



Lower Columbia Region Harbor Safety Committee

# Incident Management Guidelines for Initial Actions and Communications



## Table of Contents

<b>A. INCIDENT MANAGEMENT GUIDELINES</b> .....	<b>3</b>
1. PURPOSE .....	3
2. AUTHORITIES.....	3
3. DEFINITIONS .....	3
4. REFERENCES .....	4
5. REPORTING REQUIREMENTS.....	4
<b>B. EMERGENCY COMMUNICATIONS</b> .....	<b>5</b>
1. OVERVIEW .....	5
2. SPILLS, MARINE CASUALTIES, AND OTHER REPORTABLE EVENTS .....	6
3. CONTACT INFORMATION .....	6
<b>C. OIL OR HAZARDOUS MATERIAL SPILL</b> .....	<b>7</b>
1. OVERVIEW .....	7
2. ACTIONS FOR AN OIL OR HAZARDOUS MATERIAL SPILL .....	7
3. OIL/ HAZARDOUS MATERIAL SPILL REPORTING.....	8
<b>D. VESSEL GROUNDING</b> .....	<b>8</b>
1. OVERVIEW .....	8
2. ACTIONS FOR A VESSEL GROUNDING.....	8
<b>E. VESSEL COLLISION</b> .....	<b>10</b>
1. ACTIONS FOR A VESSEL COLLISION .....	10
<b>F. BRIDGE ALLISION</b> .....	<b>11</b>
1. ACTIONS FOR A BRIDGE ALLISION .....	11
<b>G. LOSS OF PROPULSION</b> .....	<b>11</b>
1. OVERVIEW .....	11
2. ACTIONS FOR A LOSS OF PROPULSION .....	12
<b>H. LOSS OF STEERING</b> .....	<b>13</b>
1. ACTIONS FOR A LOSS OF STEERING .....	13
<b>I. LOSS OF NAVIGATION EQUIPMENT</b> .....	<b>14</b>
1. ACTIONS FOR A LOSS OF NAVIGATION EQUIPMENT .....	14
<b>J. EQUIPMENT FAILURES</b> .....	<b>15</b>
1. OVERVIEW .....	15
2. ACTIONS FOR EQUIPMENT FAILURES.....	15
3. SAFETY MEASURES FOR TYPES OF EQUIPMENT FAILURES .....	15



## A. Incident Management Guidelines

### 1. Purpose

The Lower Columbia Region Incident Management Guidelines are intended to describe the expected initial actions and communications for commercial vessels and agencies involved in a marine incident. The Harbor Safety Committee is committed to ensuring vessels safely transit the waters of the Lower Columbia Region while also keeping these waters from environmental damage caused by vessel casualties.

The Harbor Safety Plan is not intended to supplant or otherwise conflict with federal, state or local regulations developed under legal authorities. Nor is the HSP intended to replace the good judgment of a vessel's master in the safe operation of his/her vessel or a pilot while piloting a vessel.

The Lower Columbia Region Incident Management Guidelines:

- Were cooperatively drafted by regulators and industry representatives and provide information unique to the river system.
- Are to be implemented in accordance with all International, Federal, State and Local regulations, and the normal practices of good seamanship.
- Constitute the Minimum Standards of Care to be used in all referenced operations on the Columbia River System.

### 2. Authorities

Incident reporting is subject to U.S. Coast Guard regulations, Title 46 Code of Federal Regulations (CFR) Part 4, Washington State Administrative Code regulations, and Oregon Administrative Rules addressing incident notifications. Vessels should carefully review the guidance in this chapter of the Harbor Safety Plan (HSP) for incident management.

### 3. Definitions

- **Marine Casualty** is an event caused by or involving a vessel and includes, but is not limited to: grounding, collision, or strike of (allison with) a bridge; loss of main propulsion, primary steering, or any associated component or control system that reduces the maneuverability of the vessel; an occurrence materially and adversely affecting the vessel's seaworthiness or fitness for service or route, including but not limited to fire, flooding, or failure of or damage to fixed fire-extinguishing systems, lifesaving equipment, auxiliary power-generating equipment, or bilge-pumping systems; loss of life; an injury that requires professional medical treatment (treatment beyond first aid); or an occurrence involving significant harm to the environment as defined in 46 CFR 4.03-65.
- **Near- Miss Situation** is an incident in which a pilot, master, or other person in charge of navigating a vessel, successfully takes action of a non-routine nature to avoid: a collision with another vessel, structure or aid to navigation; the grounding of a vessel; or damage to the environment.



- **Unified Command** is an organizational structure formed to coordinate the strategy for a unified response to a discharge or substantial threat of discharge of oil or a release or substantial threat of a release of a hazardous substance.

#### 4. References

- 33 CFR 153 Notice of Discharge and Removal of Discharged Oil
- 33 CFR 155 Oil or Hazardous Material Pollution Prevention Regulations for Vessels
- 40 CFR 300.210 Federal Contingency Plans
- 40 CFR 300.211 OPA Facility and Vessel Response Plans
- 40 CFR 300.300 Discovery or Notification
- 40 CFR 355 Emergency Planning and Notification
- 40 CFR 370 Hazardous Chemical Reporting: Community Right-to-Know
- 46 CFR 4 Marine Casualties and Investigations
- 46 USC 6301 Investigation of Marine Casualties
- Chapter 173-182 Washington Administrative Code (WAC) Oil Spill Contingency Plan
- Chapter 340-142 Oregon Administrative Rules (OAR) Oil and Hazardous Materials Emergency Response Requirements
- Chapter 856-010 Oregon Administrative Rules (OAR) Oregon Board of Maritime Pilots
- Northwest Area Contingency Plan (NWACP)

#### 5. Reporting Requirements

For oil or hazardous material spills, reports must be made to the required federal and state agencies and as required in the vessel or facility response plan, if applicable. Part B of this guidance contains contact information for the USCG, Washington State and Oregon State.

As soon as is practicable, a vessel shall notify the USCG of any of the following:

1. Marine casualty as defined in 46 CFR 4.05-1;
2. Pollution reporting requirements in 33 CFR 151.15;
3. Defect or discrepancy in an aid to navigation;
4. Hazardous condition as defined in 33 CFR 160.204;
5. Improper operation of vessel equipment required by 33 CFR;
6. Situation involving hazardous materials as required by 49 CFR 176.48; or
7. Hazardous vessel operating condition as defined in 33 CFR 160.215.



A casualty on a vessel must be reported if it occurs upon the navigable waters of the U.S. (46 CFR 4.05); and involves one of the following:

1. An unintended grounding, or an unintended strike of (allision with) a bridge;
2. An intended grounding, or an intended strike of a bridge, that creates a hazard to navigation, the environment, or the safety of a vessel;
3. A loss of main propulsion, primary steering, or any associated component or control system that reduces the maneuverability of the vessel;
4. An occurrence materially and adversely affecting the vessel's seaworthiness or fitness for service or route, including but not limited to fire, flooding, or failure of or damage to fixed fire-extinguishing systems, life-saving equipment, auxiliary power-generating equipment, or bilge-pumping systems;
5. A loss of life; or
6. An injury that requires professional medical treatment (treatment beyond first aid) and, if the person is engaged or employed on board a vessel in commercial service, that renders the individual unfit to perform his or her routine duties.

Whenever a marine casualty meets one or more of the criteria above, it must be reported to the Coast Guard on a "Report Of Marine Accident, Injury Or Death" (CG-2692) Form.

It is encouraged that vessel operators submit an Incident Report for incidents, near-miss events, or unsafe situations that don't meet one of these reporting criteria, but you feel would be useful to the Coast Guard efforts in promoting marine safety.

## **B. Emergency Communications**

### **1. Overview**

This information is designed to assist foreign and domestic commercial vessels in easily communicating with appropriate agencies regarding various emergencies or unusual situations while operating in the Lower Columbia Region. This document is not intended to suggest a departure from existing procedures set forth by the International Maritime Organization and Federal Communications Commission for the handling of Distress or Urgency communications. Nor is this to be considered a departure or substitution from taking action in accordance with the vessel's required response plans. The Lower Columbia Region is served by the Captain of the Port (COTP) command center.

For incidents other than spills to water, the COTP will notify Washington and Oregon State agencies of any potential spill situations as described in existing law and implementing protocols. In such circumstances, a decision will be made whether there is a need or advantage to stand up a Unified Command to address concerns associated with the situation. A determination will be made if a Unified Command is required based on the circumstances of each situation, jurisdictional responsibilities, and guidance found in the Northwest Area Contingency Plan.



## 2. Spills, Marine Casualties, and Other Reportable Events

These include collisions, anchor dragging, grounding, oil spills and hazardous material releases of any amount, equipment casualties, loss of propulsion (including even brief losses) and any other situation which results in the loss of vessel control or possible loss of control but does not immediately put lives at risk. Drifting for repairs is not permitted within the COTP zone. Vessels are expected to have fully functioning propulsion and steering while underway or at anchor or a standby/escort tug(s) will be required.

## 3. Contact Information

AGENCY	PURPOSE	COMMUNICATIONS
National Response Center	<b>Oil &amp; Hazardous Material Spills</b>	(800) 424-8802 or VHF channel 16
Washington State (Emergency Management Division)	<b>Oil &amp; Hazardous Material Spills</b>	(800) 258-5990
Oregon State (Oregon Emergency Response System)	<b>Oil &amp; Hazardous Material Spills</b>	(800) 452-0311
USCG	<b>Search and Rescue</b>	VHF channel 16
USCG COTP	<b>Vessel Casualties, Equipment Failures</b>	(503) 240-9311 or VHF channel 16
Local Emergency Response	<b>Bridge Allisions</b>	911

### VHF Channels

- Channel 13 -- Bridge to Bridge. For passing and safety communications between vessels.
- Channel 16 – International Distress and Calling. For Distress, Urgency and Safety traffic and general calling.
- Channel 18 – Marine Exchange channel. Use for communications with Merchants Exchange and Maritime Fire and Safety Association (MFSA).

### Additional Helpful Telephone Numbers

- USCG COTP Command Center (503) 240-9311
- USCG Group Astoria Operations Center (503) 861-6140
- Merchants Exchange (503) 228-4361
- Maritime Fire and Safety Association (503) 220-2055
- Oregon Department of Transportation (503) 362-0457



- Washington Department of Transportation (360) 905-2135
- Oregon Board of Maritime Pilots (503) 673-1530

## C. Oil or Hazardous Material Spill

### 1. Overview

Oil or hazardous material spills, as well as threats of spills, are regulated under the National Contingency Plan (NCP) and state laws. The response to a spill incident on the lower Columbia River will be “ramped up” to provide adequate equipment and trained personnel to effectively respond to the highest quantity of product that will most likely be released. Under the federal plan, response to spills or potential spills (like groundings) that affect state, tribal, or local waters are coordinated between agencies. Because of the nature of the Columbia River, spills can quickly impact both Washington and Oregon state waters. The USCG fills the role of Federal On Scene Coordinator for oil and hazardous materials spills on the navigable waterways in the Lower Columbia Region. Washington Department of Ecology (DOE) and Oregon Department of Environmental Quality (DEQ) act as the State On Scene Coordinator(s) for spills and impacts to state waters. Together with the responsible party (the spiller), these agencies make up the Unified Command (UC). The UC coordinates responses, mitigation, and cleanup efforts for spills in the Lower Columbia Region to protect public health and safety, response personnel, and the environment.

The USCG, Washington State, and Oregon State have legal requirements for vessel response plans, including notification requirements if there is a spill or a potential spill. Any vessel over 400 gross tons must have a vessel response plan for oil and hazardous material spills that is approved by the USCG. Any non-tank vessel over 300 gross tons operating in Oregon and Washington waters must have a vessel response plan for oil spills that is approved by DEQ and DOE. For tank vessels of any size operating in Oregon and Washington waters, the vessel must have a vessel response plan that is approved by DEQ and DOE. These state requirements may be met by enrolling in the umbrella plan covering the Lower Columbia and Willamette Rivers or filing a plan submitted by the vessel owner or operator with the states. The umbrella plan for the Lower Columbia Region is managed by the Maritime Fire and Safety Association (MFSA).

### 2. Actions for an Oil or Hazardous Material Spill

- 1) **Stop the flow of product** by quickly closing valves and secure systems.
- 2) **Warn personnel of hazards** and enforce safety and security measures.
- 3) **Shut off the ignition sources** by stopping motors, electrical circuits, and restricting open flames.
- 4) **Contain/control the spill** by deploying boom or sorbent on the deck and in the water.
- 5) **Make notifications** to appropriate agencies/groups using your Vessel or Facility Response Plan.



Do not use cleaning or dispersing agents on the spilled oil. The use of these products is strictly controlled by federal and state laws and regulations and will result in fines or penalties.

### 3. Oil/ Hazardous Material Spill Reporting

This is not an all-inclusive list; operators must follow their vessel response plan as per applicable laws and regulations. If at a facility, the facility response plan requirements must be followed. The following notifications to agencies are required for spills on the Columbia River:

- National Response Center 800-424-8802
- Washington State Emergency Management Division 800-258-5990
- Oregon Emergency Response System 800-452-0311

The Maritime Fire and Safety Association (MFSA) can be reached at (503) 220-2055 if the vessel is covered by the umbrella plan.

## D. Vessel Grounding

### 1. Overview

The unplanned grounding of a vessel is a threat to the environment, the vessel itself, and to safe navigation of the waterway. Any grounding that causes vessel structural damage should be treated as a potential spill until the situation is evaluated by the vessel operator/owner and federal and state agencies. Utmost caution should be taken to prevent further damage to the vessel or pollution of the environment.

### 2. Actions for a Vessel Grounding

After addressing the immediate safety concerns associated with any vessel grounding (except for a planned grounding that does not create a hazardous situation) the vessel Master and/or Pilot must ensure the COTP is contacted immediately via VHF-FM CH 16 or at (503) 240-9311. The COTP will initially treat the situation as a distress situation and the first priority is to mitigate or respond to any threat to human life. Then the COTP may establish a communications schedule and request the vessel to periodically update its situation. If the waterway is blocked or needs to be closed, a Safety Marine Information Broadcast will be sent.

The master, or pilot, will be asked to provide the following information:

- a) Vessel Name
- b) Vessel Intentions
- c) Position/Heading/Situation/Relative position
- d) Vessel Type/Cargo/Ballast
- e) Type of grounding (stable, unstable)
- f) Type of bottom (sand, rock, mud)
- g) Drafts (Forward, amidship, and aft on both sides, before and after grounding)



- h) Vessel damage, if any
- i) Pollution (cargo/bunkers)
- j) Injuries/missing personnel
- k) Tank soundings - Ensure ALL tanks/voids are sounded and when completed those results are passed to the COTP immediately.
- l) Traffic Management Problems
- m) On-scene weather conditions

The vessel must secure all necessary watertight closures to maximize watertight integrity and subdivision.

Coast Guard response personnel and state investigators may respond to the scene for initial assessment and on scene communications and supervision. The vessel may be directed to safe anchorage or mooring if it touched bottom but is still underway or easily refloated. The COTP will work with the vessel and Unified Command to initiate pollution response as necessary.

If the vessel is aground on a soft bottom, time is critical, and it has been determined there is no appreciable damage or additional risk of flooding, the Master/Pilot may immediately attempt to refloat the vessel following consultation with the Coast Guard. The vessel's Master and/or Pilot must be satisfied that any immediate attempt to refloat the vessel would minimize or not cause any further damage. If the vessel is holed (flooding/leaking) the Coast Guard will typically make an on scene assessment before permitting an attempt to refloat and/or move the vessel.

If the vessel's hull is firmly fixed to the bottom such that the vessel cannot immediately refloat under its own power or without causing a risk to its structural integrity or the environment, the vessel will be directed to develop, and submit a salvage plan to the COTP or Unified Command for approval prior to attempting to refloat.

This plan should be developed as required in the vessel response plan and in conjunction with their Qualified Individual (QI), owners, and classification society. The plan should address all stability and hull strength concerns. (Note: Owners and operators of oil tankers and offshore barges must have prearranged, prompt access to computerized shore based damage stability and residual structural strength calculation programs as per 33 CFR 155.240.)

The vessel may be instructed to keep propulsion on standby and the bridge manned in case the vessel floats free. Tugs may be required. The vessel will be required to activate the vessel response plan to minimize any pollution threat or have a pollution response contractor on standby if the vessel does not have a vessel response plan. Keep in mind the need for standing by, emergency search and rescue, a medical evacuation, weather conditions, weather forecast, and any lightering plans.



The type of bottom (mud, sand, gravel, rock) and the speed of the vessel (underway, maneuvering with tugs, dragged anchor in high winds) will most often determine the severity of the incident and the level of precautions to be taken until the vessel refloats. In most cases, a class society and/or marine surveyor will be required either on scene or to inspect damage and verify repairs.

## **E. Vessel Collision**

### **1. Actions for a Vessel Collision**

After a collision the COTP must be immediately contacted via VHF-FM CH 16 or at (503) 240-9311. A collision should be considered an extremely urgent situation until deemed otherwise. The first action is to minimize the risk to the safety of life. The COTP may establish a communications schedule and request the vessel(s) to give periodic updates to the situation. If the waterway is blocked or needs to be closed, a Safety Marine Information Broadcast will be issued.

The master, or pilot, will be asked to provide the following information:

- a) Vessel(s) name(s)
- b) Vessel Intentions
- c) Position/Heading/Situation/Relative position
- d) Vessel Type(s)/Cargo/Ballast
- e) Vessel Damage
- f) Pollution (cargo/bunkers)
- g) Injuries/missing personnel
- h) Tanks soundings - Ensure ALL tanks and voids are sounded, and communicate the results to the COTP immediately.
- i) Traffic management problem
- j) On-scene weather conditions

The vessel must secure all necessary watertight closures to maximize watertight integrity and subdivision.

Coast Guard response personnel and state investigators may respond to the scene for initial assessment and on scene communications and supervision and may form a Unified Command. If the vessels are joined, they may be directed not to separate until all necessary response and towing vessels are on scene and a determination of the vessels stability has been made and concurred on by the COTP or Unified Command, and the master. The vessel will be asked to rig towing lines to the waterline, set out embarkation ladder, prep life saving gear, and have fire/towing & salvage plans ready. If vessel(s) are not joined, are stable, and have propulsion, they may be moved to a safe anchorage with an escort.

Notifications will be made to federal, state and local authorities. If cargo is potentially flammable or toxic the COTP will advise all responders of fire/explosion danger, and the vessel(s) should not engage equipment. Efforts should be made to assess wind



direction, approach up wind, and notify downwind fire boards. The COTP will work with the vessel and Unified Command to initiate pollution response as necessary.

In most cases, a class society surveyor will be required either on scene or to inspect damage and verify repairs. Keep in mind the need for tugs standing by, emergency search and rescue, medical evacuation, and current or future weather conditions.

## **F. Bridge Allision**

### **1. Actions for a Bridge Allision**

Response to a bridge allision is similar in nature to a vessel collision. After an allision with a bridge the COTP must be immediately contacted via VHF-FM CH 16 or at (503) 240-9311 and 911 called to notify emergency services and the Department of Transportation of the incident. A bridge allision should be considered an extremely urgent situation until deemed otherwise. The first action is to minimize the risk to the safety of life. The COTP may establish a communications schedule and request the vessel to give periodic updates to the situation. If the waterway is blocked or needs to be closed, a Safety Marine Information Broadcast will be issued. The difference between a vessel collision and a bridge allision pertains to notifying the port authority and local bridge administration, which may result in closing the bridge or waterway.

The master, or pilot, will be asked to provide the following information:

- a) Vessel Name
- b) The name/location of the bridge involved in the allision.
- c) Vessel Intentions
- d) Position/Heading/Situation/Relative position
- e) Vessel Type/Cargo/Ballast
- f) Type of allision (hard contact, glancing blow, high or low speed)
- g) Vessel damage, if any
- h) Known injuries to people on or near bridge, and damage to bridge
- i) Pollution (cargo/bunkers)
- j) Injured or missing shipboard personnel
- k) Tank soundings - Ensure ALL tanks and voids are sounded, and communicate results to the COTP immediately.
- l) Traffic Management Problems
- m) On-scene weather conditions

## **G. Loss of Propulsion**

### **1. Overview**

Loss of propulsion means a reduction or loss of propulsion power from the failure of a critical propulsion system. Any reduction or loss of propulsion power must be reported because the vessel cannot maneuver as described on the maneuvering information fact sheet and cannot establish propulsion ranging from full ahead to full astern movements.



A significant percentage of propulsion failures occur on vessels with direct drive diesel propulsion plants. These problems typically occur when a vessel is reducing speed or changing direction, where a stop or backing bell is ordered. 33 CFR 164.25(a)(5) requires testing of the vessel's propulsion in the ahead and astern mode 12 hours prior to port entry. Programming engine slow down to properly reduce from sea speed to maneuvering speed for temperature management should be handled to enable conducting the propulsion tests. Failure of the air start system upon first use at port entry has been shown typically to be due to problems that can be minimized by increased vigilance in checking or testing of the air system.

In addition to air start system failures, fuel switching is another cause of failure. Vessels utilizing two fuel types can minimize risk by conducting a positive risk assessment prior to initiating the change. Prior to switching fuels, the master should positively evaluate the situation, taking into account these and other factors:

- Traffic conflicts and general congestion.
- Weather/sea/current conditions.
- Vessel's current operating condition.
- Local tug availability.
- Proximity to navigationally challenging portions of the transit.

## **2. Actions for a Loss of Propulsion**

When a vessel experiences a loss of propulsion during River or Bar transit, contact the COTP immediately or as soon as practical following the casualty via VHF CH 16 or at (503) 240-9311.

### **The master and/or pilot must:**

- 1) Anchor or obtain tugs immediately.
- 2) Immediately inform the COTP via VHF CH 16 or (503) 240-9311 and establish a communications schedule.
- 3) Place the emergency generator on line.
- 4) Identify the source of the problem, conduct and test repairs.
- 5) If at sea:
  - a) Track the vessel's position in relation to land, determine and monitor the drift rate.
  - b) Set the anchor detail.

The following information will be needed as soon as possible:

- a) Vessel Name
- b) Position/Heading/Situation/Relative position
- c) Vessel type & Cargo/Ballast
- d) Is the vessel blocking the channel?
- e) Any details on casualty/Estimated Time of Repair (ETR) if possible
- f) Vessel propulsion system (steam, diesel, etc.)



- g) Draft of vessel
- h) Traffic Management Problems
- i) On-scene weather conditions
- j) Any Assistance Required
- k) Vessel's Intentions

**The U.S. Coast Guard may:**

1. Require immediate tug assistance.
2. Assist in locating nearest tug capabilities.
3. Issue Captain of the Port orders as appropriate to ensure required responses are undertaken.
4. Issue a Safety Marine Information Broadcast.
5. Hire tug(s) directly if COTP order to obtain tug assistance is not complied with in a timely manner.
6. Require classification society inspection, technical representative oversight, and Coast Guard inspection and/or approval of repairs
7. Apply some or all of the above for partial propulsion or steering losses.

The vessel may be directed to the nearest safe anchorage if conditions permit. The vessel will remain at the safe anchorage until the COTP is satisfied with the condition of the vessel. If the vessel has a total loss of propulsion and is unable to make it to the nearest safe anchorage it should anchor in the channel. The Coast Guard will issue a Safety Marine Information Broadcast if the waterway is blocked or needs to be closed. Immediate action should be pursued to unblock the waterway. Anchoring in the channel will be coordinated with the pilot.

The vessel may be directed to obtain immediate tug assistance. The current tides and weather will be a factor in the situation. A USCG representative may be sent to the vessel due to the fact that this is a reportable marine casualty. In most cases, the vessel will receive a COTP order not to proceed from safe anchorage until a full report from the vessel's classification society is received and accepted by the COTP. This report usually must identify the apparent cause of the problem and the actions taken to correct the problem.

**H. Loss of Steering**

**1. Actions for a Loss of Steering**

When a vessel experiences a loss of steering during River or Bar transit, contact the COTP immediately via VHF-FM CH 16 or at (503) 240-9311 or as soon as practical following the casualty. The COTP may establish a communications schedule and request the vessel to periodically update situation.

The master or pilot will be asked to provide the following information:

- a) Vessel Name
- b) Vessel Type & Cargo/Ballast



- c) Is the vessel blocking the channel
- d) Twin or Single Screw
- e) Position/Heading/Situation/Relative position
- f) Extent of Casualty (total loss, primary only) & estimated time for repairs
- g) Draft of vessel
- h) Traffic Management Problems
- i) On-scene weather conditions
- j) Any Assistance Required
- k) Vessel's Intentions

The COTP will determine whether there has been a related casualty (grounding, collision, and allision). The vessel should be directed to the nearest safe anchorage as determined by the pilot and/or the COTP (if conditions permit). The vessel will remain at the safe anchorage until the COTP is satisfied with the condition of the vessel. If the vessel has a total loss of steering and is unable to make it to anchorage it should try to anchor in the channel, using its anchor(s) and engine(s) to maintain its position. A Safety Marine Information Broadcast may be issued.

Consider the need for tugs standing by, changing weather conditions, and the effect of tide shift. Ships and tows with loss of power pose a significant risk to the area, and should not transit without tug assist and special precautions. If the vessel is or may block the waterway, a Safety Marine Information Broadcast will be sent to inform mariners. Immediate action should be pursued to unblock the waterway.

## **I. Loss of Navigation Equipment**

### **1. Actions for a Loss of Navigation Equipment**

In the event a vessel experiences a loss of navigation equipment, the master, pilot, agent or representative of the vessel must contact the COTP immediately. During working hours contact the Port State Control Branch at (503) 240-9339 and after hours contact the Duty Officer at (503) 240-9311.

Vessels required to carry an Automatic Identification System (AIS) under federal or international regulations must have a properly installed, operational, type approved AIS. The AIS Pilot Plug, on each vessel over 1,600 gross tons, on international voyage, shall be available for pilot use, easily accessible from the primary conning position of the vessel, and near 120 volt, AC power, 3-prong receptacle. If either the AIS or the pilot plug are inoperable, the master, pilot, agent or representative of the vessel should notify the USCG COTP and the Columbia Bar Pilots and/or the Columbia River Pilots.

Depending on the situation, certain restrictions may or may not be imposed on the vessel. If it is deemed safe, the vessel may be allowed to transit into the port on the condition that repairs are completed before departure. If the loss of operation occurs during outbound transit, the vessel may be directed to anchor and make repairs.



Depending on the equipment, and the next port of call, arrangements may be made to allow the vessel to depart and conduct repairs at the next port.

## J. Equipment Failures

### 1. Overview

A vessel's Master shall immediately notify the COTP of any mechanical or operational deficiency that would reduce the vessel's capabilities.

### 2. Actions for Equipment Failures

The vessel's master, or pilot, shall *immediately* relay the following information:

- a) Nature of the defect, deficiency, damage, failure or breakdown of the vessel's, machinery or navigational/radio equipment.
- b) Type of vessel, cargo and fuel capacity.
- c) Location and proximity to land or other navigational hazards.

Upon initial assessment, the vessel's master or pilot may be asked the following additional information:

- On-scene weather, visibility, tide, current, wind and sea state.
- Traffic density.
- Maneuverability of the vessel.
- Proposal to mitigate the deficiency.

### 3. Safety Measures for Types of Equipment Failures

The following decision table serves as a guideline to vessel Masters to make timely and effective decisions to ensure an equivalent level of safety during a mechanical or operational deficiency.

Defects/ Deficiencies	Additional Safety Measure
Propulsion loss/ reduced capabilities while underway	<ul style="list-style-type: none"> <li>• Immediately obtain the services of a tug of adequate size and horsepower or anchor</li> <li>• Inform the COTP at the onset of the incident and whenever situational changes warrant</li> <li>• Make both anchors ready for letting go</li> <li>• Prepare to anchor at the closest anchorage upon direction of the COTP</li> <li>• Correct deficiency before departing</li> </ul>
Loss or reduction of steering capabilities or ship service generator	<ul style="list-style-type: none"> <li>• Immediately obtain the services of a tug of adequate size and horsepower</li> <li>• Inform the COTP at the onset of the incident and whenever situational changes warrant</li> <li>• Make both anchors ready for letting go</li> <li>• Prepare to anchor at closest anchorage or moor at nearest</li> </ul>



<b>Defects/ Deficiencies</b>	<b>Additional Safety Measure</b>
	harbor of safe refuge upon direction of the COTP <ul style="list-style-type: none"><li>• Correct deficiency before departing</li></ul>
Loss of all radars	<ul style="list-style-type: none"><li>• Transit only in daylight and good visibility</li><li>• Inform the COTP at the onset of the incident and whenever situational changes warrant</li><li>• Correct deficiency before departing</li></ul>
Gyro failure	<ul style="list-style-type: none"><li>• Transit only in good visibility</li><li>• Inform the COTP at the onset of the incident and whenever situational changes warrant</li><li>• Correct deficiency before departing</li></ul>
Automatic Radar Plotting Aid (ARPA) failure	<ul style="list-style-type: none"><li>• Inform the COTP at the onset of the incident and whenever situational changes warrant</li><li>• Correct deficiency before departing</li></ul>
Missing navigation chart(s)	<ul style="list-style-type: none"><li>• Contact agent to supply chart(s) at entrance to Columbia River or appropriate pilot station.</li></ul>
Propulsion/ electrical power reduction or main engine maintenance while at anchorage	<ul style="list-style-type: none"><li>• Obtain the services of a tug of adequate size and horsepower, and the permission of the COTP prior to taking the plant off line.</li><li>• Inform the COTP at the onset of the incident and whenever situational changes warrant</li></ul>