FACT SHEET FOR THE VESSEL DECONSTRUCTION GENERAL PERMIT

A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM AND STATE WASTE DISCHARGE GENERAL PERMIT

REISSUANCE: JUNE 20, 2024

EFFECTIVE DATE: AUGUST 1, 2024

DEPARTMENT OF ECOLOGY
State of Washington

SUMMARY

This fact sheet is a companion document to the draft National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General Permit for Discharges Associated with Vessel Deconstruction Activity (Vessel Deconstruction General Permit, or VDGP). The permit authorizes the discharge of stormwater and a limited number of non-stormwater discharges associated with vessel deconstruction activity. Vessel deconstruction activity refers to the dismantling of vessels or other floating craft, but not to disturbance incidental to vessel retrieval. The VDGP limits the discharge of pollutants to surface waters under the authority of the Federal Water Pollution Control Act (U.S.C.S. 1251) and limits the discharge of pollutants to surface and groundwater under the authority of Chapter 90.48 RCW.

Washington State Department of Ecology (Ecology) announced a preliminary determination to develop a general permit for vessel deconstruction over water on July 2, 2013. The United States Environmental Protection Agency (EPA) includes vessels or other floating craft in the definition of point source at 40 Code of Federal Register (CFR) 122.2. Discharges from point sources require an NPDES permit. Ecology currently issues individual NPDES permits to shipyards and general permits to boatyards engaged in activities including the dismantling of vessels. The VDGP addresses deconstruction of floating vessels and vessels deconstructed while over water, on a floating drydock, on a barge, or in limited cases on land, and not associated with a facility that holds an existing NPDES permit for this work.

The Washington State Department of Ecology is proposing to reissue the VDGP with changes. The changes to the permit are documented in Table 1 of this fact sheet. The permit will replace the permit that expires on December 5, 2024. This Fact Sheet explains the nature of discharges from vessel deconstruction activities over water, Ecology's decisions on limiting pollutants in stormwater and non-stormwater from deconstruction activities, and the regulatory and technical basis for those decisions.

This Fact Sheet is a companion document to the draft of the permit only, in order to help interested parties better understand the technical issues associated with the permit. Ecology will not revise this fact sheet following the public comment period, but will prepare a response to comments per WAC 173-226-170(1) that will be appended to the fact sheet as Appendix C. This fact sheet does not contain any independently enforceable requirements. The VDGP contains all of the actual requirements applicable to dischargers. In case of any conflict between the fact sheet and the Final VDGP, the terms of the Final VDGP govern.

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[1] https://ecology.wa.gov/About-us/Accessibility-equity/Accessibility

Table 1: Summary of Changes in the Draft VDGP

Section(s)	Previous Permit Language	Draft Permit Language
S1. Permit Conditions		
S1.C.2.	2. Operators of the following activities are not required to seek coverage under this VDGP (unless specifically required under Special Condition S1.B.1.b above):	2. Operators of the following activities are not required to seek coverage under this VDGP (unless specifically required under Special Condition S1.C.1.b above):
S1.C.2.(a)	(a) Vessel deconstruction activities that discharge all stormwater and non-stormwater to ground water (in compliance with ground water standards), sanitary sewer, or combined sewer, and have no point source discharge to either surface water or a storm sewer system that drains to surface waters of the State.	(a) Vessel deconstruction activities that discharge all stormwater and non-stormwater to ground water (in compliance with ground water standards) or municipal combined sewer or sanitary sewer and have no discharge to either surface waters of the state or a storm sewer system that drains to surface waters of the State.
S2. Permit Administration		
S2.A.2.(a).iii.	NA	iii. The Beginning of Deconstruction Notice Form shall include certification that the facility has met the State Environmental Policy Act (SEPA) requirements in WAC 173-226-200(3)(f)(ii).
S2.B.2.	NA	2. Public notice is not required if public notice has been circulated under this permit for the same type of discharge to the same receiving water(s) in the same geographical area.
S3. Compliance with Standards		
S3.C.2.	2. Implement BMPs contained in this permit, or BMPs that are demonstrably equivalent to BMPs contained in this permit, including the proper selection, implementation, and maintenance of all applicable and appropriate BMPs for on-site pollution control.	2. Implement BMPs contained in this permit (Special Condition S9.C.1-12), or BMPs that are demonstrably equivalent to BMPs contained in this permit, including the proper selection, implementation, and maintenance of all applicable and appropriate BMPs for on-site pollution control.

Section(s)	Previous Permit Language	Draft Permit Language
S4. Effluent Limits (New Special Condition; Renumbering of Special Conditions S4 – S12 to S5 – S13)		
S4.A. Stormwater Effluent Limits	NA	Permittees must comply with the stormwater effluent limits in Table 3 for all discharges to waters of the State.
	Table 3: Stormwater Effluent Limits and Sampling Requirements	Table 3: Stormwater Effluent Limits (moved Table 3 to from S5 to S4)
S4.B. Drydock Effluent Limits	Subject to compliance with the terms and conditions of this permit, Permittees are authorized to discharge drydock floodwater to surface waters of the State.	Subject to compliance with the terms and conditions of this permit, Permittees are authorized to discharge drydock floodwater to surface waters of the State. Permittees must comply with drydock effluent limits in Table 4.
	NA	Moved Table 4: Maximum Daily Limit, Analytical Method, and Laboratory Quantitation Level columns from S5 to S4.
S5. Sampling Requirements (changed from S4. Discharge Limits and Sampling Requirements)		
S5.B.	NA	Before each drydock flood event, the drydock must be free of all debris and employ BMPs in Special Condition S9.C. Permittees must comply with the sampling frequency and sample type identified in Table 5 for all drydock floods.
S5.B.	Table 4: Drydock Effluent Limits and Sampling Requirements	Table 5: Drydock Sampling Requirements (Minimum Sampling Frequency and Sample Type columns remain).
S5.D.5.	NA	5. Ballast water, if from a region with aquatic invasive species;(5 to 9 relabeled to 6 to 10)
S6. Non-Routine Discharges and Drydock Floodwaters (added and Drydock Floodwaters)		

Section(s)	Previous Permit Language	Draft Permit Language
S6	Any discharges not identified in Special Conditions S4 must be addressed in accordance with the terms and conditions of this section.	Any discharges not identified in Special Conditions S4 and S5 must be addressed in accordance with the terms and conditions of this section.
S6.B.	The Permittee must analyze the water for all constituents limited for discharge and report them as required by Special Conditions S4, above.	The Permittee must analyze the water for all constituents limited for discharge and report them as required by Special Conditions S4 and S5, above.
	NA	Added pollutants Chemical Oxygen Demand and Tributyltin to Table 6, included their respective analytical protocol, detection level, and quantification level.
	The analysis must also include any parameter deemed necessary by Ecology. All discharges must comply with the effluent limits as established in Special Condition 4 of this permit, water quality standards, and any other limits imposed by Ecology.	The analysis must also include any parameter deemed necessary by Ecology. All discharges must comply with the effluent limits as established in Special Condition S4 and S5 of this permit, water quality standards, and any other limits imposed by Ecology.
S8. Site Inspection Requirements		
S8.A.1.(a)	(a) Reviewing the DSMP for compliance with Special Condition S8 and making appropriate revisions within 24 hours of the end of the inspection.	(a) Reviewing the DSMP for compliance with Special Condition S9 and making appropriate revisions within 24 hours of the end of the inspection.
S9. Deconstruction and Site Management Plan		
S9.C.	The Permittee must include each of the 12 elements below in Special Condition S.C.1-12 in the narrative of the DSMP and implement them unless site conditions render the element unnecessary and the exemption from that element is clearly justified in the DSMP.	The Permittee must include each of the 12 elements below in Special Condition S9.C.1-12 in the narrative of the DSMP and implement them unless site conditions render the element unnecessary and the exemption from that element is clearly justified in the DSMP.

Section(s)	Previous Permit Language	Draft Permit Language
S9.C.10.	All non-stormwater discharges must comply with the requirements of S5. Non-routine discharges.	All non-stormwater discharges must comply with the requirements of Special Condition S6. Non-routine discharges.
S9.C.10.(c)	NA	(c) Ballast water discharges must not introduce an invasive species into waters of the state. ((c) was moved to (d)).
S11. Reporting and Recordkeeping Requirements		
S11.A.	Permittees required to conduct water quality sampling in accordance with Special Conditions S4 and S5 and/or G13 (Additional Sampling) must submit the results to Ecology.	Permittees required to conduct water quality sampling in accordance with Special Conditions S4, S5, and S6 and/or G13 (Additional Sampling) must submit the results to Ecology.
S11.D.	If the Permittee monitors any pollutant more frequently than required by this permit using test procedures specified by Special Condition S4 and S5 of this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Permittee's DMR.	If the Permittee monitors any pollutant more frequently than required by this permit using test procedures specified by Special Conditions S4, S5, and S6 of this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Permittee's DMR.
G20. Reporting Planned Changes		
G20.D.	A change in the deconstruction plans and/or activity that affects the Permittee's monitoring requirements in Special Condition S4.	A change in the deconstruction plans and/or activity that affects the Permittee's monitoring requirements in Special Conditions S4 and S5.
Appendix A – Definitions		
303(d) Listed Waters	means waterbodies listed as Category 5 on Washington State's Water Quality Assessment.	means waterbodies listed as Category 5 on Washington State's Water Quality Assessment, approved by EPA, in effect at the time of permit coverage
New Operation	NA	New Operation means an operation that begins activities that result in a discharge, or a potential discharge to

Section(s)	Previous Permit Language	Draft Permit Language
		waters of the state on or after the effective date of the general permit.
Existing Operation	NA	Existing Operation means an operation that is not a new operation.

INTRODUCTION

The Federal Clean Water Act (FCWA, 1972, and later modifications, 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One of the mechanisms for achieving the goals of the Clean Water Act is the National Pollutant Discharge Elimination System permit program (NPDES permits), which is administered by the U.S. Environmental Protection Agency (EPA). The EPA has delegated responsibility to administer the NPDES permit program to the State of Washington on the basis of Chapter 90.48 of the Revised Code of Washington (RCW), which defines the Department of Ecology's authority and obligations in administering the wastewater discharge permit program.

The regulations adopted by the state include procedures for issuing general permits (Chapter 173-226 of the Washington Administrative Code [WAC]), water quality criteria for surface and groundwaters (Chapters 173-201A and 200 WAC), and sediment management standards (Chapter 173-204 WAC). These regulations require a permit to be issued before discharge of wastewater to waters of the State is allowed. The regulations also establish the basis for effluent limitations and other requirements, which are to be included in the permit. One of the requirements (WAC 173-226-110) for issuing a general permit under the NPDES permit program is the preparation of a draft permit and an accompanying fact sheet. The regulations also require public notice of the draft permit for at least 30 days before the permit is issued (WAC 173-226-130). The fact sheet and draft permit are available for review (*see Appendix A – Public Involvement* of the fact sheet for more detail on the Public Notice procedures).

After the public comment period has closed, Ecology will summarize the substantive comments and prepare a response to each comment. The summary and response to comments will become part of the file on the permit. Parties submitting comments will receive a copy of Ecology's response. Comments and the resulting changes to the permit will be summarized in an appendix to this fact sheet, *Appendix C – Response to Comments*.

BACKGROUND INFORMATION

HISTORY

In July 2013, Ecology announced a preliminary determination to develop a general permit for the deconstruction of vessels over water. Discharges associated with vessel deconstruction were not permitted outside of facilities with either individual NPDES permits (shipyards) or coverage under the Boatyard general NPDES permit.

Ecology periodically responds to reports of vessels being deconstructed outside of permitted facilities, very often resulting in the unpermitted discharge of pollutants to waters of the state. Examples range from metal cutting on superstructures of floating vessels to complete deconstruction of vessels on the shoreline between high and low tide cycles. The costliest example, which required nearly $20 million from the Oil Spill Liability Trust Fund, is the deconstruction of the Davey Crockett on the lower Columbia River in 2011.

The VDGP was first issued in 2014 after an extensive public involvement process including public meetings and the formation of a technical advisory group (TAG). The TAG included representatives from shipyards, salvage companies, marine consulting, an environmental organization, and the Washington State Department of Natural Resources (DNR).

The VDGP, was effective on December 6, 2019, and expires on December 5, 2024. Input was solicited from the existing permittees and representatives with the Washington Department of Natural Resource's Derelict Vessel Program. An analysis of the coverages issued during the 2019 -2023 permit cycle was also performed. Key changes to the VDGP that resulted were adding more cleaning BMPs for drydocks and two new pollutants to the non-routine monitoring and reporting requirements list; Chemical Oxygen Demand (COD) and Tributyltin. In addition, a statement in the permit administration (Special Condition S2) was added to specify when public notice is required for deconstruction activities. Additionally, a statement about complying with SEPA requirements.

Ecology anticipates reissuing the permit in February 2024 with an effective date of March 2024, and expiration date of March 2029.

DESCRIPTION OF THE INDUSTRY

Vessel deconstruction is also commonly referred to as: ship breaking, ship recycling, and ship dismantling. In the United States, very limited vessel deconstruction is permitted outside of shipyards, boatyards, or other specialized facilities. Applicable Standard Industrial Classifications (SIC) and North American Industry Classification System (NAICS) for shipyards and boatyards are:

- SIC No. 3731 (NAICS No. 336611) Ship Building and Repairing: "Establishments primarily engaged in building and repairing all types of ships, barges, and lighters, whether propelled by sail or motor power or towed by other craft. This industry also includes the conversion and alteration of ships." (Includes Ship dismantling at shipyards).
- SIC No. 3732 (NAICS No. 336612) Boat Building and Repairing: "Establishments primarily engaged in building and repairing all types of boats."

The applicable SIC and NAICS for vessel deconstruction over water are (EPA, February 1999):

- SIC No. 4499 (NAICS No. 488390) Water Transportation Services, Not Elsewhere Classified (Includes Ship dismantling at floating drydock)

Despite the relative rarity of over water vessel deconstruction in the United States, the activity is addressed either directly or indirectly in several guidance documents from EPA.

- Development Document for Proposed Effluent Limitations Guidelines and Standards for the Shipbuilding and Repair Point Source Category (EPA 440/1-79/76b) (December 1979)
- Profile of the Shipbuilding and Repair Industry: EPA Office of Compliance Sector Notebook (EPA/310-R-97-008) (November 1997)
- Multimedia Compliance Monitoring Investigation Protocol for the Ship Scrapping Industry (EPA-331/9-99-001) (February 1999)
- A Guide for Ship Scrappers: Tips for Regulatory Compliance (EPA 315-B-00-001) (Summer 2000)

The EPA guidance for ship scrappers (EPA, 2000) is organized by processes necessary for successfully completing a major vessel deconstruction. The identified processes provide a summary description of the industry:

- Asbestos Removal and Disposal
- Sampling, Removal and Disposal of Polychlorinated Biphenyls
- Bilge and Ballast Water Removal
- Oil and Fuel Removal and Disposal
- Paint Removal and Disposal
- Metal Cutting and Metal Recycling
- Removal and Disposal of Miscellaneous Ship Machinery

Deconstruction often begins with identification, removal, and disposal of solid waste, including dangerous and hazardous wastes that are accessible prior to deconstruction. The condition of the vessel drives what processes are necessary and the timing of those activities. As physical deconstruction of the vessel superstructure proceeds, new hazards and potential pollutants are exposed.

The current dominant practice of vessel deconstruction in a drydock allows wastewater discharges to be captured and properly disposed of. Disposal may include treatment and disposal on-site, pretreatment and discharge to sanitary sewer, or hauling to facilities specializing in processing the waste stream. This method of deconstruction allows the use of fewer source control BMPs during the process, and instead focusing on the collection, containment and disposal of wastes that accumulate in the drydock. The drydock collects waste materials until they can be properly disposed of. The principal water quality BMP is proper cleanup of the drydock prior to flooding.

This permit authorizes deconstruction of vessels while afloat, outside of a drydock. In this scenario, many more source control BMPs must be utilized to prevent discharge of pollutants to surface waters. The vessel may act as temporary control as many process wastewaters can be contained within the vessel bilge, collected, and properly disposed of. Stormwater, from rainfall on exposed portions of the vessel, is the primary type of discharge anticipated for vessels deconstructed over water.

Other common wastewater streams include water used for fire suppression during metal cutting, and water used for safety and health reasons during asbestos abatement and working with lead paint. The permit does not authorize discharge of these wastewaters. They must be collected and properly disposed of offsite. In rare instances, these discharges may be considered for discharge to waters of the State on a case-by-case basis under Special Condition S.6 Non-routine Discharges.

GENERAL PERMIT APPROACH

A general permit to address discharges from vessel deconstruction activities over water is an appropriate permitting approach for the following reasons:

- A general permit is an efficient method to establish the essential regulatory requirements appropriate for a broad range of vessel deconstruction activities.
- A general permit allows Ecology to handle vessel deconstruction permit applications within the state of Washington more efficiently.
- A general permit is consistent with EPA's four-tier permitting strategy, the purpose of which is to use the flexibility provided by the Clean Water Act in designing a workable and reasonable permitting system.

In addition, a critical benefit to a general permit for over water deconstruction is to provide a reasonable and timely option for vessels without the ability to safely move to a land-based NPDES permitted facility. Vessels identified for deconstruction are, by definition, very near the end of their life cycle. They are often in poor condition and in danger of sinking without consistent efforts to keep them afloat. By the time an individual permit is crafted for a vessel in this condition, it may have already sunk, or discharged fuels, oil, or another wastewater through a deteriorated hull. A sunken vessel deteriorates much more rapidly than a floating one, and the difficulty in deconstructing it, while preventing further pollution, increases dramatically.

A general permit is designed to provide coverage for a group of related facilities or operations of a specific industry type or group of industries. It is appropriate when the discharge characteristics are sufficiently similar, and a standard set of permit requirements can effectively provide environmental protection and comply with water quality standards for discharges. In most cases, the general permit will provide sufficient requirements for discharges from vessel deconstruction sites.

This approach recognizes that there may be instances where the general permit is not appropriate for a specific deconstruction project. Ecology may require any discharger under the VDGP to apply for and obtain an individual permit or a more specific general permit if:

- It determines that the VDGP does not provide adequate assurance that water quality will be protected, or
- The project has a reasonable potential to cause or contribute to a violation of water quality standards.

WASTEWATER CHARACTERIZATION

Wastes generated during deconstruction activities include spent fuels and oils, spent abrasives, spent solvent, paint chips, various cleaners and anti-corrosive compounds, scrap metal, slag, welding rods, wood, plastic, resins, glass fibers, and miscellaneous trash. In addition, many older vessels contain; asbestos fibers in insulation and fire shields, gaskets and packing, polychlorinated biphenyls (PCBs) in caulking, gaskets, paints, electrical cable and various rubber and plastic products, and lead in paint. If not properly controlled, these pollutants can enter the wastewater stream. The permit authorizes three potential wastewaters: stormwater, drydock floodwater, and non-routine discharges.

STORMWATER

Due to the variability of vessels, deconstruction practices, and weather, it is not possible to characterize stormwater associated with deconstruction activities in terms of the average rate or frequency of discharges, or the average or estimated range in pounds per day of pollutants.

Two permit coverages were issued in the VDGP permit cycle from 2019 – 2023 and a total of four vessels were deconstructed under those two coverages. All of the permitted deconstruction activities during that permit cycle reported “No Discharge” on their DMRs. The 2014 permit relied upon existing permits for shipyards and boatyards, EPA guidance, and experience from in-place vessel deconstruction emergency projects to provide information on likely pollutants encountered in this activity. In addition, approximately 60 permittees of Ecology’s *Industrial Stormwater General*

Permit (ISGP) (Industrial Stormwater General Permit[2]) fell within the applicable SIC 44XX category. This category is highly variable, and none of the permitted facilities perform vessel deconstruction. However, given that similar activities occur, Ecology also considered effluent characterization data from 30 facilities in this category, available in the ISGP Fact Sheet and summarized in Table 2:

Table 2: Summary statistics for DMR results from 2015 through 2018 for the Water Transportation Category[1] (Sic Code 44xx).

Parameter	No. of Values	Mean Concentration	Minimum Concentration	Median Concentration	Maximum Concentration
Turbidity, in NTU	2066	28.55	0.001	8.81	3000
pH, in su	2013	7.10	2.05	7.08	8.92
Total Copper, in µg/L	2105	18.49	0.001	8.35	1060
Total Lead, in µg/L[2]	27	N/A	0.05	13	144
Total Zinc, in µg/L	2165	171.62	0.01	123	5490
Oil & Grease, in mg/L	2105	18.49	0.001	8.35	1060

1 Number of numeric results and concentrations are based upon single sample data. Numeric results include both "detect" and "non-detect" results, but exclude results where there was no sample collected, no discharge, no qualifying storm event, or no DMR submission.
2 Total Lead data was sourced from an issuance of the ISGP Fact Sheet prior to 2019.

Pollutants expected in the stormwater discharge from vessel deconstruction include oil and grease, sediment (suspended solids and turbidity), pH, copper, lead, and zinc. These pollutants are described below.

A. Oil and Grease: Oil, grease, and other petroleum products may contaminate stormwater if they are spilled or leaked. Oil and grease exhibit an oxygen demand. Oil may adhere to fish gills or coat and destroy algae or other plankton. Oil will also taint the flesh of fish and shellfish. The oil and grease parameter is comprised of thousands of organic compounds with varying physical and chemical properties. Although the oil and grease test does not include all the hydrocarbons that may result from petroleum contamination of stormwater, it will test for the common contaminants. This test, combined with the permit requirement to visually identify any oil sheen in stormwater discharges, should reveal any problem with petroleum contamination.

[2] https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-general-permits/Industrial-stormwater-permit

B. Sediment: Deconstruction activity involves operations that disturb vessel surfaces that may have accumulated sediment for numerous years. Disturbed sediments exposed to precipitation may result in stormwater runoff contaminated with suspended sediment. Suspended sediment is commonly measured as total suspended solids (TSS) and/or turbidity:

1. The total suspended solids (TSS) laboratory method measures the quantity of material suspended in water. The measure of TSS in stormwater allows for an estimation of sediment transport, which can have significant effects in downstream receiving waters.
2. Turbidity, expressed in nephelometric turbidity units (NTU), is a measure of the ability of light to penetrate the water. Turbidity is a function of the quantity of suspended solids in water. The suspended solids may affect biological functions, such as the ability of submerged aquatic vegetation to receive light and the ability of fish gills to absorb dissolved oxygen.

The surface water quality standards (Chapter 173-201A WAC) establish turbidity standards. Table 200 (1)(e) defines the turbidity standards for different aquatic use categories in fresh water. Table 210 (1)(e) defines the turbidity standards for aquatic life in marine water. The most stringent criteria state that turbidity shall not exceed 5 NTU over background turbidity when the background turbidity is 50 NTU or less or have more than a 10 percent increase in turbidity when the background turbidity is more than 50 NTU.

C. pH: Alkaline materials exposed during deconstruction may contaminate stormwater resulting in high pH (greater than pH 7). Acidic materials may also contaminate stormwater and result in low pH (less than pH 7).

The surface water quality standard for pH is within the range of 6.5 to 8.5 (freshwater) or 7.0 to 8.5 (marine water) with a human-caused variation within a range of less than 0.2 units for the aquatic use category with the most stringent pH standard. You can find the pH criteria in Chapter 173-201A WAC in Table 200 (1)(g) for fresh water and Table 210 (1)(f) for marine water.

D. Metals: Copper, zinc, and lead exposed during deconstruction may contaminate stormwater. Spent paint disturbed during deconstruction may contain any of these metals. Lead is a common component of older paints. Zinc is often used as a sacrificial anode to prevent fouling. Copper from antifouling bottom paint and piping associated with on-board machinery is another potential source.

The surface water quality standards for these toxic substances are found in WAC 173-201A-240. Numeric criteria for each vary in fresh water based on hardness. As hardness increases, more metal moves from the dissolved phase to the less toxic particulate phase. A translator represents the fraction of a total metal present in dissolved form. This is further explained in footnotes to Table 240 of WAC 173-201A-240.

The marine water criteria must apply at all other locations where the salinity values are greater than one part per thousand (WAC 173-201A-260). Marine conversion factors may be used to calculate dissolved metals numeric criteria and are further explained in footnotes of Table 240 of WAC 173-201A-240.

DRYDOCK FLOODWATER

Ecology has many years of monitoring data on drydock floodwater from the discharge monitoring reports of shipyards with individual NPDES permits. Full implementation of BMPs is critical to ensure the drydock is sufficiently cleaned of accumulated pollutants prior to flooding. With proper BMP implementation, the discharged floodwater typically meets water quality standards for parameters measured.

PROCESS WATER

Asbestos, polychlorinated biphenyls (PCBs), and lead are potentially present in water used during the deconstruction process for lead or asbestos abatement, fire and dust suppression. Water collected in the bilge may contain other pollutants such as oil and grease and heavy metals. Ballast water may contain chromium and other pollutants. This water will typically require collection, transport, and disposal off-site at an appropriate facility permitted to handle the waste.

Due to the high variability of potential pollutants in process, bilge, and ballast waters, discharge is permitted only on a case-by-case basis. Section S6. *Non-routine discharges*, requires an evaluation of alternatives to discharge, testing for suspected pollutants, and approval by Ecology prior to any discharge. Ecology expects this discharge to remain **non-routine**, however, we do anticipate cases where process water can be effectively treated on-site and discharged to surface waters of the State in compliance with water quality standards.

There may be holding tanks on board the vessel containing sewage, or gray water. These waste streams are not authorized for discharge to surface waters under this permit and must be pumped and hauled to a Sewage Treatment Plant.

SEPA COMPLIANCE

State law exempts the issuance, reissuance, or modification of any wastewater discharge permit from the State Environmental Policy Act (SEPA) process as long as the permit contains conditions that are no less stringent than Federal and State rules and regulations (RCW 43.21C.0383 and WAC 197-11-855). This exemption applies to the reissuance of this general permit but not to new site-specific vessel deconstruction proposals to discharge under the authority of this general permit. Applicants seeking general permit coverage for new deconstruction operations must certify on their Beginning of Deconstruction Form that the applicable SEPA requirements have been met before Ecology can authorize permit coverage. If an operation with coverage under the general permit needs to make a material change to a vessel deconstruction operation which results in a change to the volume or type of discharges is anticipated which is not specifically authorized in the permit or permit coverage, the operator must notify Ecology at least 60 days prior to the planned change (General Condition G6). If Ecology determines that the changes trigger the need for a modification of permit coverage, additional SEPA review may be necessary if the modification is outside of the scope of the initial SEPA evaluation. WAC 197-11-880 allows for exemption from SEPA review for actions that must be undertaken to avoid an imminent threat to public health or safety, to prevent an imminent danger to public or private property, or to prevent an imminent threat of serious environmental degradation. There may be limited circumstances where WAC 197-11-880 may exempt certain vessel deconstruction activities from SEPA review.

PERMIT LIMITS

Section 502(11) of the CWA defines effluent limitation as “any restriction on the quantity, rate, and concentration of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance.” Effluent limitations are among the permit conditions and limitations prescribed in NPDES permits issued under Section 402(a) of the Act, 33 U.S.C. §1342(a).

Federal and state regulations require that discharges from existing facilities, at a minimum, meet technology-based effluent limitations reflecting, among other things, the technological capability of Permittees to control pollutants in their discharges that are economically achievable. Specifically, state laws (RCW 90.48.010, 90.52.040 and 90.54.020) require the use of “all known, available and reasonable methods of prevention, control and treatment” (AKART).

Water quality-based effluent limits (WQBELs) are required by CWA Section 301(b)(1)(C) and, in Washington State, are based on compliance with the Surface Water Quality Standards (Chapter 173-201A WAC), Groundwater Standards (Chapter 173-200 WAC), Sediment Quality Standards (Chapter 173-204 WAC) or the National Toxics Rule (40 CFR 131.36). Ecology chooses the more stringent of these two limits (technology or water quality-based) for each of the parameters of concern when drafting NPDES permits. [CWA sections 301(a) and (b)].

Effluent limits in NPDES permits may be expressed as numeric or non-numeric standards. Under EPA’s regulations, non-numeric effluent limits are authorized in lieu of numeric limits, where “[n]umeric effluent limitations are infeasible.” [40 CFR 122.44(k)(3).] Courts have recognized that there are circumstances when numeric effluent limits are infeasible and have held that EPA may issue permits with conditions (for example, BMPs) designed to reduce the level of effluent discharges to acceptable levels:

- *Natural Res. Def. Council, Inc. v. EPA, 673 F.2d 400, 403 (D.C. Cir. 1982*) (noting that "section 502(11) defines 'effluent limitation' as *'any restriction' on the amounts of pollutants discharged, not just a numerical restriction*"; holding that section of CWA authorizing courts of appeals to review promulgation of "*any effluent limitation or other limitation*" did not confine the court's review to the EPA's establishment of numerical limitations on pollutant discharges, but instead authorized review of other limitations under the definition) (emphasis added).
- *In Natural Res. Def. Council, Inc. v. Costle*, 568 F.2d 1369 (D.C. Cir. 1977), the D.C. Circuit stressed that when numerical effluent limitations are infeasible, EPA may issue permits with conditions designed to reduce the level of effluent discharges to acceptable levels.

TECHNOLOGY-BASED LIMITATIONS

TYPES OF TECHNOLOGY-BASED EFFLUENT LIMITATIONS

Technology-based effluent limitations are in many cases established by EPA in regulations known as effluent limitations guidelines, or "ELGs." EPA establishes these regulations for specific industry categories or subcategories after conducting an in-depth analysis of that industry.

The Act sets forth different standards for the effluent limitations based upon the type of pollutant or the type of industry involved.

The CWA establishes two levels of pollution control for existing sources. In the first stage, existing sources that discharge pollutants directly to receiving waters were initially subject to effluent limitations based on the "best practicable control technology currently available" or "BPT." 33 U.S.C. § 1314(b)(1)(B). BPT applies to all pollutants. In the second stage, existing sources that discharge conventional pollutants are subject to effluent limitations based on the "best conventional pollutant control technology," or "BCT." 33 U.S.C. §1314(b)(4)(A); see also 40 C.F.R. §401.16 (list of conventional pollutants) while existing sources that discharge toxic pollutants or "nonconventional" pollutants (i.e., pollutants that are neither "toxic" nor "conventional") are subject to effluent limitations based on "best available technology economically achievable," or "BAT." 33 U.S.C. §1311(b)(2)(A); see also 40 C.F.R. §401.15 (list of toxic pollutants).

The factors permit writers must consider in establishing the levels of these control technologies are specified in section 304(b) of the CWA and EPA's regulations at 40 CFR §125.3.

Permit writers must consider technology-based limitations (water quality-based effluent limitations may be more stringent) in all NPDES permits. 40 CFR §122.44(a)(1) and 125.3. CWA sections 301(b)(1)(A) for (BPT); 301(b)(2)(A) for (BAT); and 301(b)(2)(E) for (BCT). Technology-based limits in this draft permit represent the BPT (for conventional, toxic, and non-conventional pollutants), BCT (for conventional pollutants), and BAT (for toxic pollutants and non-conventional) levels of control for the applicable pollutants.

EPA has not issued effluent limit guidelines for the ship building and repair industry, which includes ship dismantling. However, EPA conducted an extensive study of the ship building and repair industry and issued the Development Document for Proposed Effluent Limitations Guidelines and Standards for the Shipbuilding and Repair Point Source Category (EPA 440/1-79/76b) (December 1979). EPA concluded, "This industry is such that numerical effluent limitations are impractical and difficult to apply in a manner which could be monitored; therefore, guidance is provided for controlling wastewater pollutant discharges which require that best management requirements be applied." The report also identifies the following pollutant parameters as those which discharge or have the potential to be discharged to receiving waters from shipyards:

- Conventional pollutants: suspended and settleable solids, oil and grease, pH
- Priority pollutant metals: chromium, copper, lead, and zinc; and other metals: tin

When EPA has not promulgated effluent limitation guidelines for an industry, or if an operator is discharging a pollutant not covered by the effluent guideline, permit writers may base limitations on their best professional judgment (BPJ, sometimes also referred to as "best engineering judgment") of the permit writer. 33 U.S.C. § 1342(a)(1); 40 CFR 125.3(c). See Student Public Interest Group v.

Fritzsche, Dodge & Olcott, 759 F.2d 1131, 1134 (3d Cir. 1985); American Petroleum Inst. v. EPA, 787 F.2d 965, 971 (5th Cir. 1986). For this permit, Ecology based the technology-based limits on BPJ decision-making.

AUTHORITY TO INCLUDE NON-NUMERIC TECHNOLOGY-BASED LIMITS

Under EPA's regulations, non-numeric effluent limits are authorized in lieu of numeric limits, where "[n]umeric effluent limitations are infeasible." 40 CFR 122.44(k)(3). As far back as 1977, courts have recognized that there are circumstances when numeric effluent limitations are infeasible and have held that EPA may issue permits with conditions (e.g., Best Management Practices or "BMPs") designed to reduce the level of effluent discharges to acceptable levels. Natural Res. Def. Council, Inc. v. Costle, 568 F.2d 1369 (D.C.Cir.1977).

Through the Agency's NPDES permit regulations, EPA interpreted the CWA to allow BMPs to take the place of numeric effluent limitations under certain circumstances. 40 C.F.R. §122.44(k), entitled "Establishing limitations, standards, and other permit conditions (applicable to State NPDES programs ...)," provides that permits may include BMPs to control or abate the discharge of pollutants when: (1) "[a]uthorized under section 402(p) of the CWA for the control of stormwater discharges"; or (2) "[n]umeric effluent limitations are infeasible." 40 C.F.R. § 122.44(k).

In 2006, the U.S. Court of Appeals for the Sixth Circuit has once again held that the CWA does not require the EPA to set numeric limits where such limits are infeasible. Citizens Coal Council v. United States Environmental Protection Agency, 447 F3d 879, 895-96 (6th Cir. 2006). The Citizens Coal court cited to Waterkeeper Alliance, Inc. v. EPA, 399 F.3d 486, 502 (2d Cir. 2005), stating "site-specific BMPs are effluent limitations under the CWA." "In sum, the EPA's inclusion of numeric and non-numeric limitations in the guideline for the coal remining subcategory was a reasonable exercise of its authority under the CWA."

Additionally, the Sixth Circuit cited to Natural Res. Def. Council, Inc. v. EPA, 673 F.2d 400, 403 (D.C.Cir.1982) noting that "section 502(11) [of the CWA] defines 'effluent limitation' as 'any restriction' on the amounts of pollutants discharged, not just a numerical restriction."

EPA has substantial discretion to impose non-quantitative permit requirements pursuant to Section 402(a)(1)), especially when the use of numeric limits is infeasible. See NRDC v. EPA, 822 F.2d 104, 122-24 (D.C. Cir. 1987) and 40 CFR 122.44(k)(3).

RATIONALE FOR NON-NUMERIC TECHNOLOGY-BASED EFFLUENT LIMITS

Numeric effluent limits are not always feasible for industrial stormwater discharges as such discharges pose challenges not presented by the vast majority of NPDES-regulated discharges. Stormwater discharges can be highly intermittent. They are usually characterized by very high flows occurring over relatively short time intervals, and they carry a variety of pollutants whose source, nature and extent varies. See 55 FR at 48,038; 53 FR at 49,443. This is in contrast to process wastewater discharges from a particular industrial or commercial facility where the effluent is more predictable and can be more effectively analyzed to develop numeric effluent limits.

The variability of effluent and effectiveness of appropriate control measures makes setting uniform effluent limits for stormwater extremely difficult. There is a high level of variability among stormwater discharges, in terms of both flow rates and volumes and levels of pollutants, since the volume and quality of stormwater discharges associated with deconstruction activity depend on a number of factors. These factors include:

- The nature of grinding, cutting, hazardous and dangerous waste removal, and other deconstruction activities occurring at the site.
- The nature of precipitation in relation to phases of deconstruction activity.
- Vessel-specific conditions including the presence (or absence) of asbestos, oil and fuel, lead, mercury, polychlorinated biphenyls (PCBs) and other hazardous materials and dangerous wastes, vessel material (metal, fiberglass, wood, etc.), and the configuration of the vessel.

Control measures for deconstruction stormwater discharges tend to focus on pollution prevention measures, called Best Management Practices (BMPs). In accordance with 40 CFR 122.44(k) and 40 CFR 122.44 (s), this draft general permit includes requirements for the development and implementation of a Deconstruction and Site Management Plan (DSMP) to minimize or prevent the discharge of pollutants to waters of the State. These BMPs constitute Best Conventional Pollutant Control Technology (BCT) and Best Available Technology Economically Achievable (BAT) for stormwater discharges.

RATIONALE FOR NUMERIC TECHNOLOGY-BASED EFFLUENT LIMITATIONS

Technology-based effluent limitations are in many cases established by EPA in regulations known as effluent limitations guidelines, or "ELGs." EPA establishes these regulations for specific industry categories or subcategories after conducting an in-depth analysis of that industry. As mentioned above, EPA has not promulgated ELGs for the shipbuilding and repair (includes ship dismantling) industry. Their development document for the ELGs (EPA, 1979) recommended BMPs in lieu of numerical limitations, due to high variability among shipyards and difficulty in monitoring discharges.

Ecology's experience with existing shipyards is consistent with EPA's findings although monitoring drydock floodwater for numerical limits has proven feasible. Experience with stormwater from over water deconstruction is extremely limited as this activity is expressly prohibited in many states.

Stormwater

Stormwater discharges are likely to be highly variable based on the type of vessel, anticipated waste streams, phase of deconstruction (i.e., what portions of the vessel are exposed to stormwater), and rainfall. Ecology has very limited data available for stormwater runoff specifically from vessel deconstruction. Data from individually permitted shipyards provides some indication, however, only a small percentage of the work performed in shipyards is vessel deconstruction. More typical activities include vessel maintenance such as bottom scraping and painting, repairs, etc.

In addition, the alternative to deconstruction of a vessel while floating is deconstruction in a drydock where stormwater, along with other process wastewaters can be captured, contained, and transported off-site for treatment and disposal. While this practice has not been demonstrated, the vessel hull could serve a similar purpose to a drydock by capturing not only process waters (e.g., fire control water, lead and asbestos abatement water), but also stormwater.

Given these alternatives to direct discharge of stormwater, Ecology has determined that AKART for stormwater discharges from vessel deconstruction activities is compliance with the following effluent limits for oil sheen, oil and grease, and TSS (note: pH, turbidity and metals are discussed below in the water quality-based limit section).

Table 3: Technology based stormwater effluent limits for oil sheen, oil and grease, TSS.

Parameter	Units	Maximum Daily Effluent Limit		Basis for Limit
		Fresh Water	Marine	
Oil/Sheen	Yes/No	No visible sheen	No visible sheen	Ecology Best Professional Judgment
Oil and Grease	mg/L	5	5	Ecology Best Professional Judgment
TSS	mg/L	30	30	Ecology Best Professional Judgment

Oil Sheen / Oil and Grease: The limits of no visible oil sheen and oil and grease less than 5 mg/L are based on experience from drydock floodwater at shipyards with individual NPDES permits. Further discussion of the basis for these limits is given in the next section on drydock floodwater.

TSS

Ecology studies have demonstrated a poor statistical correlation between turbidity and total suspended solids (TSS). Conditions that tend to suspend larger particles can produce higher TSS values. For these reasons, and given that Ecology has very limited data on stormwater runoff from vessels being deconstructed, TSS is included for monitoring and limits.

The 30 mg/L TSS limit is based on best professional judgment that stormwater discharges with less than 30 mg/L TSS will not cause or contribute to a violation of sediment management standards. This limit is also consistent with the secondary treatment standards for domestic wastewater given in Chapter 173-221 WAC.

Further discussion of the limits for pH, turbidity, copper, zinc, and lead are discussed below in Consideration of Surface Water Quality-Based Limits for Numeric Criteria.

Drydock Floodwater

Discharge monitoring reports of shipyards with individual NPDES permits consistently demonstrate that with proper BMP implementation, drydock floodwater typically meets water quality standards for parameters measured. Over 90 percent of all measurements collected from drydocks from different shipyards reported oil and grease less than 5 mg/L and no visible sheen observed.

Non-Routine Discharges

As previously stated, vessel deconstruction scenarios are likely to be highly variable. Unanticipated situations may arise where the only feasible option for disposal of process wastewater is treatment and disposal to surface waters. Because Ecology cannot anticipate all possible wastewaters that may fall into this category, the permit includes a section for non-routine discharges.

EPA guidance documents, along with sampling and analysis of discharges associated with vessels deconstructed in-place (e.g., Davy Crockett) identified a number of parameters with the potential to be present in discharges associated with vessels undergoing deconstruction.

The permit requires monitoring of these potentially present parameters, and any other parameters Ecology requires, prior to approval of discharge. Permittees must provide at a minimum:

- The proposed discharge location
- The nature of the activity that will generate the discharge
- Any alternatives to the discharge, such as reuse, storage, or recycling of the water
- The total volume of water it expects to discharge
- The results of the chemical analysis of the water
- The date of the proposed discharge
- The expected rate of discharge, in gallons per minute

Ecology will use this information to either approve or deny a request to discharge. Ecology may also use the information to calculate site-specific water quality-based limits required to assure compliance with water quality standards. The discharge cannot proceed until approved by Ecology.

SURFACE WATER QUALITY LIMITS

In order to protect existing water quality and preserve the designated beneficial uses of Washington's surface waters, WAC 173-201A-510 states that waste discharge permits shall be conditioned such that the discharge will not cause a violation of established Surface Water Quality Standards. The Washington State Surface Water Quality Standards (Chapter 173-201A WAC) is a State regulation designed to protect the beneficial uses of the surface waters of the State. Surface water quality-based effluent limitations may also be based on an individual waste load allocation (WLA) or on a WLA developed during a basin-wide total maximum daily loading study (TMDL).

NUMERICAL CRITERIA FOR THE PROTECTION OF AQUATIC LIFE

"Numerical" water quality criteria are numerical values set forth in the State of Washington's Water Quality Standards for Surface Waters (Chapter 173-201A WAC). They specify the maximum levels of pollutants allowed in receiving waters to be protective of aquatic life. Numerical criteria set forth in the Water Quality Standards are used along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in a discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limitations, they must be used in a discharge permit.

NUMERICAL CRITERIA FOR THE PROTECTION OF HUMAN HEALTH

The EPA has promulgated numeric water quality criteria for the protection of human health that are applicable to Washington State (40 CFR 131.36). These criteria are designed to protect humans from cancer and other diseases, primarily from fish and shellfish consumption and drinking water from surface waters. Because most human health-based criteria are based on lifetime exposures, direct comparisons of receiving water criteria with pollutant concentrations in intermittent stormwater discharges are not appropriate. This and the high variation in stormwater pollutant concentrations and discharge volumes, both between storms and during a single storm make the application of human health criteria to stormwater particularly problematic.

Based on the authority of 40 CFR 122.44(k)(3), Ecology is requiring implementation of best management practices to control or abate pollutants because it is infeasible to derive appropriate numeric effluent limits for human health criteria.

NARRATIVE CRITERIA

In addition to numerical criteria, "narrative" water quality criteria (WAC 173-201A-260) limit toxic, radioactive, or deleterious material concentrations below those which have the potential to adversely affect characteristic water uses, cause acute or chronic toxicity to biota, impair aesthetic values, or adversely affect human health. Narrative criteria protect the specific beneficial uses of all fresh water and marine water in the state of Washington.

ANTIDEGRADATION

The purpose of Washington's Antidegradation Policy (WAC 173-201A-300-330; 2006) is to:

- Restore and maintain the highest possible quality of the surface waters of Washington.
- Describe situations under which water quality may be lowered from its current condition.
- Apply to human activities that are likely to have an impact on the water quality of surface water.
- Ensure that all human activities likely to contribute to a lowering of water quality, at a minimum, apply all known, available, and reasonable methods of prevention, control, and treatment (AKART).
- Apply three Tiers of protection (described below) for surface waters of the State.

Tier I ensures existing and designated uses are maintained and protected and applies to all waters and all sources of pollutions. Tier II ensures that waters of a higher quality than the criteria assigned are not degraded unless such lowering of water quality is necessary and in the overriding public interest. Tier II applies only to a specific list of polluting activities. Tier III prevents the degradation of waters formally listed as "outstanding resource waters," and applies to all sources of pollution.

Ecology considered Tier I and Tier II in this permit and determined there are no discharges under this permit to “outstanding resource waters.”

Ecology always considers Tier I when it issues a permit. Applying both technology-based permit limits and water quality-based limits to point source discharges meets Tier 1 requirements and the fact sheet describes how this permit meets those requirements.

Tier II requirements for general permits are given in 173-201A-320(6-7) as follows:

(6) General permit and water pollution control programs are developed for a category of dischargers that have similar processes and pollutants. New or reissued general permits or other water pollution control programs authorized, implemented, or administered by the department will undergo an analysis under Tier II at the time the department develops and approves the general permit or program.

(a) Individual activities covered under these general permits or programs will not require a Tier II analysis.

(b) The department will describe in writing how the general permit or control program meets the antidegradation requirements of this section.

(c) The department recognizes that many water quality protection programs and their associated control technologies are in a continual state of improvement and development. As a result, information regarding the existence, effectiveness, or costs of control practices for reducing pollution and meeting the water quality standards may be incomplete. In these instances, the antidegradation requirements of this section can be considered met for general permits and programs that have a formal process to select, develop, adopt, and refine control practices for protecting water quality and meeting the intent of this section. This adaptive process must:

i. Ensure that information is developed and used expeditiously to revise permit or program requirements;

ii. Review and refine management and control programs in cycles not to exceed five years or the period of permit reissuance; and

iii. Include a plan that describes how information will be obtained and used to ensure full compliance with this chapter. The plan must be developed and documented in advance of permit or program approval under this section.

(7) All authorizations under this section must still comply with the provisions of Tier I (WAC 173-201A-310).

This fact sheet describes how the permit and control program meets the antidegradation requirement. Ecology uses a formal process to develop and reissue the VDGP every five years. The process includes selecting, developing, adopting, and refining control practices to protect water quality and meet the intent of WAC 173-201A-320. All NPDES permits, including the VDGP, are effective for a fixed term not to exceed five years (40 CFR §122.25). Each time Ecology reissues the VDGP, it evaluates the effluent limits and permit conditions to determine if it should incorporate additional or more stringent requirements. This evaluation includes a review of new data and input from the public.

CRITICAL CONDITIONS

Surface water quality-based limits are derived for the water body's critical condition, which represents the receiving water and waste discharge condition with the highest potential for adverse impact on the aquatic biota, human health, and existing or characteristic water body uses. The factors include the flow and background level of toxic substances in the receiving water and the flow and concentration of toxic substances in the discharge. The inherent variability of storm events and stormwater discharges add complexity to defining critical conditions. Storm events are naturally occurring and affect the characteristics of both the stormwater discharge and the receiving water body. They vary in intensity and duration; they can be isolated events or part of storm event pattern. All these factors affect flows and water quality.

Acute conditions are changes in the physical, chemical, or biological environment which are expected or demonstrated to result in injury or death to an organism as a result of short-term exposure to the substance or detrimental environmental condition. The acute criteria for metals are one-hour concentrations not to be exceeded more than once every three years. The most likely critical stormwater conditions for acute toxicity would be a high intensity short duration storm event.

Chronic conditions are changes in the physical, chemical, or biological environment which are expected or demonstrated to result in injury or death to an organism as a result of repeated or constant exposure over an extended period of time to a substance or detrimental environmental condition. The chronic criteria for metals are four-day averages not to be exceeded more than once every three years. Chronic exposure requires storm events that result in stormwater discharge over a four-day period.

MIXING ZONES

The Water Quality Standards allow Ecology to authorize mixing zones around a point of discharge in establishing surface water quality-based effluent limits. Ecology may authorize both "acute" and "chronic" mixing zones for pollutants that can have a toxic effect on the aquatic environment near the point of discharge. The concentration of pollutants at the boundary of these mixing zones may not exceed the numerical criteria for that type of zone. Mixing zones can only be authorized for discharges that are receiving AKART and in accordance with other mixing zone requirements of WAC 173-201A-400.

No mixing zones are authorized in this permit. Since a general permit must apply to a number of different sites, precise mixing zones and the resultant dilution are not applicable to facilities covered under a general permit.

Any discharger may request a mixing zone through an application for an individual permit in accordance with WAC 173-220-040 or WAC 173-216-070.

DESCRIPTION OF THE RECEIVING WATER

The draft general permit applies to sites statewide that discharge to many different receiving waters. The discharge will enter waters assigned designated uses intended to protect aquatic life and human health.

Vessels likely to utilize the methods of deconstruction authorized in this permit are located on the Puget Sound and Columbia River. These are larger vessels, unable to safely reach shipyards permitted to perform this work. The potential impact from stormwater, drydock discharges, and non-routine discharges can be significant. Ecology anticipates that the diligent implementation and maintenance of BMPs identified in the Permittee's DSMP, and compliance with applicable effluent limits, will result in stormwater discharges that do not cause or contribute to violations of the state's Surface Water Quality Standards (Chapter 173-201A WAC).

SURFACE WATER QUALITY CRITERIA

WACs 173-201A-200 through -260 define applicable surface water quality criteria for aquatic biota. These criteria were established to protect existing and potential uses of the surface waters of the State. Consideration was also given to both the natural water quality and its limitations. The surface water quality criteria are an important component of the state's Surface Water Quality Standards (Chapter 173-201A WAC).

Application of the surface water quality criteria to a discharge requires site-specific analysis of the discharge and the receiving water. Such analysis is not possible in a statewide general permit. However, the criteria influenced calculation of the effluent limits for turbidity, TSS, pH, copper, zinc, and lead. In addition, WAC 173-201A-260(2)(b) requires that aesthetic values not be impaired by the presence of materials or their effects, excluding those of natural origin, which offend the sense of sight, smell, touch, or taste. The “no visible sheen” and 5 mg/L oil and grease effluent limitations for stormwater and drydock floodwater are established to protect this water quality criteria.

CONSIDERATION OF SURFACE WATER QUALITY-BASED LIMITS FOR NUMERIC CRITERIA

40 CFR Part 122.44 requires the permit to contain effluent limits to control all pollutants or pollutant parameters which are, or may be, discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any water quality standard.

Ecology has determined that stormwater discharges may cause a violation of surface water quality standards for oil sheen, oil and grease, turbidity, TSS, pH, copper, zinc, and lead. Ecology based this determination on best professional judgment. Therefore, the draft permit includes water quality-based effluent limits (WQBELs) to control discharges as necessary to meet applicable water quality standards. The provisions of S3 Compliance with Standards, some provisions of S4 Effluent Limits and S5 Sampling Requirements, and S7 Discharges to 303(d) or TMDL Water Bodies constitute the WQBELs of this permit. These WQBELs supplement the permit’s technology-based effluent limits in, S3.B (AKART), S5.D Prohibited Discharges, S6 Non-routine discharges, and S9 Deconstruction and Site Management.

The following is a list of the permit's WQBELs:

- Special Condition S3.A prohibits discharges that cause or contribute to violations of Surface Water Quality Standards (Chapter 173-201A WAC), Groundwater Quality Standards (Chapter 173-200 WAC), and Sediment Management Standards (Chapter 173-204 WAC), and human health-based criteria in the National Toxics Rule (40 CFR 131.36).
- Special Condition S4 and Special Condition S5 imposes effluent limits for pH, turbidity, copper, zinc, and lead, conditionally authorizes certain discharges, and prohibits others, to prevent violation of the state surface and groundwater quality standards, and sediment management standards.
- Special Condition S7.A.3.a requires discharges from deconstruction sites that discharge to 303(d)-listed waterbodies to comply with water quality-based numeric effluent limits.
- Special Condition S7.A.3.b requires facilities to comply with TMDLs, including any applicable wasteload allocations.

The rationale for water quality-based effluent limitations in the draft permit is discussed below.

Special Condition S3. Compliance with Standards

Special Condition S3 prohibits discharges that cause or contribute to violations of Surface Water Quality Standards (Chapter 173-201A WAC), Groundwater Quality Standards (Chapter 173-200 WAC), and Sediment Management Standards (Chapter 173-204 WAC), and human health-based criteria in the National Toxics Rule (40 CFR 131.36).

Each Permittee is required to control its discharge as necessary to meet applicable water quality standards. Ecology expects that compliance with the other conditions in this permit (e.g., the technology-based limits, Deconstruction and Site Management Plan (DSMP), monitoring, corrective actions) will result in discharges that are controlled as necessary to meet applicable water quality standards.

In addition, if the Permittee becomes aware, or Ecology determines, that the discharge causes or contributes to a water quality standards exceedance, corrective actions and Ecology non-compliance notification is required. In addition, at any time Ecology may require additional monitoring or an individual permit, if information suggests that the discharge is not controlled as necessary to meet applicable water quality standards.

Special Condition S4. Effluent Limits and Special Condition S5. Sampling Requirements

Authorized Discharges – Discharges conditionally authorized by the permit include 1) stormwater discharges from deconstruction activities; 2) stormwater discharges from deconstruction support activities; 3) drydock floodwater; and 4) allowable non-stormwater discharges, including discharges from emergency fire-fighting activities, potable water, uncontaminated air conditioning or compressor condensate, and non-routine discharges.

Stormwater Discharges – The water quality-based limits for stormwater discharges include pH, copper, zinc, and lead. Ecology has very limited data on the quality of stormwater discharges downstream of the technology-based limits (DSMP, etc.). Some data is available for BMPs used to comply with individual shipyard permits. However, the entire suite of BMPs included is unique to this permit. In addition, the quality of stormwater is expected to vary significantly based on the type of vessel being deconstructed. The effluent limits are accordingly conservative. They require the permittee to demonstrate that the discharge is not violating applicable criteria at the point of discharge to waters of the State.

Table 4: Water Quality Based Stormwater Effluent Limits for pH, Total Copper, Total Zinc, and Total Lead.

Parameter	Units	Maximum Daily Effluent Limit		Basis for limit
		Fresh Water	Marine	
pH	Standard Units	Must be between 6.5 and 8.5	Must be between 7.0 and 8.5	State water quality standards
Turbidity	NTU	25	25	State water quality standards
Copper, Total	µg/L	7.2	5.8	State water quality standards
Zinc, Total	µg/L	53	95	State water quality standards
Lead, Total	µg/L	3.2	14	State water quality standards

pH – The limits for stormwater discharges in Special Condition S4 correspond to the water quality criterion applied to many water bodies: fresh water – pH shall be in the range of 6.5 to 8.5, with a human-caused variation within the above range of less than 0.5 units (Chapter 173-201A-200(1)(g) WAC), marine water – pH must be within the range of 7.0 to 8.5 with a human-caused variation within the above range of less than 0.5 units (Chapter 173-201A-210(1)(f) WAC).

Turbidity – Both the Industrial Stormwater (ISGP) and Construction Stormwater (CSWGP) General Permits contain a turbidity benchmark of 25 NTU. Ecology staff implementing those permits determined that a stormwater discharge of 25 NTU or less will typically cause no water quality violation. Turbidity of water is related to the amount of suspended and colloidal matter contained in the water. Increasing turbidity reduces the clarity and penetration of light, negatively impacting aquatic organisms. In addition, many of the pollutants that are found in stormwater are attached to the small particles that become suspended in the stormwater, increasing their potential toxicity. High turbidity is a useful indicator of stormwater contamination. Turbidity was chosen as a limited parameter in part because Chapter 173-201A WAC includes a turbidity standard. This provides a more direct basis for determining compliance with water quality standards. Turbidity sampling can be conducted on-site if the Permittee purchases a turbidity meter. Turbidity readings are somewhat

dependent on particle size, shape, and color.

Metals – Copper, zinc, and lead exposed during deconstruction may contaminate stormwater. Ecology evaluated the "benchmarks with corrective actions" approach to limiting these parameters as used in the ISGP and CSWGP. Some key differences in the industrial activity being permitted lead to the water-quality based permit limits.

First, technical advisory group members repeatedly expressed that safety and health regulations, and the practical hazards of vessel deconstruction, are paramount in planning and execution. This necessitates a carefully planned and controlled process. The DSMP can be incorporated into this process to a greater degree than a typical construction site or industrial facility. While adaptive management is an essential part of the process, proper planning should avoid discharges in excess of the limits.

Second, options for source control, i.e., preventing exposure of rainfall to pollutants, are more feasible with a smaller site that will be typical of vessel deconstruction. Third, project duration is expected to be generally shorter than most construction sites. Permittees should have more opportunities to plan and schedule to avoid exposure of rainfall to pollutants. Lastly, more options to capture and treat stormwater prior to discharge or disposal off-site are expected given the smaller area subject to rainfall, and the configuration of most vessels where the hull serves to collect water in the bilge if it is not diverted first by the deck.

The surface water quality standards for these toxic substances are found in Chapter 173-201A-240 WAC. Numeric criteria for copper, lead, and zinc vary in fresh water based on hardness. As hardness increases, more metal moves from the dissolved phase to the less toxic particulate phase. A translator represents the fraction of a total metal present in dissolved form. This is further explained in footnotes to Table 240(3) of Chapter 173-201A-240. The factors used in calculating the marine limits are shown in Table 5:

Table 5: The factors used in calculation the Marine effluent limits.

Effluent Limits Calculations

Facility	N/A	Dilution Factors:	Acute	Chronic
Water Body Type	Marine	**Aquatic Life**	**1**	**1**
		Human Health Carcinogenic	**-**	**1**
		Human Health Non-Carcinogenic	**-**	**1**

Pollutant, CAS No. & NPDES Application Ref. No.			Copper - 744058 6M Hardness dependent	Lead - 7439921 7M Dependent on Hardness	Zinc - 7440666 13M hardness dependent
Effluent Data	Coeff of Variation (Cv)		0.6	0.6	0.6
Receiving Water Data	90th Percentile Conc., ug/L		0	0	0
	Geo Mean, ug/L			0	0
Water Quality Criteria	Aquatic Life Criteria, ug/L	Acute	4.8	210	90
		Chronic	3.1	8.1	81
	WQ Criteria for Protection of Human Health, ug/L		-	-	-
	Metal Criteria Translator, decimal	Acute	0.83	0.951	0.946
		Chronic	0.83	0.951	0.946
	Carcinogen		N	N	N

Aquatic Life Limit Calculation

No. of Compliance Samples Expected per month		4	4	4
LTA Coeff. Var. (CV), decimal		0.6	0.6	0.6
Permit Limit Coeff. Var. (CV), decimal		0.6	0.6	0.6
Waste Load Allocation, ug/L	Acute	4.8	210	90
	Chronic	3.1	8.1	81
Long Term Averages, ug/L	Acute	1.541	67.427	28.897
	Chronic	1.635	4.2722	42.722
Limiting LTA, ug/L		1.541	4.2722	28.897
Metal Translator or 1?		0.83	0.95	0.95
Average Monthly Limit (AM), ug/L		**2.9**	**7**	**47.4**
Maximum Daily Limit (MDL), ug/L		**5.8**	**14**	**95.1**

References: Chapter 173-201A WAC
Technical Support Document for Water Quality-based Toxics Control, US EPA, March 1991, EPA/505/2-90-001, pages 56/99

Ecology evaluated hardness data for Lake Union and Lake Washington and determined a typical hardness value of 40 mg/L CaCO3 for use in calculating freshwater limits. Ecology anticipates that most projects subject to this permit will occur in marine waters, or the lakes evaluated. This value will be more conservative for projects occurring on the Columbia River and in Eastern Washington where typical hardness values may range from 50 to 80 mg/L CaCO3. The factors used in calculating the freshwater limits are shown in the following table:

Table 6: The factors used to calculate the Fresh Water effluent limits.

Effluent Limits Calculations

Facility	N/A		**Dilution Factors:**	**Acute**	**Chronic**
Water Body Type	Fresh Water		**Aquatic Life**	**1**	**1**
Rec. Water Hardness	40 mg/L		**Human Health Carcinogenic**	**-**	**1**
			Human Health Non-Carcinogenic	**-**	**1**

Pollutant, CAS No. & NPDES Application Ref. No.			Copper - 744058 6M Hardness dependent	Lead - 7439921 7M Dependent on Hardness	Zinc - 7440666 13M hardness dependent
Effluent Data	Coeff of Variation (Cv)		0.6	0.6	0.6
Receiving Water Data	90th Percentile Conc., ug/L		0	0	0
	Geo Mean, ug/L			0	0
Water Quality Criteria	Aquatic Life Criteria, ug/L	Acute	7.167	23.511	52.654
		Chronic	5.188	0.9162	48.081
	WQ Criteria for Protection of Human Health, ug/L		1300	-	-
	Metal Criteria Translator, decimal	Acute	0.993	0.466	0.966
		Chronic	0.996	0.466	0.966
	Carcinogen		N	N	N

Aquatic Life Limit Calculation

No. of Compliance Samples Expected per month		4	4	4
LTA Coeff. Var. (CV), decimal		0.6	0.6	0.6
Permit Limit Coeff. Var. (CV), decimal		0.6	0.6	0.6
Waste Load Allocation, ug/L	Acute	7.167	23.511	52.654
	Chronic	5.188	0.9162	48.081
Long Term Averages, ug/L	Acute	2.304	7.5489	16.906
	Chronic	2.736	0.4832	25.36
Limiting LTA, ug/L		2.304	0.4832	16.906
Metal Translator or 1?		1.00	0.47	1.00
Average Monthly Limit (AM), ug/L		**3.6**	**1.6**	**26.4**
Maximum Daily Limit (MDL), ug/L		**7.2**	**3.2**	**52.9**

References: Chapter 173-201A WAC
Technical Support Document for Water Quality-based Toxics Control, US EPA, March 1991, EPA/505/2-90-001, pages 56/99

Prohibited Discharges – Ecology has developed a list which will help ensure compliance with the state AKART requirements in Chapter 90.48 RCW, and prevent violations of the state surface and groundwater quality standards, and sediment management standards. The following discharges are prohibited:

a. Hydroblast or pressure wash wastewater
b. Hydraulic fluid
c. Oily wastes
d. Grey water
e. Ship sanitary wastes
f. Ballast waters from a region with invasive aquatic species
g. Solvents
h. Industrial stormwater or process water from piers and docks
i. Dangerous wastes as defined in Chapter 173-303 WAC
j. Water used to prevent fires, or water used for cooling when torches are in use for cutting, unless authorized under Special Condition S6.

Drydock Floodwater

Further discussion of the discharge limits in Special Condition S4 and S5 for oil sheen, oil and grease, and TSS is above in Rationale for Numeric Technology-Based Effluent Limitation. When these numeric effluent limits in Special Condition S4 are required as a condition of Special Condition S7, they are considered water-quality based effluent limits. Chapter 173-201A WAC includes a turbidity standard. This provides a more direct basis for determining compliance with water quality standards. Turbidity sampling can be conducted on-site if the Permittee purchases a turbidity meter. Turbidity readings are somewhat dependent on particle size, shape, and color.

Based on the water quality standards for turbidity, Ecology has determined that the effluent limits for drydock flooding for turbidity is less than 5 NTU above background turbidity when the background turbidity is 50 NTU or less or have more than a 10 percent increase in turbidity when the

background turbidity is more than 50 NTU (Chapter 173-201A WAC).

Special Condition S7 Discharges to 303(d)-Listed Waters

Ecology cannot allow a new discharge to a listed waterbody (issuance of permit is prohibited) if the discharge will cause or contribute to a violation of water quality standards. Ecology may allow a new discharge if it meets the applicable water quality criteria. The applicable federal regulation is 122.4(i) Sec. 122.4 Prohibitions. *No permit may be issued: i) To a new source or a new discharger, if the discharge from its construction or operation will cause or contribute to the violation of water quality standards…*

The draft VDGP establishes water quality-based numeric effluent limits for deconstruction sites in Special Condition S4. These limits will also apply to any discharges to certain waters that are listed as impaired under Section 303(d) of the Clean Water Act.

All references and permit requirements associated with Section 303(d) of the Clean Water Act pertain to the most current EPA-approved 303(d) listing of impaired waters that exists when a complete application for coverage is submitted to Ecology. Ecology has determined that deconstruction sites without adequate controls have the potential to cause or contribute to violations of water quality standards in waterbodies that are 303(d) listed for the following parameters and must comply with the numeric effluent limit(s) in Special Condition S4 of the permit.

- Oil Sheen
- Oil and Grease
- Turbidity
- Fine sediment
- pH
- Copper
- Zinc
- Lead

The technical basis for 303(d)-related effluent limits for the above parameters is described above in this Fact Sheet under Special Condition S5. In addition, any 303(d) listed parameters found in anticipated waste streams identified in the permit application must comply with Special Condition S7.A.1 by detailing the procedures that will be taken to prevent exposure of pollutants to stormwater in the DSMP.

Special Condition S7.A.3.b is intended to implement the requirements of 40 CFR 122.44(d)(1)(vii)(B), which requires that water quality-based effluent limits “are consistent with the assumptions and requirements of any available wasteload allocation for the discharge ….” Because WLAs for discharges may be specified in many different formats, Ecology plans to ensure that these requirements are properly interpreted and communicated to the Permittee in a way that can be implemented. Ecology will notify Permittees subject to numeric effluent limitations or waste load allocations related to a TMDL in the permit coverage letter.

Ecology plans to implement a permit application review process to identify discharges to impaired waters with an approved or established Total Maximum Daily Load (TMDL). Where an operator indicates on its application for coverage form that the discharge is to one of these waters, Ecology will review the applicable TMDL to determine whether the TMDL includes requirements that apply to the individual discharger (permit applicant). Ecology will determine whether any more stringent requirements are necessary to comply with the WLA, whether compliance with the existing permit limits is sufficient, or, alternatively, whether an individual permit application is necessary. If Ecology determines that additional requirements are necessary, Ecology will incorporate the final limits as site-specific terms to the facilities general permit coverage.

SEDIMENT QUALITY

Ecology has promulgated Sediment Management Standards (Chapter 173-204 WAC) to protect aquatic biota and human health. These standards state that Ecology may require Permittees to evaluate the potential for the discharge to cause a violation of applicable standards (WAC 173-204-400). The permit requires BMPs to limit contamination of stormwater. Source control BMPs can reduce or eliminate contamination of stormwater and help comply with the sediment management standards. However, if Ecology determines that BMPs are ineffective in protecting sediment quality, Ecology may require the Permittee to implement additional measures to assure compliance with the sediment standards or to apply for an individual permit.

GROUNDWATER QUALITY LIMITATIONS

Ecology has promulgated Groundwater Quality Standards (Chapter 173-200 WAC) to protect beneficial uses of groundwater. Permits issued by Ecology prohibit violations of those standards (WAC 173-200-100). The permit requires BMPs to limit contamination of stormwater. Source control BMPs can eliminate/minimize the potential contamination of stormwater and protect groundwater quality. However, if Ecology determines that BMPs are ineffective in protecting groundwater quality, Ecology may require the Permittee to implement additional measures to protect groundwater quality or to apply for an individual permit.

DESCRIPTION OF SPECIAL CONDITIONS

This section follows the structure of the draft Vessel Deconstruction General Permit (VDGP) but does not restate language used in the permit. The information presented below is intended to help the public understand the intent and basis of the draft permit.

S1. PERMIT COVERAGE

A. Permit Area: The VDGP is a statewide permit. It provides permit coverage for discharges of stormwater associated with deconstruction activity, drydock floodwater within Washington, except for federal operations, tribal land and certain tribal waters.

B. Who May Apply for Coverage: A definition of "Permittee" is not provided in chapter 90.48 RCW, chapters 173-216, 173-220, or 173-226 WAC, nor is one provided in 40 CFR 122 (EPA NPDES Permit Program) or State NPDES Permit Programs. Based upon the usage of Permittee in federal and Washington State law, Ecology takes the term "Permittee" to mean the person or entity that discharges or controls the discharge of pollutants to waters of the State and holds permit coverage allowing that specific discharge. For the Vessel Deconstruction General Permit, Ecology is clarifying that the permit may be held by Washington State government agencies who may then contract with other state or local governmental entities, non-governmental organizations, or private entities to conduct the activities outlined in the permit. Previous permit coverages have been held by private entities performing work as part of the Washington Department of Natural Resources Derelict Vessel Removal Program. The permit clarifies that the coverage may be held by the WA DNR and the work may be contracted out to a private entity or coverage may be held by the private entity directly.

C. This VDGP identifies deconstruction activities that require an operator to seek permit coverage. "Deconstruction activity" is defined as dismantling of a vessel so that no part is left intact or undisturbed to the extent that it cannot be reconstructed or readily identified as an existing portion of the original hull or superstructure. The vessel is reduced such that it has no value except for its basic material content. Deconstruction activity does not include disturbance incidental to vessel retrieval. This would include any disturbance to the vessel as a result of "clamshelling" during removal operations. Clamshelling is understood as a last resort technique used for submerged or partially submerged (primarily wooden) vessels without enough structural integrity to refloat or pick up in one piece. Ecology has concluded that sufficient regulatory controls exist outside of this permit to address any concerns related to vessel retrieval (e.g., hydraulic project approval (HPA), CWA section 401 requirements, and spills regulations). Clamshelling refers to vessel removal or a retrieval activity and is not to be considered a method of deconstruction. Other incidental disturbance includes minimal dismantling such as cutting and unbolting to lighten a vessel to allow for removal to a facility with an individual permit for deconstruction work or a facility with Boatyard General Permit coverage.

This VDGP addresses deconstruction activities that occur over water, on a drydock, on a barge, and in very limited circumstances on land. Land based deconstruction can be covered under this permit in the event a drydock or barge cannot be utilized, and it isn't feasible to transport the vessel to an appropriate deconstruction location. This would occur when a vessel does not have the structural integrity to be towed longer distances or to be lifted on to a drydock or barge but can be transported a very short distance to land. Land based deconstruction activities covered under this VDGP are not to be carried out at a permanent fixed facility that would have coverage under a Boatyard General Permit or an individual NPDES permit to perform those activities. For coverage under the VDGP, land-based deconstruction activities would occur at a temporary site set up for this purpose.

D. Limits on Coverage: This section identifies the types of discharges that are not authorized by the permit. These include discharges from:

1. Projects that are federally operated or located on tribal land, or discharge to tribal waters with EPA approved water quality standards.
2. Sites covered under an existing individual NPDES permit or a Boatyard General Permit.
3. Sites with discharges where an applicable TMDL requirement specifically precluded or prohibits discharges from deconstruction activity.

Coverage for Significant Contributors of Pollutants – The Federal Clean Water Act at Section 402(p)(2)(E) of the Clean Water Act and Chapter 90.48 RCW authorize Ecology to require permit coverage for any unpermitted deconstruction site which Ecology determines to be a significant contributor of pollutants to surface or groundwaters of the State or may reasonably be expected to cause a violation of a water quality standard.

Coverage for Discharges to Groundwater – In addition to the authority to issue NPDES permits, Ecology also has authority under state law to issue State Waste Discharge permits for discharges to state surface waters, groundwaters and municipal sewer systems. The draft permit is issued under this combined federal and state authority.

This draft permit categorically regulates operations which have a discharge to the ground only if they also have a discharge to surface water, a municipal storm drain, or a privately owned storm drain which discharges to surface water. The Permittee must also comply with any applicable requirements for discharges to ground under the Underground Injection Control Program (UIC) regulations, Chapter 173-218 WAC. This draft permit does not regulate deconstruction activities which discharge stormwater only to groundwater, unless the facility is deemed a significant contributor of pollutants under Special Condition S1.D.

Ecology considered the relationship of the permit to the Vessel General Permit (VGP) issued by EPA (Vessels-VGP[3]). The VGP does not apply to any vessel when it is operating in a capacity other than as a means of transportation. Deconstruction activity as defined in the permit precludes use of the vessel as a means of transportation, preventing any overlap of coverage for the two permits. The EPA VGP expired in December of 2018.

S2. PERMIT ADMINISTRATION

A. Permit Application: In accordance with WAC 173-226-200, operators of deconstruction activities must submit a complete permit application to obtain coverage under the vessel deconstruction general permit. Applicants must submit the Notice of Intent (NOI) at least 60 days before discharging and on or before the date of the first public notice.

Ecology will respond to the permit applicant in writing. If the NOI is incomplete, public comments have been received, or more information is needed Ecology will notify the applicant in writing and identify the issues that must be resolved before a decision on permit coverage can be reached.

If Ecology approves the application, permit coverage in an inactive status under the general permit will begin on the date specified in the permit coverage letter. The permit coverage letter will identify any applicable effluent limits or permit conditions not already identified in the permit. For example, Ecology will calculate freshwater effluent limits for stormwater discharges to fresh water for the following parameters: copper, lead, and zinc. Receiving water conditions (e.g., hardness) must be known for calculation of these limits.

Permittees must submit a complete Beginning of Deconstruction Notice including the additional documentation specified on the Beginning of Deconstruction Notice form. The Beginning of Deconstruction Notice must be submitted at least 21 days before discharging if the deconstruction activity will be for a vessel under 65’ and being deconstructed on a drydock, on a barge, or on land. The Beginning of Deconstruction Notice must be received at least 30 days before discharging from deconstruction activities over 65’ or being deconstructed in water. Ecology will respond to the permittee in writing to either identify issues that need to be resolved or approve the Beginning of Deconstruction. Once the Beginning of Deconstruction has been approved, the permit will be in active status. The permittee must have written approval for the Beginning of Deconstruction before discharging.

Permittees must submit a complete Completion of Deconstruction Notice to return the permit to an inactive status when deconstruction activities have ceased as outlined in Special Condition S2. Permittees are considered nonoperating for fee purposes when the permit is inactive.

Permittees may request that Ecology transfer current coverage under this permit to one or more new operators by submitting a Transfer of Coverage Form in accordance with General Condition G9. Transfers do not require public notice.

[3] https://www.epa.gov/npdes/vessels-vgp

B. Public Notice: Applicants must satisfy the public notice requirements of WAC 173-226-130(5). Applicants must publish the public notices one time each week for two consecutive weeks, with seven days between publication dates. The public notice is required to be placed in a single newspaper which has general circulation in the county in which the deconstruction is to take place. The 30-day public comment period required by WAC 173-226-130(4) begins on the publication date of the second public notice. Because state law requires a 30-day public comment period before permit coverage, Ecology will not grant permit coverage sooner than 31 days after the date of the last public notice.

A copy of the permit, permit coverage letter, Beginning of Deconstruction approval letter, and the applicable DSMP must be retained on-site or within reasonable access to the site. These documents must be made available to Ecology upon request.

S3. COMPLIANCE WITH STANDARDS

Special Condition S3 of the permit is covered in this fact sheet under Consideration of Surface Water Quality-Based Limits for Numeric Criteria, above.

S4. EFFLUENT LIMITS

Special Condition S4 of the permit provides the stormwater effluent limits and the drydock effluent limits. Special Condition S4 also contains sections on conditionally authorized non-stormwater discharges, prohibited discharges, and details on laboratory accreditation.

Ecology determined that stormwater discharges may cause a violation of surface water quality standards for oil sheen, oil and grease, turbidity, TSS, pH, copper, zinc and lead. Ecology based this determination on best professional judgement. Therefore, the draft permit includes water quality-based effluent limits (WQBELs) to control discharges as necessary to meet applicable water quality standards. The provisions of Special Condition S3 Compliance with Standards, some provisions of Special Condition S4 Effluent Limits and Special Condition S5 Sampling Requirements, and Special Condition S7 Discharges to 303(d) or TMDL Water Bodies constitute the WQBELs of this permit.

These WQBELs supplement the permit's technology-based effluent limits in, Special Condition S3.B (AKART), Special Condition S5.D Prohibited Discharges, Special Condition S6 Non-routine discharges, and Special Condition S9 Deconstruction and Site Management. The procedure for determining the WQBELs and technology-based effluent limits are described above in the Permit Limits section of this Fact Sheet.

S5. SAMPLING REQUIREMENTS

Special Condition S5 describes the sampling requirements.

The monitoring approach outlined in Special Condition S5 is consistent with the monitoring, recording, and reporting requirements of WAC 173-220-210 and 40 CFR 122.41 and includes consideration of the certainty, risk, and cost associated with monitoring stormwater, and the objectives of the permit. Certainty provides a level of confidence that the data are representative of the pollutants in the discharge. The risk is an assessment of the environmental impacts of pollutants. The monitoring cost considers all associated monitoring expenses, such as time to sample, expense of sampling and analysis, training and equipment requirements. The objectives define the purpose of the sampling.

The monitoring frequency established in this permit are consistent with WAC 173-220-210(1)(b) and 40 CFR 122.48(b). Ecology set sampling frequencies to characterize the nature of the discharge reasonably. Other considerations included the cost of monitoring relative to the benefits obtained, and the environmental significance of the pollutants. The sampling frequency will yield data representative of discharge characteristics.

STORMWATER SAMPLING

Special Condition S5.A.2 requires sampling of all discharge locations once every calendar week while stormwater is being discharged. A primary factor influencing this frequency is the environmental significance of pollutants, combined with the expected variability of discharges as deconstruction exposes new areas of the vessel. Deconstruction activities are expected to be relatively short-duration projects with the opportunity to limit exposure of work areas to rainfall via project planning and source control.

Special Condition S5.A.3 requires sampling at all points where stormwater associated with deconstruction activity is discharged. Ecology considered allowing representative outfalls to be selected, such as the *Industrial Stormwater General Permit* allows. This was rejected due to the variability expected and anticipated options for limiting discharges and/or capturing stormwater for transport and proper disposal off-site.

DRYDOCK FLOODWATER SAMPLING

Special Condition S5.B, Table 4 requires sampling of drydock floodwater with each flooding of the drydock after the initial flooding to secure the vessel on the drydock. Ecology does not anticipate this discharge to occur frequently. In most cases, the vessel will be completely deconstructed and removed from the drydock. There will be no need to flood the drydock because there will be no vessel left to refloat. However, we have included this discharge as a possible discharge given the uncertainties associated with deconstruction. Ecology's experience with individual NPDES permitted shipyards demonstrates that these sampling requirements are practical and representative of the discharge.

S6. NON-ROUTINE DISCHARGES

Special Condition S6 of the permit is covered in this fact sheet under *Consideration of Technology-Based Limits for Numeric Criteria*, above.

S7. DISCHARGES TO 303(D) OR TMDL WATERBODIES

Special Condition S7 of the permit is covered in this fact sheet under *Consideration of Surface Water Quality-Based Limits for Numeric Criteria*, above.

S8. SITE INSPECTION REQUIREMENTS

Special Condition S8 of the permit requires visual monitoring (that is, site inspections and discharge observations) daily. The VDGP requires enforceable adaptive management mechanisms including the evaluation, reporting, and documentation of remedial actions taken. Ecology established the frequency of site inspections based on three considerations. First, the nature of a deconstruction site is such that changes impacting discharges occur over short durations at the site. Second, rainfall and other natural or environmental forces may cause BMPs to fail. Finally, best professional judgment indicates that sites that are inspected regularly typically tend to cause fewer water quality violations. Site inspections provide timely feedback to the operator on the effectiveness of installed BMPs. Inspections provide information on when BMP repair and maintenance is necessary to improve the quality of stormwater discharged offsite, or when additional BMPs may be required. Ecology considers site inspections a requirement of AKART.

S9. DECONSTRUCTION AND SITE MANAGEMENT PLAN

In accordance with 40 CFR 122.44(k), the general permit includes requirements for the development and implementation of a Deconstruction and Site Management Plan (DSMP) including BMPs to minimize or prevent the discharge of pollutants to waters of the State. BMPs constitute Best Conventional Pollutant Control Technology (BCT) and Best Available Technology Economically Achievable (BAT) for stormwater discharges. Ecology has determined that Permittees in full compliance with the Vessel Deconstruction General Permit meet the state AKART (all known and reasonable methods of prevention control and treatment) requirements in Chapter 90.48 RCW.

The objectives of the DSMP are to:

1. Implement BMPs to identify, reduce, eliminate, and prevent stormwater and sediment contamination and water pollution from deconstruction activity.
2. Prevent violations of surface water quality, groundwater quality, or sediment management standards.

Special Condition S.9 outlines specific requirements to prepare, implement, and modify the DSMP. Permittees must prepare and fully implement the DSMP, including narrative and drawings, in accordance with this permit. The DSMP must address all phases of the deconstruction project, beginning with initial deconstruction until the vessel is either completely deconstructed or transferred to a permitted facility. All BMPs used or planned for a project (or specific phase of a project) must be clearly referenced in the DSMP narrative and marked on the drawings.

The DSMP narrative must include documentation to explain and justify the pollution prevention decisions made for the project. Documentation must include:

1. Information about the vessel (size, type, historical uses, condition, etc.)
2. Decontamination assessment including testing verification as applicable for the anticipated waste streams identified on the Beginning Deconstruction form (e.g., asbestos, oil and fuel, polychlorinated biphenyls (PCBs), lead, mercury, etc.)
3. The 12 elements of a DSMP listed in S9.C.1-12 of the permit, including BMPs used to address each element.
4. Deconstruction phasing/sequence and BMP implementation schedule.
5. The actions to be taken if BMP performance goals are not achieved.
6. A listing of the qualified marine professional(s) who contributed to the DSMP.

Special Condition S9.B.2 of the permit contains an enforceable adaptive management mechanism to trigger DSMP modifications when problems are noted during site inspections. Specifically, Special Condition S9.B.2 requires the Permittee to modify the DSMP if, during inspections or investigations conducted by the permittee or the applicable local or state regulatory authority, the DSMP is determined to be, or would be, ineffective in eliminating or significantly minimizing pollutants in discharges from the site.

The development and implementation of the DSMP is one of the most important parts of a permit and is critical to the successful control of stormwater pollution. These plans are to be living documents that change during the actual deconstruction phases in order to meet the needs of changing site conditions. The DSMP must be modified as necessary to include additional or modified BMPs designed to correct the specific problems identified. These adaptive management requirements are designed to result in permit compliance and prevent stormwater discharges that could cause a violation of state water quality standards. Revisions to the DSMP must be completed within one day following the inspection and must include an updated timeline for BMP implementation. BMP revisions must be implemented on site in a timely manner.

The DSMP must also be modified whenever there is a change in design, deconstruction, operation, or maintenance at the deconstruction site that has, or could have, a significant effect on the discharge of pollutants to waters of the State. This requirement is consistent with federal technology-based requirements for Best Conventional Pollutant Control Technology (BCT) and Best Available Technology Economically Achievable (BAT) and the state requirement for AKART (90.48.010 RCW, WAC 173-226-070(1)(d)). Modifications must be reviewed by a qualified marine professional.

The permit contains a narrative effluent limitation that requires the implementation of BMPs that are contained in the permit, or practices that are demonstrably equivalent to practices contained in the permit. If an applicant for coverage under the VDGP intends to use a BMP selected on the basis of Special Condition S3.C.2 ("demonstrably equivalent" BMPs), the applicant will notify Ecology of its selection as part of its Beginning of Deconstruction Notice, which requires submittal of the DSMP. This is intended to ensure that BMPs will prevent violations of state water quality standards and satisfy the State AKART requirements and the federal technology-based treatment requirements under 40 CFR part 125.3.

The Permittee must properly operate and maintain all BMPs. The DSMP must include operation and maintenance (O&M) practices for the proper management of the site. By operating and maintaining appropriate BMPs, the risk of water quality pollution is minimized and the ability of the Permittee to comply with this permit is improved.

40 CFR 122.41(e) requires the Permittee to properly operate and maintain all facilities. The DSMP must contain adequate O&M procedures to ensure that BMPs are functioning properly to control discharges [40 CFR 122.44(k)]. Authority is also provided by RCW 90.48.080, RCW 90.48.520, and WAC 173-216-110(1)(f).

The DSMP includes 12 elements that the Permittee must implement unless site conditions render the element unnecessary and the exemption from that element is clearly justified in the DSMP narrative. The 12 elements are:

1. Control of large solid materials
2. Control and cleanup of grinding and cutting debris
3. BMPs for work below the waterline
4. BMPs for floats used for in-water vessel deconstruction
5. Oil, grease, solvents, and fuel spills prevention and containment
6. Contact between water and debris
7. Maintenance of hoses, soil chutes, and piping
8. Chemical storage
9. Recycling of spilled chemicals and rinse water
10. Oils, bilge, ballast, and dewatering water management
11. Hot work management
12. Manage the project

The technical rationale for each of these elements is derived from: EPA's development document for ELGs (EPA, 1979), Ecology's experience with existing NPDES permitted shipyards and in-place vessel deconstructions, and input from the technical advisory group formed after Ecology announced its preliminary determination to develop a general permit. Many of the elements are directly from one of these sources. Many others are modified to address the unique situation of deconstruction while the vessel is afloat.

Hot work requirements in S9.C.11, and education requirements in S9.E are informed by the extensive health and safety regulations in place specific to vessel deconstruction (ship breaking). Both federal (29 CFR 1915) and state (Chapter 296-304 WAC) regulations speak directly to health and safety for this activity. The Occupational Safety and Health Administration (OSHA) has produced a guidance document specific to vessel deconstruction; Safe Work Practices for Shipbreaking (OSHA 3375-02 2010).

OSHA implements federal regulations, and the Washington State Department of Labor and Industries (WA L&I) implements state regulations. The permit requires documentation of compliance with applicable standards. Ecology feels that compliance with these standards is not only relevant to worker health and safety, but also to the potential for unauthorized discharges. Several of the standards address metal cutting, materials handling, and rigging that are essential for compliance with the 12 elements of the DSMP.

S10. SOLID AND LIQUID WASTE DISPOSAL

This section is intended to ensure that handling and disposal of solid or liquid wastes do not result in a violation of applicable water quality regulations (40 CFR 122.44(k)(2), 40 CFR 125.3(g), RCW 90.48.080, and WAC 173-216-110(1)(f)).

Vessel deconstruction activities by their nature result in the generation of solid and liquid wastes. Many vessels will contain hazardous materials that may require specific procedures for identification, sampling, analysis, abatement, handling, storage, transport, and disposal. Housekeeping and other site management activities may also generate solid and liquid wastes such as cleanup of process areas and removal of spill materials. Proper disposal of solid and liquid waste materials is required.

This permit requires the permittee to develop a solid waste control plan to prevent solid waste from causing pollution of waters of the State. The permittee must submit the plan to Ecology with the permit application (RCW 90.48.080). You can obtain an Ecology guidance document, which describes how to develop a Solid Waste Control Plan, at: Ecology Publications & Forms[4].

Local jurisdictions may have other requirements that must be met. Permittees should check with the local jurisdiction for more information.

S11. REPORTING AND RECORDKEEPING REQUIREMENTS

The reporting and recordkeeping requirements of Special Conditions S11 are based on Ecology's authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges. Reporting of monitoring results are specified in 40 CFR 122.44(i)(3 and 4) and WAC 173-226-090(3). Discharge Monitoring Reports must be submitted to Ecology even if there was no discharge. Recordkeeping requirements in the draft permit are specified in 40 CFR 122.41(j)(2) and WAC 173-220-210(2)(b). The requirements of Special Condition S11 will assure that Ecology records are maintained and demonstrate compliance with sampling requirements by the facility.

[4] https://fortress.wa.gov/ecy/publications/SummaryPages/0710024.html

S12. PERMIT FEES

RCW 90.48.465 requires Ecology to recover the cost of the water quality permit program. Wastewater fees are established through a rule development process that includes the input of stakeholders, interested parties, and an advisory committee and includes an outreach process. Any new fee proposal will provide public comment opportunity in amending the existing fee regulation (Chapter 173-224 WAC). Permittees are considered nonoperating for fee purposes if the permit is inactive.

S13. NOTICE OF TERMINATION

Special Condition S13.A states that a coverage is eligible for termination at any point when the permit is in an inactive status. Permittees wanting to terminate permit coverage must submit a complete and accurate Notice of Termination (NOT) form to Ecology. The termination is effective on the date the NOT is received by Ecology, unless Ecology notifies the Permittee within 30 days that it has denied the termination request because the Permittee has not met the eligibility requirement in S13.A.

GENERAL CONDITIONS

General Conditions are based directly on state and federal law and regulations and have been standardized for all NPDES permits issued by the Ecology.

General Condition G1 requires discharges and activities authorized by the draft permit to be consistent with the terms and conditions of the permit in accordance with 40 CFR 122.41.

General Condition G2 requires responsible officials or their designated representatives to sign submittals to Ecology in accordance with 40 CFR 122.22, 40 CFR 122.22(d), WAC 173-220-210(3)(b), and WAC 173-220-040(5).

General Condition G3 requires the Permittee to allow Ecology to access the facility and conduct inspections of the facility and records related to the permit in accordance with 40 CFR 122.41(i), RCW 90.48.090, and WAC 173-220-150(1)(e).

General Condition G4 identifies conditions that may result in modifying or revoking the general permit in accordance with 40 CFR 122.62, 40 CFR 124.5, and WAC 173-226-230.

General Condition G5 identifies conditions for revoking coverage under the general permit in accordance with 40 CFR 122.62, 40 CFR 124.5, WAC 173-226-240, WAC 173-220-150(1)(d), and WAC 173-220-190.

General Condition G6 requires the Permittee to notify Ecology when facility changes may require modification or revocation of permit coverage in accordance with 40 CFR 122.62(a), 40 CFR 122.41(l), and WAC 173-220-150(1)(b).

General Condition G7 prohibits the Permittee from using the permit as a basis for violating any laws, statutes, or regulations in accordance with 40 CFR 122.5(c).

General Condition G8 requires the Permittee to reapply for coverage 180 days prior to the expiration date of this general permit in accordance with 40 CFR 122.21(d), 40 CFR 122.41(b), and WAC 183-220-180(2) (Note: This would only apply to sites with permit coverage near the time of permit expiration).

General Condition G9 identifies the requirements for transfer of permit coverage in accordance with 40 CFR 122.41(l)(3) and WAC 173-220-200. When an incomplete deconstruction project is sold from one operator to another, the new operator must obtain permit coverage, either through a transfer of permit coverage per General Condition G9, or by applying for the permit per Special Condition S2.

General Condition G10 prohibits the reintroduction of removed substances back into the effluent in accordance with 40 CFR 125.3(g), RCW 90.48.010, RCW 90.48.080, WAC 173-220-130, and WAC 173-201A-240.

General Condition G11 requires Permittees to submit additional information or records to Ecology when necessary, in accordance with 40 CFR 122.41(h).

General Condition G12 incorporates all other requirements of 40 CFR 122.41 and 122.42 by reference.

General Condition G13 notifies the Permittee that additional monitoring requirements may be

established by Ecology in accordance with 40 CFR 122.41(h).

General Condition G14 describes the penalties for violating permit conditions in accordance with 40 CFR 122.41(a)(2).

General Condition G15 provides the regulatory context and definition of "Upset" in accordance with 40 CFR 122.41(n).

General Condition G16 specifies that the permit does not convey property rights in accordance with 40 CFR 122.41(g).

General Condition G17 requires the Permittee to comply with all conditions of the permit in accordance with 40 CFR 122.41(a).

General Condition G18 requires the Permittee to comply with more stringent toxic effluent standards or prohibitions established under Section 307(a) of the Clean Water Act in accordance with 40 CFR 122.41(a)(1), WAC 173-220-120(5), and WAC 173-201A-240.

General Condition G19 describes the penalties associated with falsifying or tampering with monitoring devices or methods in accordance with 40 CFR 122.41(j)(5).

General Condition G20 requires Permittees to report planned changes in accordance with 40 CFR 122.41(l)(1).

General Condition G21 requires Permittees to report any relevant information omitted from the permit application in accordance with 40 CFR 122.41(l)(8).

General Condition G22 requires Permittees to report anticipated non-compliances in accordance with 40 CFR 122.41(l)(2).

General Condition G23 specifies that Permittees may request their general permit coverage be replaced by an individual permit in accordance with 40 CFR 122.62, 40 CFR 124.5, and WAC 173-220-040.

General Condition G24 defines appeal options for the terms and conditions of the general permit and of coverage under the permit by an individual discharger in accordance with RCW 43.21B and WAC 173-226-190.

General Condition G25 invokes severability of permit provisions in accordance with RCW 90.48.904.

General Condition G26 prohibits bypass unless certain conditions exist in accordance with 40 CFR 122.41(m).

PERMIT ISSUANCE PROCEDURES

RECOMMENDATION FOR PERMIT ISSUANCE

The draft 2023 VDGP meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics, protect human health, aquatic life, and the beneficial uses of waters of the State of Washington. Ecology proposes that this permit be issued for five (5) years.

ECONOMIC IMPACT ANALYSIS

In accordance with WAC 173-226-120, Ecology prepared an Economic Impact Analysis (EIA) for the revised permit. The analysis finds that the permit has a disproportionate impact on small business. The EIA describes the mitigation measures Ecology considered in drafting the permit.

A copy of the EIA (Ecology Publication Number 23-10-034) may be obtained through the Publications Distribution at Ecology's Headquarters office (360) 407-6000 or by downloading it from Ecology's webpage: Publications & forms[5].

[5] https://ecology.wa.gov/Footer/Online-tools-publications/Publications-forms

REFERENCES FOR TEXT AND APPENDICES

Environmental Protection Agency (EPA)

2009. *Development Document for Proposed Effluent Limitations Guidelines and Standards for the Shipbuilding and Repair Point Source Category* (EPA 440/1-79/76b), December 1979
2000. *A Guide for Ship Scrappers: Tips for Regulatory Compliance* (EPA 315-B-00-001), Summer 2000
1999. *Multimedia Compliance Monitoring Investigation Protocol for the Ship Scrapping Industry* (EPA-331/9-99-001), February 1999
1997. *Profile of the Shipbuilding and Repair Industry: EPA Office of Compliance Sector Notebook* (EPA/310-R-97-008), November 1997
1992. *National Toxics Rule, Federal Register*, V. 57, No. 246, Tuesday, December 22, 1992
1991. *Technical Support Document for Water Quality-based Toxics Control*, EPA/505/2-90-001

Occupational Safety and Health Administration (OSHA)

2010. *Safe Work Practices for Shipbreaking* (OSHA 3375-02), 2010

Washington State Department of Ecology

2018. *Permit Writer's Manual, Water Quality Program*, Publication Number 92-109

APPENDIX A - PUBLIC INVOLVEMENT INFORMATION

Ecology has tentatively determined to reissue the Vessel Deconstruction General Permit for deconstruction activities as identified in Special Condition S1, Permit Coverage.

Ecology publishes a Public Notice of Draft (PNOD) to inform the public that the draft permit and fact sheet are available for review and comment. Ecology will publish the PNOD on October 4, 2023, in the Washington State Register and on the Ecology web site (below). The PNOD informs the public that the draft permit and fact sheet are available for review and comment.

Ecology will also mail or email the notice to those identified as interested parties.

Copies of the draft general permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at Ecology's regional offices listed below or may be obtained from Ecology's website or by contacting Ecology by mail, phone, fax, or email:

Internet: Vessel Deconstruction General Permit[6]

Contact Ecology:
Eric Daiber
Department of Ecology
PO Box 47600
Olympia, WA 98504-7600
Telephone: (360) 742-1511
FAX: (360) 407-6426
E-mail: Eric.Daiber@ecy.wa.gov

Southwest Regional Office
Water Quality Program
300 Desmond Drive
Lacey, Washington 98503
Phone: (360) 407-6300

Central Regional Office
Water Quality Program
1250 West Alder Street
Union Gap, Washington 98903
Phone: (509) 575-2490

Northwest Regional Office
Water Quality Program
15700 Dayton Ave. N.
Shoreline, Washington 98133
Phone: (206) 594-0000

Eastern Regional Office
Water Quality Program
N. 4601 Monroe, Suite 202
Spokane, Washington 99205
Phone: (509) 329-3400

[6] https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Vessel-Deconstruction-General-Permit

Ecology will accept written comments on the draft Vessel Deconstruction General Permit, Fact Sheet, and related documents from Wednesday, October 18, 2023, through Wednesday, December 6, 2023 (midnight); written comments must be postmarked or e-mailed no later than midnight December 6, 2023. Comments should reference specific permit conditions or text or when possible, and may address the following topics:

- Technical issues
- Accuracy and completeness of information
- The scope of proposed coverage
- Adequacy of environmental protection and permit conditions
- Any other concern that would result from issuance of the draft permit

Ecology prefers comments submitted by the eComment form located at:
eComment Form[7]

Written comments must be postmarked or received via email no later than midnight on December 6, 2023. Submit written comments to:

Eric Daiber
Water Quality Program
Department of Ecology
PO Box 47600
Olympia, WA 98504-7600
Eric.Daiber@ecy.wa.gov

Ecology will also conduct workshops and public hearings to provide an opportunity for interested parties to give formal oral testimony and comments on the draft permit. The public hearing will immediately follow the public workshop:

Monday, October 23, 2023 – at 9:00 AM Webinar

Register for the webinar at
https://waecy-wa-gov.zoom.us/meeting/register/tZIvcO-vqDotG9XDz4crkKdWk2PyZUE2eyZk

Tuesday, October 24, 2023 – at 5:30 PM Webinar

Register for the webinar at
https://waecy-wa-gov.zoom.us/meeting/register/tZYkde2hqDMjG9zZP8UNzhdJqFH0TCHTuQed

Public notice regarding the hearing will be circulated at least thirty (30) days in advance of the hearings. Persons expressing an interest in this permit will be mailed an individual notice of hearing (WAC 173-220-100).

Further information may be obtained by contacting Eric Daiber at Ecology, by phone at (360) 742-1511, by Eric.Daiber@ecy.wa.gov, or by writing to Ecology's Olympia address listed above.

[7] https://ws.ecology.commentinput.com/comment/search

APPENDIX B – GLOSSARY

303(d) Listed Waters – means waterbodies listed as Category 5 on Washington State's Water Quality Assessment, approved by EPA, in effect at the time of permit coverage.

40 CFR – Title 40 of the Code of Federal Regulations, which is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government.

Active status - refers to the permit coverage status when a vessel has been identified for deconstruction or is currently being deconstructed: a Beginning of Deconstruction Notice form has been submitted to and approved by Ecology and a Completion of Deconstruction Notice form has not yet been submitted.

Acute Toxicity – The lethal effect of a compound on an organism that occurs in a short period of time, usually 48 to 96 hours.

AKART – An acronym for "all known, available, and reasonable methods of prevention, control, and treatment" AKART represents the most current methodology that can be reasonably required for preventing, controlling, or abating the pollutants and controlling pollution associated with a discharge.

Antidegradation – The antidegradation policy of the state of Washington as generally guided by Chapters 90.48 and 90.54 RCW is applicable to any person's new or increased activity.

Ballast water means any water and suspended matter taken on board a vessel to control or maintain, trim, draught, stability, or stresses of the vessel, regardless of how it is carried.

Beneficial Use – Identified uses of waters of the State shall include uses for domestic water, irrigation, fish, shellfish, game, and other aquatic life, municipal, recreation, industrial water, generation of electric power, and navigation.

Best Management Practices (BMPs) – Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Benchmark – An indicator value used to determine the effectiveness of best management practices on a site. Benchmarks are not water quality criteria or effluent limits but indicators of properly functioning practices.

Bilge water – means the wastewater from a variety of sources that accumulates in the lowest part of the vessel (the bilge).

Bypass – The intentional diversion of waste streams from any portion of a treatment facility.

Calendar Week – (same as Week) A period of seven consecutive days starting on Sunday.

Chronic Toxicity – The effect of a compound on an organism over a relatively long time, often 1/10 of an organism's lifespan or more. Chronic toxicity can measure survival, reproduction or growth

rates, or other parameters to measure the toxic effects of a compound or combination of compounds.

Clean Water Act (CWA) – The Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, 97-117; USC 1251 et seq.

Combined Sewer – A sewer which has been designed to serve as a sanitary sewer and a storm sewer, and into which inflow is allowed by local ordinance.

Composite Sample – A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

Critical Condition – The time during which the combination of receiving water and waste discharge conditions have the highest potential for causing toxicity in the receiving water environment. This situation usually occurs when the flow within a water body is low, thus, its ability to dilute effluent is reduced.

Deconstruction Activity – dismantling of a vessel so that no part is left intact or undisturbed or otherwise impacted, to the extent that it cannot be reconstructed or readily identified as an existing portion of the original hull or superstructure. The vessel is reduced such that it has no value except for its basic material content. Deconstruction Activity does not include disturbance incidental to retrieving a vessel for dismantling at another location.

Deconstruction and Site Management Plan – A documented plan to implement measures to identify, prevent, and control the contamination of point source discharges of wastewater.

Demonstrably Equivalent – the implementation of BMPs or practices that are demonstrably equivalent to practices contained in the permit. If an applicant for coverage under the VDGP intends to use a BMP selected on the basis of Special Condition S3.C.2 (“demonstrably equivalent” BMPs), the applicant will notify Ecology of its selection as part of its NOI, which requires submittal of the DSMP. This is intended to ensure that BMPs will prevent violations of state water quality standards, and satisfy the state AKART requirements and the federal technology-based treatment requirements under 40 CFR part 125.3.

Department – The Washington State Department of Ecology

Designated Uses – Those uses specified in this chapter for each water body or segment regardless of whether or not the uses are currently attained.

Dewatering – The act of pumping water from the vessel that has entered either from previous submergence of the vessel or damage to the hull allowing water to enter.

Dilution Factor – A measure of the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone, expressed as the inverse of the percent effluent fraction; e.g., a dilution factor of 10 means the effluent comprises 10% by volume and the receiving water 90%.

Discharge – The release of water from a site

Discharger – An owner or operator of any facility or activity subject to regulation under Chapter 90.48 RCW or the Federal Clean Water Act.

Director – The Director of the Washington Department of Ecology or his/her authorized representative.

Domestic Wastewater – water carrying human wastes, including kitchen, bath, and laundry wastes from residences, buildings, industrial establishments, or other places, together with such groundwater infiltration or surface waters as may be present.

Drydock – a floating structure that can be submerged to allow a vessel to enter and then floated to raise the vessel and the floor of the drydock out of the water.

Ecology – The Washington State Department of Ecology

Equivalent BMPs – The operational, source control, treatment, or innovative BMPs which result in equal or better quality of stormwater discharge to surface water or to groundwater than BMPs selected from this permit.

Erosion – The wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep.

General Permit – A permit which covers multiple dischargers of a point source category within a designated geographical area, in lieu of individual permits being issued to each discharger.

Grab Sample – A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Groundwater – A saturated zone or stratum beneath the land surface or a surface water body.

Hazardous Substance – any liquid, solid, gas, or sludge, including any material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical, or biological properties described in WAC 173-303-090 or 173-303-100.

Hot work – riveting, welding, burning or fire or spark producing operations (29 CFR 1915.4)

Hull means the body or frame of a ship or boat. It is the central concept in water vessels. The hull is essentially what keep the water from entering the boat and acts as the walls and floor of the vessel.

Impaired Waters (303(d) listed waters) – Listed waters refers to the specific segment of a waterbody listed as not meeting water quality criteria by the State as required under Section 303(d) of the Clean Water Act. The most current list of impaired waters is the applicable list.

Inactive status – refers to the permit coverage status when there are no vessel deconstruction activities occurring: a Beginning of Deconstruction Notice form has not yet been submitted or a Completion of Deconstruction Notice form has been submitted for a vessel / project.

Jurisdiction – A political unit such as a city, town or county; incorporated for local self-government.

Local Government – Any county, city, or town having its own government for local affairs.

Mixing Zone – An area that surrounds an effluent discharge within which water quality criteria may be exceeded. The area of the authorized mixing zone is specified in a facility's permit and follows procedures outlined in state regulations (Chapter 173-201A WAC).

National Pollutant Discharge Elimination System (NPDES) – the national program for issuing, modifying, revoking and reissuing, terminating, monitoring, and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the State from point sources.

Notice of Intent (NOI) – the application for, or a request for coverage under this General Permit pursuant to WAC 173-226-200.

Notice of Termination (NOT) – a request for termination of coverage under this general permit as specified by Special Condition S12 of this permit.

Noncompliance – The inability to comply with any of the terms and conditions of the permit which causes a threat to human health or the environment.

Operator – Any party associated with a deconstruction project that meets either of the following two criteria:

1. The party has operational control over deconstruction plans and specifications, including the ability to make modifications to those plans and specifications; or
2. The party has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a DSMP for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the DSMP or comply with other permit conditions)

Outfall – The location where the site's stormwater discharges to surface water or leaves the site. It also includes the location where stormwater is discharged to surface waterbodies within a site but does not include discharges to on-site stormwater treatment/infiltration devices or stormwater conveyance systems.

Permit – An authorization, license, or equivalent control document issued by the director.

Permittee – An individual or entity that receives notice of coverage under this general permit.

pH – The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral. Large variations above or below this value are considered harmful to most aquatic life.

Point Source – Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, and container from which pollutants are or may be discharged to surface waters of the State. This term does not include return flows from irrigated agriculture. (See Fact Sheet for further explanation.)

Pollutant – dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, domestic sewage sludge (biosolids), munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste. This term does not include sewage from vessels within the meaning of section 312 of the CWA, nor does it include dredged or fill material discharged in accordance with a permit issued under section 404 of the CWA.

Pollution – The contamination or other alteration of the physical, chemical, or biological properties of waters of the State; including change in temperature, taste, color, turbidity, or odor of the waters; or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the

State as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare; or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses; or to livestock, wild animals, birds, fish or other aquatic life.

Qualified Marine Professional – An industry recognized professional such as a naval architect, marine engineer, or a marine chemist with the knowledge and skills to assess conditions and activities that could impact water quality and evaluate the effectiveness of best management practices required by this permit.

Receiving Water – The waterbody at the point of discharge – If the discharge is to a stormwater conveyance system, either surface or subsurface, the receiving water is the waterbody that the stormwater conveyance system discharges to. Systems designed primarily for other purposes such as for groundwater drainage, redirecting stream natural flows, or for conveyance of irrigation water/return flows that coincidentally convey stormwater are considered the receiving water.

Sanitary Sewer – A sewer which is designed to convey domestic wastewater.

Sediment – The fragmented material that originates from the weathering and erosion of rocks or unconsolidated deposits, and is transported by, suspended in, or deposited by water.

Sedimentation – The depositing or formation of sediment.

SEPA (State Environmental Policy Act) – the Washington State Law, RCW 43.21C.020, intended to prevent or eliminate damage to the environment.

Severe Property Damage – Substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

Significant Amount – An amount of a pollutant in a discharge that is not amenable to available and reasonable methods of prevention or treatment; or an amount of a pollutant that has a reasonable potential to cause a violation of surface or groundwater quality or sediment management standards.

Significant Contributor of Pollutant(s) – A facility determined by Ecology to be a contributor of a significant amount(s) of a pollutant(s) to waters of the State of Washington.

Site – The land or water area where any "facility or activity" is physically located or conducted.

Source Control BMPs – The physical, structural or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater. A few examples of source control BMPs are prompt removal of debris from drainage systems, maintenance of work areas, constructing roofs over storage and working areas, and collection and proper disposal of metal cutting and welding materials.

Storm Sewer – A sewer that is designed to carry stormwater, also called a storm drain or stormwater conveyance system.

Stormwater – The portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface water body, or a constructed infiltration facility.

Stormwater Drainage System – Constructed and natural features which function together as a system to collect, convey, channel, hold, inhibit, retain, detain, infiltrate or divert stormwater.

Surface Waters of the State – Lakes, rivers, ponds, streams, inland waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington

Technology-based Effluent Limit – A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Topside – that part of a vessel above the wales (horizontal members that aid in wall/form reinforcement and distribution of forces); now in yachts sometimes understood as the part between the waterline and deck, or the freeboard.

Total Daily Maximum Load (TMDL) – A calculation of the maximum amount of a pollutant that a waterbody can receive and still meet State water quality standards, a TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources.

Total Suspended Solids (TSS) – An analytical laboratory measurement of the concentration of solids suspended in water.

Treatment BMPs – BMPs that are intended to remove pollutants from stormwater. Examples

of treatment BMPs are oil/water separators, sand filters, and media filters.

Turbidity – The clarity of water expressed as nephelometric turbidity units (NTU) and measured with a calibrated turbidity meter (turbidimeter).

Upset – An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventative maintenance, or careless or improper operation.

USEPA – United States Environmental Protection Agency

Visual Inspection – Direct visual observation and evaluation of BMPs, site conditions, and discharge water quality

Wasteload Allocation (WLA) – The portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation (40 CFR 130.2(h)).

Water Quality – The chemical, physical, and biological characteristics of water, usually with respect to its suitability for a particular purpose.

Water Quality-based Effluent Limit – A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into receiving water.

Water quality standards – The state of Washington's water quality standards for surface waters of the State, which are codified in chapter 173-201 WAC.

Waters of the State – Those waters as defined as "waters of the United States" in 40 CFR Subpart 122.2 within the geographic boundaries of Washington State and "waters of the State" as defined in Chapter 90.48 RCW which include lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and water courses within the jurisdiction of the state of Washington.