew members should mobilize the oil spill equipment, as far as available on board, and place it close to the planned operation, e.g. along the railing on the side at which bunker operational takes place.

Before bunker handling commences, all deck scuppers and open drains must be plugged. Accumulations of water should be drained periodically and scupper plugs replaced immediately after the water has run off. Any free floating oil or oil droplets should be removed prior to draining.

Bunker tanks which have been topped up should be checked frequently during the remaining bunker operations to avoid an overflow.

Unless there are permanent means for retention of any slight leakage at ship/shore connections for bunker transfer, it is essential that a drip tray to catch any leaking oil.

The removed bunker oil and the used clean-up material should be retained on board in proper containment units until it's discharged to a reception facility.

4.2.2 Pipeline Leakage

If a leakage occurs from a pipeline, valve, hose or metal arm, operations through that connection should be stopped immediately until the cause has been ascertained and the defect remedied.

Defective pipes should be isolated, affected sections should be drained down to available empty or slack tank. Usually in small boats you will only have a single tank that may or may not be integrated so engaging another tank for this purpose will be useful to keep on hand during this procedure.

If a leakage occurs from a hydraulic pipeline, operations should be stopped immediately.

Initiate clean-up procedures.

The removed bunker oil and the used clean-up material should be retained on board in proper containment units until it can be discharged to a reception facility.

Inform in line with Section 2 all parties interested about the Pipeline leakage and the actions taken so far.

4.2.3 Tank Overflow

If there is a tank overflow all bunker operations should be stopped immediately and should not be restarted until the fault has been rectified and all hazards from the released oil has been eliminated.

If there is a possibility of the released oil or oil vapors entering the engine room intake, containing the vapor movement as much as possible is needed. Keeping the vapors from the engine room will help to prevent the increased risk of a fire emergency or explosion. Compartmentalizing the boat as much as possible in the event of a tank overflow will help to increase safety for the crew.

Promptly shift the bunker oil from the tank overflowed to an available empty or slack tank or prepare to pump(s) or transfer the excess ashore. In small boats, there usually is not going to be a spare tank to overflow the bunkering pipe into to sending the oil back onshore or having a slack tank will be better preparation for a situation like this.

Initiate clean-up procedures

The removed bunker oil and the used clean-up material should be retained on board in proper containment units until it can be discharged on a reception facility.

Inform in line with Section 2 all parties interested about Tank Overflow and actions taken so far.

4.2.4 Hull Leakage

Identify leaking tank; consider a diver, if necessary. Especially, in small boats, a diver is not always necessary, because the hull can be exposed to the open air and any areas that are compromised could be easily identified. This applies to the larger small boats in the program.

Reduce level in tank in question well below sea level.

If it is not possible to identify the leaking tank, reduce level in all tanks in vicinity. In this case, give careful consideration to hull stress and stability.

If there is spillage due to suspected hull leakage reduce the head of bunker and promptly transfer the bunker oil to an available empty or slack tank or, if berthed, discharge ashore in suitable barges/tanks. This is important particularly for any of the small boat fleet with integrated tanks. Since the walls of the tanks are shared with the structure of the hull more immediate and decisive action is important to manage these instances, because of the damage in release that can quickly occur.

4.2.5 Spills Caused by Equipment in Machinery Spaces

If operational oil spills are caused by a failure of equipment in machinery spaces any further operations of this equipment should be stopped immediately or measures are taken to avoid an oil spill.

Such equipment may be:

- Oily-water separating equipment or oil filtering to de-oil bilge water from the engine room bilges
- Valves in pipes connecting ballast/bilge systems
- Cooling pipes in oil cooler systems
- Gearing of bow thrusters
- Stern tubes

The removed bunker oil and the used clean-up material should be retained on board in proper containment units until it can be discharged at a reception facility.

4.2.6 Spills Resulting From Casualties

In the event of a casualty, the crew's first priority is to ensure the safety of the other personnel, and to initiate actions which may prevent escalation of the incident and the marine pollution.

4.2.7 Ship Grounded/stranded

The crew's priority should be to ensure that the Officer in Charge has received all the details on the damage to the ship and to begin to chart a course of remedial action to be taken to ensure the safety of the ship and its crew.

Furthermore, the Officer in Charge should consider:

- Danger to the ship's complement if the ship should slide off grounding site
- Danger of ship being shattered by heavy seas or swell
- Health hazards to the ship's crew and surrounding population due to release of oil or other hazardous substances in dangerous concentrations
- That fires may start due to released flammable substances and uncontrolled ignition sources
- Should the damage which the ship has sustained be of such an extent that the stability cannot be compute on board, the Officer in Charge should seek assistance

The Officer in Charge should also consider if the vessel is experiencing:

- Constant sea waves
- Exposure to torsion
- A large difference in the tidal rangers and the grounding site
- Strong tidal currents in the grounding area
- Drift further up on the shore due to high tides, waves, etc.

4.2.8 Prevention of Fire and Explosion

If the ship is aground and therefore cannot maneuver, all possible sources of ignition should be eliminated and action should be taken to prevent flammable vapors from entering the machinery spaces or the accommodation.

4.2.9 Extension of Hull damage/Containment System Failure

First, a visual inspection should be carried out.

Check for visible oil along hull or in wake of the ship during any day time. At night, a stick with a white cloth (or sheet of sorbent) around it may be lowered into the water alongside the ship to check for oil leakages.

All tanks to be sounded (ullage). All other compartments which may have contact with the sea should be sounded to ensure that they are intact. On smaller boats, this may not be necessary due to the boat's hull being exposed to open air and easily assessed. This is only necessary on larger small boats. If a sounding is necessary, the soundings of the ballast tanks/bunkers tanks are to be compared with last soundings to check for possible leaks.

Sounding is to be taken around to boat to establish the boat's position on the grounding area.

When the ship is aground, due regards should be given to the indiscriminate opening of ullage plugs, sighting ports, etc. as loss of buoyancy could be the result of such actions.

Any list of the ship shall be noted and included in the report for assistance.

4.2.10 Procedures to Reduce or Stop Outflow of Oil

The Officer in Charge should assess the possibility of damage to the environment and whatever action can be taken to reduce further damage from an oil release, such as:

- Transfer of bunkers internally, provided shipboard piping system is in an operational condition if there are multiple areas in the boat to store oil.
- If the damage is fairly limited and restricted, i.e. to one of two tanks, consideration should be given to transfer of bunkers internally from the damaged tank(s) to intact tanks, taking into account the impact of the ship's overall stress and stability.
 - Not all small boats will have multiple tanks to transfer if there is a leak so the out flow and possibility of outflow should be considered and try to gain access to a port and repair the damage immediately

- If Lightering capabilities are on the ship and the oil flow is occurring and can't be further contained then assistance should be called and the ship reassessed on how to bring it back into port.
- If possible, the oil outflow may not be going into the environment, but leaking into other parts of the boat and should be best contained to maintain maximum functioning under the diminished conditions.
 - The Officer in Charge should start mitigation processes onboard and return to port if deemed necessary and oil levels should be assessed more often to account to loss as well as the oil needed to complete the original service if the leak is not deemed hazardous enough to stop service.
- Isolated damage/penetrated bunker tank(s) hermetically to ensure that hydrostatic pressure in tanks remains intact during tidal changes
- Evaluate the possibility of pumping water into a damaged tank in order to form a water bottom stopping the outflow of oil
- Evaluate the necessity of transferring bunkers to barges or other ships and request such assistance accordingly
- Evaluate the possibility of additional release of oil.

In case of large a large difference between the tide levels, the Officer in Charge should try to isolate the damaged tank(s) to reduce additional loss of oil.

4.2.11 Refloating by Own Means

The Officer in Charge should also evaluate the question of refloating the vessel by own means. Before such an attempt is made, it must be determined.

- Whether the boat is damaged in such a way that it may sink, break up or capsize after getting off
- Whether the boat after getting off may have maneuvering problems upon leaving the dangerous area by own means
- Whether machinery, rudder or propeller are damaged due to grounding or may be damaged by trying to get off ground by own means
- Whether the boat may be trimmed or lightened sufficiently to avoid damaged to other tanks in order to reduce additional pollution from oil/bunker spillage
- Weather evaluation: whether there is time/reason to await improvements in weather or tide.

4.2.12 Securing the Boat

If the risk of further damage to the boat is greater in an attempt to refloat the ship by own means, than in remaining aground until professional assistance has been attained, the boat's crew should try to secure the boat as much as possible.

- Trying to prevent the ship from moving from its present position.
- By dropping anchors (adequate water depth and anchor ground provided)
- By taking ballast into empty tanks if possible
- Trying to reduce longitudinal strain on hull by transferring ballast or bunkers intentionally.
- Reducing fire risk by removing all sources of ignition.

Inform in line with Section 2 all parties interested about the Grounding and the actions taken so far. Provide follow-ups if deemed necessary on how the grounding occurred, new preventative measures, and what was done on-site to stabilize the ship to be removed independently or the support crew that came to pull it back.

4.2.13 Fire Explosion

Should an explosion and a fire occur on board, the General Alarm should be sounded. In case of fire and explosion the following priorities exist:

- Rescuing lives and following emergency procedure
- Limiting the damage/danger to the ship and cargo
- Preventing environmental pollution

Steps to control the discharge of oil will depend largely on the damage to ship and cargo. Special information thereto is contained in subparagraphs 3.2.4, 3.2.5, and 3.2.6. Inform in line with Section 2 all parties interested about the Fire/Explosion and the actions taken so far.

4.2.14 Collision (with fixed or moving object)

Should the boat be involved in a collision with another boat or ship, the Masters should as soon as possible identify the extent of damage to his own vessel.

When a collision occurs, the General alarm should be sounded immediately for the personnel. On smaller boats, there may not be as many stations or a necessity for more than one and if emergency measures are needed, previously placed emergency procedures should be followed to preserve the boat and all lives onboard.

The following check list should assist the Officer in Charge in assessing the situation:

- Are any tanks penetrated above or below the waterline?

- If ships are dead in the water and interlocked, what is most prudent, to stay interlocked or separate?
- Is there any oil spill present-small or large? Will separation of the interlocked ships create a larger oil spill than if the ships stay interlocked?
- If there is an oil spill, will the separation of the ships cause sparks that can ignite the spilled oil or other flammable substances leaked out from the ships?
- Are the ships creating a greater danger to other traffic in the area if they are interlocked than if separated?
- Is there a danger to either ship of sinking after being separated?
- If the ships are separated, how is the maneuverability of the own ship?

If separation of the ships takes place, alter course to bring the own ship windward of any oil slick, if possible.

Shut down all non-essential air intakes.

Isolate damaged/penetrated tank(s) by hermetically closing the tank(s), if possible.

When it is possible to maneuver, the Officer in Charge in conjunction with the appropriate shore authorities should consider moving his ship to a more suitable location in order to facilitate emergency repair work or lightening operations, if possible on the boat, or reduce the threat posed to any sensitive shoreline areas.

Inform in line with Section 2 all parties interested about the collision and the actions taken before. Issue follow-up incident reports as needed in each circumstance.

4.2.15 Hull Failure

Should the ship lose one or more shell-platings, develop major cracks, or suffer severe damage to the hull, the Officer in Charge should immediately sound the General Alarm, inform them of the situation, and prepare lifeboats for lifeboats as necessary.

Not all small boats will be large enough to require the procedure above, in many cases, it will be very clear if there is Hull damage and since the size is much smaller, this damage has larger impact more quickly. Based on how severe the damage is, there should be an immediate return to port. If the damage is more severe, emergency measures should be taken to exit the boat and preserve the lives onboard.

The Officer in Charge on the ship should then assess the situation and use their best judgement on the hull damage. The latest weather forecast should be considered in this decision.

Furthermore, these factors should be considered in the hull damage assessment:

- Is the ship in immediate danger of sinking capsizing?

If yes,

- Send a distress message
- Immediately abandon ship

If no, initiate damage control measures found as necessary by considering the following points:

- Can the vessel maneuver on its own?
- Has the boat lost buoyancy?
- If the boat has a list due to loss of ballast, cargo/bunker or buoyancy, is it necessary and possible to rearrange the bunker or ballast by internal transfer operation in order to bring the boat to an even keel?
- Is it necessary to dump cargo in order to maintain stability without changing the stress situation?
- Can the change in the ship's stability and stress situation be monitored and calculated on board? If not, the Officer in Charge should seek assistance according to paragraph 3.6.
- Does the ship need assistance or escort to nearest port of refuge or repair port?
- Might it be prudent to salve part of the crew members in case the situation should worsen, or is it necessary to abandon the ship totally?

Inform in line with Section 2, all parties interested about the Hull failure and the actions taken so far.

4.2.16 Excessive List

Should the ship for some reasons suddenly start to list excessively during the discharging/loading operations, or bunkering, all ongoing operations should be stopped immediately until the cause has been determined.

The designated crew member should inform to necessary boat leadership if this begins to occur.

The Officer in Charge should try to determine the reason for excessive list, and take steps to rectify the situation taking the following into consideration:

- Check reason(s) for list
- Soundings/ullage to be taken in all tanks
- Bunker/ballast pumps to be made ready

- Consider measures to minimize list in transferring liquid from one compartment to another
- Ensure water tightness of empty spaces
- Close all openings
- Secure vent pipes to avoid ingress of water
- If bunkering: Change to corrective tanks to rectify the situation
- If ballasting/deballasting: change to corrective tanks to rectify the situation
- If there is a reason to believe that the list may cause an oil spill, notify as per Section 2
- If the boat's crew is in jeopardy, prepare lifeboats for launching and notify per Section 2

Of the situation is brought under control, inform all interested parties.

4.2.17 Ship Submerged/foundered/wrecked

If the ship is wrecked to the extent that it or parts of it are submerged, take all measurements to evacuate all persons on board. Avoid contact with any spilled oil. Alert other ships and/or the State of Maryland for assistance in rescuing lives and the ship as far as possible.

4.2.18 Hazardous Vapor Release

In case of any vapor release out of the containment system precautions have to take to protect the persons on board against contamination. The boat should be brought with the accommodation upwind of the spill area as far as possible. The crew should be evacuated from any area of risk. All possible sources of ignition should be eliminated and non-essential air intakes shutdown to prevent intake of vapor into accommodation and engine spaces.

If unavoidable work has to be carried out within the risk areas, the involved persons have to wear protective clothing and protective breathing apparatuses.

4.2.19 Priority Actions

Top priority shall in case of casualty be put on the safety of the persons onboard and to take actions to prevent escalation of the incident.

Immediate considerations should be given to protective measures against fire, explosions and personnel exposure to toxic vapor.

Detailed information about the damage sustained to the ship and its containment system has to be obtained. On the basis of information the Officer in Charge can decide next actions for the protection of lives, the ship, the cargo and the environment.

The Officer in Charge should take into account the following when he is determining whether salvage assistance will be needed or not:

- Nearest land or hazard to navigation
- Vessel's set and drift
- Estimated time of casualty repair
- Determination of nearest capable assistance and its response time

4.2.20 Mitigating Activities

If safety of both the ship and the personnel has been addressed the Officer in Charge shall care for following issues:

- Assessment of the situation and monitoring of all activities as documented evidence
- Care for further protection of the personnel, use of protecting gear, assessment of further risk for health and safety
- Containment of the spilled material by absorption and safe disposal and safe disposal within leak proof containers of all used material onboard until proper delivery ashore, with due consideration to possible fire risk.
- Decontamination of personnel after finishing the cleanup process.

4.2.21 Transfer of Bunker/Lightering

On many small boats, the lightening capability may not exist or it may not be necessary due to the small size of the boat. The crew should take this into consideration when trying to limit negative environmental effects of oil release.

If the ship has sustained extensive structural damage, it may be necessary to transfer all or part of the cargo/bunker to another ship; however, this section refers to bunker transfer procedures only. In Ship-to-Ship- Transfer operations involving a specialized service ship, the Officer in Charge of that ship will normally be in overall charge.

In the case of non-specialized ships the Officer in Charge or other person in overall charge of the operation should be mutually agreed and clearly established by the Officers in Charge concerned prior to the start of operations.

The actual bunker transfer should be carried out in accordance with the requirements of receiving ship.

In all cases each Master remains responsible for the safety of his own ship, its crew, cargo/bunker and equipment and should not permit their safety to be jeopardized by the action of the other Master, his owner, regulatory officials or others.

The Ship-to-Ship-Transfer operations should be coordinated with the appropriate responsible local Authority.

When selecting the area of operation the Officer in Charge(s) should consider the following points:

- The need to notify and obtain the agreement of any responsible authority
- The destination of the ships concerned
- The shelter provided, particularly from sea and swell
- The sea area and depth of water, which should be sufficient for maneuvering during mooring, unmooring and transfer operation and allow a safe anchorage if operations have to be undertaken at anchor
- The traffic density
- The weather conditions and the weather forecasts

Further, before commencing Ship-to-Ship-Transfer operations each vessel carry out, as far as possible, appropriate preparations like:

- Pre-mooring preparations of the boats
- Positioning of fenders if such equipment is available on board
- Mooring equipment arrangements
- Checking the communications channels between the two ships

In additions to the general principles of Ship-to-Ship Operations as aforementioned the Officer in Charge should take note of supplemental instructions issued by the company.