Spill Prevention, Preparedness, and Response Program

Washington State's Voluntary Program for Tankers

Voluntary Best Achievable Protection (VBAP) Standards and Exceptional Compliance Program (ECOPRO) Standards

April 2023 (Revised) ECY
Publication 00-08-020
printed on recycled paper

Abstract: A compilation of 32 standards addressing operating procedures, personnel policies, management practices, marine safety technology, oil spill preparedness, and oil spill response for companies participating in Washington State's Voluntary Program for Tankers. Tanker companies meeting these standards receive public recognition for their commitment to marine safety and environmental stewardship.

This publication is also available on the Department of Ecology website https://ecology.wa.gov/Spills-Cleanup/Spills.
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Refer to Publication Number 00-08-020 (Rev. April 2023)

Washington State's Voluntary Program for Tankers

Voluntary Best Achievable Protection (VBAP) Standards and Exceptional Compliance Program (ECOPRO) Standards

To maintain membership in Washington State's Voluntary Program for Tankers, the owner or operator of a tank vessel operating in Washington State waters must meet all Washington State laws pertaining to oil spill prevention, preparedness, and response. The applicable laws, known as the Washington Administrative Code (WAC), include:

WAC 173-180	Facility Oil Handling Standards
WAC 173-182	Oil Spill Contingency Plan
WAC 173-183	Oil Spill Natural Resource Damage Assessment
WAC 173-184	Vessel Oil Transfer Advance Notice and Containment Requirements
WAC 173-228	Vessel Sewage No Discharge Zones
WAC 317-40	Bunkering Operations
WAC 317-50	Financial Responsibility for Small Tank Barges and Oil Spill Response Barges

In addition to complying with applicable state, federal, and international standards, the owner or operator of a tank vessel operating in Washington State waters must meet the following standards to qualify as a VBAP or ECOPRO company. In order to meet an ECOPRO standard, the corresponding VBAP standard must also be met.

Contents

Acronyms:

AIS:	Automatic Identification System
BRM:	Bridge Resource Management
CATZOC:	Category zone of confidence
CFR:	Code of Federal Regulations
ECDIS:	Electronic Display and Information System
ECS:	Electronic Chart System
ECOPRO	Exceptional compliance Program
ENC:	Electronic Navigation Chart
ERM:	Engine room Resource Management
GPS:	Global Positioning System
IASC:	International Association of Classification Societies
ICS:	Incident Command System
IGS:	Inert Gas System
IMO:	International Maritime Organization
ISM:	International Safety Management
MARPOL:	International Convention for the Prevention of Pollution from Ships
NRC	National Response Center
OOW:	Officer of the Watch
OPA:	Oil Pollution Act of 1990
OWS:	Oily water separator
PM:	Planned Maintenance
RCW:	Revised Code of Washington
SMS:	Safety Management System
SOLAS:	Convention for the Safety of Life at Sea
STCW:	International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers, 1978
TSS:	Traffic Separation Scheme

UKC:	Under keel clearance
VHF:	Very high frequency
VBAP	Voluntary Best Achievable Protection
WAC:	Washington Administrative Code
WEMD	Washington Emergency Management Division

1: Navigation Watch Composition

VBAP Standard	ECOPRO Standard
Bridge navigational equipment alarms are working and set as appropriate to the passage. In Pilotage waters, the navigation watch consists of a licensed deck officer, a helmsman, and a lookout. The licensed deck officer may be the master. The licensed deck officer is in addition to the Washington state licensed pilot required for operations in Puget Sound (Revised Code of Washington (RCW) 88.16.180). The helmsman may not serve as a lookout. a. Communication between the lookout and the officer in charge on the bridge should be rapid, reliable and in English; and b. The name of each member of the navigation watch is logged in the deck log at the time the member assumes watch-standing duties.	Develop a process to ensure that new bridge equipment is compatible with International Maritime Organization (IMO) bridge alert management systems. See Resolution Msc.302(87) (Adopted on 17 May 2010) Adoption Of Performance Standards For Bridge Alert Management

2: Navigation Watch Procedures

VBAP Standard	ECOPRO Standard
a. The magnetic heading corresponding to each gyro heading steered is posted and kept updated for the helmsman; and b. Additional tests are performed to verify accuracy or deviation of the compasses before transiting Washington waters. Examples of additional tests are: checking gyro and magnetic headings while on ranges; comparing gyro heading with dock (pier or wharf) heading; and determination of gyro error by taking azimuths. **Position Verification** 1. Continuously cross check the Electronic Chart Display Information System (ECDIS) position using parallel index lines, radar overlay, or other techniques. 2. Establish position at least every 30 minutes using a terrestrial technique (visual bearing, radar, etc.) while underway in Washington waters; and 3. The Safety Management System (SMS) includes details of fix methods and intervals for different stages of the voyage (sea, coastal, restricted waterways, and pilotage passages).	Additional equipment is onboard. Examples include: • Extra master gyrocompass • Extra Global Positioning System (GPS) If the electronic bridge equipment is capable of screenshots save examples of evidence of cross checking position. If an incident occurs, as defined in VBAP Standard 16, send evidence of cross check along with an Event Report. **AND** If the electronic bridge equipment is capable of storing position data for six months, the position data is saved for at least six months.

3: Bridge Resource Management (BRM)

VBAP Standard	ECOPRO Standard
Each vessel employs a Bridge Resource Management (BRM) system for optimal bridge communication, teamwork, decision making, situational awareness, and mitigating effects of fatigue. Written procedures include: a. Communication guidance for bridge team members including clear guidance on communication between members and communication with pilot. All communications on bridge are in English; b. Defined bridge team assignments, duties, goals, objectives and priorities for each bridge team member for: 1. sea, coastal, restricted waterways, and pilotage passages 2. maneuvering in Traffic Separation Scheme (TSS) and anchorages 3. navigation with pilot onboard 4. restricted visibility and heavy weather; and 5. emergency events including oil spill incidents c. Procedures to ensure shared understanding of passage plan, include pre-arrival meeting and end of voyage debriefing; and d. Bridge manning for areas of high workload and/or risk, including guidance on fatigue management.	Company provides BRM training, which may be shore-based or provided onboard vessels, for all bridge watch standers. **AND** BRM training conducted as required. Examples of BRM training include: • Classroom training. • Computer-based training.

4: Coordination with Pilots – Pilotage Checklist

VBAP Standard	ECOPRO Standard
a. Pilot coordination occurs in a manner that does not interfere with the performance of the pilot's duties. b. The master uses a checklist that includes, at a minimum, the following: 1. Information requested by the pilot under WAC 363-116-200 concerning vessel maneuvering characteristics, condition of navigation and communication equipment, capabilities and problems with the propulsion and steering system, and other vessel specifications; 2. Navigational procedures and considerations, including destination, intended route, planned speed, vessel traffic services, and tug escort requirements; and 3. Local conditions including expected weather, tide, current, sea conditions, and vessel traffic. c. The vessel pilot coordination checklist and Washington State "Vessel Certification" (WAC 363-116-205) is completed at the beginning of the pilotage transit. Additionally, the pre-escort conference requirements listed in 33 Code of Federal Regulations (CFR) 168 are completed prior to commencing an escorted transit. These include at least: 1. Before commencing an escort transit, the tanker master shall confer, by radio or in person, with the tanker pilot and the masters of the escort vessels regarding the escort operation. i. The purpose of the pre-escort conference is for all parties to plan and discuss particulars of the escort transit. ii. At a minimum, the following topics must be addressed during the pre-escort conference: i. The destination, route, planned speed, other vessel traffic, anticipated weather, tide, and sea conditions, and other navigational considerations;	Pilotage checklist requires more information exchange than required under the VBAP standard. <u>Some examples of additional information are:</u> • Master and pilot discuss characteristics of mooring equipment including anchors and mooring lines and sequence of putting out or taking in mooring lines. • Master and pilot discuss approach to berth, tug utilization, and the specific mooring arrangement at destination terminal.

ii. The type and operational status of communication, towing, steering, and propulsion equipment on the tanker and escort vessels 2. The relative positioning and reaction time for the escort vessels to move into assist positions, including, if appropriate, pre-tethering the escort vessels at crucial points along the route 3. The preparations required on the tanker and escort vessels, and the methods employed in making an emergency towline connection, including stationing of deck crews, preparation of messenger lines, bridles, and other towing gear, and energizing appropriate deck equipment 4. The manner in which an emergency towline connection would be made (which escort vessel will respond, how messengers and towlines will be passed, etc.) 5. Other relevant information provided by the tanker master, pilot or escort vessel masters	

5: Safety Rounds

VBAP Standard	ECOPRO Standard
Safety rounds are conducted in spaces designated by the vessel's master to identify and to correct, if feasible, safety hazards such as potential fire hazards, defective machinery, hull and bulkhead integrity, malfunctioning safety equipment, potential sources of pollution, and potentially dangerous crew activities. a. Safety rounds are conducted when the vessel is underway, anchored, and moored; b. The master designates spaces on as much of the vessel as the master deems safe for the crew member making the round; c. Crew members making safety rounds are provided appropriate training and inspection checklists (which may be posted in conspicuous locations or carried by the person making the round), and instructed to first notify the officer in charge of the watch before attempting corrective action when a hazard is noted; d. Safety rounds are made at least every two hours. On tankers with functioning automated fire and flooding detection systems, the frequency of the rounds may be at least every four hours; and e. The officer in charge of the watch documents the completion of each safety round in the deck log or other document that is maintained on board the vessel for this purpose; and f. Unless the vessel is equipped with a functional closed circuit television system, a deck officer or their designee conducts a safety round of deck spaces when the vessel is loading or discharging cargo. The safety round is made at least every two hours when the vessel is moored or at anchor during cargo transfer and includes, at a minimum, cargo pump room and Inert Gas System (IGS) spaces. An entry is made in the deck log when the round is completed.	The ECOPRO standard is identical to the VBAP standard.

6: Anchor Watch

VBAP Standard	ECOPRO Standard
a. A licensed deck officer maintains a watch on the bridge at all times while the tanker is at anchor; b. The bridge watch stander speaks English; c. The position of the vessel and under keel clearance at anchor is continuously monitored; d. The ship's position is recorded manually or electronically at least once each hour, and more often than hourly if weather and tide/current conditions warrant; e. Procedures are in place to detect and respond to anchor dragging at its earliest possible stage; and f. Electronic Chart Display Information System (ECDIS) or Electronic Chart System (ECS) and GPS alarms are set to alert watch stander if vessel begins to drag anchor.	When at anchor in restricted visibility, there is at least one other person on watch, in addition to the Officer of the Watch (OOW).

7: Engineering Watch

VBAP Standard	ECOPRO Standard
a. More than one licensed engineering officer is on watch along with one engine rating while underway in Washington state waters (within 3 miles of land) b. Written guidance exists for fatigue management during times of high workload and/or risk (e.g., bunkering) c. Each vessel employs an Engine room Resource Management (ERM) system for optimal engine room communication, teamwork, decision making, situational awareness, and mitigating effects of fatigue. The ERM includes written procedures for: 1. The allocation, assignment and prioritization of resources including human resources, equipment and tool resources, consumable resources, and information resources, that results in a shared understanding of (at least) the following: i. Quality and quantity of engine crew; ii. Machinery, system, equipment, and tools; iii. Fuel oil, lubricating oil, water, and spare parts; iv. Machinery instruction, drawings, maintenance manuals; and v. Company International Safety Management (ISM) procedures, including work hours and fatigue management 2. Communication guidance for engine room team members - including clear guidance on communication between members and communication with the bridge team. 3. Duty assignments, goals, objectives and priorities for: i. sea, coastal, restricted waterways, and pilotage passages; ii. maneuvering in TSS and anchorages; iii. restricted visibility and heavy weather; and iv. emergency events including oil spill incidents.	The ship is equipped with automated systems for monitoring the engine room. Examples of automated systems for monitoring the engine room are: • Video monitoring devices. • Remote read-outs for pressures, temperatures, and electrical status.

8: ECDIS

VBAP Standard	ECOPRO Standard
When using an ECDIS the following should be addressed: a. Ensure latest software is uploaded, all abnormalities are documented, all input sensors operational b. ECDIS internal log checked for failures or abnormalities after software updates c. Visual checks are accomplished at compilation scale prior to passage plan approval d. All warnings and alarms are checked prior to passage plan approval e. The passage includes a planned speed and minimum under keel clearance expected for passage. f. Plan takes into account sufficient cross-track error to accommodate for any deviations caused by collision avoidance or currents g. The Electronic Navigation Chart (ENC) zone of confidence (CATZOC) is considered while checking the available under keel clearance (UKC) for passages h. Passage plan on ENC includes at least cross track corridor for each leg, No-go zones where applicable, heading marks, and parallel indexing lines h. For the passage, the safety contour and deep contour is calculated and shown based on a vessel's dynamic draft (static draft plus all allowances such as squat, sinkage due to changes in density, heel, and other variations or allowances) i. Alarms on ECDIS are kept active at all times j. Any changes in ECDIS safety settings are documented and communicated	The ECOPRO standard is identical to the VBAP standard.

9: Voyage Planning

VBAP Standard	ECOPRO Standard
A berth-to-berth voyage plan is developed for the tanker's trip through Washington state waters. The advice of the vessel's state-licensed pilot and varying local conditions are taken into consideration. A standard voyage plan for consecutive voyages along the same routes may be used if updated prior to the tanker's entry into state waters. The voyage plan addresses, at a minimum, the following: a. Waterway characteristics such as channel depth, turning areas, and navigational obstructions, based on current and up-to-date charts and navigational publications; b. Accuracy, dependability, and operating status, of available navigational aids, based on current notices to mariners and other navigational publications; c. Marine sanctuaries, traffic separation systems, areas-to-be-avoided, routes expected to be transited at night, and other areas where caution should be exercised based on up-to-date charts, and navigational publications; d. Predicted weather, currents, and tides; e. Expected vessel traffic; f. Procedures, expected communications, and times for complying with the requirements for vessel traffic services, pilotage, tug escorts, and tug assists g. Emergency procedures to be used while transiting state waters for vessel casualties, pollution incidents, and personnel health and safety; h. Berthing and anchoring arrangements, including water depth at intended mooring or anchorage; i. Engineering considerations, including pre-arrival tests and inspections, stability, trim and drafts, and required ballast.	Regular voyage plan updates are made by a licensed deck officer. **AND** Voyage plans are prominently displayed electronically or as a paper copy. **AND** Voyage plans are retained for at least 6 months

10: Assist Tugs at Port Angeles

VBAP Standard	ECOPRO Standard
Follow the Puget Sound Pilots General Guidelines for Vessels Transiting Restricted Waterways or Ports for Port Angeles Harbor.	The ECOPRO standard is identical to the VBAP standard.

11: Ship Service Generators

VBAP Standard	ECOPRO Standard
Tankers without automatic stand-by switching gear for stand-by generators operate with a stand-by generator running and immediately available to assume the electrical load; and If an automatic switching gear is fitted, then at least monthly, emergency and stand-by generators are started and the automatic switching gear is proven to be working.	Vessel has generators with automatic standby switching gear that is set in standby mode before arrival**.**

12: Steering Flat Inspections

VBAP Standard	ECOPRO Standard
Guidelines for steering flat inspections when vessel is in maneuvering situations: Engineers inspect the steering gear flat hourly unless monitored by a functional closed-circuit television or other acceptable monitoring system. Examples of other acceptable monitoring systems are low hydraulic pressure/fluid level alarms, power failure alarms, fire and smoke alarms, or steering flat bilge alarms if applicable, etc.	The ECOPRO standard is identical to the VBAP standard.

13: Pre-Arrival and Pre-Departure Tests and Inspections (Deck)

VBAP Standard	ECOPRO Standard
A tanker, twelve hours or less before it enters or gets underway in Washington State waters, conducts and logs in the deck log the following pre-arrival/departure tests or inspections (as appropriate for the system): Bridge Checks include: a. Navigational equipment checked, prepared, tested and ready for use, at the minimum: 1. Radar; 2. ECDIS; 3. Automatic Identification System (AIS); 4. Echo sounder; b. Manual inputs verified and updated as appropriate on: 1. ECDIS; and 2. AIS. c. Gyro and repeaters checked; d. All gyro and magnetic compass errors known and logged; e. Magnetic heading corresponding to gyro heading to be steered is posted and easily updated; f. Steering gear tested and logged; g. Internal communications between bridge and engine room tested and clocks synchronized; and h. Updated route displayed on ECDIS and/or other navigational devices as appropriate	Vessel conducts more tests and inspections than those required under the VBAP standard. Examples of additional tests and inspections are: • Test bridge very high frequency (VHF) radio sets to ensure they are operating correctly and set on channels that will be used for port control, pilot boat, tug, and vessel-to-vessel communications. • Check pilot ladder and/or pilot hoisting gear to ensure it is adequate and operating correctly.

14: Pre-Arrival and Pre-Departure Tests and Inspections (Engineering)

VBAP Standard	ECOPRO Standard
A tanker, twelve hours or less before it enters or gets underway in Washington State waters, conducts and logs in the engineering log the following pre-arrival/departure tests or inspections (as appropriate for the system): a. Emergency and stand-by ship service generators are started, and the switch gear is proven to be working; b. All steering systems and local controls of the steering gear at the steering gear flat are inspected or tested in follow up and non-follow up mode and the steering gear flat is inspected for unusual conditions such as leaks, fractures, and loose connections; c. Internal communications between bridge and engine room tested and clocks synchronized; d. The main engine, or engines, is tested ahead and astern, or through the full range of pitch of controllable pitch propellers if the tanker is so equipped; e. Main lubrication oil pumps are inspected or tested and ready for immediate use; f. Main heavy oil pumps are inspected or tested and ready for immediate use; g. For main engine lubrication and fuel oil systems fitted with duplex strainers, stand-by strainers are cleaned, purged, and made immediately available; and h. Fuel sufficient to operate the main engine or engines on the transit to berth or anchorage is transferred to the main engine settling or service tanks, or both. i. Main and stand-by cooling water system circulating pumps are inspected or tested and ready for immediate use;	Vessel has remote devices to monitor equipment subject to pre-arrival and pre-departure tests and inspections. **OR** Vessel conducts more tests and inspections than those required under the VBAP standard. Example of an additional test: Check storage batteries for emergency lighting and power systems in vessel control and machinery spaces.

j. Intake or charge air auxiliary electric blowers, if applicable, are inspected or tested and ready for immediate use; k. Starting and control air tanks are filled, blown down and ready for use; l. Main and stand-by air compressors are inspected or tested and ready for immediate use; and m. The starting air piping system is aligned and drained of condensate, etc.	

15: Emergency Procedures

VBAP Standard	ECOPRO Standard
Guidelines for emergency procedures are available on the bridge (electronic or hardcopy) and all bridge team personnel are trained in their use. These procedures include at least the following: a. Station bills are posted and clearly state crew assignments and duties for the following emergencies: 1. Shipboard fire; 2. Orders to abandon ship; 3. Man overboard; and 4. Oil spill response. b. Written procedures and checklists are established for~~:~~ 1. Collisions and allisions; 2. Groundings and strandings; 3. Hull breach, structural failure, and foundering; 4. Loss of propulsion; 5. Loss of steering; 6. Loss of electrical power; 7. Gyrocompass malfunction; 8. Gas / Toxic Vapor release;	An emergency squad organization with clearly defined duties is in place. **AND** Crew members participate in an emergency preparedness training program for additional emergencies (e.g. Helicopter evacuation).

VBAP Standard	ECOPRO Standard
9. Enclosed space entry and emergency evacuation; 10. Emergency towing; 11. Responding to loss of throttle control from the bridge; 12. Weather that poses hazards to personnel, the vessel, or equipment; 13. Engine room flooding; 14. Pump room flooding; and 15. ECDIS failure.	

16: Event Reporting

VBAP Standard	ECOPRO Standard
If the vessel is involved in an event, as defined below, while in Washington state waters: a. An event report is submitted to the Department of Ecology that documents the following information about the event: 1. The date time and location; 2. The weather conditions; 3. The vessel operations underway at the time; 4. The identity of any facilities and other vessels involved; 5. The type and amount of any oil spilled, and the estimated amount recovered; 6. A list of any government agencies to which the event was reported; 7. A brief analysis of any known causes and contributing factors; and 8. A description of measures taken to prevent a reoccurrence. b. The position plotting records, whether written, typed, electronically, or otherwise recorded, and the comprehensive written voyage plan are not erased, discarded, or altered. c. If an event results in an oil spill or poses a significant threat of an oil spill, even if short in duration, notifications are made to the Washington Emergency Management Division (WEMD) within one hour. If the vessel is enrolled in a cooperative oil spill contingency plan, notifications are made per the field guide or field document.	If the vessel is involved in an event in any location, (other than a near miss) an event report will be submitted to the Department of Ecology.

VBAP Standard	ECOPRO Standard
"Event" means a: 1. Collision; 2. Allision; 3. Near-miss incident which means a pilot, master, or other person in charge of navigating a tank vessel successfully takes action of a non-routine nature to avoid a collision with another ship, structure, or aid to navigation, or grounding of the vessel, or damage to the environment, and which trigger the company's causal analysis system; 4. Marine casualty which means those casualties described in 46 CFR sec. 4.05-1 except subsections (a)(5), (a)(6) and (b), regardless of vessel type, nation of registry; or location; 5. Disabled vessel which means an accidental or intentional grounding, failure of the propulsion or primary steering systems, failure of a component or control system that reduces the vessel's maneuverability, or fire, flood, or other incident that affects the; and vessel's seaworthiness or fitness for service; or 6. Spills of oil from a tank vessel.	

17: Comprehensive Training Program

VBAP Standard	ECOPRO Standard
The comprehensive training program includes familiarization training (VBAP Standard 18), and refresher training (VBAP Standard 19). In addition to complying with the International Convention on Standards of Training, Certification, and Watchkeeping for Seafarers, 1978 (STCW) as amended, and Federal Standards, tank vessels operating in Washington state waters meet the following training standards: Within three years from the date of employment by the owner or operator, a crew member completes the company's training program which includes instruction on the use of job-specific equipment; installed technology; lifesaving equipment and procedures; and oil spill prevention and response equipment and procedures.	Required training is completed within less than three years of hire.

18: Familiarization (Orientation) Training

VBAP Standard	ECOPRO Standard
a. Before being assigned to shipboard duties, crew members receive familiarization training in personal survival techniques including at least (See STCW Code Section A-VI/1 Chapter VI (STCW 2010 Resolution 2): 1. Communicating with other persons on board on safety matters and understanding safety information symbols, signs, and alarm signals; 2. What to do if: i. A person falls overboard; ii. Fire or smoke is detected; or iii. The fire or abandon ship alarm is sounded. 3. Identification of muster and embarkation stations and emergency escape routes; 4. Location and donning of life-jackets and survival suits; 5. Raising the alarm and basic knowledge of the use of portable fire extinguishers; 6. Taking immediate action upon encountering an accident or other medical emergency before seeking further medical assistance on board; and 7. Closing and opening the weather-tight and water-tight doors fitted in the particular ship, other than those for hull openings. b. Familiarization checklists are used and retained onboard; and c. Familiarization includes oil spill notification requirements for Washington. If enrolled in a cooperative oil spill contingency plan, training includes the plan field guide or field document.	Familiarization (orientation) training includes additional topics. <u>Examples of additional topics are:</u> • Orientation in the working relationship between shore-based vessel operations and shipboard operations. • Drug and alcohol awareness training and orientation in company policy on drug and alcohol abuse (for all crew members). • Self-contained breathing apparatus (for example, MSA or Scott Airpak) training, including fit testing (for cargo watch standers). • Orientation and training in looking for, and reporting, oil in the water around the ship (for all crew members).

19: Refresher Training

VBAP Standard	ECOPRO Standard
a. Crew members receive refresher training at least once every 5 years; and b. Refresher training includes examination of the crew member's skills to determine his or her ability to safely and effectively perform in the position assigned.	Any training identified as necessary to improve performance is accomplished as soon as practical. **AND** Conduct annual oil spill notification training, including contingency plan holder field document or field guide training.

20: Shipboard Emergency Drills

VBAP Standard	ECOPRO Standard
Vessels conduct and log in the deck log emergency drills conducted in the manner and frequency required by 46 CFR § 199.180. In addition, drills are conducted and logged at least quarterly for: a. Oil spill response; b. Emergency steering, including direct control within the steering gear compartment, the communications procedure with the navigation bridge and where applicable the operation of alternative power supplies as per Convention for the Safety of Life at Sea (SOLAS) Chapter V, Regulation 26-4; c. Loss of propulsion; d. Loss of electrical power; e. Emergency towing; f. Man overboard; g. Structural failure; h. Collision; j. Heavy weather; k. ECDIS failure; and l. Gas / Toxic Vapor Release Drills can be combined.	Crew members participate in a formal critique of the drill. **AND** Items requiring follow-up corrective action are logged. **AND** A crew person is assigned to take the required corrective action, if identified.

21: Drug and Alcohol Policies

VBAP Standard	ECOPRO Standard
All tankers operating in Washington State waters comply with 33 CFR Part 95 and 46 CFR Parts 4 and 16, except 46 CFR sec. 16.500. The owner's or operator's policies, procedures, and practices also ensure that: a. A person neither consumes, nor is under the influence of, alcohol on a tanker while in state waters unless that person is a passenger who does not perform any duty on the tanker in Washington state waters; and b. A person neither consumes, nor is under the influence of, illicit drugs on a tanker while in Washington state waters.	Vessel personnel are trained in both drug and alcohol abuse awareness and in drug and alcohol testing (for post-accident and probable cause).

22: Personnel (Performance) Evaluation System

VBAP Standard	ECOPRO Standard
A tanker operating in Washington state waters has a program for evaluation of each member of a vessel's crew that includes the following elements: a. The vessel's master, chief engineer, and officers monitor the fitness for duty of crew members. Any crew member determined to be unfit for duty is immediately relieved of duties; and b. An annual (at least) performance review for each permanent crew member provides a job performance evaluation and identifies any training needed to safely and effectively perform that crew member's assigned duties.	All permanent crew members (licensed officers and ratings) who have over one year of service receive performance evaluations at least annually. **AND** Any crew member whose performance indicates the need for training will complete this training as soon as practical, but not later than 18 months for officers and three years for unlicensed.

23: Work Hours (Rest Periods)

VBAP Standard	ECOPRO Standard
a. Crew members comply with Oil Pollution Act of 1990 (OPA 90) work hour restrictions and STCW 95 rest period requirements. Company policies ensure crew members are well-rested and able to perform their duties; b. Work hours are documented and maintained in a computerized system, and if requested, made available to the Department of Ecology; and c. A record of work hours is maintained by all crew members, including the Master and Chief Engineer, for a minimum of one year, and, if requested, provided to the Department of Ecology.	Company has procedures and policies in place to ensure when circumstances have required that OPA 90 or STCW work hours/rest hours are at their limit, or may be exceeded, the vessel will stand down until proper rest is obtained.

24: Language Proficiency

VBAP Standard	ECOPRO Standard
a. All licensed deck officers and the vessel's designated person-in-charge are proficient in English. b. A working language understood and spoken by subordinate officers and unlicensed crew is used on board; and c. All operating manuals, directives, written instructions, placards and station bills are printed in a language understood and spoken by both the vessel's licensed officers and unlicensed crew. d. All communication on bridge is in English	Company verifies proficiency in English during pre-hiring screening. **AND** All business between ships and shoreside staff is conducted in English. **AND** Key ratings (unlicensed personnel) such as helmsmen and ratings that stand cargo watches are required to be proficient in English.

25: Training Records

VBAP Standard	ECOPRO Standard
Detailed training records are maintained for all crew on each vessel for at least the last five years. The records include the training required to obtain a license or merchant marine document, completion dates, and performance evaluations of the training described in the training section. Personnel training records are maintained either on the vessel where the person is assigned or at a central location. If the owner or operator maintains personnel training records, the owner or operator provides the Department of Ecology any records requested within 72 hours of receiving a request for the record.	The ECOPRO standard is identical to the VBAP standard.

26: Vessel Visitation

VBAP Standard	ECOPRO Standard
a. Quarterly visits are conducted by company management, such as port captains or port engineers, either in person or virtually, with the Master and senior officers, to review shipboard management and operations, and provide guidance in correcting identified problem areas; and b. The time and date of the vessel visitation are recorded in a shipboard log, and findings are properly documented.	The ECOPRO standard is identical to the VBAP standard.

27: Planned Maintenance (PM) Program

VBAP Standard	ECOPRO Standard
A planned maintenance (PM) program for the vessel's navigation, propulsion, steering, communications, electrical, and cargo handling systems that: a. Complies with ISM, International Maritime Organization (IMO) and International Association of Classification Societies (IASC) standards; b. Includes, at a minimum, the maintenance schedule for each system according to company Safety Management System (SMS) procedures, Classification Society requirements, and the recommended frequency of the machine's or equipment's manufacturer; c. Has the ability to track the history of maintenance work; d. Includes inventory control and tracking of necessary replacement parts; e. Includes a hull inspection program. f. Includes a critical equipment planned maintenance schedule with a list of critical equipment (main and standby) including the supply of electrical power to essential services, propulsion, steering, and generators. Written procedures are contained in the SMS on how critical equipment maintenance and adjustment should be performed.	PM program is computerized. **AND** PM program includes additional modules such as: • Drydocking • Surveys and certificates • Quality management • Documentation management **AND** Company uses Predictive Maintenance: • Maintenance is condition-based • System involves proactive, non-intrusive analysis of equipment or machinery using monitoring systems with statistical processes that determine when components will need corrective maintenance • Technologies utilized include infrared, corona detection, vibration analysis, acoustic, oil analysis, and other tests. • Results are measured and used for trend investigations.

28: Preventive Maintenance Documentation

VBAP Standard	ECOPRO Standard
a. Surveys of the holds (tanks), piping, and hull by the vessel's classification society, and annual inspections or surveys by any other independent entity are documented; b. Any reports generated are retained onboard; c. For each vessel, a record book is kept with details of all inspections and biofouling management measures undertaken on onboard; and d. Regular hull cleaning and propeller blade maintenance is conducted and documented.	Licensed officers who use a particular system are competent in document control procedures for that system. **AND** The company's Preventive Maintenance Program electronically-archives maintenance documentation, showing all expiration dates and other significant data.

29: Technology – Emergency Towing

VBAP Standard	ECOPRO Standard
a. Detailed guidelines and vessel-specific information regarding Emergency Towing is available in the respective vessel-specific Emergency Towing Booklet. b. The gear is inspected quarterly and any maintenance and repair is conducted immediately. c. At least one quarterly drill per year for emergency towing includes demonstrating use of equipment.	Senior officers practice an emergency towing (vessel being towed) scenario during a live exercise or as part of their regularly scheduled simulator training. Alternatively, the requirement may be met with tabletop exercises.

30: Waste Oil and Oily Water Management System

VBAP Standard	ECOPRO Standard
a. Waste oil management procedures are contained in the vessel's SMS; b. Training in waste oil and oily water handling procedures is provided for all engineering officers and all unlicensed crew members involved in handling waste oil or oily water. This training includes the operation and maintenance of the oily water separator (OWS) and incinerator and log entries related to waste oil and oily water; c. Written procedures or checklists for waste oil and oily water management are readily available; d. The OWS and incinerator are maintained in accordance with manufacturer's recommendations and a record of maintenance is documented, checked, and verified by the Chief Engineer; e. If a facility is available for oily water waste disposal, company has a policy to use this facility; and f. Overboard discharge valve is secured and controlled by Chief Engineer.	Only qualified officers will supervise operation of the OWS and incinerator. **AND** Company has an internal audit system in place to verify the crew is following CFR and International Convention for the Prevention of Pollution from Ships (MARPOL) regulations regarding waste oil management.

31: Automated Identification System (AIS)

VBAP Standard	ECOPRO Standard
a. AIS equipment is calibrated, tested, and maintained according to the manufacturer's recommendations and regulatory requirements; b. Maintain a record showing dates and descriptions of AIS calibration, testing, maintenance, and operation; c. Pre-departure and pre-arrival checklists include checking AIS for proper operation and inputs; d. After anchoring, mooring, or getting underway, AIS is adjusted to transmit the correct status, and e. Accurate draft is reported.	The ECOPRO standard is identical to the VBAP standard.

32: Spill Preparedness Forms and Checklists

VBAP Standard	ECOPRO Standard
a. Emergency oil spill response procedures and checklists are posted or readily available on all tank vessels. b. Appropriate state contingency plan field document or field guide is located on the bridge and the notification placard is posted. The bridge team is trained on making required notifications while operating in Washington waters.	All Qualified Individuals or company's designated individual are trained in basic Incident Command System (ICS) procedures, such as filling out ICS Form 201 *Incident Briefing* before the spill response team arrives, when the spill occurs in Washington state waters. **AND** An ICS 201 form is used at every deployment drill and spill when the plan holder is present.

END