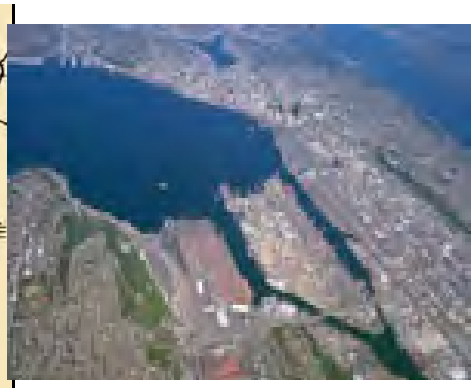
Puget Sound
Harbor Safety Committee



Puget Sound
Harbor Safety Plan

Updated and Republished July 2015

U.S. Department of Homeland Security

United States Coast Guard

Captain of the Port
U.S. Coast Guard
Sector Puget Sound

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Seattle, WA ,98134-1192
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16600

JUL 22 2015

Puget Sound Harbor Safety Committee
Mr. John Veentjer, Chairman
c/o Marine Exchange of Puget Sound
100 West Harrison, Suite S560
Seattle, Washington 98199

PUGET SOUND HARBOR SAFETY PLAN: 2015 REVISION

As Captain of the Port for the Puget Sound region, I heartily support the promulgation of this most recent update of the Puget Sound Harbor Safety Plan. The Salish Sea waterways are among the safest in the world due to the care that the waterway users and stakeholders have exercised. The Puget Sound Harbor Safety Plan represents best practices and standards of care that have been developed through the cooperative and collaborative efforts of industry leaders, Washington State, the U.S. Coast Guard, tribal representatives, and other government agencies to mitigate risks for maritime safety and the protection of the marine environment.

Vessel types, sizes, and traffic patterns will continue to change over the next several years. To remain one of the safest and environmentally conscience Maritime Transportation Systems (MTS) in the world, it will become increasingly more important for the Puget Sound Harbor Safety Committee (HSC) to bring together vessel and facility operators, port users, and other stakeholders to identify potential improvements to the safety, environmental protection, and efficiency of the regional MTS.

U.S. Coast Guard Puget Sound remains committed to partnering with the HSC's diverse membership to further the goals and objectives of this Harbor Safety Plan. I encourage those who operate on the waterways to follow these good marine practices so that together we may continue to make the safety of these waters a standard for others to follow.

Sincerely,

M. W. Raymond
Captain, U.S. Coast Guard
Captain of the Port, Puget Sound

Letter of Promulgation

Welcome to the Puget Sound Harbor Safety Plan. The goal of the Puget Sound Harbor Safety Plan is to enhance marine safety and environmental stewardship via risk based decision making. First published and distributed early in 2002, the plan was intended to provide information, guidelines and Standards of Care for marine operations in Puget Sound. This revision of the plan, as well as previous versions, is the product of the collaboration of maritime stakeholders as represented on the Puget Sound Harbor Safety Committee, and others in our maritime community, who shared their time and expertise to help develop this plan.

Coast Guard Captain of the Port: The Coast Guard is the primary advisor, an active participant and major contributor to the Harbor Safety Committee and this Plan. This Plan is strongly endorsed by the Captain of the Port.

The first section of the plan is administrative, and introduces the reader to the Harbor Safety Committee and its work. The second section is primarily informative in nature, and provides important information for professional mariners transiting Puget Sound. The third section includes Standards of Care developed by the Harbor Safety Committee that formalize and document certain "good marine practice" especially important to operations in the Puget Sound region.

The Puget Sound Harbor Safety Committee is committed to maintaining and updating this plan as new information and changing technologies warrant.

The Puget Sound Harbor Safety Committee has a web site at www.pshsc.org where further details regarding the activities of the Committee can be found. Comments and suggestions regarding the plan may be forwarded to the Committee through this web site. Comments may also be submitted to the Committee via the Marine Exchange of Puget Sound at 100 West Harrison Street, Suite S-560, Seattle WA 98119-4135; by phone (206) 443-3830; by Fax (206) 443-8205; or by their web site at www.marexps.com.

John Veentjer
Chair, Puget Sound Harbor Safety Committee
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e-mail: jeveentjer@marexps.com

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SECTION A

INTRODUCTION

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PURPOSE OF THE PUGET SOUND HARBOR SAFETY PLAN

Although there have been several different stakeholder forums to precede it, the Puget Sound Harbor Safety Committee (PSHSC) was created in 1997 by stakeholders with an interest in promoting safety and the protection of Puget Sound. It was formally incorporated as a non-profit organization on December 13, 2000.

The mission of the PSHSC is to provide a proactive forum for identifying, assessing, planning, communicating, and implementing operational and environmental measures beyond statutory and regulatory requirements that promote safe, secure, and efficient use of Puget Sound and adjacent waters. The committee is made up of delegates appointed by broadly based organizations representing a span of interests focused on Puget Sound. Additionally, various governmental agencies formally support the work of PSHSC in advisory roles.

With its regular meetings and broad stakeholder group participation, the PSHSC offers an agile and vibrant forum to lead the stakeholder community in identifying and resolving conflicts or concerns, existing and potential, in the commercial and recreational use of Puget Sound. The PSHSC should be viewed as the agent of choice by government, industry and environmentalists to present and respond to user conflicts, desired new environmental practices, new safety initiatives, and natural resource conflicts or changes. The PSHSC can also support and expand upon the work of other Puget Sound focused organizations, such as the Puget Sound Partnership, the Puget Sound Area Maritime Security Committee (AMSC), the Pacific Northwest Area Committee (AC)/Regional Response Team (RRT), the Puget Sound Marine Firefighting Commission (PSMFC) and others.

PSHSC takes responsibility for capturing existing standards and protocols as well as developing new standards and protocols that address those environmental and operational elements of maritime operations that are somewhat unique and especially significant to Puget Sound. The standards and protocols have been compiled in the Puget Sound Harbor Safety Plan which is intended to complement and supplement existing federal, state and local laws and regulations with advice to mariners regarding unique conditions and requirements that may be encountered in Puget Sound and adjacent waters. These standards and protocols are not intended to supplant or otherwise conflict with the laws or regulations; nor are they intended to replace the good judgment of a ship's master in the safe operation of his/her vessel.

Action Items: Especially important action items for vessel masters will be highlighted throughout the plan in special "action items" boxes like this one.

PROCEDURES

The elements of the Puget Sound Harbor Safety Plan were developed by "focus teams" which are subcommittees of the Operations standing committee of the PSHSC. To assure the broadest perspectives on measures considered, focus teams are expected to include interested parties from within the PSHSC and to reach beyond the PSHSC for membership, participation and advice.

As possible additions and/or corrections to the Harbor Safety Plan are identified, the Chair of the Operations standing committee will appoint one or more PSHSC members to lead a focus group to consider the issues and bring recommendations to the full PSHSC.

GUIDELINES

Standards and protocols included in the Puget Sound Harbor Safety Plan address operational and environmental issues unique to Puget Sound. The Puget Sound Harbor Safety Plan is not intended to supplant or otherwise conflict with federal, state or local regulations developed under legal authorities. Nor is the Puget Sound Harbor Safety Plan intended to replace the good judgment of a ship's master in the safe operation of his/her vessel. The Puget Sound Harbor Safety Plan is intended to complement existing regulations by advising the mariner of unique conditions and requirements that may be encountered in Puget Sound and adjacent waters and the standards and protocols developed by local experts for ensuring greater safety in light of those conditions and requirements.

HARBOR SAFETY COMMITTEE MEMBERS

LIST OF MEMBERS

The Puget Sound Harbor Safety Committee is a stakeholder organization. A broad based association representing the interests of each stakeholder group is invited to nominate a representative and an alternate. The Puget Sound Harbor Safety Committee includes the following:

Voting Members

- Commercial Fishing (non-tribal)
- Environmental Groups
- Labor
- Local Government
- Maritime Services Organizations
- Native American (treaty)
- Passenger Vessel Operators
- Petroleum Shippers
- Pilots
- Public at large
- Public Ports
- Recreational Boaters
- State Ferry System
- Steamship Lines
- Tug & Barge

In addition to the stakeholder groups listed above, there are a number of governmental agencies that may serve on the Puget Sound Harbor Safety Committee in a non-voting, advisory capacity and to the extent they consent to participate on the Committee. These include:

Advisors (non-voting)

- U.S. Coast Guard
- U.S. Army Corps of Engineers
- National Oceanic and Atmospheric Admin
- U.S. Navy
- U.S. Maritime Administration
- Pacific States/BC Task Force
- WA Dept of Ecology

The Chair of the Puget Sound Harbor Safety Committee appoints the chairs of the various PSHSC subcommittees (including the Operations standing committee).

Committee membership shall not, by itself, be construed to in any way limit the legal rights, obligations, or authorities of an individual representative or the groups or agencies which they represent.

GEOGRAPHIC PLAN
APPLICABILITY AND INFORMATION

GEOGRAPHIC BOUNDARIES

This plan is intended to cover federal navigable waters throughout the Puget Sound region and the approaches from Sea, and the focus is primarily on commercial vessels. The U.S. and Canada cooperatively manage vessel traffic in these boundary waters, and there are sections of this plan with relevance to dealing with Canadian authorities, operations in Canadian waters, and operations in U.S. waters controlled by Canadian traffic managers. With the above in mind, the applicability of this plan is the combination of the below geographic areas that encompass both the legal and traffic management regimes.

U.S. COAST GUARD CAPTAIN OF THE PORT (COTP) ZONE

For all Coast Guard mission areas including waterways management, marine safety, search and rescue, law enforcement, border security, port security and environmental issues in Puget Sound and northwest Washington State, the Captain of the Port Puget Sound (located at Sector Puget Sound) is the primary Coast Guard authority. The legal boundaries for the Captain of the Port Puget Sound are set forth in 33 Code of Federal Regulations 3.65-10. This approximately corresponds to the Queets River on the Washington coast and northward, the Strait of Juan de Fuca, the San Juan Island archipelago and all the navigable waters of Puget Sound. The Captain of the Port has varying levels of jurisdiction extending to the outer limit (200 nautical miles) of the EEZ for foreign and domestic vessels.

WASHINGTON DEPARTMENT OF ECOLOGY

For all commercial vessel and waterways management, marine safety, port safety and environmental protection and spill preparedness and response issues in Washington state waters, including all of Puget Sound and the various connecting straits, the Washington Department of Ecology Spills Prevention, Preparedness, and Response (SPILLS) Program is the primary state authority responsible for dealing with vessel and facility incidents as they might impact state marine resources. The state's jurisdiction extends to activities occurring in the coastal waters within the U.S. territorial seas, and state interests may even extend beyond those limits to the extent the event would likely impact state waters and resources. Similar to the U.S. Coast Guard, the SPILLS program conducts vessel examinations utilizing accepted industry standards for non-tank vessels, as well as conducting fuel and cargo oil transfer monitoring inspections on all vessels. In addition, the agency responds to and investigates all marine incidents and accidents involving covered vessels (i.e., tank vessels, and other commercial vessels of 300 gross tons or more).

TRAFFIC MANAGEMENT SCHEME

An International Maritime Organization (IMO) approved Traffic Separation Scheme (TSS) governs vessel traffic in Puget Sound and its approaches. This area is actively managed by a joint U.S. - Canadian Cooperative Vessel Traffic Service (CVTS). At the western entrance to the Strait of Juan de Fuca, this area includes the extent of Prince Rupert Traffic's radar coverage, approximately 60 miles out to sea, and extends throughout the Puget Sound region north to Vancouver, British Columbia, and south to Tacoma, Washington and Olympia, Washington. Commercial mariners are required to have an operating handbook for the Vessel Traffic Service; it is available at: http://www.uscg.mil/d13/psvts/.

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SECTION B

GENERAL INFORMATION

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AIDS TO NAVIGATION (ATON)

Action items:

- If you see an ATON discrepancy, (buoy off station, light extinguished, etc.) contact the Coast Guard. Your timely report could prevent an accident.
- If underway, contact the Puget Sound Vessel Traffic Center via VHF, or contact Coast Guard Sector Puget Sound by cell phone at 206-217-6001.
- If not underway, or if merely commenting on ATON, contact Commander, Thirteenth Coast Guard District (dpw) either by mail (Henry M. Jackson Federal Building, 915 2nd Ave, Seattle, WA 98174-1067) or by phone at 206-220-7270.

CAUTION TO BE USED IN RELIANCE UPON AIDS TO NAVIGATION

The Dungeness Lighthouse, located at the tip of Dungeness Spit near Port Angeles, Wash., was the first American Lighthouse in Puget Sound. The lighthouse was established in 1857 and automated in October 1976. USCG photo.

The aids to navigation depicted on charts comprise a system of fixed and floating aids that have varying degrees of reliability. Therefore, prudent mariners will not rely solely on any single aid to navigation, particularly a floating aid. With respect to buoys, the buoy symbol is used to indicate the approximate position of the buoy body and sinker, which secures the buoy to the seabed. The approximate position is used because of practical limitations in positioning and maintaining buoys and their sinkers in precise geographical locations. These limitations include, but are not limited to, inherent imprecision in position fixing methods, prevailing atmospheric and sea conditions, the slope and the material making up the seabed, the fact that the buoys are moored to sinkers by varying lengths of chain, and the fact that buoy body and/or sinker positions are not under continuous surveillance but are normally checked only during periodic maintenance visits which may occur more than a year apart. Due to the forces of nature, the position of the buoy body can be expected to shift inside and outside the charting symbol. The mariner is also cautioned that buoys are liable to be carried away, shifted, capsized, sunk, etc. Lighted buoys may be extinguished or sound signals may not function as the result of ice, running ice or other natural causes, collisions, or other accidents. For the foregoing reasons, a prudent mariner must not rely solely upon the position or operation of floating aids to navigation, but must also use bearings from fixed objects and aids to navigation on shore. Further, a vessel attempting to pass close aboard always risks collision with a yawing buoy or with the obstruction the buoy may be marking.

INTERFERENCE WITH AIDS TO NAVIGATION

In accordance with Title 33, Code of Federal Regulations, Subpart 70.01; "No person shall obstruct or interfere with any aid to navigation established and maintained by the Coast Guard, or any private aid to navigation established and maintained in accordance with Title 33, Code of Federal Regulations, Parts 64, 66, or 67. Any person violating the provisions of this section shall be deemed guilty of a misdemeanor and be subject to a fine not exceeding the sum of $500 for each offense, and each day during such violation shall be considered a new offense."

REQUIRED REPORTING OF DAMAGED AIDS TO NAVIGATION

Vessel operators are required to notify the Coast Guard of any marine casualty or accident, including damage or destruction of aids to navigation, by the Marine Investigation Regulations, Title 46, Code of Federal Regulations, Section 4.05-20, with penalty for noncompliance. Frequently, aids to navigation are struck, causing damage and displacement or complete loss, without the knowledge of the Coast Guard. The result is diminished protection for marine traffic due to the failure of vessel operators to furnish notice of these collisions to the nearest local Coast Guard unit as required by law and regulation. All vessel operators who witness another vessel or individual damage or destroy an aid to navigation, or believe an aid is not watching properly or is off station in accordance with the Coast Guard Light List, should report the incident to the nearest Coast Guard unit. The Code of Federal Regulations excerpt below provides more details on reporting discrepancies.

TITLE 33--NAVIGATION AND NAVIGABLE WATERS
CHAPTER I--COAST GUARD, DEPARTMENT OF TRANSPORTATION
PART 62--UNITED STATES AIDS TO NAVIGATION SYSTEM--Table of Contents
Subpart D--Public Participation in the Aids to Navigation System

Sec. 62.65 Procedure for reporting defects and discrepancies.

(a) Mariners should notify the nearest Coast Guard facility immediately of any observed aids to navigation defects or discrepancies.

(b) The Coast Guard cannot monitor the many thousands of aids in the U.S. Aids to Navigation System simultaneously and continuously. As a result, it is not possible to maintain every aid operating properly and on its charted position at all times. Marine safety will be enhanced if persons finding aids missing, sunk, capsized, damaged, off station, or showing characteristics other than those advertised in the Light List, or other publication, promptly inform the Coast Guard. When making the report to the Coast Guard the mariner should consult the Light List to ensure the correct geographical information is used due to the similarity of names and geographical areas.

(c) Procedures for reporting defects and discrepancies:
  (1) Radio messages should be prefixed ``Coast Guard'' and transmitted directly to a Government shore radio station listed in Chapter three of Radio Navigation Aids Publication, 117, for relay to the relevant District Commander.
  (2) Commercial communications facilities should be used only when vessels are unable to contact a Government shore radio station. Charges for these messages will be accepted ``collect'' by the Coast Guard.

PROPOSED CHANGES IN AIDS TO NAVIGATION

Periodically the Coast Guard evaluates its system of aids to navigation to determine whether the conditions for which the aids were established have changed. Some of the conditions that are considered include environmental changes i.e. (shoaling), type and amount of vessel traffic, and increases in aid and equipment technology. When changes occur, the feasibility of improving, relocating, or discontinuing aids is considered. Comments on proposed changes should be addressed to the Waterways Branch (dpw) of the Prevention Division of the Thirteenth Coast Guard District at: Commander (dpw), Thirteenth Coast Guard District, 915 Second Avenue, Seattle, WA 98174-1067. The Code of Federal Regulations excerpt below provides more details on the specific information that should be provided.

TITLE 33--NAVIGATION AND NAVIGABLE WATERS
CHAPTER I--COAST GUARD, DEPARTMENT OF TRANSPORTATION
PART 62--UNITED STATES AIDS TO NAVIGATION SYSTEM--Table of Contents
Subpart D--Public Participation in the Aids to Navigation System

Sec. 62.63 Recommendations.

(a) The public may recommend changes to existing aids to navigation, request new aids or the discontinuation of existing aids, and report aids no longer necessary for maritime safety. These recommendations should be sent to the appropriate District Commander.
(b) Recommendations, requests and reports should be documented with as much information as possible to justify the proposed action. Desirable information includes:
  (1) Nature of the vessels which transit the area(s) in the question, including type, displacement, draft, and number of passengers and crew.
  (2) Where practicable, the kinds of navigating devices used aboard such vessels (e.g., magnetic or gyro compasses, radio direction finders, radar, loran, and searchlights).
  (3) A chartlet or sketch describing the actual or proposed location of the aid(s), and description of the action requested or recommended.

PRIVATE AIDS TO NAVIGATION

Private aids to navigation include all marine aids to navigation operated in the navigable waters of the United States other than those operated by the Federal Government or those operated in State waters for private use. No person, public body or other instrumentality not under the control of the Commandant, exclusive of the Armed Forces, shall establish and maintain, discontinue, or change or transfer ownership of any aid to maritime navigation, without first obtaining permission to do so from the Commandant; for more information consult Title 33, Code of Federal Regulations, Part 66. In order to make application to establish and maintain, discontinue, change, or transfer ownership of a private aid to navigation, a person or instrumentality shall submit a "Private Aids to Navigation Application" (CG-2554) to the Commander of the nearest Coast Guard District. To obtain a CG-2554 write Commander (dpw), Thirteenth Coast Guard District, 915 Second Avenue, Room 3510, Seattle, WA 98174-1067, or call (206) 220-7270 or go to the following website: http://www.uscg.mil/d13/oan/paton.htm.

POINTS OF CONTACT

To report an aid to navigation that is NOT displaying the characteristics as advertised contact the nearest Coast Guard unit or Sector Puget Sound VTS.

To recommend changes to navigational Aids to Navigation, submit the recommendation in writing to:

Commander, Thirteenth Coast Guard District (dpw)
915 Second Ave
Seattle WA, 98174-1067

The web address to receive and/or view the Local Notice to Mariners (LNM) and the yearly Special Local Notice to Mariners (SLNM) is http://www.navcen.uscg.gov. Note: The LNM and SLNM are produced only in an electronic format and no longer mailed.

Any additional questions or clarification's, The U.S. Coast Guard District Waterways Branch may be reached at (206) 220-7270 from 0730 to 1600 Mon through Fri, with the exception of federal holidays.

ADVANCE NOTICE OF ARRIVAL (NOA)
U.S. and Canadian Requirements

Action items:

- If bound for U.S. port, make 96 hour Notice of Arrival (NOA) Report
- If bound for Canadian port, make 96 hour Pre-Arrival Information Report (PAIR) and make VTS 24 hour Offshore Report.

A. U.S. REQUIREMENTS - OVERVIEW

1. After the terrorists attacks on the U. S. on 9/11/2001, the Coast Guard recognized the need to improve Maritime Domain Awareness (MDA) and thereby enhance maritime homeland security (MHLS) by increasing the required advance notice of arrivals for ships entering into U.S. waters from 24 hours to 96 hours, and the amount of information to be reported. These revised Coast Guard NOA regulations (33 CFR 160, Subpart C)—significantly expanded cargo and recent vessel transit information requirements, increased the time required for providing an advance notice, and revised the reporting process to include a central collection point (that is, the National Vessel Movement Center). These improvements contributed significantly to the Coast Guard's intelligence and security efforts. The Final Rule went into effect on 01 Apr 2003; a recent change was published on 30 Jan 2015. The rules are found at 33 CFR 160.201-215.

2. There are three main purposes for requiring information in advance of a vessel's arrival. One is for waterways management, another is for assessing maritime safety, and the last is for maintaining homeland security. The data contained in the NOA is considered vital to these missions.

3. Note: Effective November 15th 2007, the Canada/U.S. Cooperative Vessel Traffic Service (CVTS) no longer requires submission of the CVTS Advance Report/IMO Standard Ship Reporting System form as shown in 33 CFR 161.18 (A), since almost all of that information has been supplanted by the revised Advance Notice of Arrival process.

B. APPLICABILITY

1. The NOA requirements generally apply to all U.S. commercial vessels **except**:
   a. U.S. recreational vessels
   b. Oil Spill Response Vessels (OSRVs) engaged in actual spill responses or exercises.
   c. Passenger and offshore supply vessels when engaged in the exploration or removal of oil, gas, or mineral resources on the Outer Continental Shelf.
   d. After December 31, 2015, a vessel required by 33 CFR 165.830 (applies to certain Midwest Rivers regulated navigation areas (RNAs) for barges with CDCs) or

165.921 (same, Illinois Waterway System RNA) to report its movements, its cargo or the cargo in the barges it's towing.

e. A U.S. or Canadian vessel engaged in salving operations of any property wrecked, or rendering aid and assistance to any vessels wrecked, disabled, or in distress in waters specified in Article II of the 1908 Treaty of Extradition, Wrecking, and Salvage (35 Stat 2035; Treaty Series 502) (the Great Lakes/St Lawrence river and the waters of either country along the Atlantic and Pacific coasts within 30 miles of the International Boundary).

f. If not carrying CDCs or controlling a vessel carrying CDCs:
   - A vessel operating exclusively within a single Captain of the Port zone.
   - Towing vessels and barges operating solely between ports or places in the continental U.S (includes Alaska but not Hawaii or Pacific Islands)
   - Public vessels
   - Except for a tank vessel, a U.S. vessel operating solely between ports or places of the United States on the Great Lakes
   - A U.S. vessel 300 GT or less, engaged in commercial service, not coming from a foreign port or place
   - Ferries on fixed routes meeting the requirements of 33 CFR 160.204(a)(5)(vii) (includes international routes).

2. The NOA requirements generally apply to all foreign vessels except:
   a. A foreign vessel 300 GT or less not in commercial service if not carrying CDCs or controlling a vessel carrying CDCs.
   b. A Canadian vessel engaged in salving operations of any property wrecked, or rendering aid and assistance to any vessels wrecked, disabled, or in distress in waters specified in Article II of the 1908 Treaty of Extradition, Wrecking, and Salvage (35 Stat 2035; Treaty Series 502) (the Great Lakes/St Lawrence river and the waters of either country along the Atlantic and Pacific coasts within 30 miles of the International Boundary).
   c. A foreign public vessel.
   d. A foreign ferry on a fixed route as per 33 CFR 160.204(a)(5)(vii).

3. Information:
   a. Force Majeure: Vessels bound under force majeure for a United States port or place must now provide notice of the master's intentions, any hazardous conditions, and if the vessel is carrying certain dangerous cargo or controlling a vessel carrying certain dangerous cargo.

   b. Certain Dangerous Cargo (see 33 CFR 160.202 for complete details) is as follows:
      - Division 1.1 or 1.2 explosives
      - Division 1.5D blasting agents
      - Division 2.3 poisonous gas
      - Division 5.1 oxidizing materials
      - Liquid Division 6.1 poisonous materials

- Class 7 radioactive material
- Bulk liquefied gas carried under 46 CFR 151.50-31 or listed in 46 CFR 154.7
- That is flammable or toxic and that is not carried as CDC residue.
- Except when not carried as CDC residue, bulk liquid acetone cyanohydrin, allyl alcohol, chlorosulfonic acid, crotonaldehyde, ethylene chlorohydrin, ethylene dibromide, methacrylonitrile, oleum (fuming sulfuric acid), propylene oxide.
- Ammonium nitrate Division 5.1 material (not CDC residue)
- Ammonium nitrate Division 5.1 fertilizer (not CDC residue)
- Note: CDC residue does NOT include the following cargoes (they remain treated as CDCs):
  - Ammonium nitrate in bulk and ammonium nitrate based fertilizer exceeding 1000 lbs total and/or individual quantities over 2 cu ft, even if all saleable cargo is discharged
  - Anhydrous ammonia
  - Chlorine
  - Ethane
  - Methane (LNG)
  - Sulfur dioxide
  - Vinyl chloride

C. TIME REQUIREMENTS

1. The time requirements are based on the vessel's voyage time to the intended port or place of destination, not the first entry point into U.S. waters.
2. If voyage time > 96 hours, submit NOA 96 hours prior to intended arrival time.
3. If voyage time is < 96 hours, submit NOA before departure but at least 24 hours before arriving at the port or place of destination.
4. Towing vessels in control of a vessel carrying CDC and operating solely between ports or places of the contiguous United States and/or Alaska, must submit an NOA before departure but at least 12 hours before arriving at the port or place of destination.
5. U.S. vessels 300GT or less, arriving from a foreign port or place, if voyage time is <24 hours, must submit NOA at least 60 minutes before departure from the foreign port/place.
6. Canadian vessels 300GT or less, arriving directly from Canada via boundary waters, if voyage time is 24 hours or less, must submit NOA at least 60 minutes before departing the Canadian port or place.
7. Updates:
   a. Required:
      - If remaining voyage time is 96 hours or more, or less than 96 but more than 24 hours remain, an update must be provided as soon as practicable but at least 24 hours before arriving at the port or place.
      - If remaining voyage time isles than 24 hours, then an update must be provided as soon as practicable but at least 12 hours before arriving at the port or place.

b. Not required:
- Changes in arrival or departure times of less than 6 hours.
- Changes in vessel location or position at the time of reporting.
- Changes to crewmembers' positions or duties.

D. REPORTING METHODS AND CG/CBP ALIGNMENT

Vessels must report their NOAs electronically to the NVMC through the NVMC website: http://www.nvmc.uscg.gov. The electronic submission automates the reporting and vetting system. In addition, when a vessel sends an NOA electronically to the NVMC, the NOA is automatically sent to CBP's Advanced Passenger Information System (APIS). CBP requires all commercial vessels to submit a NOA when arriving from a foreign port or place.

E. PROCESS

When a vessel submits a NOA, the information is processed by the NVMC. It is first validated (for completion and some accuracy) by the NVMC. It then is entered into a database. From there, vetting and scrutiny for each arrival notice occurs on two levels. First, the Coast Guard's Intelligence Center analyzes each notice of arrival for security purposes. Second, each Coast Guard Sector or unit analyzes the notice of arrival for both safety and security purposes. If there is a safety or security concern with the vessel, it may be boarded or inspected by the Coast Guard.

F. NOA POINT OF CONTACT

For common questions and regulatory interpretations, visit Homeport: http://homeport.uscg.mil. Navigate to "Port State Control", then "General Information", then "Notice of Arrival and Departure (NOAD) Questions and Interpretations."

For questions about your NOA (how to submit, whether it was submitted, technical questions) contact:

National Vessel Movement Center
24 hour phone line – *when in doubt, start here*!
1-800-708-9823 or 304-264-2502
Email Address: sans@nvmc.uscg.mil
Fax Number: 800-547-8724 or 304-264-2684
Tech Support (not 24 hours): NVMC-techsupport@uscg.mil

CBP Process and vetting
Ms. Deborah Nesbitt
APIS – Maritime Carrier Account Manager
(P): 409-727-0285; Ext 238
Email: Deborah.S.Nesbitt@cbp.dhs.gov

G. WHEN TO CALL EXAMPLES

QUESTION/PROBLEM	POC
When do I have to submit my NOA?	NVMC
Do I have to submit a NOA?	NVMC
I sent an eNOA, but don't know if it got there….	NVMC (24 hour number)
Was my departure notice received?	Ms. Nesbitt
I can't get in touch with ____ local CBP unit…	Ms. Nesbitt
What time do I have to submit my NOD?	Mr. Neumann
What if I can't submit my NOD 60 minutes prior to departure?	Mr. Neumann
Is my NOA complete?	NVMC
Is my vessel cleared to enter the port?	USCG Sector Puget Sound (206 217 6002)
I am having trouble submitting my eNOAD	NVMC

H. CANADIAN REPORTING REQUIREMENTS

1. 96 hour Pre-Arrival Information Report (PAIR)

   Vessels bound for a Canadian Port are required to file a 96 hour Pre-Arrival Information Report (PAIR) in accordance with the *Canadian Marine Transportation Security Regulations* Part 2: Vessels Pre-arrival Information (221).

2. Vessel Traffic Services (VTS) 24 Hour Offshore Report

   A Canadian VTS Offshore Report must be filed in accordance with the *Canada Shipping Act (CSA) Vessel Traffic Services Zones Regulations* (*CSA*, Section 6: Reports 1.1) whereby the master of a ship shall ensure that a report is made at least 24 hours before the ship enters a Canadian Vessel Traffic Services Zone from seaward (including Alaska), or as soon as possible where the estimated time of arrival at that Vessel Traffic Services Zone is less than 24 hours after the ship departs from the last port of call.

3. The reporting requirements for the 96 hour PAIR and VTS 24 hour Offshore Reports are outlined in the most recent edition of the Canadian Coast Guard *Radio Aids to Marine Navigation* at http://www.ccg-gcc.gc.ca/Marine-Communications/RAMN-2015/Pacific-Table-of-Contents. The reports will be sent directly to the Marine Communications and Traffic Services (MCTS) Regional Marine Information Centre (RMIC) via one of the methods listed below:

   - Via e-mail: OFFSHORE@RMIC.GC.CA
   - Via INMARSAT telex 04352586 "CGTC VAS VCR"
   - Via any Canadian Coast Guard MCTS Centre, free of charge;
   - Or directly to CVTS Offshore by FAX: 604-666-8453.

AUTOMATIC IDENTIFICATION SYSTEM (AIS)

Action items:

- Properly program, maintain and update information in the vessel's Automatic Identification System unit. All information should be completed properly and updated as necessary for the specific voyage.

The **Automatic Identification System** (**AIS**) is a system used by ships and Vessel Traffic Services principally for identification and locating vessels. AIS helps to resolve the difficulty of identifying ships when not in sight (e.g. in fog, at distance, etc.) by providing a means for ships to automatically exchange identification, position, course, speed, and other ship data with all other nearby ships and VTS stations.

The International Maritime Organization's (IMO) International Convention for the Safety of Life at Sea (SOLAS) requires AIS to be fitted aboard international voyaging ships of 300 or more gross tonnage, and all passenger ships regardless of size.

Since 2003, the U.S. Coast Guard has also required that Coast Guard type approved AIS be properly installed and operational on certain vessels operating within a vessel traffic service area as listed in Title 33, Code of Federal Regulations (CFR), Paragraph 161.12(c). The AIS requirements were expanded in 2015 to all U.S. navigable waters and to additional vessels so as to now apply to following vessels:

AIS Class A device on:

(i) Self-propelled vessels of 65 feet or more in length, engaged in commercial service;
(ii) Towing vessels of 26 feet or more in length and more than 600 horsepower, engaged in commercial service;
(iii) Vessels that is certificated to carry more than 150 passengers;
(iv) A self-propelled vessel engaged in dredging operations in or near a commercial channel or shipping fairway in a manner likely to restrict or affect navigation of other vessels; and
(v) A self-propelled vessel engaged in the movement of— (A) Certain dangerous cargo as defined in subpart C of part 160 of this chapter, or (B) Flammable or combustible liquid cargo in bulk that is listed in 46 CFR 30.25–1, Table 30.25–1.

AIS Class B device in lieu of an AIS Class A device is permissible on the following vessels if they are not subject to pilotage by other than the vessel Master or crew:

(i) Fishing industry vessels;
(ii) Vessels identified in paragraph (b)(1)(i) of this section that are certificated to carry less than 150 passengers and that— (A) Do not operate in a Vessel Traffic Service (VTS) or Vessel Movement Reporting System (VMRS) area defined in Table 161.12(c) of § 161.12 of this chapter, and (B) Do not operate at speeds in excess of 14 knots; and
(iii) Vessels identified in paragraph (b)(1)(iv) of this section engaged in dredging operations.

Some AIS users are not updating their unit to accurately reflect voyage related information, e.g., navigation status, static draft, destination, estimated time of arrival, etc. Some users fail to properly complete certain basic information. These issues require the due diligence of the users to ensure the AIS unit is always providing proper identification information so that the AIS continues to serve the intended purpose.

AIS users are further referred to the U.S. Coast Guard Navigation Center website (http://navcen.uscg.gov/?pageName=AISmain) for much more information regarding AIS.

Note: AIS data can be invaluable, however, as with any source of navigation information, it should not be solely relied upon in making navigational and collision-avoidance decisions. Further, while AIS allows for safety related ship-to-ship test messaging to communicate with others and make passing arrangements, these communications do not meet the requirements of the Vessel Bridge-to-Bridge Radiotelephone Act (33 U.S. Code 1201 et seq) for broadcasts on the designated bridge-to-bridge channel, nor do they relieve a vessel operator from the Navigation Rules requirement to sound whistle signals or display signals.

CHARTS REQUIRED FOR THE PUGET SOUND REGION

INTRODUCTION

No person may operate or cause the operation of a vessel unless the vessel has the required marine charts of the area prior to entering U.S. waters and/or departing a U.S. port. This section is primarily focused on the commercial vessel requirements contained in 33 CFR 164, but all vessels should have appropriate charts for the areas they are operating in. The required charts listed in this chapter were developed by the Captain of the Port (COTP), Puget Sound in conjunction with Canadian authorities and this committee.

CHART REQUIREMENTS

Marine charts of the areas to be transited must be published by NOAA's National Ocean Service (NOS), the Army Corp of Engineers (ACOE), British Admiralty Charts or a river authority that satisfy the following requirements:

- Charts must be of a large enough scale and have enough detail to make safe navigation of the areas possible.
- Charts must be the current edition, corrected through the most recent Local Notice to Mariners (LNM).

VESSEL MISSING CHARTS

The vessel master must report directly or through their agent to the Captain of the Port if the vessel is missing any of the required or current navigational charts for the transit through U.S. waters (Strait of Juan de Fuca, Haro Strait or the Puget Sound region). The master will be required to obtain the proper charts prior to entering U.S. waters. Note that some foreign flagged vessels will report they are missing U.S. charts for their transit through the Strait of Juan de Fuca and the Puget Sound region to their port of destination; however, if they have the proper British Admiralty charts for their transit those charts will be accepted instead. Vessel masters or agents may contact the Captain of the Port to verify if the charts the vessel has on board are sufficient for their transit.

If the vessel has the proper charts to transit to the Port Angeles or Victoria Pilot Station, but not inside Puget Sound, the vessel shall have the missing or outdated charts delivered prior to commencing the voyage to the port of destination. If the vessel is missing the entrance chart to the Strait of Juan de Fuca, the master shall notify the Captain of the Port in advance via the Cooperative Vessel Traffic Service (CVTS), in addition to the normal verbal notification via the agent.

If the Captain of the Port is notified of the missing chart in advance, and the vessel is able to receive an electronic (fax or e-mail) transmission of the proper charts to navigate safely to the appropriate pilot station, the Captain of the Port will likely permit the in-bound

transit. The required charts must then be acquired before proceeding to final destination subject to approval from the Captain of the Port. However, if the vessel is unable to obtain an electronic transmission of the proper entrance charts, the vessel will be required by the Captain of the Port to have the charts delivered via another vessel prior to entering the Strait of Juan de Fuca, or be escorted in.

In all cases, the vessel shall have the charts in sufficient time to support appropriate voyage planning. Vessel masters shall not rely on last minute chart deliveries and the services of the pilot to make their transit. The bridge team shall remain fully engaged in voyage planning and execution of the voyage plan along with the services of the pilot, whose input, based on local knowledge, may require the voyage plan formulated by the vessels bridge team to be adjusted during various stages of the transit while in pilotage waters.

LOCAL NOTICE TO MARINERS (LNM)

The Thirteenth Coast Guard District publishes a weekly LNM which includes Light List and Chart updates. Use this LNM to keep your Light List and nautical charts current. The LNM covers aids to navigation, charts, channel depths, marine construction, military operations, bridge repair/construction, significant marine events and other information of interest to mariners. The web address to receive and/or view the LNM and the yearly Special Local Notice to Mariners (SLNM) is D13 (Pacific Northwest) Local Notice to Mariners (http://www.navcen.uscg.gov/?pageName=lnmDistrict&region=13). Note: The LNM and SLNM are produced only in an electronic format and no longer mailed.

Mariners are urged to take advantage of automatic chart distribution as a quick and easy way to ensure the most up to date charts are on board.

Note: NOAA Electronic Navigational Chart (ENC) numbers are listed for vessels navigating using Electronic Chart Display and Information Systems (ECDIS) that comply with International Maritime Organization (IMO) requirements for SOLAS class vessels.

REQUIRED CHARTS FOR ALL COMMERCIAL VESSELS TRANSITING PUGET SOUND AREA

General Charts required for Strait of Juan de Fuca	Admiralty Chart Number	U. S. Chart Number	U.S. ENC Chart Number
Strait of Juan de Fuca Entry	4945, 4947	18460	US3WA01M, US4WA36M
Strait of Juan de Fuca East	4950	18465	US4WA34M

CHARTS BY VARIOUS TRANSITS VIA STRAIT OF JUAN DE FUCA

Charts by Area/Location	Admiralty Chart Number	U. S. Chart Number	U.S. ENC Chart Number
Port Angeles	1717	18468	US5WA29M
Port Townsend	46	18471, 18464	US5WA28M
Everett	46, 47	18471, 18473, 18443, 18444	US5WA16M, US5WA17M, US5WA19M, US5WA51M
Anacortes	80	18429, 18427	US5WA31M, US5WA32M
Bellingham (via Rosario Strait)	80	18429, 18430, 18424	US5WA31M, US5WA32M, US5WA45M
Blaine/Ferndale (via Haro Strait)	80, 4950, 4951, 4953, 4954	18433, 18432, 18431, 18421, 18423	US3WA02M, US5WA41M, US5WA42M, US5WA43M, US5WA44M
Blaine/Ferndale (via Rosario Strait)	80, 4950, 4952, 4951	18429, 18430, 18431, 18421, 18423	US3WA02M, US5WA32M, US5WA40M, US5WA41M

Seattle	46, 47, 50, 4950	18471, 18473, 18449, 18450	US5WA12M, US5WA14M, US5WA15M, US5WA16M, US5WA17M, US5WA19M
Tacoma	46, 47, 48, 4950	18471, 18473, 18474, 18453	US5WA12M, US5WA14M, US5WA15M, US5WA16M, US5WA17M, US5WA18M, US5WA19M, US5WA22M
Olympia	46, 47, 48, 51	18471, 18473, 18474, 18448, 18456	US4WA10M, US5WA12M, US5WA14M, US5WA15M, US5WA16M, US5WA17M, US5WA18M, US5WA19M, US5WA22M

CHARTS FOR TRANSIT FROM CANADA VIA STRAIT OF GEORGIA

Charts by Area/Location	Admiralty Chart Number	U. S. Chart Number	U.S. ENC Chart Number
All vessels required to have chart	4951	18421	US3WA02M
Blaine	4952	18423	
Bellingham	80	18431, 18430, 18424	US5WA41M, US5WA45M
Ferndale	80	18431	US5WA41M

Anacortes	80	18431, 18430, 18424, 18427	US5WA41M, US5WA45M, US5WA31M
Anacortes (via Rosario Strait)	80, 4950	18431, 18430, 18429, 18427	US5WA41M, US5WA45M, US5WA31M, US5WA32M
Port Townsend (via Rosario Strait)	46, 80, 4950	18431, 18430, 18429, 18471, 18464	US5WA41M, US5WA45M, US5WA31M, US5WA32M, US5WA16M, US5WA28M
Port Townsend (via Haro Strait)	46, 4950, 4953, 4954	18432, 18433, 18465, 18471, 18464	US5WA41M, US5WA42M, US5WA43M, US5WA44M, US5WA16M, US5WA28M
Port Angeles (via Haro Strait)	1717, 4950, 4953, 4954	18432, 18433, 18465, 18468	US5WA41M, US5WA42M, US5WA43M, US5WA44M, US5WA29M
Everett (via Rosario Strait)	46, 47, 80	18431, 18429, 18441, 18471, 18473, 18443, 18444	US5WA41M, US5WA45M, US5WA31M, US5WA32M, US5WA16M, US5WA17M, US5WA19M, US5WA50M, US5WA51M

Seattle (via Rosario Strait)	46, 47, 50, 80	18431, 18430, 18429, 18441, 18471, 18473, 18449, 18450	US5WA41M, US5WA45M, US5WA31M, US5WA32M, US5WA16M, US5WA12M, US5WA14M, US5WA15M,
Tacoma (via Rosario Strait)	46, 47, 48, 80	18431, 18430, 18429, 18441, 18471, 18473, 18474, 18453	US5WA41M, US5WA45M, US5WA31M, US5WA32M, US5WA16M, US5WA19M, US5WA17M, US5WA12M, US5WA14M, US5WA18M,
Olympia	46, 47, 48, 51, 80	18431, 18430, 18429, 18441, 18471, 18473, 18474, 18448, 18456	US5WA41M, US5WA45M, US5WA31M, US5WA32M, US5WA16M, US5WA19M, US5WA17M, US5WA12M, US5WA14M, US5WA18M, US4WA10M

REQUIRED CANADIAN CHARTS FOR COMMERCIAL VESSELS TRANSITING PUGET SOUND AREA

(If not in possession of Admiralty or US charts for these areas)

General Canadian Charts required for Strait of Juan de Fuca and Haro Strait	Chart Number
Strait of Juan de Fuca	3606
Haro Strait	3441, 3440

****** Note: Canadian charts are not available for Puget Sound area; any charts used outside the area of Canadian chart numbers above must be of equivalent scale of the U.S. or British Admiralty charts already listed.

COMMUNICATIONS: EMERGENCY & RESPONSE

INTRODUCTION

This document is designed to assist foreign and domestic commercial vessels to easily communicate with appropriate agencies regarding various emergencies and/or unusual situations while transiting Puget Sound. This document is not intended to suggest a departure from existing procedures set forth by the ITU, IMO and FCC for the handling of Distress or Urgency communications. The Puget Sound region is served by a number of Rescue and Vessel Traffic centers as well as the Captain of the Port command center. Commercial vessels should familiarize themselves with the areas of responsibility and appropriate working frequencies of the various traffic centers, which are available in the Puget Sound Vessel Traffic Service Users Manual (http://www.uscg.mil/d13/psvts/).

LIVES AT STAKE

The safety of life at sea is of primary importance to the various agencies in Puget Sound. Types of incidents include injury to crewman or accidents on the vessel that threaten the crew or others. Such reports trigger joint responses by Search and Rescue Centers as well as the Captain of the Port in U.S. waters. To obtain the most timely response, you should notify the appropriate Vessel Traffic Service (VTS) or Maritime Communications and Traffic Services (MCTS) center as outlined in the attached chart.

Action Items:

- Canadian Waters- Contact Canadian Coast Guard (CCG) via the appropriate MCTS center (Victoria or Prince Rupert Coast Guard Radio).
- U.S. Waters- Contact VTS Puget Sound (Seattle Traffic) who will direct you to Sector Puget Sound for search and rescue or for suspicious activity (security threats), ship emergencies (fire, salvage, oil spill, propulsion/steering problems etc.).

MARINE CASUALTIES AND OTHER REPORTABLE EVENTS

This includes 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. **NOTE**: The Captain of the Port will not permit drifting. Vessels are expected to have fully functioning propulsion and steering while underway or at anchor, or a standby/escort tug(s) will be required.

Action Items:

- Canadian Waters - Contact Transport Canada Marine Safety through the MCTS.
- U.S. Waters – Contact the Captain of the Port (COTP) through the VTS.

REGIONAL EMERGENCIES

For port-wide emergencies or natural disasters, vessels should listen carefully to the appropriate VTS working frequency. The Captain of the Port may direct vessels to depart, delay arrival, or take other action to mitigate risk.

AREAS OF RESPONSIBILITY

LOCATION	DISTRESS NATURE	AGENCY
Offshore- Canadian Waters In Canadian Coast Guard (CCG) Prince Rupert Traffic's area of control West of 124° 40' W	Lives at Stake	CCG Radio Prince Rupert directly or via CCG Prince Rupert Traffic
	Vessel casualties	Transport Canada Marine Safety via Prince Rupert Traffic
Offshore- U.S. Waters In Canadian Coast Guard (CCG) Prince Rupert Traffic's area of control West of 124° 40' W	Lives at Stake	USCG Sector Puget Sound directly or via CCG Prince Rupert Traffic
	Vessel casualties	USCG COTP via Prince Rupert Traffic
Strait of Juan de Fuca east of 124° 40'W, south of Race Rocks and southeast of Hein Bank	Lives at Stake	CCG Radio Victoria (CA waters) directly, USCG Sector Puget Sound (US waters) directly, or via Seattle Traffic
	Vessel casualties	Transport Canada Marine Safety (CA waters), USCG COTP (US waters), or via Seattle Traffic
Haro Strait, Boundary Pass, Strait of Georgia west of 122° 52'W	Lives at Stake	CCG Radio Victoria (CA waters) directly, USCG Sector Puget Sound (US waters) directly or via Seattle Traffic

	Vessel casualties	Transport Canada Marine Safety (CA waters), USCG COTP (US waters), or via Victoria Traffic
Puget Sound, San Juan Islands and Strait of Georgia east of 122° 52'W	Lives at Stake	USCG Sector Puget Sound directly or via Seattle Traffic
	Vessel casualties	USCG COTP via Seattle Traffic

AGENCY COMMUNICATIONS

AGENCY	CAPABILITY: PRIMARY SECONDARY	COMMUNICATIONS
CCG Radio Prince Rupert and CCG Prince Rupert Traffic	**Search and Rescue and Traffic Management** Search and Rescue Vessel difficulties & Casualties	**VHF** channel 74, 16, 22A (Channel 70 DSC only MMSI# 003160012) **HF Distress** on 2.182 MhZ or 4.125 MhZ Upper Side Band
CCG Radio Victoria	**Search and Rescue** Vessel difficulties & Casualties	**VHF** 16, 22A, 84, 26 (Channel 70 DSC only MMSI# 003160011)
CCG Victoria Traffic	**Traffic Management** Search and Rescue Vessel difficulties & Casualties	VHF channel 11, 77, 16, 22A, 26 Channel 70 DSC monitor only
Transport Canada Marine Safety	**Vessel difficulties & Casualties**	604-666-5300
USCG Captain of the Port (COTP) Puget Sound	**Vessel Casualties, Equipment Failures, Transit Requests, Oil & Hazardous Material Spills**	206-217-6001

AGENCY	CAPABILITY: PRIMARY SECONDARY	COMMUNICATIONS
Puget Sound Vessel Traffic Service (Seattle Traffic) (Works for COTP)	**Traffic Management** Search and Rescue Vessel difficulties & Casualties	VHF 5A and 14 (switch at Bush Point)
USCG Sector Puget Sound	**Search and Rescue**	VHF channel 16, 22A

VHF CHANNELS

- Channel 16 – International Distress and Calling. For Distress, Urgency and Safety traffic and general calling. (Vessels subject to Bridge to Bridge Radiotelephone Act and VTS are not required to maintain a watch on Channel 16.)
- Channel 20 (international) – Marine Exchange channel. Use for communications with Marine Exchange, West Seattle Buoys and Washington State Maritime Cooperative.
- VTS Channels 5A, 11, 14 and 74 (See Puget Sound-VTS Users Manual for designated areas - http://www.uscg.mil/d13/psvts/.) For VTS traffic, reporting of casualties, oil/hazardous material spill reports and any condition related to a vessels ability to navigate safely.
- Channel 22A -- US Mode) Coast Guard Liaison. The US Coast Guard does not normally monitor channel 22A so you must first establish contact on channel 16.
- Channel 13 -- Bridge to Bridge. For passing and safety communications between vessels. (Passing communications may be done on VHF channel 5A when operating in the VTS area west of Port Angeles.

REDUCE INTERFERENCE
ALWAYS USE LOW POWER WHEN PRACTICABLE

HELPFUL TELEPHONE NUMBERS

- COTP Puget Sound Joint Harbor Operations Center 206-217-6001
- Coast Guard Sector Puget Sound Inspection Division 206-217-6180
- Coast Guard VTS Puget Sound 206-217-6151
- Marine Exchange 206-443-3830
- Washington State Maritime Cooperative 206-448-7557

OIL/HAZARDOUS MATERIAL SPILL REPORTING (This is not an all-inclusive list- operators should follow their Facility/Vessel Response plan as per applicable laws and regulations):

- National Response Center 800-424-8802
- Coast Guard Sector Puget Sound 206-217-6001
- Washington State Emergency Management Division 800-258-5990
- Canadian Coast Guard 604-666-6011

FISHING NET CONFLICT RESOLUTION

Action Items:

- Vessels engaged in fishing must comply with the 72 COLREGS and should not obstruct navigable channels.
- Deep draft vessels should proactively verify in advance that channels are clear before transiting.
- Parties shall work together to solve conflicts prior to calling the Coast Guard.
- Using a non-fishing vessel to move obstructing nets is a last resort and is not always a timely process.

OBJECTIVE

Public safety is one of the Coast Guard's primary missions and safety of navigation will always be of paramount concern. This guidance is applicable to all waters of Puget Sound, but has a focus on the Duwamish waterway as it has been the primary source of conflicts in the past.

For specific guidance on the Duwamish waterways, the following information applies:

- Vessel operators should coordinate ahead of time with tribal fishermen by calling them directly to ensure they are aware of planned vessel moves/shifts. They can reach the tribe landing building POC, Mike Mahovlich, at 206-767-9455 or the enforcement officer, Chief Potts, at 206-660-6492.
- If a net is blocking passage of the waterway, operators should contact the tribal POCs above, or if not available, the Port of Seattle. Reports should include where net is located and whether it is marked and how.
- If neither the tribal POC nor the Port of Seattle are available, vessel operators may contact the Coast Guard Captain of the Port.
- If tribal, Port of Seattle Police, or Coast Guard resources are unavailable, vessel operators must still maintain safe and positive control of their vessels in accordance with International Regulations (72 COLREGS – Navigation Rules) until the obstruction can be mitigated. Inbound vessels may be directed by the VTS to proceed to anchorages or perform race-track turns or other evolutions. Operators should contact the VTS on CH 14.

COAST GUARD POLICY

1. The CG has the legal authority to order movement of barges, fishing nets, and other hazards to navigation when they actually prevent passage of vessels or create a significant safety hazard. It is the Coast Guard's Policy that fishing nets, moored or fleeted barges, or any other obstruction shall not prevent the safe passage of vessels on a navigable channel.

2. Vessels engaged in fishing shall adhere to the requirements of 72 COLREGS, in particular, rules 9 and 10.
3. It is the responsibility of the Master of a vessel to ensure the safe navigation of their vessel in narrow channels. Masters of vessels that are constrained by the draft, length, width, or maneuverability of their vessel should use any available resources, including VTS, the vessel's owner or agent, the appropriate port, and the COTP's office, to ensure that the channel is safe to navigate prior to entering a channel.
4. It is the responsibility of the fishermen and barge owners/operators to ensure that reasonable measures are taken to maintain the safe navigability of a channel. The fishermen must deploy their nets in accordance with all applicable regulations. Barge owners must limit the width of multiple moored/fleeted barges, as practicable, to minimize the impact on the available channel.
5. When an obstruction has been identified, the Coast Guard will expect that responsibility to alleviate the problem lies with the parties involved and they shall act in a timely fashion to clear the navigational obstruction(s) them-selves. Early and proactive communication between concerned parties will greatly increase safety and promote efficient commerce.
6. If the matter cannot be resolved between the affected parties, the COTP may assist in clearing an obstruction or direct parties to take action to remove it.

DERELICT FISHING NETS

If fishing nets are observed drifting or are lost, they should be reported to the Washington Department of Fish and Wildlife (WDFW) under the no-fault reporting process at http://wdfw.wa.gov/fish/derelict/derelict_gear.htm. WDFW maintains a database of reported derelict fishing gear. Derelict nets are eligible for recovery in coordination with the Northwest Straits marine conservation initiative. They can be contacted at: broadhurst@nwstraits.org.

NAVAL VESSEL OPERATIONS -- NAVAL VESSEL PROTECTION ZONES (NVPZ)

Puget Sound is home to numerous U.S. Navy vessels, including submarines and aircraft carriers. Mariners should be aware that they may come upon such vessels when transiting the waters of Puget Sound and know that certain security zones apply.

A **Naval vessel protection zone (NVPZ)** is a 500-yard regulated area of water surrounding large U.S. naval vessels (greater than 100 feet in length overall) that is necessary to provide for the safety or security of these U.S. naval vessels. A NVPZ exists around all such U.S. naval vessels at all times in the navigable waters of the United States, whether the large U.S. naval vessel is underway, anchored, moored, or within a floating dry dock, except when the large naval vessel is moored or anchored within a restricted area or within a naval defensive sea area.

> When within a NVPZ, **all vessels shall operate at the minimum speed necessary to maintain a safe course**, unless required to maintain speed by the Navigation Rules, and **shall proceed as directed** by the Coast Guard, the senior naval officer present in command, or the official patrol.
>
> When within a NVPZ, **no vessel or person is allowed within 100 yards** of a large U.S. naval vessel unless authorized by the Coast Guard, the senior naval officer present in command, or official patrol.
>
> Nothing shall relieve any vessel, including U.S. naval vessels, from the observance of the Navigation Rules. The rules and regulations concerning NVPZs supplement, but do not replace or supersede, any other regulation pertaining to the safety or security of U.S. naval vessels.

To request authorization to operate within 100 yards of a large U.S. naval vessel, contact the Coast Guard, the senior naval officer present in command, or the official patrol on VHF-FM channel 16.

When conditions permit, the Coast Guard, senior naval officer present in command, or the official patrol generally will:

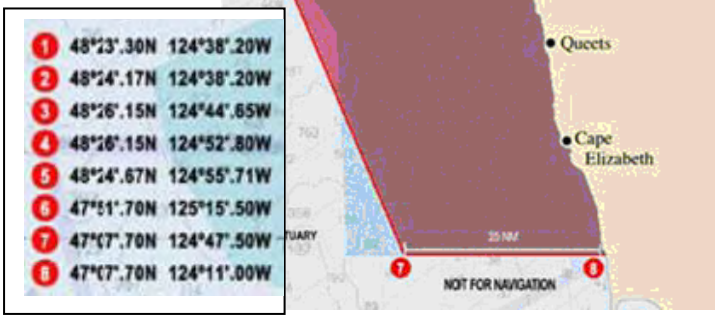
- Give advance notice on VHF-FM channel 16 of all large U.S. naval vessel movements;
- Permit vessels constrained by their navigational draft or restricted in their ability to maneuver to pass within 100 yards of a large U.S. naval vessel in order to ensure a safe passage in accordance with the Navigation Rules;
- Permit commercial vessels anchored in a designated anchorage area to remain at anchor when within 100 yards of passing large U.S. naval vessels; and
- Permit vessels that must transit via a navigable channel or waterway to pass within 100 yards of a moored or anchored large U.S. naval vessel with minimal delay consistent with security.

OLYMPIC COAST NATIONAL MARINE SANCTUARY AND AREA TO BE AVOIDED

The **Olympic Coast National Marine Sanctuary** was designated in July 1994. The Sanctuary lies along 135 miles of northern Washington coastline and encompasses an area of approximately 2,500 square nautical miles. Sanctuary habitats include beautiful rocky reefs, lush kelp forests, whale migrations corridors, spectacular deep-sea canyons, and underwater archaeological sites. They provide safe habitat for species close to extinction and/or protect historically significant shipwrecks.

The goals of the Olympic Coast National Marine Sanctuary include: (1) enhance resource protection through comprehensive and coordinated conservation and management tailored to specific resources, in a manner that complements existing regulatory authorities; (2) support, promote, and coordinate scientific research on, and monitoring of, Sanctuary resources to improve management and decision-making in the Sanctuary; (3) enhance public awareness, understanding, and wise use of the marine environment; and (4) facilitate to the extent compatible with the primary objective of resource protection, multiple uses of the Sanctuary not prohibited pursuant to other authorities.

Incorporating much of the Olympic Coast National Marine Sanctuary, an **Area to be Avoided (ATBA)** was designated by the International Maritime Organization (IMO) first in 1995 and then expanded in 2002. Effective December 1, 2012, this ATBA applies to all ships and barges carrying cargoes of oil or hazardous materials, and all ships 400 gross tons and above solely in transit. These vessels should avoid the area bound by a line connecting the following coordinates:



This ATBA was established to reduce the risk of a marine casualty and resulting pollution and environmental damage within the Olympic Coast National Marine Sanctuary.

For more details see: http://olympiccoast.noaa.gov/protect/incidentresponse/atba.html.

PILOTAGE

Action Items:

- Pilotage should be arranged 24 hours in advance.
- Radio communication can be made by calling Port Angeles Pilot Station or the Victoria Pilot station on the appropriate VHF-FM frequency.
- Inbound vessels are requested to reaffirm their estimated time of arrival at the pilot boarding station when they are passing Cape Flattery, and again when they are one (1) hour away.
- A pilot ladder is to be rigged in compliance with SOLAS regulations on the leeward side about one (1) meter above the water.
- When approaching the Port Angeles pilot station boarding area, vessels are requested to monitor VHF-FM channel 13, and maintain a steady course and speed of around 8-10 knots when the pilot boat comes alongside, unless otherwise directed by the pilot boat.

For vessels bound to U.S. ports, the following pilot requirements apply:

- Pilotage is compulsory under Washington State law for all foreign vessels and U.S. vessels engaged in foreign trade.
- Coastwise seagoing vessels propelled by machinery and subject to inspection under 46 U.S. Code Chapter 33, and coastwise seagoing tank barges subject to inspection under 46 U.S. Code Chapter 37, must be under the direction and control of a federally licensed pilot.
- Vessels that are not authorized by their Certificate of Inspection to proceed beyond the Boundary Line which are in excess of 1,600 gross tons, propelled by machinery, and subject to inspection under 46 U.S. Code Chapter 33, must be under the direction and control of a federally licensed pilot.

Pilotage service for all U.S. ports and places E of 123' 24'W longitude in the Strait of Juan de Fuca, including Puget Sound and adjacent inland waters is provided by the Puget Sound Pilots.

Pilotage should be arranged between 0800 and 1700, and at least 24 hours in advance of inbound estimated time of arrival (ETA), through the vessel's agent, by direct telephone communication with the Puget Sound Pilots at (206) 448-4455 or through the Marine Exchange of Puget Sound at (206) 443-3830 - (206) 443-3839 FAX - Telex 6734358 MAREX. If subsequent conditions make it necessary, an amended ETA should be made. Inbound vessels are also requested to reaffirm their ETA at the pilot boarding station through the Cooperative Vessel Traffic Service (CVTS) and directly with Puget Sound Pilots via VHF Channel 13 when they are passing Cape Flattery, and again when they are one (1) hour from the pilot station.

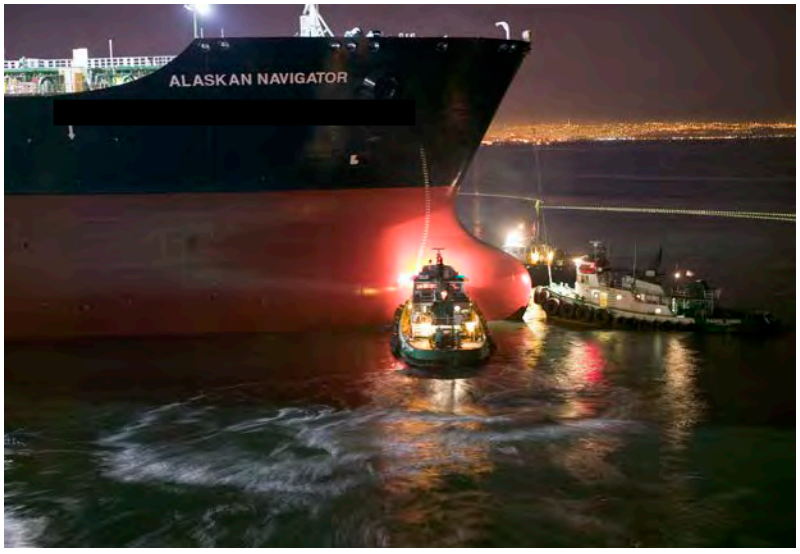
Port Angeles has been designated as the pilotage station for all vessels en route to U.S. ports from the sea or departing U.S. ports to sea. Vessels desiring a pilot should proceed with caution to a point at least 1.0 mile NNE (1.5 mile NNE if a loaded petroleum tanker) of the east end of Ediz Hook where the pilot will board the vessel. A pilot ladder is to be rigged in compliance with SOLAS regulations on the leeward side about one (1) meter above the water. Radio communication can be made by calling Port Angeles Pilot Station on VHF-FM channel 13. When approaching the boarding area, vessels should monitor VHF-FM channel 13, and maintain a steady course and a speed of about 8-10 knots when the pilot boat comes alongside.

There are two pilot boats, each 22 meters in length with white hulls and red deckhouses. The pilot station and pilot boats are equipped with radar and AIS to locate and track vessels. Pilot boats have their own lights to illuminate the pilot ladder, but a standby light should be ready in the event of an emergency. If illumination by the vessel is required, the pilot ladder and ship's deck should be lit by a forward shining overside light.

Vessels calling on British Columbia ports will bypass the Port Angeles pilot station and proceed to the British Columbia pilots' boarding station at Victoria, British Columbia. Masters shall take note of the Precautionary Area that must be transited on the way to Victoria and ensure proper situational awareness and appropriate communications with other vessels and CVTS to ensure a safe transit.

For more information about those who provide the pilotage services, see:

- For the U.S., Puget Sound Pilots at http://www.pspilots.org/;
- For Canada, Pacific Pilotage Authority at see http://www.ppa.gc.ca/ and British Columbia Coast Pilots at see http://www.bccoastpilots.com/.



SMALL VESSELS AND MARINE EVENT MANAGEMENT

Action Items:

- Be alert for marine events in progress, especially during the summer months when boating is popular.
- Check with VTS Puget Sound on events that might impact the Traffic Separation Scheme (TSS.)
- Make arrangements with VTS for passage near events in progress.

The Coast Guard, under the authority of 33 Code of Federal Regulations, part 100, is given the responsibility of overseeing marine events. The event sponsor has the primary responsibility of ensuring that the event is conducted in a safe and orderly fashion, so as to minimally impact other waterway users. For entities planning to stage marine events, permit applications must be submitted to Coast Guard Sector Puget Sound at least 135 days in advance. Upon consultation, the Captain of the Port may issue additional restrictions.

Small vessels, tankers, fast containerships, tugs with barges in tow, high speed ferries, and other commercial vessels share the Puget Sound waters. They frequently encounter large wakes and fog. All this creates the potential for serious marine accidents. Small vessel operators must be aware of and comply with their obligations under COLREGS 72 (Rules of the Road), specifically Rule 9, Narrow Channels, and Rule 10, Traffic Separation Schemes. Additionally, small vessel operators should realize that large commercial vessels cannot stop or alter course quickly, and therefore cannot easily avoid a collision with smaller, more maneuverable vessels. Large vessel crews also have trouble seeing small vessels because of wave patterns, a setting or rising sun, physical size of small vessels such as kayaks or outboards or jet skis, the height of eye of the observer on the larger ship, and containers or other cargo carried on deck that can cause blind spots that often extend ahead of the vessel.

The Committee supports continued local efforts to educate small vessel operators about the potential hazards to both themselves and to commercial vessels when they operate in the Puget Sound area, in the port approaches, and near large commercial vessels. The media, Coast Guard Auxiliary, U.S. Power Squadrons and Recreational Boating Association of Washington can be used to communicate these Standards of Care to the small vessel operators. Further information for small vessel operators on VTS Puget Sound participation can be found at the Puget Sound VTS website at: http://www.uscg.mil/d13/psvts/boaters%5Fman/ in the link titled “Recreational Boating Manual.”

TANKER SIZE LIMITATIONS FOR PUGET SOUND

GENERAL:

In 1978, shortly after the Supreme Court declared unconstitutional the State of Washington prohibition of tankers in excess of 125,000 deadweight (DWT) tons from operating in Puget Sound, the Coast Guard issued an interim navigation rule (March 23, 1978) which continued the de facto level of protection in these waters. The Washington laws were determined to be preempted by federal law.

Pending conclusion of studies necessary to determine the need for, and the substance of, possible additional vessel traffic service regulations under the Ports and Waterways Safety Act (PWSA), the Coast Guard and Department of Transportation interim rule was issued. About a year later, the interim navigation rules were made final in July 1979.

RESTRICTIONS:

> Per 33 CFR § 165.1303, all tank vessels, U.S. or foreign flag, larger than 125,000 deadweight tons bound for a port or place in the United States may not operate east of a line extending from Discovery Island Light to New Dungeness Light and all points in the Puget Sound area north and south of these lights. For purposes of this restriction, deadweight tonnage is determined using long tons *(this is the equivalent of 127,006 metric tons which is more likely the unit that will appear on international certificates).*

SPECIAL LOADLINE MARKS FOR U.S. FLAG TANKERS:

Because current U.S. regulations limit the size of tankers in Puget Sound to 125,000 DWT, larger capacity tankers would have to alter their load line to restrict loading in recognition of that limitation. To facilitate compliance for domestic tankers with a designed capacity larger than 125,000 DWT, the Coast Guard has authorized ABS to add a special Puget Sound load line mark ("PS") to the domestic U.S. load line "ladder" for certain TAPS tankers. This mark corresponds to the 125,000 DWT draft, taking into consideration each tanker's light ship displacement, bunker capacity, etc. This policy does not apply to other than U.S. flag tankers.

Since the ICLL does not recognize any marks other than those stipulated in the Convention, separate ICLL marks will be necessary on those U.S. TAPS tankers that also operate in international trade.

SECTION C

STANDARDS OF CARE

What are Standards of Care?

Standards of Care are the procedures and practices, beyond regulatory requirements, that experienced and prudent maritime professionals follow to ensure safe, secure, efficient and environmentally responsible maritime operations.

Formalized Standards of Care are "good marine practices" that are developed and published to provide a guide for maritime professionals to consider and incorporate into their decision making process.

Standards of Care are not regulations and thus not enforceable. In some special circumstances, they may not be the best course of action to take. Alternative procedures may be more appropriate.

Mariners should be mindful that if they are involved in a maritime incident when not following relevant "Standards of Care" they could be subject to legal action based on a rebuttable presumption of negligence.

These SOCs are clearly not all inclusive. They complement the laws and regulations and should they seem to conflict with law or regulation, the law or regulation is always superior.

ANCHORING

SOC Quick Reference

Risk	Section
General Information	A
All Puget Sound regions other than Smith Cove East and West in Elliott Bay and Commencement Bay	B
All Weather Visibility	B1
Gale Warnings (sustained winds exceed 34 knots)	B2
Storm Warnings (sustained winds exceed 48 knots)	B3
Restricted Visibility	B4
Smith Cove East and West in Elliott Bay and Commencement Bay	C
All Weather Visibility	C1
Small Craft Advisories (sustained winds 21 to 33 knots	C2
Gale Warnings (sustained winds exceed 34 knots)	C3
Storm Warnings (sustained winds exceed 48 knots)	C4
Restricted Visibility	C5
Weather Conditions for Petroleum Transfers & bunkering Activities	D
Barges, Dredges, and Floating Plants	E
Industry Awareness and Notification	F
Coast Guard Actions	G
Puget Sound Anchorages -- Quick Reference Sheet	H

A. GENERAL INFORMATION

1. Vessels at anchor shall observe all Port Tariffs and Coast Guard regulations and procedures for anchoring in U.S. waters. Coast Guard regulations, 33 CFR Part 110.230, address identification of anchorage areas and authorized activities such as explosive loading and are not repeated here. This Standard of Care is not intended to replace existing company and vessel procedures, it simply institutionalizes sound marine operating practices that responsible vessel operators follow voluntarily.

2. Applicability: All vessel owners and operators are subject to lawful directions of the Captain of the Port (COTP) under 33 CFR 160 and VTS Measures if so directed under 33 Code of Federal Regulations (CFR) part 161.11. All waterborne craft shall practice safe navigation and prudent seamanship, including all necessary precautions to prepare for heavy weather. In addition, the standards of care below apply specifically to the following commercial vessels:

   - Power-driven vessels of 20 meters (approximately 66 feet) or more in length.
   - Towing vessel of 8 meters (approximately 26 feet) or more in length.

3. General Anchorages are intended for the use of commercial deep draft vessels over 200 feet in length. This includes Articulated and Integrated Tug Barge combinations, and Government vessels.

4. Heavy weather conditions in the Puget Sound region mandate that all maritime stakeholders exercise increased vigilance and implement additional and appropriate measures to ensure the safety of ships and to protect the environment. The Standards of Training, Certification and Watchkeeping (STCW) Convention and the International Safety Management (ISM) Code direct a ship's complement to effectively coordinate their activities in an emergency situation and in performing functions vital to safety or to prevent pollution.

5. At all times, monitor either VHF Channel 5A or 14 (as applicable) for U.S. Coast Guard Vessel Traffic Service Puget Sound ("Seattle Traffic") and Channel 13 for vessel-bridge-to-bridge navigation safety communications.

   VHF Channels for local contacts:

Foss	Channel 7A
Crowley	Channel 10
Marine Exchange	Channel 20
(For Pilot and Agent information)	
Arrow Launch	Channel 10

6. For additional information or to report emergencies, contact the Coast Guard Joint Harbor Operations Center on VHF Radio Channel 16 or at (206) 217-6002.

7. Specific Standards of Care: The following is a description of what the COTP expects vessel owners and operators to do with respect to anchored vessels during various weather conditions. Vessels covered by 33 CFR 164.19 are reminded that these regulations are in effect at all times. The COTP, through the Vessel Traffic Service (VTS), may notify relevant industry members via fax, email, telephone, and or VHF Marine radio if and when any of the following preventive measures should be implemented. These measures may be advisory in nature, or may consist of a COTP Order directing certain actions to be taken. Any lack of prompt notification in no way lessens the responsibility of owners, operators, and masters to take appropriate action.

B. ALL PUGET SOUND REGIONS (OTHER THAN SMITH COVE EAST AND WEST IN ELLIOTT BAY AND ALL OF COMMENCEMENT BAY)

1. All Weather/visibility:

Action Items:

- Maintain a 24-hour bridge watch by an English speaking individual.
- Confirm vessel's position and under keel clearance at a minimum of once per hour.
- Provide proper VTS notifications as required by the VTS User Manual (see http://www.uscg.mil/d13/psvts/).
- Ensure a second anchor is made ready for letting go.
- During the months of October through March, a VHF-FM radio weather channel shall be monitored.

Amplifying Information:

If equipped, set ECDIS (Electronic Chart Display and Information System) and GPS anchorage alarms to alert if the vessel begins to drag anchor.

2. <u>Gale Warnings (sustained winds or frequent gusts between exceed 34 – 47 knots):</u>

Action Items:
- All of the actions in B.1. above plus:
- The bridge watch must be maintained by a licensed English speaking deck officer.
- Maintain a listening watch on the VTS working frequency (channel 05A or 14 as applicable).
- Put the propulsion plant on standby and be ready to provide immediate propulsion and maneuver.

Amplifying Information:

Vessels getting underway should exercise caution.

VTS will contact each anchored vessel to ensure that they are maintaining a live radio watch on the VTS working frequency: **"Gale Warnings are in effect in your area. You are directed to maintain a listening watch on the appropriate VTS working frequency, either CH 5A or CH 14. VTS will contact you on this channel every two hours and will notify you when this requirement is no longer in effect."** Vessel should be prepared to respond with on-scene winds / heavy weather conditions and any trouble with maintaining station.

3. <u>Storm Warnings (sustained winds or frequent gusts exceed 48 knots):</u>

Action Items:
- All of the actions in B.1. and B.2. above plus:
- Consider increasing the scope of anchor chain as appropriate (use caution due to depth of water).
- Determine the availability and locations of potential stand by tugs (with appropriate size and horsepower), which could assist the vessel in holding position.
- Assess the need for a pilot, and get one onboard if necessary.

Amplifying Information:

Evaluate weather forecast and consider getting underway.

All reasonable efforts should be made to bring a pilot on board if vessel must get underway, or must reposition after dragging anchor. **<u>However, in an emergency, safety of personnel is paramount and lack of a pilot on board does not release the master from his obligation to take all necessary and prudent actions to protect the vessel.</u>**

4. Restricted Visibility:

Action Items:
- The bridge watch must be maintained by a licensed English speaking deck officer.
- Increased assessment of radar contacts.

Amplifying Information:

Ensure all actions required in the COLREGS are complied with.

C. SMITH COVE EAST AND WEST IN ELLIOTT BAY AND ALL OF COMMENCEMENT BAY

1. All Weather/visibility:

Action Items:
- Maintain a 24-hour bridge watch by an English speaking individual.
- Confirm vessel's position and under keel clearance at a minimum of once per hour.
- Provide proper notifications as required by the VTS Users Manual (see http://www.uscg.mil/d13/psvts/).
- Ensure a second anchor is made ready for letting go.
- During the months of October through March, a VHF-FM radio weather channel shall be monitored.

Amplifying Information:

If equipped, set ECDIS (Electronic Chart Display and Information System) and GPS anchorage alarms to alert if the vessel begins to drag anchor.

2. Small Craft Advisories (sustained winds or frequent gusts between 21 – 33 knots):

Action Items:
- All of the actions in C.1. above plus:
- The bridge watch must be maintained by a licensed English speaking deck officer.
- Maintain a listening watch on the VTS working frequency channel 14.
- Put the propulsion plant on standby and be ready to provide immediate propulsion and maneuver.

Amplifying Information:

Vessels getting underway should exercise caution.

VTS will contact each anchored vessel to ensure that they are maintaining a live radio watch on the VTS working frequency: **"A Small Craft Advisory is in effect in your area. You are directed to maintain a listening watch on the VTS working frequency CH 14. VTS will contact you on this channel every two hours and will notify you when this requirement is no longer in effect."** Vessel should be prepared

to respond with on-scene winds / heavy weather conditions and any trouble with maintaining station.

3. Gale Warnings (sustained winds or frequent gusts between exceed 34 – 47 knots):

Action Items:
- All of the actions in C.1. and C.2. above plus:
- Consider increasing the scope of anchor chain as appropriate (use caution due to depth of water).
- Determine the availability and locations of potential stand by tugs (with appropriate size and horsepower), which could assist the vessel in holding position.
- Assess the need for a pilot, and get one onboard if necessary.

Amplifying Information:

Evaluate weather forecast and consider getting underway.

All reasonable efforts should be made to bring a pilot on board if vessel must get underway, or must reposition after dragging anchor. **However, in an emergency, safety of the vessel and its personnel are paramount and lack of a pilot on board does not release the master from his obligation to take all necessary and prudent actions to protect the vessel.**

4. Storm Warnings (sustained winds or frequent gusts exceed 48 knots):

Action Items:
- All of the actions in C.1., C.2. and C.3. above plus:
- Tug(s) of sufficient size and horsepower to control the vessel must be in the anchorage area. One tug may be assigned to more than one vessel in the same anchorage area *(costs should be split among the supported vessels)*.
- A Pilot shall be dispatched. One pilot may be assigned to more than one vessel in the same anchorage area *(costs should be split among the supported vessels)*.
- When actual Storm Force Winds are occurring, Master to be in the wheelhouse and vessel ready to get underway.

5. Restricted Visibility:

Action Items:
- The bridge watch must be maintained by a licensed English speaking deck officer.
- Increased assessment of radar contacts.

Amplifying Information:

Ensure all actions required in the COLREGS are complied with.

D. WEATHER CONDITIONS FOR PETROLEUM TRANSFERS & BUNKERING ACTIVITIES AT ANCHOR

Action Items:

- All transfer operations at anchor will be conducted in accordance with the Puget Sound Harbor Safety Committee Lightering Standard of Care (applicable to bunkering activities as well).

Amplifying Information:

All transfer operations, whether lightering or bunkering, will be conducted under the same weather condition criteria as outlined in the Puget Sound Harbor Safety Committee Lightering Standards of Care. The wind and sea conditions criteria have been developed with industry input and are used by operating companies in the area. These standards are based on historical observations and experience in handling these vessels under prevalent conditions.

E. BARGES, DREDGES, AND FLOATING PLANTS

A barge, dredge or floating plant should only anchor in or near a navigable waterway while engaged in operations. If not so engaged, they should be anchored or moored in a manner that will permit safe passage of other vessels through the waterway, and all COLREGS requirements should be adhered to, especially proper lighting and sound signals.

F. INDUSTRY AWARENESS AND NOTIFICATION

For vessels at anchor, report any significant changes in on-scene weather, or any problems experienced with maintaining station to the VTS. Everyone can take ownership in making the waterways safe during heavy weather, just as anyone located on the water can be affected by weather induced problems. If anything appears out of place, or if any vessels or barges in the port are tied up in a less than safe or prudent manner, a timely report to the Coast Guard could prevent such events. If the Coast Guard identifies unsafe situations, they will, if time permits, bring the situation to the attention of the party responsible for it. If the responsible party is not taking timely action, then the CG will assist them in doing so, by helping to identify and organize other resources. If the responsible party is not taking action, and does not look capable or willing to do so, then the COTP may issue directions to compel action, or take independent actions to mitigate unsafe situations for which the responsible party may be liable.

G. COAST GUARD ACTIONS

Action Items:

- Vessels may be subject to U. S. Coast Guard orders affecting vessel movements and cargo operations.
- These may include, but are not limited to, the termination of vessel operations (lightering, bunkering and cargo operations), vessel movement controls (anchoring and getting underway) and requiring a stand-by tug.

Amplifying Information:

VTS Actions: The VTS will monitor each vessel at anchor, in case CG intervention is necessary to ensure safety. VTS actions may include directing vessels to anchor or raise anchor, seek sheltered areas, increase position reporting requirements, require stand-by tugs and/or control vessel movements to mitigate the threats posed by heavy weather.

Potential COTP Actions: In addition to the specific standards of care for all vessels listed above, the COTP may take the following actions with respect to individual vessels on a case by case basis:

a. Direct bunkering and lightering operations to cease.
b. Direct hazardous materials and explosives loading to cease.
c. Increasing scope of anchor chain.
d. Issue COTP orders to vessels, including but not limited to:
    (1) Denial of permission to anchor or get underway from anchorage.
    (2) Vessel movement controls.
    (3) Requiring a stand-by tug, or placing a tug in attendance.
    (4) Any other appropriate measures necessary to mitigate threats.

For more detailed guidance, refer to the following:

- Coast Guard Vessel Traffic Service Puget Sound User's Manual: http://www.uscg.mil/d13/psvts/docs/userman032503.pdf.
- PS Pilots Criteria for vessels entering and departing Port Angeles Harbor which can be found at http://www.pspilots.org/pdf/PSPGuidelines.pdf.

H. PUGET SOUND ANCHORAGES - Quick Reference Sheet

All Puget Sound anchorage areas are managed on behalf of the Captain of the Port by the Puget Sound Vessel Traffic Service. The number of vessels and maximum stay durations are based on policy set by the Captain of the Port.

GENERAL ANCHORAGES	ABBREVIATIONS	NUMBER OF VESSELS	MAX STAY
Elliott Bay East	EBE	1	3 days
Elliott Bay West	EBW	1	10 days
Smith Cove East	SCE	1	10 days
Smith Cove West (Apr through Sep)	SCW	3	30 days
Smith Cove West (Oct through Mar)	SCW	3	10 days
Yukon Harbor	YH	6	30 days
Commencement Bay	COM	5	30 days
Port Gardner	PG	2	30 days
Holmes Harbor	HH	6	30 days
Bellingham Bay	BB	6	30 days
Cherry Point	CP	1	30 days
Anacortes West	ANW	1	6 days
Anacortes Central	ANC	1	10 days
Anacortes East	ANE	1	10 days
SPECIAL ANCHORAGES			
Port Townsend Foul Weather Explosives	PTX1	1	3 days
Port Townsend Fair Weather Explosives	PTX2	1	10 days
Bellingham Bay Explosives	BBX	1	10 days
Thorndike Bay Emergency Explosives	TBX	1	3 days
Freshwater Bay Emergency	FBX	2	1 day
NON-DESIGNATED ANCHORAGES			
Port Angeles Harbor	PA	5*	10 days
Port Townsend Harbor	PT	4	30 days
Vendovi Island East	VIE	4	10 days
Vendovi Island South	VIS	1	10 days
Quartermaster Harbor	QM	1	10 days
Ruston	RU	1	10 days
Budd Inlet	BI	4	30 days
Budd Inlet North	BIN	2	10 days
William Point (ATB's Only)	WP	2	10 days

* Note: A 6th vessel is allowed in Port Angeles' easternmost anchorage only for 1 day when approved by COTP for inspection or other emergent need during good weather.

BRIDGE TEAM MANAGEMENT

Action Items:
- Have on the bridge at all times a deck watch officer capable of effectively communicating in English with the Puget Sound Vessel Traffic Center and the pilot.
- Ensure bridge resource team properly trained in BTM in accordance with the 1995 Standards for Training, Certification, and Watchkeeping for Seafarers (STCW), if applicable.
- Ensure watch officers are properly rested per STCW and U.S. laws and regulations.

A. INTRODUCTION

Bridge Team Management (BTM) prevents incidents, accidents, and oil spills by improving communication and situational awareness.

B. BASIC COMPONENTS OF BRIDGE TEAM MANAGEMENT are:

- A watch size and structure appropriate to expected operating conditions (i.e., restricted waterways, traffic concentrations, and restricted visibility);
- A watch size and structure that effectively addresses the three primary bridge functions: navigation, collision avoidance, and communication;
- Clear roles and responsibilities for each bridge team member;
- Clear guidelines for internal and external communications;
- Procedures for navigating with a Pilot on board; and
- Comprehensive berth-to-berth voyage planning.

C. EXPECTATIONS

While operating in Puget Sound and the Strait of Juan de Fuca, vessel owners, operators, and Masters are expected to ensure that bridge watchstanders:

- Are properly rested per STCW and U.S. laws and regulations, e.g.: officer in charge of the deck watch on a vessel when leaving or immediately after leaving port must have been off duty for at least 6 hours within the 12 hours immediately before the time of leaving; have not worked beyond the maximum hours in a 24 hour period. See STCW Section A-VIII, Title 46 U.S. Code Section 8104 and Title 46 Code of Federal Regulations Part 15 for details.
- Are properly trained in BTM in accordance with the 1995 Standards for Training, Certification, and Watchkeeping for Seafarers (STCW), if applicable;
- Practice effective BTM;
- Prepare a comprehensive voyage plan for transiting the Strait of Juan de Fuca and Puget Sound from entry into U.S. waters to their final berth or anchorage (and for the outbound transit);

- Have on the bridge at all times a deck watch officer capable of effectively communicating in English with the Puget Sound Vessel Traffic Center; and
- Follow the communication procedures below.

D. COMMUNICATION PROCEDURES WHEN A PILOT IS EMBARKED

- The Master should advise the Pilot, upon boarding, which members of the Bridge Team speak English, and discuss how communications between the Pilot and the Bridge Team will be handled.
- The Master should discuss the voyage plan with the Pilot, and inform bridge watch standers of the Pilot's intentions and special concerns.
- The Master or deck watch officer on duty should immediately advise the Pilot when, at any point in the transit,
  - The maneuverability of the vessel has been adversely affected,
  - When he or she has information necessary for the safety of the ship's transit, or
  - When he or she is uncertain of the Pilot's intentions regarding the ship's movements.

BUNKERING OPERATIONS WITHIN THE WATERS OF PUGET SOUND AND THE STRAIT OF JUAN DE FUCA

SOC Quick Reference

A. GENERAL INFORMATION

1. The waters of Puget Sound and the Strait of Juan de Fuca are environmentally sensitive and a precious environmental and economic resource. Bunkering operations, while routine in many parts of the country, do in fact pose risks different than those normally expected of standard shore to ship refueling operations. Coast Guard Sector Puget Sound, the State of Washington Department of Ecology and representatives of the petroleum industry have jointly developed the following guidelines to address those risks and ensure safe bunkering operations in the Puget Sound region.

2. Bunkering Operations within Washington waters are subject to both U.S. Coast Guard regulations, Title 33 Code of Federal Regulations, Parts 155 and 156, and Washington state regulations addressing oil transfer operations. These regulations are listed in paragraph 7 below. Beyond the regulations, the guidelines below represent the cooperative efforts of the Coast Guard, Washington State and industry leaders to develop the best way to further mitigate risks to the environment during bunkering operations. As such, it is expected that industry members follow them, educate and enforce them among industry groups and make recommendations to the Coast Guard and Puget Sound Harbor Safety Committee as changes are needed. Vessels intending to conduct bunkering operations while at anchor should also carefully review the guidance in the following additional standards of care included within this Harbor Safety Plan:

   a. Heavy Weather
   b. Anchorage Management

3. Some bunkering operations are conducted along vessels at berth and, in the case of container vessels, may be conducted simultaneously with container operations. This adds some additional risk to bunkering operation and the personnel involved for which additional precautions are necessary. The procedures associated with these bunkering operations are covered in section C below.

4. Sector Puget Sound and Washington State Department of Ecology inspectors frequently monitors fuel / oil transfer operations throughout Puget Sound based on the level of risk, amount of fuel / oil, familiarity with company operations, procedures and track records. Either agency may stop any bunkering operation or prohibit planned operations due to safety concerns or unacceptable risk.

5. Sector Puget Sound will periodically review the safety record of bunkering operations and work with the Harbor Safety Committee to determine if changes are needed to promote safety. Changes could include additional guidelines or a formal regulatory initiative.

6. **Definitions:** In addition to the terms defined in applicable federal regulations, the following definitions apply:

    a. Bunkering: The transfer of petroleum base products from one vessel to another vessel for the purpose of replenishing fuel for vessel propulsion, hotel services or machinery lubrication while at anchor or dockside.
    b. Receiving Vessel: The vessel receiving the fuel or lubes in a bunkering operation.
    c. Delivering Vessel: The vessel delivering the fuel or lubes in a bunkering operation
    d. Moderate Weather: Sustained winds from 21 to 33 knots or higher gusts (Small Craft Advisory).
    e. Heavy Weather: Sustained winds from 34 to 47 knots or higher gusts (Gale Warnings).

7. **Regulations:** Bunkering operations must be conducted in strict accordance with the letter and intent of all regulations. If there is a conflict, real or perceived, between the regulations and the guidelines in this document, then the regulations shall take precedence. However, any such conflict should be reported to the Harbor Safety Committee. Bunkering operations fall under the following regulations:

    a. 317-40 WAC Bunkering Operations
    b. 33 CFR 153 Notice of Discharge and Removal of Discharged Oil
    c. 33 CFR 155 Oil or Hazardous Material Pollution Prevention Regulations for Vessels
    d. 33 CFR 156 Oil and Hazardous Material Transfer Operations
    e. 46 CFR 30-40 Tank Vessels
    f. 173-184 WAC Vessel Oil Transfer Advance Notice and Containment Requirements

8. **Other applicable Industry Standards**: The following references contain worldwide industry standards, and should also be consulted for applicability to Puget Sound bunkering operations:

    a. Oil Companies International Marine Forum Guidelines (OCIMF) Ship to Ship Transfer Guide
    b. Oil Spill Risks from Tank Vessel Lightering - published by the Commission on Engineering and Technical Systems (CETS)

B. STANDARD OF CARE – BUNKERING IN GENERAL

1. Heavy Weather

a. **Wind:** Vessels will not come alongside in preparation for bunkering at anchor or pier side if sustained winds are at or exceed 30 knots or wind gusts exceed 40 knots. If bunkering operations have already begun when sustained winds reach 30 knots or gusting over 40 knots personnel in charge of bunkering operations will continuously monitor environmental conditions and take any additional measures necessary to reduce risk of injury, vessel damage or pollution, and prepare for worsening weather. When sustained winds reach 40 knots bunkering operations will cease and hoses will be drained and disconnected. Personnel should consult separate guidance issued by Sector Puget Sound and the Puget Sound Harbor Safety Committee regarding heavy weather and anchoring procedures relevant to all vessels. Underway bunkering is not considered prudent under any conditions within Puget Sound waters.

b. **Seas:** For bunkering operations from one vessel to another vessel while at anchor, operations will cease, with hoses drained and disconnected when waves or swells reach 3 ft. The wind and sea conditions criteria have been developed with industry input and are used by operating companies in the area. These standards are based on historical observations and experience in handling these vessels under prevalent conditions.

c. **Sheltered Waterway:** The foregoing wind and sea guidelines may not be applicable when a receiving vessel is being bunkered at a wharf or pier in a sheltered waterway. The criteria for securing a bunkering operation in these types of locations would be dependant upon adverse movement of either the receiving vessel or delivering vessel caused by the prevailing wind or sea conditions.

2. **Personnel / Safe Access Between Vessels:** The delivering vessel and receiving vessel shall each have a designated Person in Charge (PIC) that is in charge of the transfer on their respective vessels. The receiving vessel shall provide safe access in order to facilitate face to face communications between the receiving and delivering vessels for purposes of a pre-transfer conference and other required communications.

3. **Mooring Equipment:** All parties will use fenders of sufficient size and type to prevent steel to steel contact between the two vessels. Mooring lines will be of sufficient size and type to hold the delivering vessel along side the receiving vessel during expected tidal, wave, and wind conditions.

4. **Tug Availability**: During bunkering operations in moderate to heavy weather conditions involving vessels at anchor, at least one tug will remain on scene and ready to render assistance during the entire evolution. The attending tug(s) must have sufficient horsepower to maneuver and control at least the delivering vessel involved in the bunkering operation under all conditions. Vessel to vessel operations

may take place without direct tug assistance, once the mooring portion of the operation has been completed. The attending tug or a designated tug must be on immediate standby in the area to render assistance in less than 30 minutes. This standard does not apply to delivering vessels that are self propelled.

5. **Response Equipment**: In addition to the vessel's Vessel Response Plan requirements, the following pollution prevention and mitigation measures must be met:

   a. When bunkering operations take place, and when it is safe and effective to do so, containment boom capable of encircling the entire operation must be in place with at least a five foot stand-off from the vessel; or
   b. Boom must be positioned to provide for the maximum containment of any oil potentially spilled. Each vessel that delivers oil at a rate exceeding 500 gallons per minute is obligated to have developed and implemented pre-booming strategies using such thresholds under state requirements which became in full force after October 26th, 2007.
   c. Where it is not safe and effective to pre-boom transfer operations then such length of boom will be made available on scene and ready for immediate deployment such that the boom could be completely in place within 1 hour of detection of a spill, unless the vessel has an equivalent compliance plan approved by ecology and accepted by the USCG COTP.
   d. The standby booming requirement can be met by the equipment normally carried by barge or by a dedicated response vessel or by both.
   e. If this requirement is met without a response vessel then a small boat capable of deploying the boom in a timely fashion must be on scene and immediately available.
   f. If both the barge and the response vessel contribute toward this requirement, the equipment must be compatible.
   g. Adequate personnel shall be on scene to take appropriate actions on the vessels, while simultaneously deploying boom.
   h. Personnel shall be trained in deploying boom and the boom and response equipment shall be prepared so that it can be deployed with the absolute minimum of delay.

6. **Number of Vessels Involved:** A receiving vessel may receive bunkers and lubricating oils from two separate delivering vessels at the same time, provided:

   a. Each transfer has a separate Person in Charge ('PIC') unless otherwise approved by the Coast Guard Captain of the Port.
   b. That each system is completely separate from the other or is otherwise affirmatively isolated or segregated by means of blank (spectacle) flanges which may be visually verified.

7. **Flow Rate, Topping Off and Gauging Procedures:** In accordance with OCIMF Ship to Ship Transfer Guide and Washington State Transfer Rules.

8. **Watchkeeping:** A qualified Person in Charge (PIC) shall be on watch and monitor the bunkering operation on the receiving vessel and delivering vessel. A qualified deck officer shall maintain oversight over the operation and navigation/anchor watch on both the receiving vessel and any tug attending the bunkering barge/tanker. The delivering vessel must maintain constant communications with Puget Sound VTS on the appropriate working frequency, either 5A or 14, throughout the bunkering operation when operations are being done in moderate to heavy weather.

9. **Notifications:** Companies wishing to conduct bunkering operations must submit an advance notice of oil transfer (ANT) to the USCG and Washington State DOE via fax (see enclosure 1) or through the Ecology ANT website (see enclosure 2). This notice must be sent at least 4 hours prior to commencement of bunkering operations. The delivering vessel or attending tug shall also notify Puget Sound Vessel Traffic Service (PSVTS) via the appropriate working frequency immediately prior to starting and immediately after stopping transfers, using (approximately) the following language:

    - "Seattle Traffic, this is the T/V _____, commencing bunkering operations. On scene weather is within parameters."
    - "Seattle Traffic, this is the T/V _____. Bunkering operations are secured."

10. **Anchorage Management:** Vessels desiring to bunker in designated anchorages in Puget Sound are reminded to consult the Sector Puget Sound guidance on securing anchorage reservations.

    a. PSVTS manages the anchorages in Puget Sound and adjacent areas for the Captain of the Port. For safety reasons, each anchorage has a restricted number of anchorage spaces available and are normally reserved on a "first come, first served" basis. To allow a more efficient and fair allocation of available space the VTS asks that:
        (1) Reservations be made as far in advance of arrivals as possible.
        (2) Revisions of ETA's and ETD's be made as they become known.
    b. Anchorage reservations will not be accepted in high usage areas such as Elliott Bay or Port Angeles if there is a possibility of delay due to uncertain orders.
    c. With these considerations, the occasions of a vessel being denied anchorage or being ordered to depart to make room for another vessel should be infrequent.
    d. Bunkering at non-protected anchorages during heavy weather conditions is not recommended and will be allowed solely based on current or forecasted wind and sea conditions.
    e. Bunkering operations are normally permitted in Anacortes, Port Angeles, Elliott Bay and Commencement Bay. Bunkering operations at **Vendovi Island,** Anacortes East, and Smith Cove West anchorages will only be allowed on a case-by-case basis depending on current or forecasted weather conditions. Requests to bunker in other locations should be submitted to Sector Puget

Sound at least 72 hours in advance. In Port Angeles, vessels receiving bunkers will be required to be well into the harbor, west of the line drawn from the ITT Rainier Dock north to the red buoy off the tip of Ediz Hook.

C. STANDARD OF CARE – BUNKERING DURING CONTAINER OPERATIONS

1. **Overview:** This section outlines the process for essential communication between the agents, bunker barge operators (tankermen) and a terminal's Marine Department to ensure a safe and productive work environment when bunkering a vessel at the same time as container operations are being conducted. An outline on understanding bunkering process is provide as Attachment 1 to this SOC.

2. **Initial Agreement:**

   a. The agent will ensure notice of bunkering operations is given to the vessel crew, terminal operator and the bunkering company prior to the stevedoring operation.
   b. Points of contact and contact information (e.g., phone/cell numbers) will be shared among the terminal, vessel and bunkering company personnel who will be working during that bunkering operation, along with quantity, times, location information. Information should be provided using the Bunker Delivery Notice a copy of which is provided as Enclosure (4) to this Standard of Care. Having this contact information serves as the cross check that all parties are aware of the planned bunkering operation.

3. **Essential Communications: Contact Between Tankerman and Terminal:**

   a. The designated facility contact (as identified in C.2.b above) must be present at the pre-transfer conference between the bunker barge operator (tankerman) and the vessel's person in charge for receiving bunkers. The designated facility contact will then give notice to the stevedores that bunkering operations are about to begin and will also allow the tankerman to learn details of the planned stevedore operations that might present possible conflicts.
   b. The designated vessel contact for cargo operations (e.g. Chief Mate) will make contact with the bunker barge representative (tankerman) prior to beginning the bunkering operation. This will allow the tankerman to learn the details of the planned stevedore operation that might present possible conflicts. This contact may be in addition to or simultaneous with the required pre-transfer conference.

   c. **Tankerman Check Sheet:** In making contacts with the designated facility and vessel points of contact, the tankerman needs to identify the following:
      (1) What are the bay designations directly forward and aft of the house on this vessel that may overlap the bunker barge?
      (2) Is there any planned loading, discharging, or lashing in these bays?

(3) When does the terminal plan to work these bays?
(4) Is any of the work in these bays going to extend into the two or three offshore positions?
(5) Can these positions be worked in a specific time frame so possible conflicts are avoided?
(6) What time periods are the stevedores going to shut down cargo operations for breaks, lunch, etc.?

4. **Area or Zone of Concern:** Tankermen, terminal personnel (Superintendents, Foremen, Lashers, Crane Operators) and vessel personnel (Chief Mate and Chief Engineer) all must be mindful of and take particular care when lashing or cargo operations take place in the outer three stacks of containers in those bays adjacent to the bunker barge particularly when the transfer is in progress, and immediately before and after the bunkering operation. Since virtually all bunker oil transfer operations in Washington waters require the vessel(s) and facilities involved to be surrounded by oil containment boom prior to oil transfer commencing, all personnel involved in cargo loading/lashing operations need to be particularly alert for small vessel boom deployment and retrieval operations adjacent to the ship both immediately before and after the bunkering operation takes place. If at any time in the judgment of the tankerman the bunkering operation is at risk due to ongoing container operations he will secure the fuel transfer to the ship and contact the vessel representative.

5. INCIDENT RESPONSE

- It is expected that the Tankerman will be alert to the crane working near the barge and the cargo flow that has been planned.
- It is expected that the Tankerman will determine the proper action to take regarding oil transfer process should any incident occur which affects the safety of the operation including the safety of the boom deployment personnel and vessels.
- Any incident will require direct communications between the parties involved who shall be readily available. This will allow for adjustments to working plans to correct conflicts.

6. LONG TERM INCIDENT RESOLUTION

- It is expected that the Port/Terminal Operations Department's management personnel, vessel representative, and the barge operator will discuss mutually agreeable adjustments in the cargo and bunkering operations to minimize tankerman exposures that may be determined as the result of an incident and the post incident investigation.
- Ideas and lessons learned will be shared between all parties including the other port terminals.

Enclosure (1)

Advance Notice of Oil Transfer

To: Prevention Section
Dept. of Ecology, Spills Program
FAX: **1-800-664-9184** or **E-mail** to OilTransferNotifications@ecy.wa.gov

*** - Indicates required fields by rule** Questions about Advance Notice of Transfers can be answered by calling 360-407-7390	
*Delivering Company Name:	
*Company Address:	
*Company Contact Name:	*Contact Phone Number:
*Start Date: (mm/dd/yy)	*Start Time: (hhmm)(24-hr clock)
*Duration (hh.mm): (decimal hours)	
Deliverer Type: (Check one)	Vessel ☐ Fixed Facility ☐ Mobile ☐
*Name of Deliverer:	
Receiver Type: (Check one)	Vessel ☐ Fixed Facility ☐
*Name of Receiver:	
Berth Location:	Anchor Location:
*Address or Location of Transfer:	
*City of Transfer:	

*Product or Type of Oil(s): 1 2 3 / /	*Quantity: Gallons ☐ or Barrels ☐ 1 2 3 / /

Purpose of Transfer: ☐ Cargo ☐ Fueling ☐ Lube/Hydraulic ☐ Waste Oil ☐ Bilges

*Pre-boomed? Yes: ☐ No ☐

Comments:

Enclosure (2)

New Oil Transfer

Reporting Party Ecology HQ

Company*

Start Date (mm/dd/yyyy)* **Start Time (hhmm)***

Duration(hrs ##.#)*

Berth Location

Anchor Location

City of Transfer* --Select--

Address*

Deliverer Type* Vessel ◉ Facility ○ Mobile ○

Deliverer* Search

Receiver Type* Vessel ○ Facility ◉

Receiver* ☑ Regulated?

Transfer Type* --Select-- **Product*** --Select--

Quantity* **Unit*** --Select--

Pre-boomed Transfer Rate ☐ Yes ☑ > 500gpm

NOTE: Rate A deliverers (>500gpm transfer rate) must complete the Boom Report information below. If the information cannot be completed at this time, then you must complete it prior to the transfer via the ANT History screen by clicking the "Detail" button.

Boom Report - Environmental and Safety Conditions Summary:

Wave Height (ft):

Sustained Winds (knots) :

Wind Direction: --Select--

Current Velocity (knots):

Safety Issue(s):

Other factors:

Remarks

* - Indicates required fields

Submit Clear

BUNKERING OPERATIONS

Enclosure (3) -- QUICK REFERENCE GUIDE REGARDING BUNKERING CONTAINER VESSELS DURING CARGO OPERATIONS

1. Vessels contract for bunkers
   - Oil Companies notify barge operators
   - Agents coordinate delivery notifications with barge operators and terminals
   - Bunker Barge arrival time and duration of pumping is established

2. Vessel Arrives for Cargo Operations
   - Agent coordinates bunker barge arrival
   - Terminal plans operations
   - Cargo Flow Sheet (CFS) or Crane Letter of Operations (CLO) is prepared
     - Outlines what cargo is to be moved in what sequence
     - Terminal will plan around bunker operations if possible
   - Terminal gives CFS/CLO to Agent to pass to Chief Engineer and tankerman

3. Bunker Barge Arrives for Bunker Operations
   - Optimal placement of the barge to minimize exposure
   - Vessel ensures "Bunker Operation Sign" is posted at the shore side gangway.
   - Vessel and bunker barge surrounded by containment boom when safe and effective to do so, or deliverer submits Boom reporting Form to WA Department of Ecology and puts alternative measures in place to mitigate impacts of any spill that may occur.
   - DOI is signed by receiving vessel "PIC" and tankerman
   - Tankerman/Chief Mate/Chief Engineer should have a copy of Cargo Flow Sheet or Crane letter (CFS/CLO)
   - Tankerman should understand what cargo adjacent to the barge is to be handled and when
   - Tankerman shall have contact with the vessel superintendent at all times

4. Vessel cargo operations commence
   - Lashers sent aboard to unlash containers
   - Crane lowered over hold/hatch to be worked
   - Work commences in accordance with CFS/CLO
   - Lashers sent aboard to re-lash containers

5. Bunker operations could start before, during or after cargo operations
   - Tankerman, Chief Mate & vessel superintendent must understand where the stevedore operator is relative to the Cargo Flow Sheet or Crane letter and the bunkering process.

Bunker Delivery Notice

Date: _____ **Port:** _____

Vessel: _____ **Voyage:** _____

Reference #: _____

Bunker Company

- **Bunker Barge Co. and Phone:** _____
- **Name of Bunker Barge:** _____
- **Bunker Barge Captain:** _____
- **Barge Contact Phone # :** _____
- **Barge Emergency Contact #:** _____

Bunkering Instructions

- **Amount and type to be bunkered:** _____
- **Delivery Time of Bunkers:** _____
- **Location of Delivery of Bunkers:** _____
- **Estimated duration of delivery:** _____
- **Barge to Land Side to Vessel:** **Port** **Starboard**
- **Location of Bunker Manifold/Riser:** _____

Agent

- **Agent for Vessel:** _____
- **Agent Cell Phone #:** _____
- **Agent 24 Hour Contact #:** _____
- **Name of Vessel Master:** _____
- **Name of Vessel Master:** _____
- **Telephone number of Vessel:** _____

Terminal

- **Terminal Emergency Phone #:** _____
- **Cargo Superintendent /cell phone:** _____

DEAD SHIP TOW PLANS

A. GENERAL INFORMATION

1. The tow of a dead ship – a ship lacking sufficient means of self-propulsion or with a malfunctioning steering gear – may be a hazardous condition and requires advance planning, additional towing resources and special attention to prevent vessel traffic accidents. While many towing companies engage in dead ship tows on an almost daily basis, some dead ship tows are exceptional in nature (e.g., long distance (over 100 miles) haul of a dead ship, moving a derelict or salvaged vessel of questionable integrity, towing of a vessel of unusual proportion or size relative to the towing vessel), and warrant additional safety measures as encouraged by this Standard of Care (SOC). The specifics of this SOC are not intended for towing companies involved in their normal day-to-day operations for which other industry and company standards likely already apply.

2. This SOC establishes good marine practice for conducting dead ship tows that are exceptional in nature and is designed to mitigate associated safety risks. Conversely, such dead ship tows that have not employed this SOC may have not adequately addressed potential dangers and may be subject to a Captain of the Port (COTP) Order halting, preventing, or otherwise controlling the towing operations if there are demonstrated risks to safety of life, property and/or navigation. The COTP will consider all relevant available information to evaluate those risks, including information provided by vessel operators.

ACTION: Individuals/companies intending to conduct planned (non-emergency) dead ship tows of an exceptional nature should submit copies of their tow plans to the USCG Sector Puget Sound Inspections Division for review generally at least five (5) days in advance of the desired dead ship tow operation. Tow plans should be submitted on dead ship tows of vessels generally greater than 20 meters in length overall when the towed vessel is operating at less than 50 percent of its designed main propulsion output, with a malfunctioning primary steering gear or is of questionable structural integrity.

3. Nothing in this Standard of Care relinquishes the vessel owner or agent from any of the requirements regarding vessel safety and the protection of the environment specified in the applicable sections of 46 CFR "Shipping" and 33 CFR "Navigation." Depending on the particulars of the vessel being towed (age, extended layup status, vessel condition, etc.), the COTP may require that additional safety precautions be established before the tow is authorized. This may include requirements such as obtaining a marine surveyor's report attesting to the vessel's seaworthiness for the desired tow, or allowing a representative from USCG Sector Puget Sound to examine the vessel to verify seaworthiness, pollution potential, and the adequacy of the towing arrangement.

B. SPECIFIC STANDARDS OF CARE

1. Vessel Representative Responsibilities:

a. Fully review the specifics of the vessel to be towed.

b. Verify the vessel's seaworthiness and watertight integrity. Items to verify, if applicable, include, but are not limited to, the following:

- ☐ All compartments have been entered and inspected.
- ☐ All tanks have been sounded, their contents identified and measured, and their integrity verified.
- ☐ Sea valves are closed/secured or wired shut if vessel is blacked out.
- ☐ Bilges are free of oil and water.
- ☐ All moveable equipment is appropriately secured in place.
- ☐ The rudders are locked by using structural steel of acceptable size and quantity (NOTE: the lock should transfer the rudder load from the yoke to structural members of the tow's hull).
- ☐ Fixed propeller shafts are locked, CPPs and thrusters are feathered.
- ☐ Vents to tanks and other closed spaces should be covered to prevent water entry, but not plugged so as to prevent the escape of air or gas
- ☐ All hatches, scuttles, doors, and other watertight closures are secured shut.
- ☐ Necessary reinforcement for ocean operation performed.

c. If the towing operation is exceptional in nature, complete a Dead Ship Tow Plan to ensure a safe and efficient route that follows applicable traffic separation schemes, accommodates navigational clearances, takes into account tides/currents, marine projects, and other vessel traffic. The tow plan should include but is not limited to the following:

- ☐ Vessel Name
- ☐ Vessel Type
- ☐ Official Number (if applicable)
- ☐ LOA
- ☐ Draft
- ☐ Air Draft
- ☐ Beam
- ☐ Freeboard
- ☐ Location and date/time of vessel's port of departure
- ☐ Location and date/time of vessel's port of destination
- ☐ Transit route
- ☐ Allowable Weather, Sea and Visibility Conditions
- ☐ Predicted Tides/Currents along route
- ☐ Whether personnel will remain aboard the vessel during the tow, how access for these personnel will be provided, and any hotel services that will remain operational
- ☐ Lead Tug Name and horsepower, or bollard pull
- ☐ Lead Tug Master Name

- ☐ Assist Tugs Name(s) and horsepower
- ☐ Tug Working Radio Frequencies
- ☐ Diagrams of Tow Configurations for Intended Route with size/strength specifications for all elements, including tow wire, chain, bitts, pad-eyes and shackles
- ☐ Use of appropriately licensed marine Pilots (if applicable)
- ☐ Verification of seaworthiness and watertight integrity in accordance with B.1.b. above
- ☐ Method and frequency of verifying towed vessel's condition during transit identified
- ☐ Available emergency means of controlling flooding and dewatering during the tow
- ☐ Number of personnel available to verify the vessel's condition during the transit and respond to emergency situations
- ☐ Plan of action should the vessel begin flooding in a manner that cannot be controlled by available emergency resources
- ☐ Amount, type and location of oil products and cargo on board towed vessel
- ☐ Evidence of Financial Responsibility for any oil spill liability in accordance with Federal and Washington State law (if any oil or oil residue remains aboard)
- ☐ International voyage plan (if applicable)*
- ☐ Towing Vessel POC/Responsible Party Name/24hr Phone

d. Prior to the commencement of the scheduled tow, the Vessel Representative should hold a pre-departure conference with all concerned parties to review the tow plan and discuss the communications protocol to be used during operations .

2. In certain circumstances an International Load Line Exemption Certificate or a Coastwise Single Voyage Load Line Certificate may be required in accordance with 46 CFR 42 Subchapter E (Load Lines). In order to make this determination and schedule an examination if needed, requests for tows offshore should be submitted 7 days in advance.

3. Tugs assigned should adhere to industry standards for towing capacities and employ a towing arrangement that enables the towing vessel(s) to maintain control of the dead ship at all times.
    - Emergency towlines should be rigged for coastwise routes
    - Towlines and bridles should be protected against chafing

4. Personnel assigned to conduct the tow should hold the appropriate licenses in accordance with Title 46 CFR, Part 15. It is recommended that a Licensed Pilot be contracted and in navigational control of all Dead Ship Tows greater than 500 feet LOA unless the company can demonstrate alternative measures that provide the same level of navigation safety.

5. Tugs assigned should report to Vessel Traffic Service (VTS) Puget Sound prior to conducting dead ship tow operations within the VTS Service Area in accordance with 33 CFR 161.18.

EQUIPMENT FAILURES AND EQUIVALENT LEVELS OF SAFETY

Action Items: Reporting**:**

- A vessel's Master transiting in the Strait of Juan de Fuca and Puget Sound region, including Haro Strait, Rosario Strait and the Strait of Georgia, shall immediately notify the Captain of the Port Puget Sound either directly or via the Cooperative Vessel Traffic Service (CVTS) of any mechanical or operational deficiency that would reduce the vessel's capabilities.
- Masters shall ***immediately*** relay the following information:
  - Nature of the defect, deficiency, damage, failure or breakdown of the vessel's, machinery or navigational/radio equipment
  - Type of vessel, cargo and fuel capacity
  - Location and proximity to land or other navigational hazards
  - On-scene weather, visibility, tide, current, wind and sea state
  - Traffic density
  - Maneuverability of the vessel
  - Proposal to mitigate the deficiency (follow the table below for proposals to the COTP)

Amplifying Information:

The Harbor Safety Committee and the Coast Guard Captain of the Port, Puget Sound are committed to ensuring vessels safely transit the waters of the U.S. and Canadian Strait of Juan de Fuca/Puget Sound region, while also keeping these waters from environmental damage caused by vessel casualties. The Captain of the Port Puget Sound will require additional measures when necessary to provide an "equivalent level of safety" to vessels with reduced capabilities.

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	• Immediately obtain the services of an escort or a rescue tug of adequate size and horsepower • Maintain frequent communication with the corresponding CVTS Traffic Center and relay status of vessel and propulsion capabilities • Make both anchors ready for letting go • Prepare to anchor at closest anchorage or moor at nearest harbor of safe refuge upon direction of the COTP • Correct deficiency before departing
Loss or reduction of steering capabilities or ship service generator	• Immediately obtain the services of an escort or a rescue tug of adequate size and horsepower • Maintain frequent communication with the corresponding CVTS Traffic Center and relay status of vessel and propulsion capabilities • Make both anchors ready for letting go • Prepare to anchor at closest anchorage or moor at nearest harbor of safe refuge upon direction of the COTP • Correct deficiency before departing
Loss of all radars	• Transit only in daylight and good visibility • Maintain frequent communication with the corresponding CVTS Traffic Center and relay status of vessel and propulsion capabilities • Provide additional navigation officer on bridge • Correct deficiency before departing
Gyro failure	• Transit only in good visibility • Maintain frequent communication with the corresponding CVTS Traffic Center and relay status of vessel and propulsion capabilities • Provide additional navigation officer on bridge • Correct deficiency before departing
Automatic Radar Plotting Aid (ARPA) failure	• Maintain frequent communication with the corresponding CVTS Traffic Center and relay status of vessel and propulsion capabilities • Provide additional navigation officer on bridge to assist manual radar plotting • Correct deficiency before departing
Missing navigation chart(s)	• Contact agent to supply chart(s) at entrance of Strait of Juan de Fuca or appropriate pilot station. ***(see Information Chapter 2)***
Propulsion/electrical power reduction or main engine maintenance while at anchorage	• Obtain the services of an escort or a rescue tug of adequate size and horsepower prior to taking the plant off line and the permission of the COTP. • Maintain frequent communication with the corresponding CVTS Traffic Center and relay status of vessel and propulsion capabilities

HEAVY WEATHER (WX)

SOC Quick Reference

Risk	Section
Petroleum transfers	A
Mooring buoys- Operating Policies and Weather Criteria	B
General mooring policies, breakaway prevention	C
Derelict and unattended vessels (abandoned but not yet derelict)	D
Deep-drafts underway, Vessels with problem histories, High risk locations	E
Tugs with tow underway, high risk locations, tow configuration/ cargo dependent	F
Log storage	G
Recreational vessels (TBD)	H
Ferries (WSF, Private)	I
Bridge policies	J
Fish Farms	K
Cargo handling, Crane operations, cargo securing	L
Floating Plant, Dredging, Port Operations	M
Reporting Process to CG	N
Potential VTS Actions	O
Potential COTP Actions	P
Weather Resources	Q

This standard of care has been developed jointly by Sector Puget Sound, Washington state Department of Ecology SPILLS program, and representatives of the marine industry under the umbrella of the Puget Sound Harbor Safety Committee. This Standard of Care (SOC) is not intended to replace existing company and vessel procedures, it simply institutionalizes sound marine operating practices that responsible vessel operators follow voluntarily. Other sections of the HSP contain weather related guidance, and in particular, the Anchoring SOC is applicable. This SOC covers commercial operations; recreational boats should consult other portions of the plan for guidance. The risks discussed in this SOC have been identified as threats to the port during heavy weather. Initially, a Heavy Weather Workgroup developed standards that consolidate best practices and provide a guide to mitigate these risks. Some more recent minor modifications have been made.

A. WEATHER CONDITIONS FOR PETROLEUM TRANSFERS:

Action Items:
- Vessels- follow the Lightering Standards of Care Guidelines
- Facilities- follow heavy weather procedures in their facility operations manual.

This section principally applies to facilities and vessels transferring to or from a vessel of 250 bbls (approx. 10,500 gallons or 39,900 liters) capacity or more, i.e. the applicability in 33 Code of Federal Regulations 156. However, Washington state has oil transfer rules, i.e. 173-180 WAC and 173-184 WAC, that also address oil transfer operations involving vessels of less than 250 bbls fuel and cargo oil capacity. Companies are strongly urged to incorporate weather criteria into all their guidance on non-internal petroleum transfers, and in certain circumstances are required under state regulations to include weather criteria in making determinations for safe and effective transfer operations. Good sources of guidance include industry standards such as the American Waterways Operators (AWO) Responsible Carrier Program. Transfer operations away from the dock, whether lightering or bunkering, will be conducted under the same weather stipulations outlined in the Puget Sound Harbor Safety Committee Lightering Standards of Care, and the Anchoring Standards of Care. The wind and sea conditions criteria have been developed with industry input and are used by operating companies in the area. These standards are based on historical observations and experience in handling these vessels under prevalent conditions.

At the Dock transfers: At regulated facilities, all personnel and vessels shall follow procedures outlined in the facility operations manual. Each facility ops manual should have specific written criteria, individually tailored for local conditions, that spell out what thresholds trigger extra precautions or transfer suspension. Petroleum transfers at non-regulated facilities, including vessel to vessel transfers, should follow the weather criteria in the Lightering Standards of Care.

B. MOORING BUOYS- OPERATING POLICIES AND WEATHER CRITERIA.

Action items:
- For the West Seattle buoys, follow procedures established by BUOYS-R-US.
- Follow written heavy weather procedures established by buoy owners, including evaluation of size and characteristics of the vessel to be moored, and the forecasted weather conditions.

Barges and vessels made up to a mooring buoy can be of concern during periods of heavy weather. Barges on the West Seattle mooring buoys owned by BUOYS-R-US and managed by the Marine Exchange of Puget Sound will, as a matter of policy, be moved off the buoys and relocated to more secure moorings when impending winds are expected to reach or exceed sustained speed of 30 MPH. Companies that have or are thinking of establishing commercial mooring buoys are encouraged to follow this model. For commercially used mooring buoys, buoy owners should develop individual written guidelines that address the following:

- Location, including any specific unique characteristics users should be aware of;

- Maintenance procedures and intervals, including position checks;
- Maximum number, type and size of barges/vessels allowed on the buoy;
- Restrictions on operations;
- Plans for reducing the number of barges moored during periods of heavy weather, including specific weather criteria, and a company person responsible for monitoring the situation.

C. GENERAL MOORING POLICIES/BREAKAWAY PREVENTION

Action Items:
- Follow individual port/terminal guidelines as available.
- Individual Facilities and terminals- develop written heavy WX plan that address mooring configurations and peculiarities for the given facility.

Good mooring practices are the best preventative measure during heavy weather (HEAVY WEATHER TO BE DESCRIBED AS ANY PERIOD WHEN GALE FORCE WINDS ARE FORECASTED THAT WOULD CAUSE THE MOORING BUOYS TO BE CLOSED). The vessel master and terminal operator jointly share the responsibility to ensure prudent actions are taken. Due to the individual nature of each terminal/vessel configurations, it would be too complex to write specific guidelines into the HSP. Individual ports and SSA have guidelines that should be followed. For unmanned locations, the vessel master is responsible for securing the vessel properly, monitoring it as appropriate, and should be mindful of the issues applicable at terminals that could apply to their situation. At manned facilities, each terminal should develop a written heavy weather plan that at a minimum addresses the following:

- Mooring configurations for each anticipated vessel type
- Minimum number, size, and positioning of all lines for foreseeable weather conditions.
- Standards and responsibilities for monitoring weather and taking appropriate actions, including after hours, and reporting as appropriate to the Coast Guard.
- Standards for making rounds of the facility, and ensuring the satisfactory material condition of mooring facilities, cleats, bollards, piers, etc.
- Plans and criteria for moving vessels to alternate locations should the need arise.
- Any abnormalities particular to that terminal and pier that could affect safe mooring.
- Maximum number of barges/vessels permitted to raft together for given weather conditions.
- Standards for securing rafted vessels to each other and to the mooring or pier.

D. DERELICT AND DILAPIDATED UNATTENDED VESSELS (ABANDONED BUT NOT YET DERELICT), AND OTHER HAZARDS TO NAVIGATION

Action Items:

- Report sightings to the Captain of the Port, particularly if any may threaten safe navigation or public health and safety to the environment.

If these types of vessels are observed while mariners are going about their business in the port, they should be reported to the Captain of the Port as soon as possible. This applies especially to vessels that are moored or anchored precariously and threaten to become hazards to navigation, as well as objects that are actively creating a hazard to navigation.

Although the vessel owner retains responsibility to remove a derelict vessel, the Washington Department of Natural Resources (DNR) has the authority to take temporary possession of vessels posing an imminent threat to public health and safety to the environment in order to safeguard same and, subject to due process and funding availability, may permanently remove and dispose of the derelict or abandoned vessel.

E. DEEP-DRAFT VESSELS UNDERWAY, HIGH RISK LOCATIONS, AND VESSELS WITH PROBLEM HISTORIES

Action Items:

- Call for additional tugs or take other action early, before dangerous situations develop.
- Consult Puget Sound Pilots and the U.S. Coast Pilot to identify high risk areas.

In all cases, the vessel master and pilot should make a proactive evaluation of the current and forecasted weather, and if necessary delay movement, call for additional tugs, or take other appropriate measures. Vessels which have particular attributes that introduce additional risk should be especially sensitive to environmental conditions that take advantage of the vessel's weaknesses. High risk areas in the Puget Sound region include:

- North and Sound bound transits of the eastern Strait of Juan de Fuca via Haro or Rosario Straits
- Admiralty Inlet (in vicinity of Partridge Point)
- Southern end of the Straits of Georgia.

Masters and Pilots should consult the Coast Pilot and other sources of local knowledge when transiting these areas, and be pre-pared for strong tides, currents, and weather conditions.

Vessels with problem histories are those that the COTP has noted as:

- Having experienced previous propulsion control or steering problems
- Having lost anchors or damaged anchors
- Having poor or negligent operating histories.

F. TUGS WITH TOW UNDERWAY, HIGH RISK LOCATIONS, TOW CONFIGURATION /CARGO DEPENDENT

Action Items:
- Close all watertight openings on the tug and tow
- Reduce speed when necessary, post extra lookouts to monitor the tow
- Inspect terminal gear, including bridle, pendant, chafe gear, drum and brake; ensure compliance with 33 CFR 164.74.

Tug masters must be especially cognizant of the high risk areas as out-lined in the above paragraph. The areas to be transited and forecasted weather and tidal/current conditions should be considered when deciding tow configurations, cargo, and size and type of barges to be used. During periods of heavy weather, tug masters should take the actions covered in the "Action items" portion of this SOC.

G. LOG TOWS AND STORAGE

Action Items:
- Check the condition of the log rafts before towing.
- Consider raft size, tug capability, and expected weather and current conditions.
- Assign personnel to check condition of logs in storage, including end chains, buoys, etc.
- Take prompt action in the event of loose or damaged bundles; recover loose logs.

Because of the lack of maneuverability and dangers associated with log tows breaking up, companies engaged in log storage or towing should have written guidance for their masters and other operational personnel. For tows, masters should make positive evaluations prior to getting underway to check the current and forecasted weather, applicable tides and currents, suitability of the tug for the tow size, and any other factors.

For logs in storage, personnel should be assigned to check all storm booms (end chains and floatation), buoys (strain) and standing booms (end chains and floatation), for damage, loose bundles or spillage of logs. Depending on wind direction and number of bundles in the boom, action may be required to tighten or loosen tie lines to relived strain. If damage is observed, the deck officer on watch shall notify dispatch immediately and take appropriate action to recover or affect necessary repairs.

H. RECREATIONAL VESSELS

Action Items:
- Ensure that all prudent actions have been taken to minimize water entry into the vessel.
- Check the condition of anchor and mooring lines, pendants, chafe gear.
- Move vessels to safe areas or remove from water before severe weather.

I. FERRIES (WASHINGTON STATE FERRIES (WSF), COUNTY AND PRIVATE.)

Action Items:
- Masters must adhere to written policies concerning heavy weather procedures.

WSF has its own internal practices that address the risks on each particular run. However, county and private ferries do not necessarily have their own written policies. Each company should have written guidance directing vessel masters to take weather conditions into account during operations. Particular attention should be paid to the prevailing and forecasted weather conditions at all docks to be visited, as well as on the planned route, and other alternative possibilities should conditions become too severe.

J. BRIDGE POLICY

Action Items:
- Use the U.S. Coast Pilot and Notice to Mariners to determine if bridge issues may impact a voyage.

There are several bridges over major waterways in the Puget Sound Region, and their operations could be curtailed due to heavy weather or other problems. General policies are outlined in the Coast Pilot, and emergent issues will be addressed either through the Local Notice To Mariners, or Broadcast Notice to Mariners. Mariners should use these resources to determine in advance if their planned voyage will be impacted.

K. FISH FARMS

Action Items:
- Develop and maintain company policy to address heavy weather concerns.
- Ensure fish pens are secured and monitored as per company policy as available.

L. CARGO HANDLING, CRANE OPERATIONS, CARGO SECURING

Action Items: Individual Facilities should develop written heavy WX plan that address:
- Designation of a person to monitor weather, and assess need for additional security.
- Moor IAW the mooring section of this SOC.
- Shore crane securing and tiedown requirements (per manufacturer's instructions).
- Container/cargo height reductions and location away from the water or other hazardous areas.
- General operating equipment securing.
- Applicable federal, state, local, as well as contractual labor safety regulation compliance.

Each individual cargo handling operation has its own unique operating concerns requiring more or less procedural oversight, depending on the complexity of the operation and it's exposure to the weather elements. In any case, heavy weather procedures are a critical centerpiece of a company's emergency response plan, regardless of location in Puget Sound. Port, pier, terminal and dock authorities, operators and/or owners are encouraged to conduct annual reviews of internal heavy weather procedures specific to vessel/dock operations at their facilities. Procedures should be updated and distributed to key personnel to ensure the safety of employees, cargo, equipment, the public and the environment during periods of heavy weather. Procedures should cover all the items in the "Action items" portion of this SOC.

M. FLOATING PLANT, DREDGING, PORT OPERATIONS

Action Items:
- Adhere to written policy for modifying/securing operations under certain WX conditions.
- Identify a safe anchorage/moorage for each job.
- Proactively consider the activity's impact on safe navigation in all WX conditions.

Companies that conduct these types of relatively fixed operations should also be cognizant of the impact of heavy weather. Companies should develop written guidance to operations supervisors to take into account current and forecasted weather, and have specific plans for ceasing operations and moving to a safe anchorage or mooring at a specific weather threshold. Operations supervisors should be especially cognizant of how their operations impact navigable waterways. For further guidance, see the HSP Anchoring Standards of Care.

N. POTENTIAL VESSEL TRAFFIC SERVICE ACTIONS

VTS Actions: VTS Puget Sound will monitor vessels underway and at anchor, and the general port areas as much as is practicable. VTS will provide weather warnings as outlined in the PSVTS Users Manual: http://www.uscg.mil/d13/psvts/. If Coast Guard intervention in a situation is absolutely necessary to ensure safety, VTS actions may include directing vessels to anchor or raise anchor, seek sheltered areas, increase position reporting requirements, require stand-by tugs, and / or control vessel movements to mitigate the threats posed by heavy weather.

O. POTENTIAL CAPTAIN OF THE PORT (COTP) ACTIONS

Action Items:
- Direct bunkering and lightering operations to cease.
- Direct hazardous materials and explosives loading to cease.
- Direct changes in mooring configuration or location for vessels at terminals.
- Direct vessel movement including course/speed.
- Direct vessels to seek shelter and hold position.
- Require stand-by tugs or tugs in attendance.

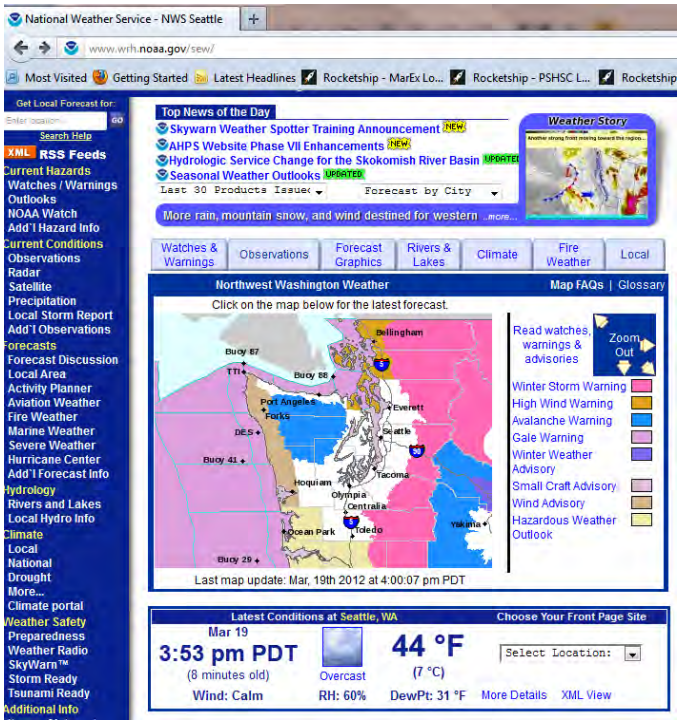
If individuals or vessels are not taking actions to mitigate the risks posed by heavy weather, the COTP is authorized under various Federal laws to take or direct certain actions, including but not limited to those described in the "Action items" section of this SOC.

P. REPORTING PROCESS TO THE COAST GUARD

Everyone can take ownership in making the waterways safe during heavy weather, just as anyone located on the water can be affected by weather induced problems. Mariners going about their business in the port should report any actual or potential problems on or near the water to the Captain of the Port at 206-217-6001, or via VTS for VTS participants. If anything appears out of place, or if any vessels, boats or barges in the port are tied up in a less than safe or prudent manner, a timely report to the Coast Guard can prevent such events. If the Coast Guard identifies unsafe situations, they will, if time permits, bring the situation to the attention of the party responsible for it. If the responsible party is not taking timely action, then the CG will assist them in doing so, by helping to identify and organize other resources. If the responsible party is not taking action, and does not look capable or willing to do so, then the COTP may issue directions to compel action, or take independent actions to mitigate unsafe situations for which the responsible party may be liable for.

Q. WEATHER RESOURCES

For real-time weather information in the Puget Sound region, go to http://www.wrh.noaa.gov/sew/. Here you will find information on latest weather conditions, forecasted weather, watches and warnings, and much more.



HOT WORK

A. DISCLAIMER

This standard of care in no way supersedes or is meant to take the place of applicable local requirements from the local fire prevention authority. Where requirements from the local authority are in excess of this standard, they must be met. For example, a marine hot work permit is required by the City of Seattle; for more information see http://www.seattle.gov/fire/FMO/permits/permits.htm.

B. HOT WORK DEFINED

- Flame heating, welding, torch cutting, brazing or carbon arc gouging.
- Any operation which produces temperatures of 204°C or higher.
- Note: Operations not producing hot sparks or flame such as spark-producing or arc-producing tools or equipment, static discharge, friction, open flame or embers, impact, and nonexplosion-proof equipment such as lights, fixtures, or motors are not considered hot work unless in the presence of flammable liquids or in a flammable atmosphere.

C. MASTER'S RESPONSIBILITIES

Any hot work operation has the potential to ignite combustible or flammable materials. It is the Master's responsibility to take precautions to prevent fires caused by the exposure of combustibles to the effects of hot work.

D. CONFINED SPACES -- MARINE CHEMISTS

Contact marine chemists to certify confined spaces as safe for hot work. Marine chemists are also extremely valuable to use in evaluating spaces and attendant conditions for hazards.

E. PRECAUTIONS

1. CLEANING AND VENTILATING FOR HOT WORK

- Before hot work is started, the space should be inspected, emptied of flammable cargo, cleaned, ventilated and tested to ensure the atmosphere is at 10% or less of the **Lower Explosive Level** and that toxic concentrations are limited to the **Permissible Exposure Level**.
- Extraneous flammable or combustible materials such as scrap wood, paper, ropes or rags should be removed from the space or moved a minimum of 11 meters away from the work site. Combustible materials that cannot be removed should be adequately protected.

- Fans, blowers, motors and other such equipment utilized to ventilate atmospheres containing flammable or explosive vapors, fumes, mist or dust shall be approved, explosion-proof equipment or intrinsically safe equipment.

2. FLAMMABLE LIQUIDS/ ATMOSPHERES

- Do not perform hot work when flammable liquids or flammable atmospheres are present.
- When hot work is to be performed on fuel tanks, associated vent spaces or other spaces containing flammables (e.g., paint lockers, flammable liquid storerooms), the adjacent spaces above, below and on all sides (boundary spaces) should first be inspected and tested, cleaned and ventilated or inerted as appropriate.
- Hollow connections to a space can present the same hazards as the space itself. Pipes, tubes, coils or similar items that service, enter or exit a confined space should be flushed, blown, purged or otherwise cleaned before the performance of hot work on such items. If not so treated, the space should not be considered safe for hot work.
- Valves to pipes, tubes or similar items should be closed, or the pipes blanked off, to prevent inadvertent discharge or backflow of material into the space.

3. FIRE WATCH

- Hot work should only be conducted in those spaces where it is certain that no combustible materials or flammable residue exist. Even then, when flame heating, welding, torch cutting, brazing or carbon arc gouging or any operations that produce temperatures of 204°C or higher are conducted, establish a trained fire watch at the worksite with an unobstructed view of the hot work operation.
- When hot work may transmit a fire hazard into adjacent spaces by overheating the connecting deck, overhead or bulkhead, provide fire watches on both sides of the deck, overhead or bulkhead.
- When more than one fire watch is appropriate, a means of communication is required; this will enable the fire watch to report hazardous conditions on the opposite side of separating structures and provided a signal to stop the work.
- Fire watches on both sides of the separating structures should have and know how to use fire-extinguishing equipment suitable to the exposure.
- After completion of the hot work operation, fire watches should remain on station until all hot work is cool to the touch or 30 minutes (whichever is greater), ensuring that no smoldering embers remain.

4. HANDLING DANGEROUS CARGO AT WATERFRONT FACILITIES

- When handling dangerous cargo (all hazardous materials listed in 49 CFR parts 170 through 179, except those materials preceded by an "A" in the Hazardous Materials Table in 49 CFR 172.101 and all cargo listed in 46 CFR part 148) at designated waterfront facilities, the provisions of 33 CFR 126.15 and 33 CFR 126.30 must be adhered to. This includes safety requirements, fire extinguishing equipment, and welding and hotwork conditions.
- Contact Coast Guard Sector Puget Sound at 206-217-6165 for more information.

LIGHTERING WITHIN THE WATERS OF PUGET SOUND AND THE STRAIT OF JUAN DE FUCA

SOC Quick Reference

A. GENERAL INFORMATION, DEFINITIONS, AND REGULATIONS

1. The waters of Puget Sound and the Strait of Juan de Fuca are environmentally sensitive and a precious environmental and economic resource. Lightering operations, while routine in many parts of the country, do in fact pose risks different than those normally expected of standard ship to shore cargo transfer operations. Sector Puget Sound, the State of Washington, and representatives of the petroleum industry have jointly developed the following guidelines to address those risks and ensure safe lightering operations in the Puget Sound region. For the purposes of this policy, lightering is defined as any oil transferred as cargo (not used for that vessel's propulsion) between vessels not docked at a marine transfer facility as defined in 33 CFR 154.

2. These guidelines represent the cooperative efforts of the Coast Guard, Washington State, and industry leaders to develop the best way to mitigate risks to the environment during lightering operations. As such, it is expected that industry members follow them, educate and enforce them among industry groups, and make recommendations to the Coast Guard and Puget Sound Harbor Safety Committee as changes are needed. In order to best mitigate risks, non-emergency requests for lightering operations that do not meet these standards must be made at least one month in advance, and include a description of how the operation can be conducted with an equivalent level of safety.

Full compliance with these standards of care will be considered a mitigating factor in the event of a spill or marine casualty.

3. Sector Puget Sound will conduct announced and unannounced monitoring of lightering operations. Companies should expect to be monitored the first time they lighter in Puget Sound. The frequency of monitoring will be deter-mined by the level of risk, familiarity with company operations, procedures and track records. Sector Puget Sound may stop any lightering operation, or prohibit planned operations due to safety concerns or unacceptable risks.

4. Sector Puget Sound will periodically review the safety record of lightering operations, and work with the Harbor Safety Committee to determine if changes are needed to promote safety. Changes could include additional guidelines or a formal regulatory initiative.

5. **Definitions**: In addition to the terms defined in applicable federal regulations, the following definitions apply:

   a. Lightering: The transfer of petroleum cargo in bulk from one tank vessel to another tank vessel while at anchor, or at a dock that is not regulated under the facility response plan and other requirements of 33 Code of Federal Regulations (CFR) Part 154. Specifically, this Standard of Care applies to cargo to cargo transfers, but not those transfers of fuel for vessel propulsion (commonly referred to as bunkering.)
   b. Service vessel: The vessel receiving the cargo in a lightering operation.
   c. Ship to be lightered (STBL): The vessel delivering the cargo in a lightering operation.
   d. Lightering specialist: A person with significant experience in operations of the type to be conducted, i.e. ship-to-ship experience to conduct a ship-to-ship evolution. Individual companies should establish policies regarding their lightering specialists. A lightering specialist must be knowledgeable of safety regulations and industry standards, as well as pollution response procedures. The lightering specialist shall act as an advisor and in consultation with the PICs. Note that the lightering specialist is in addition to both PICs. The lightering specialist may be a licensed officer from the ship, but should have no other duties than to monitor the operation. The lightering specialist shall not be the vessel master. Consideration should be given to the length of lightering operations, and appropriate provisions should be made to provide relief for the lightering specialist during extended operations. Finally, a lightering specialist must have the authority to stop a lightering operation in the interest of safety. This in no way removes the final authority of the master (or PIC if a barge) regarding all operations. The lightering specialist should normally be stationed on the service vessel, but may visit the STBL if circumstances dictate. Most operations in Puget Sound involve a tank ship lightering to a tank barge.
   e. Integrated Tug Barges (ITBs) and Articulated Tug Barges (ATBs) shall be considered as ships for the purposes of these Standards of Care.

6. **Regulations**: Lightering operations must be conducted in strict accordance with the letter and intent of all regulations. In particular, lightering operations fall under the following regulations:

   a. 33 CFR 151 (MARPOL implementation)

   b. 33 CFR 153 Notice of Discharge and Removal of Discharged Oil

   c. 33 CFR 155 Oil or Hazardous Material Pollution Prevention Regulations for Vessels

   d. 33 CFR 156 Oil and Hazardous Material Transfer Operations

   e. 46 CFR 30-40 Tank Vessels

   f. 173-184 WAC Vessel Oil Transfer Advance Notice and Containment Requirements

   The following references contain worldwide industry standards, and should be consulted for applicability to Puget Sound lightering:

   g. Oil Companies International Marine Forum Guidelines (OCIMF) Ship to Ship Transfer Guide

   h. Oil Spill Risks from Tank Vessel Lightering - published by the Commission on Engineering and Technical Systems (CETS)

B. STANDARD OF CARE ITEMS

1. Wind: Vessels will not come alongside in preparation for lightering if sustained winds are at or exceed 30 knots. If lightering operations have already begun when sustained winds reach 30 knots, personnel in charge of lightering operations will monitor environmental conditions with particular attention, and take any additional measures necessary to reduce risk and prepare for worsening weather. When sustained winds reach 40 knots, lightering operations will cease, and hoses will be drained and disconnected. Personnel should consult separate guidance issued by Sector Puget Sound and the Puget Sound Harbor Safety Committee regarding heavy weather and anchoring procedures relevant to all vessels.

2. Seas: For barge to barge or ship to barge operations, lightering operations will cease, with hoses drained and disconnected when waves or swells reach 3 ft. For ship to ship operations, lightering operations will cease, with hoses drained and disconnected when waves or swells reach 6 ft. The wind and sea conditions criteria have been developed with industry input and are used by operating companies in the area. These standards are based on historical observations and experience in handling these vessels under prevalent conditions.

3. Personnel: A lightering specialist will be present for each lightering operation, in addition to the personnel normally required for transfer operations. The lightering specialist shall adhere to OPA 90 fatigue standards to ensure the safety of prolonged operations.

4. **Mooring equipment:** All parties will use fenders and mooring lines of sufficient size and type in accordance with the OCIMF Ship to Ship Transfer Guide.

5. **Tug availability:** During lightering operations involving a barge or barges, at least one tug will remain on scene and ready to render assistance during the entire evolution. The attending tug(s) must have sufficient horsepower to maneuver and control at least the smaller of the vessels involved in the operation. Ship to ship operations may take place without direct tug assistance, once the mooring portion of the operation has been completed. However, a tug of sufficient horsepower must be on immediate standby in the area to render assistance in less than 30 minutes. The name of the tug and tug company shall be listed on the Advance Notice of Lightering Sheet.

6. **Response equipment:** In addition to the vessel's Vessel Response Plan requirements, when lightering operations take place, boom capable of encircling the entire operation must be in place with at least a five foot stand-off from the vessels or boom must be positioned so as to provide for the maximum containment of any oil potentially spilled whenever it is safe and effective to do so. Each vessel that delivers oil at a rate exceeding 500 gallons per minute is obligated to have developed and implemented pre-booming strategies using such thresholds under state requirements which become in full force after October 26, 2007. Where it is not safe and effective to pre-boom transfer operations then such length of boom will be made available on scene and ready for immediate deployment such that the boom could be completely in place within 1 hour of detection of a spill, unless the vessel has an equivalent compliance plan approved by ecology and accepted by the USCG COTP. The standby booming requirement could be met by the equipment normally carried by a barge, or by a dedicated response vessel, or by both. If this requirement is met without a response vessel, then a small boat, capable of deploying the boom in a timely fashion, must be on scene and immediately available. If both the barge and a response vessel contribute toward this requirement, the equipment must be compatible. Adequate personnel should be on scene to take appropriate actions on the vessels, while simultaneously deploying boom. Personnel shall be trained in deploying boom, and the boom and response equipment shall be prepared so that it can be deployed with the absolute minimum of delay.

7. **Number of vessels involved:** Lightering operations will involve not more than one ship to be lightered and one service vessel. Bunkering will not take place simultaneously with lightering.

8. **Flow rate, topping off and gauging procedures:** In accordance with OCIMF Ship to Ship Transfer Guide.

9. **Watchkeeping:** Qualified deck officers will monitor the lightering operation as well as the vessel's navigational status. In the case of barges, the PIC and tankermen will monitor the transfer, but an officer will remain on the bridge of the tug or tugs to monitor the tugs communications and navigational status. The STBL must maintain constant communications with Puget Sound VTS on the appropriate working frequency, either 5A or 14, throughout the lightering operation.

10. Lightering Plans: Companies will submit a lightering plan to Coast Guard Sector Puget Sound at least five business days prior to the proposed date of lightering. It is understood that it is the nature of marine industry to have unforeseen schedule changes. However, all possible effort must be made to submit a lightering plan in time for this office to review it, and arrange for lightering monitors. Individual requests for a shorter time period may be considered on a case-by-case basis, but will generally not be granted for other than safety reasons.

Companies can either develop a general fleet lightering plan for each type of operation (ship to ship, ship to barge, barge to barge); or, can submit individual plans prior to each event, covering the details of that specific operation. Fleet lightering plans will be approved and maintained on file at the Sector Puget Sound for review when an "Advance Notice of Lightering" is received. All lightering plans should also be available for inspection when the Coast Guard monitors a lightering operation, or upon request. Once a company has a fleet plan approved, they only have to submit the Advance Notice Form. Both types of lightering plans should include the following elements:

a. Exact/anticipated location(s) of lightering operations. Locations used beyond the scope of a fleet plan should be added to the Advance Notice Form, when necessary.
b. Names, official numbers, lengths, and other pertinent data for all vessels and barges, including if they have approved Washington State response plans.
c. Names of the two PICs, and the name(s), required qualifications, and experience of the Lightering Specialist(s). For fleet plans, if this information is left out it must be included with the Advance Notice Form.
d. Date of transfer, and estimated start and stop times. Note if the operation will be restricted to daylight hours.
e. The maximum limiting weather and sea conditions, if different than the SOC limits.
f. Total cargo capacity of the barge(s) and the STBL, and volumes of transfers.
g. Planned spill response equipment to be either on scene, pre-staged, or on standby, as per the SOC.
h. General description of written transfer procedures, as required by 33 CFR 155. This should include maximum flow rate, means of communication, overfill protection devices, and topping off procedures.
i. Proper shipping name, type, and characteristics of product.
j. Mooring and fendering configuration between participating vessels.
k. Location and disposition of assist tug during lightering operation.
l. The final destination of the product.
m. If vapor balancing will be conducted (if yes, must comply with all applicable regulations).
n. How this Standard of Care will be implemented.

11. Notifications: Companies wishing to conduct lightering operations must notify Sector Puget Sound via fax using the attached "Advance Notice of Lightering Operations" Fax

Sheet. This fax must be sent at least 24 hours prior to commencement of lightering operations. This sheet must be signed by the attending lightering specialist or a company officer senior to the lightering specialist. The STBL shall notify Puget Sound Vessel Traffic Service (PSVTS) via the appropriate working frequency immediately prior to starting and immediately after stopping transfers, using (approximately) the following language:

"Seattle Traffic, this is the T/V _____, commencing lightering operations. On scene weather is within parameters. Out."

"Seattle Traffic, this is the T/V _____. Lightering operations are secured. Out."

Vessels involved in the operation shall monitor the appropriate PSVTS working frequency throughout the duration of the operation, and must immediately report any spills or other problems. These notifications exceed the requirements contained in the Code of Federal Regulations, but allow the Sector Puget Sound enough time to screen operations and dispatch monitors.

12. Anchorage Management: Vessels desiring to lighter in designated anchorages in Puget Sound are reminded to consult the Sector Puget Sound guidance on securing reservations, as follows:

- PSVTS manages the anchorages in Puget Sound and adjacent areas for the Captain of the Port. For safety reasons, each anchorage has a restricted number of anchorage spaces available, and are normally reserved on a "first come, first served" basis. To allow a more efficient and fair allocation of available space the VTS asks that:
- Reservations be made as far in advance of arrivals as possible.
- Revisions of ETA's and ETD's be made as they become known.
- Reservations are only valid for the time span requested. A vessel staying past the ETD may be subject to movement orders to make room for an inbound vessel with a reservation.
- Anchorage reservations will not be accepted in high usage areas, such as Elliott Bay or Port Angeles, if there is a possibility of delay due to uncertain orders.
- With these considerations, the occasions of a vessel being denied anchorage or being ordered to depart to make room for another vessel should be infrequent.

Lightering operations are normally permitted in Anacortes, Port Angeles, Elliott Bay, and Commencement Bay. Lightering operations at Vendovi Island anchorages will only be approved on a case-by-case basis. Requests to lighter in other locations should be submitted to Sector Puget Sound at least one month in advance.

ADVANCE NOTICE OF LIGHTERING OPERATIONS

This form, or the equivalent information, must be faxed to Sector Puget Sound at **(206) 217-6199**, a minimum of 24 hours prior to commencing transfer operations. Start / stop times are assumed to be accurate to within 1 hour. Changes should be made by either a revised fax, or by telephone to our operations center at **(206) 217-6001**. Sector Puget Sound will accept one notification for both the service vessel and STBL. It is the company's responsibility to ensure anchorage reservations are made separately through Coast Guard Vessel Traffic Service Puget Sound at **(206) 217-6040**.

Fleet plan on file with Sector Puget Sound: No / Yes Date Submitted: _____

Location of Operation: _____
Date of Operation: _____
Estimated Start Time: _____ Estimated Stop Time: _____

Lightering Specialist (L/S) in Charge: _____Telephone: _____
Experience/ # of lighterings previously conducted by L/S: _____
PIC #1: _____ PIC #2: _____

Ship to be Lightered (STBL): _____ Official No: _____
Total Cargo Capacity of STBL: _____

Service Vessel: _____ Official No: _____
Total Cargo Capacity of Service Vessel: _____

Product to be Transferred: _____ Amount (bbls): _____
Product to be Transferred: _____ Amount (bbls): _____
OSRO, STBL: _____ Telephone: _____

OSRO, Service Vessel _____ Telephone: _____

Standby Tug Name/Company: _____ Telephone: _____

STBL Company Point of Contact: _____
POC Telephone: _____ Fax: _____
24 Hour Company Telephone: _____

I certify that this lightering operation will be conducted in accordance with the Puget Sound Harbor Safety Committee Lightering Standard of Care and my company's lightering plan, particularly with regard to the limiting weather parameters.

Signature of lightering specialist (or lightering company officer):

_____

Date/Time Submitted: _____

This form is (circle one): ORIGINAL / UPDATE to form dated: _____

LINE HANDLING PROCEDURE GUIDELINE FOR TAKING LINES AT GRAIN TERMINALS (SEATTLE/TACOMA)

A. PURPOSE:

The purpose of this guideline is to ensure the safe and efficient procedure of taking mooring lines at grain terminals in Puget Sound. The guideline is also intended to reduce the possibility of dock damage due to the vessel's bow being pulled to the dock should the spring lines suddenly run short of slack while the vessel is still moving forward.

B. PROCEDURES:

1. Upon the vessel's approach to the dock, the Line Superintendent shall contact the Pilot, via VHF radio, to confirm that the vessel will be stopping short of its final berthing position by approximately 100-120 feet.
2. The line handlers will have been instructed, by the Line Superintendent, to not take the spring lines until the vessel is alongside.
3. The forward spring lines will be lowered to the line handlers, who will then place the lines on an appropriate bitt.
4. Once the forward spring lines are on the bitt, the Pilot will have the vessel shifted ahead to its final position.
5. When the vessel is near its final position, the aft spring lines will then be placed on an appropriate bitt.
6. The bow and stern lines will be sent to the line handlers when the spring lines are fast.

PROPULSION LOSS PREVENTION

BACKGROUND:

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. For example: While picking up a pilot, the vessel has to reduce speed often below the vessel's slow ahead bell; a stop bell is ordered to further slow the vessel; this is followed some time later by an ahead bell which, on occasion, is unable to be answered, typically due to a failure of the air start system. This type of propulsion system failure suggests that this evolution is the first engine operation in anything other than the ahead mode since the vessel departed the last port, and that the required testing in 33 CFR 164.25(a)(5) of the vessel's propulsion in the ahead and astern mode 12 hours prior to port entry was not performed. Since such testing would have likely revealed problems with the propulsion system, ***it is apparent that a complete test of the propulsion plant in the ahead and astern modes is often not being done prior to port entry. While not testing may be permitted (upon notification to the Captain of the Port)*** due to rough sea conditions prohibiting safely conducting the tests, the tests must in all other cases be conducted. Programming engine slow down to properly reduce from sea speed to maneuvering speed for temperature management should be managed 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. When switching fuels before entering the 200 nm North American ECA Zone as required by MARPOL Annex VI, Regulation 14, 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

In order to reduce the threat posed by propulsion losses, the Puget Sound Harbor Safety Committee has adopted the above measures and below action items to be conducted by vessels arriving in Puget Sound ports. The Puget Sound Harbor Safety Committee hopes that by describing propulsion loss information, and presenting this Standard of Care doctrine and Coast Guard expectations, the frequency and severity of propulsion losses can be significantly reduced.

PROPUSION LOSS PREVENTION: ACTION ITEMS

ENHANCED MAINTENANCE PROCEDURES:

1. **Starting and Control Air Systems for Direct Drive Diesels**
   a. Remove, clean, and replace filters as necessary
   b. Inspect, clean O rings, repair and replace as necessary
   c. Inspect, clean, and test air tanks as necessary, consider inner coatings
   d. Inspect, clean, and test air lines. Conduct frequent blow downs to remove moisture.
   e. Inspect and test air compressors
   f. Install air dryers or heaters in the air start/receive system as necessary
   g. Incorporate enhanced maintenance procedures into the vessel's ISM system.
   h. Do not conduct maintenance on the starting or control air systems while underway in pilotage waters.

2. **Fuel Switching**
   a. Consult engine and boiler manufacturers for fuel switching guidance.
   b. Consult fuel suppliers for proper fuel selection. Please note that the viscosity of 1% low sulfur fuel oil (LSFO) varies widely.
   c. Consult manufactures to determine if system modifications or additional safeguards are necessary for intended fuels.
   d. Develop detailed fuel switching procedures and diagrams. Ensure that they are easily accessible and easy to understand. Conduct periodic training and familiarization.
   e. Establish a fuel system inspection and maintenance schedule. Please note that 1% sulfur fuel may require an increased amount of maintenance and inspections due to a decrease in lubrication qualities compared to fuel with a higher percentage of sulfur content.
   f. Ensure system pressure and temperature alarms, flow indicators, filter differential pressure transmitters, etc., are all operational.
   g. Ensure system purifiers, filters and strainers are maintained.
   h. Ensure that the fuel oil viscosity and temperature control equipment is accurate and operational.
   i. When changing fuel, slow vessel's speed and allow sufficient time for equipment to adjust to temperature changes.
   j. Report any safety issues to Sector Puget Sound Joint Harbor Operations Command (JHOC) at (206) 217-6002.

PRE ARRIVAL TESTS AND VESSEL OPERATION:

1. Follow the requirements of 33 CFR 164 including testing propulsion system, ensuring that the vessel's astern propulsion is available, if needed. If weather or sea conditions prohibit such as test, you must report this to the applicable Cooperative Vessel Traffic Service (CVTS) Center and the COTP to gain port entry.

2. Do not test propulsion in the Traffic Separation Scheme (TSS) or within 12 miles of the coastline unless you have permission from CVTS. Test farther from the coastline if onshore wind and sea conditions are severe and there is no immediately available tug; coordinate with CVTS. If testing at sea must be delayed for safety reasons, then report this to CVTS and request permission to conduct the test in the open but more protected waters of the Strait of Juan de Fuca before arriving at the pilot station.
3. Coordinate testing with CVTS. Although tests are required within 12 hours (not at 96 hour advance notice), the tests will be required in an area where tug assistance can be provided in a timely manner, if needed. The tests shall not be conducted on approach to the pilot boarding area off Ediz Hook or off Victoria.
4. Tests are also to be done prior to departure from the dock or while the vessel has tugs tethered/alongside.
5. Check air tank, air line pressures (classification societies and U.S. Coast Guard standards typically require 12 starts).
6. Implement blow down procedures to reduce moisture in the air start system.
7. Ensure a licensed engineering officer is in the engine control room while the vessel is in pilotage waters.

AFTER FUEL SWITCHING:
Upon completion of fuel switching, it is recommended that pre-arrival tests are completed well offshore before entering the traffic management system.

IN THE EVENT OF A PROPULSION OR STEERING LOSS
The master and/or pilot must:

1. Obtain tug assistance immediately if the vessel is in danger of running aground, or if the propulsion or steering loss cannot be repaired in a timely manner. Vessel masters should err on the side of caution in ordering tug assistance, as casualties can take longer than expected to repair, tugs may need extended time to reach the stricken vessel, and weather and sea conditions can deteriorate rapidly. The applicable CVTS Center can assist in determining the locations of the nearest tugs.
2. Immediately inform the applicable CVTS Center and establish a communications schedule.
3. Track the vessel's position in relation to land, determine and monitor the drift rate.
4. Set the anchor detail.
5. Place the emergency generator on line.
6. Identify the source of the problem, conduct and test repairs.

The U.S. Coast Guard will:

1. Require immediate tug assistance if the vessel is in danger of running aground or if the casualty cannot be repaired in a timely manner.
2. Assist in locating nearest tug capabilities via the Vessel Traffic Service.

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3. Issue Captain of the Port orders as appropriate to ensure required responses are undertaken.
4. Hire tug(s) directly if COTP order to obtain tug assistance is not met within a timely manner.
5. Require classification society inspection, technical representative oversight, and Coast Guard inspection and/or approval of repairs.
6. Apply some are all of the above for partial propulsion or steering losses.

[MOVEMENT IN] RESTRICTED VISIBILITY

A. GENERAL

Conditions of restricted visibility pose an increased risk to the mariner. As set forth in rule 19 of the COLREGS, vessel operating in conditions of restricted visibility, not in sight of one another, shall proceed at a safe speed adapted to the prevailing circumstances, have her engines ready for immediate maneuver and, if a risk of collision exists, take avoiding action in ample time.

B. STANDARDS

1. When getting underway or transiting an area of restricted visibility the master, pilot, or vessel operator shall make a positive evaluation, including but not limited to the following operating factors:
   a. Qualification of personnel
   b. Maneuvering characteristics of the vessel.
   c. The vessels size and draft relative to the waters to be transited.
   d. The quality of the vessels radar picture and navigational system.
   e. Whether the Vessel Traffic System (VTS) has radar coverage of the waters to be transited.
   f. Vessel traffic/congestion in the area
   g. Proximity of hazards to navigation to the transit route.
   h. Weather, Tides, Currents.
   i. Watertight Integrity.

2. **Crews should be informed of the situation for heightened awareness.**

Action Items:

- VTS Puget Sound, "Seattle Traffic" relies on the reports of mariners to identify areas of restricted visibility. Once a report of restricted visibility of 2 NM or less is received, "Seattle Traffic" will notify participants of transits by vessels on a published schedule and route, (Washington State Ferries). Further, when visibility reduces to 1 NM, "Seattle Traffic" will advise participants of anchored vessels and advise ferries of the transits by other ferries. Note: During periods of restricted visibility ferry system traffic may be behind schedule and not where vessels may normally expect.
- Smaller vessels (vessels under 20 meters in length) take on an increased risk in restricted visibility due to the difficulty in detecting these vessels with radar. Smaller vessels should use a radar reflector to increase the possibility of being detected by other vessels.

ROSARIO TOWING VESSEL OPERATIONS

A. GENERAL INFORMATION

1. This Standard of Care alerts towing vessel owners and operators to the dangers associated with transiting Rosario Strait, and establishes good marine practice to mitigate associated safety risks to minimize the possibility of a vessel casualty.

2. Rosario Strait is a narrow waterway connecting the Strait of Georgia and the Inland Passage of British Columbia with the Strait of Juan de Fuca. Rosario Strait passes through the eastern San Juan Island archipelago, is part of the larger Eastern San Juan Island VTS Special Area, and is defined in 33 CFR 161.55(b). An International Maritime Organization (IMO) designated one lane Traffic Separation Scheme (TSS) with no separation zone traverses Rosario Strait. Rosario Strait experiences substantial tidal currents and has numerous hazards to navigation.

3. According to NOAA Pacific Coast Tidal Current Tables, tidal currents ebb to the south in Rosario Strait. Tidal currents in Guemes Channel strongly ebb to the west at a higher speed ratio compared to Rosario Strait with the current changing to ebb 90 minutes prior to the currents in Rosario Strait. Guemes Channel is oriented east/west and connects Rosario Strait with the Anacortes-March Point area. Based on geography, Rosario Strait can be affected by ebbing tidal currents from Guemes Channel. As chart editions are updated, NOAA will incorporate the addition of a cautionary note to applicable nautical charts of Rosario Strait to highlight the danger to mariners.

4. USCG VTS Puget Sound has observed a trend for tugs and tows transiting north or southbound in Rosario Strait to be set to the west, particularly in the southern portions of Rosario Strait where several navigational hazards exist just to the west outside the traffic lane. VTS Puget Sound will continue to employ electronic visual alarm zones within Rosario Strait to alert Vessel Traffic Management Specialists when a vessel may be departing the traffic lane and standing into potential danger so that a timely and relevant marine traffic advisory can be provided to help avert a marine casualty.

5. Nothing in this Standard of Care relinquishes the vessel owner or operator from any of the requirements regarding vessel safety and the protection of the environment specified in the applicable sections of 46 CFR "Shipping" and 33 CFR "Navigation," or the International Regulations for Prevention of Collisions at Sea, 1972 (72 COLREGS).

ACTION: It is crucial that towing vessel owners and operators remain cognizant of the challenges associated with transiting Rosario Strait, convey this information in company operating manuals, take extra precautions to ensure vigilant watch standing practices, and consider augmenting bridge watch manning while transiting this environmentally sensitive waterway as a measure to mitigate risk.

B. SPECIFIC STANDARD OF CARE

1. This Standard of Care is applicable to all towing vessel transits (not light tugs without a tow) through Rosario Strait regardless of the time of day or tidal state, weather conditions, or visibility.

    a. Towing vessels are encouraged to transit the middle of the single traffic lane, except when meeting another vessel or to comply with the VTS Special Area regulations not to impede the passage of a vessel of 40,000 dead weight tons or more.

    b. Towing vessels are to call USCG VTS Puget Sound on channel 05A at a Calling In Point when southbound in Rosario Strait. This Calling In Point will be at 48° 35' 00"N, when abeam Tide Point. This Calling In Point will place emphasis on the importance of watchstander vigilance and provide an opportunity for USCG VTS to share appropriate vessel traffic and/or hydrological information.

2. Additional VTS Special Area regulations for towing vessels in Rosario Strait are restated below:

    a. If towing astern, do so with as short a hawser as safety and good seamanship permits.

    b. Towing vessels shall not enter or get underway in the VTS Special Area if a hazardous vessel operating condition exists as defined in 33 CFR 161.2. Deviations may be granted only by the USCG Captain of the Port.

    c. Before meeting, crossing, or overtaking any other Vessel Movement Reporting System User in the VTS Special Area, towing vessels shall communicate on the designated vessel bridge-to-bridge radiotelephone frequency their intended navigation movements and any other information necessary in order to make safe passing arrangements.

SPOKANE STREET DRAWBRIDGE NOTIFICATION

Action items:

- All vessels intending to transit the Duwamish Waterway, particularly during the workday hours between 6:00am and 9:00am or 3:00pm and 6:00pm, are encouraged to give notice to the Spokane Street Bridge drawtender about two hours prior to needing that bridge to be opened.
- Whether or not any vessel gives such notice, the Spokane Street Bridge shall open on signal per the regulations at 33 CFR 117.1041.

Discussion:

Per the regulations as 33 CFR 117.1041(a) "**The draws of each bridge across the Duwamish Waterway shall open on signal,** except as follows: (1) From Monday through Friday, except all Federal holidays but Columbus Day, the draws of the First Avenue South Bridges, mile 2.5, need not be opened for the passage of vessels from 6 a.m. to 9 a.m. and from 3 p.m. to 6 p.m., except: The draws shall open at any time for a vessel of 5000 gross tons and over, a vessel towing a vessel of 5000 gross tons and over, and a vessel proceeding to pick up for towing a vessel of 5000 gross tons and over." **Thus, the Spokane Street Bridge is to open to all vessels regardless of time of day upon the proper signal as covered in the regulations.**

As the regulations imply, the commuter traffic on these bridges is very heavy at certain hours. This is particularly true of the Spokane Street Bridge. **To best ensure the freedom and safety of navigation in the Duwamish Waterway and to also allow the Washington State and Seattle Departments of Transportation to provide highway users more detailed information to plan their commute, mariners should at all times provide to the Spokane Street bridge drawtender as much advance notice as practicable prior to requiring a drawbridge opening.**

Advance notification to the drawtender should be made by radio on Channel 13 or by phone to 206-684-7443.

Again, whether or not a vessel gives notice, the Spokane Street Bridge shall open on signal per 33 CFR 117.1041.

This standard of care regarding advance notification only supplements the regulations, thus mariners should also be familiar with the referenced regulations as well as the discussion of Duwamish Waterway bridges in Chapter 13 of Coast Pilot 7. Mariners should also note information in the Puget Sound Pilots Guidelines to Vessels at http://pspilots.org/dispatch-information/general-guidelines-for-vessels/. Useful information may also be found on the City of Seattle Department of Transportation website at:
http://www.seattle.gov/transportation/bridgeopenings.htm.

TANKER ESCORT

A. APPLICABLE VESSELS

All tank vessels as defined in Federal OPA 90 tanker escort requirements as per 33 CFR 168 (single hull tankers over 5,000 GRT); and State of Washington RCW 88.16.190 and WAC 363-116-500 (all oil tankers 40,000 DWT and over). Refer to Attachment 1 containing Federal and State tanker escort regulations.

B. ESCORT OPERATION

All escorts must be in close proximity for timely and effective response taking into consideration ambient sea and weather conditions, escort configuration, maneuvering characteristics of the vessels, emergency connection procedures, surrounding vessel traffic and other factors that may affect response capability. When required by this standard or otherwise deemed appropriate by the Master/Pilot to tether, the geographic areas include, but are not limited to, Rosario Strait, Guemes Channel, Haro Strait, Boundary Pass and between Saddlebag and Huckleberry Islands.

For the purpose of this document, "FULLY REDUNDANT TANKER" shall be defined as a tanker meeting 33 CFR 157.03 (double hull) and having fully redundant steering and propulsion systems as well as integrated navigation systems to minimally include: (1) Redundant propulsion and steering systems: (A) two independent propellers each with a dedicated engine (or motor), propulsion system (electrical generation system) electrical system (including the switchboard), fuel system, lube oil system; and any other system required to provide the vessel with independent means of propulsion; and (B) two independent rudders each with separate steering systems; and (C) the propulsion and steering components, as described in subsections (A) and (B), above, shall be arranged in separate spaces, such that a fire or flood in one space will not affect the equivalent system in the other space(s). (2) A navigation system in compliance with the federal navigational equipment requirements set forth in 33 CFR Sections 164.35, 164.37, 164.38(b), 164.40, 164.42, 164.46.

1. TETHERING REQUIRED; FULLY REDUNDANT TANKERS

   Areas where tethering between escort tug and tank vessel is a requirement of this standard are specifically:

   A. Between Saddlebag and Huckleberry Islands
   B. In the vicinity of Viti Rocks
   C. Within the confines of Guemes Channel from Shannon Point to Cap Sante

2. TETHERING REQUIRED, TANKERS NOT FULLY REDUNDANT

   Areas where tethering between escort tug and tank vessel is a requirement of this standard are specifically:

   A. Between Saddlebag and Huckleberry Islands
   B. In the vicinity of Viti Rocks
   C. Within the confines of Guemes Channel from Shannon Point to Cap Sante
   D. Boundary Pass
   E. Haro Strait
   F. Rosario Strait

   Tankers should periodically demonstrate the tanker, escort and crews' ability to maneuver in response to a partial or total loss of propulsion and/or steering as a means of ensuring system integrity.

3. TANKER DECK FITTINGS: Noting that the following is already an industry standard put forth by Oil Companies International Marine Forum (OCIMF) in its Mooring Equipment Guidelines and is recognized by the International Maritime Organization (IMO) and by Intertanko, the following tanker deck fittings standards are to be followed in Puget Sound under this tanker escort standard of care when transiting Rosario Strait between Davidson Rock and Buoy CA (including all passages to/from Vendovi Island and anchorages and Anacortes), Boundary Pass and Haro Strait.

   - Oil tankers of 40,000 but less than 50,000 DWT when not in ballast: If the deck fitting, where the escort tug is made fast, has a Safe Working Load (SWL) of less than 100 metric tons, a second tug is to be provided.

   - Oil tankers of 50,000 and more, when not in ballast: If the deck fitting, where the escort tug is made fast, has a SWL of less than 200 metric tons, a second tug is to be provided.

4. ESCORT SPEED: The speed through the water of a tank vessel required to have escort(s) shall not exceed the service speed of the escort(s). The speed of the tank vessel shall be such that the escort(s) can reasonably be expected to bring the tank vessel under control within the navigational limits of the waterway. This speed shall take into consideration ambient sea and weather conditions, maneuvering and other characteristics of the vessel, surrounding vessel traffic, hazards, and other factors reducing maneuvering room. In Rosario Straits, speed through the water should not exceed 10 knots. When tethered, tank vessel and escort(s) must communicate as to appropriate speed so as to allow effective response and facilitate escort vessel maneuvering.

5. TUG AVAILABILITY: Refer to Attachment 1 for minimum state and federal escort tug performance requirements. Regardless of minimum state/federal

performance requirements, tanker Master/Pilot are to confirm that escort vessel(s) assigned to the transit are tractor type in configuration and capable of Indirect, Powered indirect and direct mode of suitable power. Currently, there are two companies providing escort services in Puget Sound. For information regarding their available escort tugs, refer to each companies web site:

- Foss Maritime – www.foss.com. For Ship Assist and Escort Services go to http://www.foss.com/services/ship-assist-and-tanker-escort/.
- Crowley Maritime – www.crowley.com. For Ship Assist and Escort Services in the Pacific Northwest go to: www.crowley.com/ship-Assist-Escort/pacific-northwest.asp.

6. MASTER'S RESPONSIBILITIES: It is the tanker Master's responsibility to ensure the vessel can make a safe transit. Nothing in this SOC precludes the Master from taking the appropriate action to ensure the safety of the vessel. The Master must provide the identification of strong tow point areas where escort tug(s) are likely to be made fast. When vessels tether, particular attention should be paid to not exceed the safe working loads of either vessel's equipment. Tanker Masters and tug Masters should refer to OCIMF "Mooring Equipment Guidelines, 3rd edition.

7. PRE-ESCORT CONFERENCE: All tank vessels that are required to have escort(s) must also conduct a tanker Master – Pilot – Tug Master pre-escort conference as listed in 33 CFR 168.60, and will include relevant port security issues for the transit.

8. ESCORT MANUALS: Tanker Escort Manuals are available from the tug companies performing escort service in Puget Sound. Tanker owners and operators are encouraged to obtain copies of these manuals for reference.

9. DIVERSION OF ESCORT TUG IN EMERGENCY: The Captain of the Port may, in an emergency search and rescue situation, for which the tank vessel escort tug is the closest and most appropriate rescue vessel, request the escort tug proceed to serve as the rescue vessel. The Captain of the Port will make a determination at that time as to whether the escorted tanker may proceed unescorted, or if additional safety measures are required, such as waiting for another tug escort, or anchoring.

C. RECOMMENDATIONS

1. TRAINING: When planned, and on a real-time basis, training that is mutually beneficial for the tug and tanker will be conducted within the four scenarios of Hook-up, Retard, Assist, and oppose. Pilots are strongly encouraged, when doing their 5-year refresher training on manned models, to include scenarios with tethered and non-tethered loss of steerage and propulsion. When conducting simulator training, tanker companies are encouraged to include escort training. Tug companies are encouraged to coordinate with tanker company simulations.

2. OPERATIONS: Tug companies are strongly encouraged to have one other crew member, besides the boat operator, on the bridge of the escorting tug whenever it is tethered.

3. SOC REVIEW: During the annual review of the Harbor Safety Plan the continuing evolution of technology onboard escorted tank vessels and their required tugs will be evaluated**.**

Attachment 1: Applicable Federal and State Regulations

TANKER ESCORT

ATTACHMENT 1 - Applicable Federal and State Regulations

A. FEDERAL OPA 90 REQUIREMENTS:
TITLE 33 – NAVIGATION AND NAVIGABLE WATERS
PART 168 – ESCORT REQUIREMENTS FOR CERTAIN TANKRS

168.01 Purpose
168.05 Definitions
168.10 Responsibilities
168.20 Applicable Vessels
168.30 Applicable Cargoes
168.40 Applicable Waters and Number of Escort Vessels
168.50 Performance and Operational Requirements
168.60 Pre-escort Conference

Abstract: All single-hull tankers over 5,000 Gross Tons and laden with petroleum oil cargo are required to be escorted by at least two suitable escort tugs. These requirements apply to any petroleum oil listed in 46 CFR Table 30.25-1 as a pollution category I cargo. These requirements apply to the navigable waters in the U.S. east of a line connecting New Dungeness Light with Discovery Island Light and all points in the Puget Sound area north and south of these lights. Laden tankers greater than 125,000 DWT are prohibited from navigating in these regulated waters.

B. STATE OF WASHINGTON REQUIREMENTS:

WAC 363-116-500 Tug Escort Requirements For All Tankers
RCW 88.16.170 Oil Tankers - Intent and Purpose
RCW 88.16.180 Oil Tankers - State Licensed Pilot Required
RCW 88.16.190 Oil Tankers - Restricted Waters - Standard Safety Features Required - Exemptions

Abstract: Tug escort is required for all oil tankers of 40,000 DWT or greater when in a laden condition. The tug horsepower must equal or exceed 5 percent of the ship's deadweight tonnage. These requirements apply to all liquid oil cargoes, whether or not petroleum-based, and they also apply to Liquified Natural and Petroleum Gas carriers according to the same standards that apply to oil tankers. These requirements apply to the navigable waters of Washington State east of a line extending from Discovery Island Light south to New Dungeness Light.

C. 33 CFR Part 168 Federal Performance Requirements:

The escort vessels, acting singly or jointly in any combination as needed, and considering their applied force vectors on the tanker's hull, must be capable of:—

1. Towing the tanker at 4 knots in calm conditions, and holding it in steady position against a 45-knot headwind;
2. Holding the tanker on a steady course against a 35-degree locked rudder at a speed of 6 knots; and
3. Turning the tanker 90 degrees, assuming a free-swinging rudder and a speed of 6 knots, within the same distance (advance and transfer) that it could turn itself with a hard-over rudder.

TERMINAL GANTRY CRANE SAFETY

Action Items:

- **Prior to a vessel's arrival or departure from a berth, gantry cranes must be positioned close together, near the amidships section of the vessel.**
- **Idle crane booms shall be topped up. If a boom cannot be topped up, pilots should be notified.**
- **Gantry cranes must not be moved when vessels are berthing.**
- **Personnel should not be aloft on a gantry during berthing or unberthing operations.**

Any time a ship is maneuvered near a berth with gantry cranes, a risk of allision exists. If a ship contacts a dock at any attitude other than flat and parallel, portions of the vessel can extend over the dock. Should a gantry crane happen to be in the overshadow area, an allision resulting in significant loss is likely. The best way to minimize this risk is to **leave gantry cranes in identified safe areas on the craneway.** These safe areas will vary from terminal to terminal, but will most often be the craneway areas adjacent to the ship's flatbody between the spring line bollards.

Gantry cranes boomed down over empty berths risk contact with berthing or passing ships. Generally most modern container ships' airdraft is too high to pass safely underneath a lowered gantry boom. Newer gantry booms extend in excess of 200-plus feet beyond the dock face and into the Federal Navigation Channel, which is already narrow due to configuration. If operations require a boom down over an empty berth, the appropriate operations members and pilots should be notified of the likely duration and subsequent notification should be made when the boom is raised.

Gantry crane booms should not be moved while a ship is berthing. First, any crane movement causes a loss of situational awareness regarding the ship's motion relative to the berth. Second, the crane's audible motion alarms interfere with pilot-tugboat communications. Either can cause the pilot to momentarily lose control of the vessel during the critical part of the mooring. If cranes must be moved to clear bollards for the linemen or for any other reason, they should not be moved during vessel approach until after the ship is against the dock fenders.

Lastly, personnel should not go aloft on gantry cranes during mooring operations. Additionally, any time personnel are aloft on gantry cranes that are boomed down over an empty berth, they must appreciate and evaluate the risks posed by passing vessels. Maintenance crews should be aware of scheduled vessel movements in the area before commencing work on gantry cranes.

TOWING VESSEL OPERATIONS

For the purpose of the Harbor Safety Plan, the Harbor Safety Committee notes that the American Waterways Operator's (AWO) Responsible Carrier Program (RCP) contains the standards of care that responsible towing vessel operators follow in the Puget Sound region.

The Responsible Carrier Program (RCP) has three principal parts –

- Management and administration
- Equipment and inspection
- Human factors

Each part reflects the role that each of these components plays in ensuring safe and efficient vessel operations. The program is intended to serve as a template for AWO member companies and other towing companies to use in developing company specific safety programs that are consistent with applicable law and regulation, that incorporate sound operating principles and practices not currently required by law or regulation, and that are practical and flexible enough to reflect a company's unique operational needs. The three sections of the program are meant to be used in conjunction with one another; the policies and procedures called for in the management and administration section, for example, should reflect the recommended principles and practices outlined in the equipment and inspection and human factors sections, as well as the variables of a company's trade, area of operations, size and organizational structure, and the like.

A. MANAGEMENT AND ADMINISTRATION

The management and administration section, the first section of the program, requires companies to look at nine principal aspects of their operations and to develop written company policies and procedures for each. These nine aspects are:

- Vessel operating policies/procedures
- Safety policy/procedures
- Environmental policy/procedures
- Incident reporting procedures
- Emergency response procedures
- Internal audit/review procedures
- Vendor safety
- Organization/levels of authority
- Personnel policies.

B. EQUIPMENT AND INSPECTION

The second section of the program contains guidelines for vessel equipment and inspection, and it's divided into two parts: one for inland towing vessels and one for coastal towing vessels. In most respects, the two sets of guidelines are identical, but

there are some differences that reflect the significant differences in the inland and coastal operating environments. This section of the program addresses six major areas:

- Hull,
- Machinery
- Firefighting and lifesaving equipment
- Navigation and communication equipment
- Rigging or towing gear
- Environmental controls

C. HUMAN FACTORS

The last section of the program deals with human factors: manning, watchstanding and work hours, and training. The program outlines a set of comprehensive criteria to be taken into account by companies in establishing safe manning levels for their vessels. It establishes maximum work hour limits for all towing vessel personnel. And, it focuses heavily on training, requiring that all vessel crewmembers receive initial and periodic refresher training in a specified list of subjects.

Training requirements are based on the position an individual holds aboard a towing vessel, not the Coast Guard license he or she happens to hold, and these requirements cover everyone, from the captain and mate to the engineer, tankermen, and deckhands -- both experienced and entry-level.

The practices and principles outlined in the RCP are, in large measure, based on principles of safe and sound operation that many companies in our industry have already voluntarily embraced. This program aims to build upon that foundation by extending those practices and principles throughout the industry as a whole.

UNDERKEEL CLEARANCE

Action Items:

- When underway, minimum clearance shall be 10% of vessel's draft or 3 feet, whichever is greater.
- When at anchor, the minimum clearance is 3 feet.
- The vessel is to remain always afloat on final approach to a berth, while at the berth and on its departure from a berth.

The above underkeel clearance standards shall be adhered to by all commercial vessels in Puget Sound. These standards of care are written with the understanding that certain vessels such as tugs with uninspected barges and commercial fishing vessels are required by the very nature of their business to operate with less than these minimum underkeel clearances when in specific locations and conditions. However, operating with the hull touching or resting on the bottom is no longer considered a prudent or appropriate practice.

While the above guideline is general in nature, it is noted that the determination of an appropriate minimum under-keel clearance for a specific vessel transiting a specific waterway must take into account many factors in addition to vessel draft and least depth, including but not limited to: vessel size, configuration, speed, trim, and list; the shape, size and hydrography of the waterway; and variations from predicted tidal levels.

APPENDIX 1 TO THE PUGET SOUND HARBOR SAFETY PLAN

Glossary of Terms

Captain of the Port (COTP)	The Coast Guard officer designated by the Commandant to command a Captain of the Port Zone as described in Part 3 of Title 33 Code of Federal Regulations.
Captain of the Port (COTP) Zone	A zone specified in Title 33 Code of Federal Regulations, Part 3 and, for coastal ports, the seaward extension of that zone to the outer boundary of the EEZ.
Cooperative Vessel Traffic Service (CVTS)	The system of vessel traffic management established and jointly operated by the United States and Canada within adjoining waters. In addition, CVTS facilitates traffic movement and anchorages, avoids jurisdictional disputes, and renders assistance in emergencies occurring in adjoining United States and Canadian waters.
District Commander	The Coast Guard officer designated by the Commandant of the U.S. Coast Guard to command a Coast Guard District as described in Part 3 of Title 33 Code of Federal Regulations.
Exclusive Economic Zone (EEZ)	The zone contiguous to the territorial seas of the United States, extending to a distance up to 200 nautical miles from the baseline from which the breadth of the territorial seas is measured.
Marine Transportation System (MTS)	38The U.S. Marine Transportation System (MTS) consists of waterways, ports and their inter-modal connections, vessels, vehicles, and system users, as well as federal maritime navigation systems. Specifically, it consists of: 25,000 miles of navigable channels; over 300 ports; 238 locks at 192 locations; Great Lakes; St. Lawrence Seaway; over 3,700 marine terminals; and numerous recreational marinas. Through 1400 designated inter-modal connections, it connects with over 174,000 miles of rail connecting all 48 contiguous States, as well as Canada and Mexico); over 45,000 miles of interstate highway (supported by over 115,000 miles of other roadways); and over 460,000 miles of pipelines.
Preparedness	The range of deliberate, critical tasks and activities necessary to build, sustain, and improve the operational capability to prevent, protect against, respond to, and recover from domestic incidents. Preparedness is a continuous process involving efforts at all levels of government and between government and private-sector and nongovernmental organizations to identify threats, determine vulnerabilities, and identify required resources.
Prevention	Actions taken to avoid an incident or to intervene to stop an incident from occurring. Prevention involves actions taken to protect lives and property. It involves applying intelligence and other information to a range of activities that may include such countermeasures as deterrence operations; heightened inspections; improved surveillance and security operations; investigations to determine the full nature and source of the threat; public health and agricultural surveillance and testing processes; immunizations, isolation, or quarantine; and, as appropriate, specific law enforcement operations aimed at deterring, preempting, interdicting, or disrupting illegal activity and apprehending potential perpetrators and bringing them to justice.

Response	Activities that address the short-term, direct effects of an incident. Response includes immediate actions to save lives, protect property, and meet basic human needs. Response also includes the execution of emergency operations plans and of incident mitigation activities designed to limit the loss of life, personal injury, property damage, and other unfavorable outcomes. As indicated by the situation, response activities include applying intelligence and other information to lessen the effects or consequences of an incident; increased security operations; continuing investigations into the nature and source of the threat; ongoing public health and agricultural surveillance and testing processes; immunizations, isolation, or quarantine; and specific law enforcement operations aimed at preempting, interdicting, or disrupting illegal activity, and apprehending actual perpetrators and bringing them to justice.
Sector Commander	Field level Coast Guard operational command. The senior Coast Guard official is the Sector Commander and, in most cases, this individual will also be the designated COTP.
Stakeholder	Those individuals or groups who can have an affect on, or be affected by, maritime operations and other events with the coastal marine environment.
Standard of Care (SOC)	Standards of Care are the procedures and practices, beyond regulatory requirements, that experienced and prudent maritime professionals follow to ensure safe, secure, efficient and environmentally responsible maritime operations. Formalized Standards of Care are "good marine practices" that are developed and published to provide a guide for maritime professionals to consider and incorporate into their decision making process. Standards of Care complement the laws and regulations and should they seem to conflict with law or regulation, the law or regulation is always superior.
State	Any state of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, and any possession of the United States. (As defined in section 2(14) of the Homeland Security Act of 2002, Public Law 107-296, 116 Stat. 2135, et seq. (2002).) For purposes of this Plan, we mean the State of Washington.
Tribe	Any Indian tribe, band, nation, or other organized group or community, including any Alaskan Native Village as defined in or established pursuant to the Alaskan Native Claims Settlement Act (85 Stat. 688) [43 U.S.C.A. and 1601 et seq.], that is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.
Vessel Response Plan	The oil spill response plan, to which the vessel is subject, as required by Federal and/or State regulations.
Vessel Traffic Service	The service implemented by the United States Coast Guard designed to improve the safety and efficiency of vessel traffic and to protect the environment. The VTS has the capability to interact with marine traffic and respond to traffic situations developing in the VTS area. In the Pacific Northwest, we have a Cooperative Vessel Traffic Service – see description above.

APPENDIX 2 TO THE PUGET SOUND HARBOR SAFETY PLAN

List of Acronyms

AC -- Area Committee
ACOE -- (United States) Army Corps of Engineers
AIS -- Automatic Identification System
AMSC -- Area Maritime Security Committee
APIS -- Advance Passenger Information System
ATB -- Articulated Tug Barge
ATBA -- Area to be Avoided
ATON -- Aids to Navigation
AWO -- American Waterways Operators
BTM -- Bridge Team Management
CBP -- (United States) Customs and Border Patrol
CCG -- Canadian Coast Guard
CDC -- Certain Dangerous Cargo
CFR -- Code of Federal Regulations
COLREGS -- Int'l Regulations for Avoiding Collisions at Sea (Rules of the Road)
COTP -- Captain of the Port
CVTS -- Cooperative Vessel Traffic Service
DOE -- (Washington State) Department of Ecology
DWT -- Deadweight Tons
ECDIS -- Electronic Chart Display and Information Systems
eNOAD -- Electronic Notice of Arrival/Departure System
ETA -- Estimated Time of Arrival
ETD -- Estimated Time of Departure
GT -- Gross Tons
HSP -- Harbor Safety Plan
ITB -- Integrated Tug Barge
ITU -- International Telecommunication Union
IMO -- International Maritime Organization
LNM -- Local Notice to Mariners
MARAD -- (United States) Maritime Administration
MARPOL -- International Convention for the Prevention of Pollution From Ships
MDA -- Maritime Domain Awareness
MMSI -- Maritime Mobile Service Identity
NOA -- Notice of Arrival (i.e., U.S. 96 hour Notice of Arrival)
NOD -- Notice of Departure
NOAA -- National Oceanic and Atmospheric Administration
NVMC -- National Vessel Movement Center
NVPZ -- Naval Vessel Protection Zone
OCIMF -- Oil Companies International Marine Forum Guidelines
OCNMS -- Olympic Coast National Marine Sanctuary

OPA -- Oil Pollution Act of 1990
OSRO -- Oil Spill Removal Organization
PAIR -- Pre-Arrival Information Report (i.e., Canadian 96 hour Pre-Arrival)
PIC -- Person in Charge
PSHSC -- Puget Sound Harbor Safety Committee
PSHSP -- Puget Sound Harbor Safety Plan
PSMFC -- Puget Sound Marine Firefighting Commission
PSP -- Puget Sound Pilots
PSVTS -- Puget Sound Vessel Traffic Service
RCP -- Responsible Carrier Program
RCW -- Revised Code of Washington (State)
RRT -- Regional Response Team
SLNM -- Special Local Notice to Mariners
SOC -- Standard Of Care
STBL -- Ship to be Lightered
SOLAS -- Safety of Life at Sea
STCW -- Standards for Training, Certification, and Watchkeeping for Seafarers
SWL -- Safe Working Load
TSS -- Traffic Separation Scheme
USCG -- United States Coast Guard
VRP -- Vessel Response Plan
VTS -- Vessel Traffic Center
WAC -- (State of) Washington Administrative Code
WDFW -- Washington State Department of Fish and Wildlife
WDNR -- Washington Department of Natural Resources
WX -- Weather