DEPARTMENT OF ECOLOGY
State of Washington

Small Business Economic Impact Analysis

National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge General Permit

Draft General Permit for Vessel Deconstruction

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Small Business Economic Impact Analysis

National Pollutant Discharge Elimination System (NPDES) Wastewater Discharge General Permit

Draft General Permit for Vessel Deconstruction

by

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for the

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Table of Contents

Acronyms

AKART	All known, available, and reasonable methods of prevention, control, and treatment
BMP	Best Management Practices
CFR	Codified Federal Register
MSGP	Multi-Sector General Permit
NAICS	North American Industry Classification System
RCW	Revised Code of Washington
SBEIA	Small Business Economic Impact Analysis
TMDL	Total Maximum Daily Load
WAC	Washington Administrative Code

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Executive Summary

This Small Business Economic Impact Analysis (SBEIA) estimates the costs of complying with the Vessel Deconstruction General Permit ("permit"). It compares the costs of complying with the permit for small businesses to the costs of compliance for the largest ten percent of businesses, to determine whether the permit disproportionately impacts small businesses. This analysis is required by state rule in Washington Administrative Code (WAC) 173-226-120, which directs Ecology to determine if the permit imposes disproportionate burden on small businesses, and if it does, to mitigate the disproportion to the extent that is legal and feasible.

WAC 173-226-120 requires the SBEIA to include:

- A brief description of the compliance requirements of the general permit.
- The estimated costs of complying with the permit, based on existing data for facilities intended to be covered under the general permit.
- A comparison, to the greatest extent possible, of the cost of compliance for small businesses with the cost of compliance for the largest ten percent of businesses intended to be covered under the permit.
- A summary of how the permit provides mitigation to reduce the effect on small businesses (if a disproportionate impact is expected), without compromising the mandated intent of the permit.

For the purposes of the SBEIA, a small business is an independent entity with 50 or fewer employees organized for the purpose of making a profit. Employment is typically based on the highest available level of ownership data. Not-for-profit and government enterprises are excluded.

The Vessel Deconstruction General Permit authorizes the discharge of stormwater and a limited number of non-stormwater discharges associated with vessel deconstruction activity occurring over water.

Ecology requires industrial facilities that conduct activities under specific North American Industry Classification System (NAICS) codes to apply for a permit if they discharge stormwater, drydock floodwater, or non-routine discharges from their industrial areas to storm drains or directly to surface waters during deconstruction activities. This activity does not have to be the primary activity for a facility; it only has to be part of a facility's activities.

Costs associated with complying with the general permit relate to the following requirements:

- Sampling and monitoring
- Sample analysis
- Visual inspections
- Record retention

Permittees face both costs that accrue weekly and costs that accrue annually. These costs depend on the size of deconstruction project.

Table i: Weekly Compliance Costs for Vessel Deconstruction Permit Holders

Project Size	Weekly Cost (Low)	Weekly Cost (High)
Small	$266	$360
Large	$531	$719

Table ii: Annual Compliance Costs for Vessel Deconstruction Permit Holders

Project Size	Annual Cost (Low)	Annual Cost (High)
Small	$64	$121
Large	$128	$185

The cost per-employee falls as business size increases. Ecology concluded, based on this result, that the general permit has a disproportionate impact on small businesses.

The governing rule states Ecology should consider the following options to reduce the impact of the permit on small businesses.

- Establishing differing compliance or reporting requirements or timetables for small businesses.
- Clarifying, consolidating, or simplifying the compliance and reporting requirements under the general permit for small businesses.
- Establishing performance rather than design standards.
- Exempting small businesses from parts of the general permit.

Ecology considered options for lessening the burden of permit compliance on businesses where possible while protecting water quality and maintaining compliance with federal and state law and rule. The primary area where Ecology provided mitigation for smaller, less complicated vessel deconstruction activities is in permit section *S8. Deconstruction and Site Management Plan requirements*. The requirements in this section are scalable based on the size and complexity of the vessel deconstruction project that needs permit coverage.

Chapter 1: Introduction to the Economic Impact Analysis

This Small Business Economic Impact Analysis (SBEIA) estimates the costs of complying with the Vessel Deconstruction General Permit ("permit"). It compares the costs of complying with the permit for small businesses to the costs of compliance for the largest ten percent of businesses, to determine whether the permit disproportionately impacts small businesses. This analysis is required by state rule in Washington Administrative Code (WAC) 173-226-120, which directs Ecology to determine if the permit imposes disproportionate burden on small businesses, and if it does, to mitigate the disproportion to the extent that is legal and feasible.

1.1 Scope

WAC 173-226-120 requires the SBEIA to include:

- A brief description of the compliance requirements of the general permit.
- The estimated costs of complying with the permit, based on existing data for businesses intended to be covered under the general permit, including:
    - The minimum technology based treatment requirements identified as necessary under WAC 173-226-070.
    - The monitoring requirements contained in the general permit.
    - The reporting and recordkeeping requirements.
    - Plan submittal requirements.
    - Equipment.
    - Supplies.
    - Labor.
    - Increased administrative costs.
- A comparison, to the greatest extent possible, of the cost of compliance for small businesses with the cost of compliance for the largest ten percent of businesses intended to be covered under the permit.
- A summary of how the permit provides mitigation to reduce the effect on small businesses (if a disproportionate impact is expected), without compromising the mandated intent of the permit.

1.2 Definitions of small and large businesses

For the purposes of the SBEIA, a small business is an independent entity with 50 or fewer employees organized for the purpose of making a profit. Employment is typically based on the highest available level of ownership data. Not-for-profit and government enterprises are excluded.

1.3 Permit Coverage

1.3.1 Overview

The Vessel Deconstruction General Permit authorizes the discharge of stormwater and a limited number of non-stormwater discharges associated with vessel deconstruction activity occurring over water.

Ecology requires industrial facilities that conduct activities under specific North American Industry Classification System (NAICS) codes to apply for a permit if they discharge stormwater, drydock floodwater, or non-routine discharges from their industrial areas to storm drains or directly to surface waters during deconstruction activities. This activity does not have to be the primary activity for a facility; it only has to be part of a facility's activities.

The following NAICS code groups are required to get permit coverage.

Table 1: Impacted NAICS Codes

NAICS Code	NAICS Title
336611	Ship building and repairing
336612	Boat building
488390	Other support activities for water transportation

1.3.2 Deconstruction and Site Management Plan

All permit holders and applicants for coverage under this permit are required to develop a Deconstruction and Site Management Plan for the permitted activity. The Deconstruction and Site Management Plan must contain:

- A site map.
- A detailed assessment of the vessel.
- A detailed description of the best management practices (BMPs) necessary to:
    - Provide all known, available, and reasonable methods of prevention, control, and treatment (AKART).
    - Comply with chapter 173-201A WAC, Water Quality Standards for Surface Waters of the State of Washington and applicable federal technology-based treatment requirements under 40 CFR 125.3.
- A sampling plan.

1.3.3 Sampling and testing

Stormwater associated with deconstruction and deconstruction support activities

All permit holders must sample stormwater discharges from designated locations at their facilities once every calendar week[1] when they discharge stormwater (or authorized non-

[1] A **week** beginning with Sunday and ending with Saturday.

stormwater) from the site. Permittees must sample each distinct point of discharge, before it enters into waters of the state.

Permittees must visually monitor each sample for oil sheen and test the sample using the following parameters:

1. Oil and Grease
2. Turbidity
3. Total suspended solids
4. pH
5. Copper, Total
6. Zinc, Total
7. Lead, Total

Permittees must ensure the analytical methods they use to meet the sampling requirements conform to the latest versions of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136. However, if an alternate method from those in *40 CFR* Part 136 is sufficient to produce measurable results in the sample, the Permittee may use that method for analysis.

For each stormwater sample taken, facilities must record the following in the site log:

- Sample date, time, and location.
- Method of sampling and method of sample preservation.
- Name of person who performed the sampling.

Drydock Effluent

Subject to compliance with the terms and conditions of this permit, Ecology authorizes Permittees to discharge drydock floodwater to surface waters of the state. The general permit limits the following in these discharges.

- Oil sheen
- Oil and grease
- Turbidity

Non-Routine Discharges

Non-routine discharges are allowed on a case-by-case basis if Ecology approves them advance. In such cases, the Permittee is required to test for a variety of parameters as discussed in special condition S5.B of the permit. Because such discharges cannot be anticipated at the time of this analysis (only anticipated in the short-run by the Permittee) and occur at the discretion of the Permittee, Ecology did not include these costs in this analysis.

1.3.4 Visual inspections

Facilities must conduct visual inspections of the site each day and document these inspections with the Deconstruction and Site Management Plan. Each inspection shall

consist of:

- Observations made at all areas disturbed or otherwise impacted by deconstruction activities, all BMPs, and all discharge points.
- Observations for the presence of turbidity, floating materials, visible sheen, discoloration, etc., in the discharge.
- Observation for the presence of illicit discharges.
- Assessment of all BMPs that have been implemented.

1.3.5 Reporting and recordkeeping

The general permit sets reporting and recordkeeping requirements for all facilities.

Reporting

Facilities must use Discharge Monitoring Report forms to submit the sampling data they collect each reporting period to Ecology using Ecology's WQWebDMR program.

Records retention

Facilities must retain the following records for the entire life of the deconstruction project and for a minimum of three years:

- All monitoring information (site log book, sampling results, inspection reports/checklists, etc.)
- Deconstruction and Site Management Plan.
- Any other documentation of compliance with permit.
- All calibration and maintenance records.
- Records of all data used to complete the application for this permit.

1.4 Excluded costs

This SBEIA does not include the costs of complying with existing laws and rules, as Permittees would be required to comply with requirements regardless of whether the permit reiterated or referenced them, or if the permit did not exist. Costs excluded from all SBEIAs include the costs of complying with these state rules:

- Water Quality Standards for Groundwaters of the State of Washington (chapter 173-200 WAC).
- Water Quality Standards for Surface Waters of the State of Washington (chapter 173-201A WAC).
- Sediment Management Standards (chapter 173-204 WAC).
- Water quality permit fees (chapter 173-224 WAC).
- Federal laws and rules, including but not limited to the Clean Water Act and federal National Pollutant Discharge Elimination System (NPDES) rules if discharging to surface waters.

1.5 Compliance costs included in the SBEIA

According to WAC 173-226-120, Ecology must estimate the following costs in the SBEIA:

- Minimum treatment technology
- Monitoring
- Reporting
- Recordkeeping
- Plan submittal
- Equipment
- Supplies
- Labor
- Administrative costs

The following table is a summary of the permit requirements, and the last column indicates whether Ecology is required to consider the costs associated with each permit condition for the economic analysis.

Table 2: Compliance costs included in the SBEIA

Requirement	Condition Number	Basis of Requirement	Required to be in SBEIA
Submittal of application for coverage	S2.A	Federal	No
Development of Deconstruction and Site Management Plan	S3	Federal	No
General sampling requirements - annual	S4	Federal	No
General sampling requirements - weekly	-	State	Yes, extra samples
Non-Routine Discharges	S5	State	Yes
Sampling discharges to impaired waters - Discharges to 303(d)-listed waters	S6	State[2]	No
Sampling discharges to impaired waters - Discharges to waters with TMDLs	S6	State[3]	No

[2] MSGP largely defers to the appropriate state authority. Sampling requirements in Ecology's permit are primarily a state requirement. However, since the benchmarks are based on the acute water quality criterion in chapter 173-201A WAC, Water Quality Standards for Surface Waters of the State of Washington, the economic analysis is not allowed to consider these sampling costs.

[3] MSGP largely defers to the appropriate state authority. Sampling requirements in Ecology's permit are primarily a state requirement. However, since the benchmarks are based on the acute water quality criterion in chapter 173-

Requirement	Condition Number	Basis of Requirement	Required to be in SBEIA
Visual inspections - quarterly	S7	Federal	No
Visual inspections - daily	-	State	Yes
Corrective Actions	S8	State[4]	No
Solid and Liquid Waste Disposal	S9	Federal	No
Reporting and Recordkeeping Discharge - Monitoring Reports	S10.A	Federal	No
Reporting and Recordkeeping – Records -Retention	S10.B	Federal (3 years)	Yes, beyond 3 years as necessary for project completion
Reporting and Recordkeeping – Non-Compliance	S10.E	Federal	No

201A WAC Water Quality Standards for Surface Waters of the State of Washington the economic analysis is not allowed to consider these sampling costs.

[4] MSGP does not require eventual compliance with all benchmarks and therefore the corrective action and adaptive management set in this permit are primarily a state requirement. However, these benchmarks and the adaptive management conditions are necessary to comply with chapter 173-201 WAC, Water Quality Standards for Surface Waters of the State of Washington and are therefore exempt from the economic analysis.

Chapter 2: Costs of Compliance with the General Permit

Compliance costs are dependent on the size of the deconstruction project. In this chapter, Ecology estimated ranges of costs for most requirements–a low cost and a high cost. The low cost estimate is for small projects and the high cost estimate is for large projects. Some requirements have the same cost for small and large projects.

We present the assumptions we used to estimate compliance cost in this chapter. In general, we assume that large projects will have twice as many samples and requirements and will take twice as long to complete. We also included the assumptions we used to estimate capital costs.

It is necessary to annualize some costs because some costs are annual (incurred every year), while other costs are capital costs (incurred once). For example, equipment for pH testing is a one-time capital cost, while monitoring is an annual cost that Permittees will incur every year.

2.1 Compliance costs

Costs associated with complying with the general permit relate to the following requirements:

- Sampling and monitoring
- Sample analysis
- Visual inspections
- Record retention

2.1.1 Sampling and monitoring

All Permittees must sample and monitor their discharges weekly. Based on previous experience, Ecology staff estimated the time needed for facility staff to carry out each of the major tasks required by the permit, divided into time of professional or supervisory personnel and time of other staff.

The Bureau of Labor Statistics[5] identified labor costs of $60.01 per hour for professional or supervisory personnel and $24.44 per hour for staff. The calculations in Table 3a and 3b use these wages. For activities associated with monitoring (such as sample collection, record keeping, reporting), large projects are assumed to require twice as much labor as small projects, to reflect greater sampling activity.

[5] http://www.bls.gov/oes/current/oes_wa.htm for occupations 11-1021 and 47-3019.

Table 3a: Labor Costs for Sampling and Monitoring Small Projects

Labor Type	Prof/Sup	Staff
Sampling	.25 – .5 hr.	1.5 – 3 hr.
Training	0 – .5 hr.	0 hr.
Recordkeeping	0 hr.	.5 – 1 hr.
Total Time	.25 – 1 hr.	2 – 4 hr.
Weekly Cost	$15 - $60	$49 - $98
Total Weekly Cost	**All labor types**	**$64 - $158**

Table 3b: Labor Costs for Sampling and Monitoring Large Projects

Labor type	Prof/Sup	Staff
Sampling	.5 – 1 hr.	3 – 6 hr.
Training	0 – 1 hr.	0 hr.
Recordkeeping	0 hr.	1 – 2 hr.
Total Time	.5 - 2 hr.	4 – 8 hr.
Weekly Cost	$30- $120	$98 - 196
Total Weekly Cost	**All labor types**	**$128 - $316**

2.1.2 Sample analysis

Lab fees

The permit also requires Permittees to send samples to a laboratory for analysis. Ecology surveyed the three primary labs used by Treatment, Storage, and Disposal facilities regarding their fees for various water quality parameters.[6] This provided average fee levels for each of the monitoring parameters required by the permit.

We assume that small projects will have one sample analyzed for each parameter, while large projects will have two samples analyzed for each parameter, to reflect the probability that sampling in more than one location would be necessary to capture the impact of a large project. These lab fees only include the cost for analyzing parameters that are not required in the Federal Multi-Sector General Permit (MSGP).

Table 4: Weekly Laboratory Fees by Project Size

Project size	Lab fees
Small	$116
Large	$232

pH

Through discussion with Ecology's Lab Accreditation Program and environmental laboratories

[6] Personal communication with Als Global, Edge Analytical, and Fremont Analytical, 2019.

the necessary equipment requirements for on-site pH testing was determined.[7] For a sample to be valid, Permittees must do pH testing immediately after they draw a sample. We annualized values for long-term purchase based on a three percent real rate of interest and a five-year period of use.

We assumed a suitable pH meter and probe would cost $256, with annual replacement parts costs of $64.[8] For the low cost estimate, we assumed Permittees already own the equipment, leaving only the annual purchase of replacement parts. We assumed large projects have twice the replacements parts costs, to reflect increased sampling. There are no lab fees for pH analysis because Permittee do pH testing on site.

Total

Table 5: Equipment Costs for pH Testing by Project Size

Project Size	Small	Large
Initial Cost, Annualized	$0 - $57	$0 - $57
Annual Replacement Cost	$64	$128
Total Annual Cost	$64 - $121	$128 - $185

2.1.3 Visual inspections

Permittees are required to visually inspect their site each day and document the inspection with the Deconstruction and Site Management Plan. The Federal MSGP requires only quarterly inspections, so Ecology estimated the cost for the additional inspections on a weekly basis. We assume visual inspection will take a small project half an hour and large project a full hour. The Bureau of Labor Statistics[9] identified labor costs of $24.44 per hour for staff.

Table 6a: Weekly Inspection Costs for Small Projects

Method	Hours	Frequency	Duration	Weekly Cost
Visual Inspection	0.5 hr.	1/day	1 week	$86

Table 6b: Weekly Inspection Costs for Large Projects

Method	Hours	Frequency	Duration	Weekly Cost
Visual Inspection	1 hr.	1/day	1 week	$171

[7] Personal communication with Rebecca Wood, 2019.

[8] The cost of equipment meeting the minimum requirements was found to range from $256 - $788. The lower cost was used as it meets all of the necessary requirements.

[9] http://www.bls.gov/oes/current/oes_wa.htm for occupation 47-3019.

2.1.4 Record Retention

Permittees must retain records on site until the completion of the project. Federal requirements include retention for three years. Costs attributable to the permit include retention beyond three years for projects that last beyond this period. The cost of complying with this provision is the cost of storing records. This cost is likely very low or close to zero.

2.2 Total Costs

This section presents the total costs of compliance under the Vessel Deconstruction General Permit. Permittees face both costs that accrue weekly and costs that accrue annually. These costs depend on the size of deconstruction project.

Table 7: Weekly Compliance Costs for Vessel Deconstruction Permit Holders

Project Size	Weekly Cost (Low)	Weekly Cost (High)
Small	$266	$360
Large	$531	$719

Table 8: Annual Compliance Costs for Vessel Deconstruction Permit Holders

Project Size	Annual Cost (Low)	Annual Cost (High)
Small	$64	$121
Large	$128	$185

Chapter 3: Relative Compliance Costs for Small and Large Businesses

This chapter compares the costs of compliance per employee for small businesses to the costs of compliance per employee at the largest ten percent of businesses covered by the permit. The governing rule (WAC 173-226-120) allows Ecology to make this comparison based on:

- Cost per employee.
- Cost per hour of labor.
- Cost per one hundred dollars of sales.

We use cost per employee, because this data is readily and most comprehensively available for businesses operating in Washington State.

3.1 Facility size data

Tables 9a and 9b list the average number of employees for the small businesses (less than 50 employees) and the largest ten percent of industries in each of the representative industries.[10]

Table 9a: Average Number of Employees, Small Businesses by NAICS

Descriptions	NAICS	Average Employees
Ship Building and Repairing	336611	7.8
Boat Building and Repairing	336612	7.3
Water Transportation Services, Not Elsewhere Classified	488390[11]	2.3

Table 9b: Average Number of Employees, Large Businesses by NAICS

Descriptions	NAICS	Average Employees
Ship Building and Repairing	336611	85.0
Boat Building and Repairing	336612	129.2
Water Transportation Services, Not Elsewhere Classified	488390[12]	N/A

3.2 Relative costs of compliance

Compliance costs are dependent on the size and complexity of the vessel deconstruction project.

[10] Employment data for potentially impacted entities comes from Ecology's third-party database of employers operating in Washington State.

[11] All of the businesses in NAICS 488390 are small businesses.

[12] All of the businesses in NAICS 488390 are small businesses.

While our assumption is that a large business takes on a small project, it is highly unlikely that a small business will take on a large project. Because we determined the costs on a weekly basis, and larger projects tend to take more time than smaller projects, costs for larger projects are larger than costs for smaller projects. When comparing the average number of employees between large and small businesses, there is more than an 11 to 1 disparity.

Even if we make the assumption that large businesses only do large projects and small businesses only do small projects (which is the most conservative assumption possible), the costs, while larger for larger projects, will not be 11 times greater. Therefore, the cost-per-employee ratios fall as business size rises. Ecology concluded, based on this result, that the general permit has a disproportionate impact on small businesses.

Chapter 4: Mitigation of Disproportional Impacts

The general permit likely imposes disproportionate costs on small businesses, so Ecology took the legal and feasible actions described in this chapter to reduce small business compliance burden.

4.1 Mitigation options under WAC 173-226-120

The governing rule states Ecology should consider the following options to reduce the impact of the permit on small businesses.

- Establishing differing compliance or reporting requirements or timetables for small businesses.
- Clarifying, consolidating, or simplifying the compliance and reporting requirements under the general permit for small businesses.
- Establishing performance rather than design standards.
- Exempting small businesses from parts of the general permit.

The Waste Discharge General Permit Program rule requiring economic Impact analysis (WAC 173-226-120) states that mitigation only needs to be undertaken when it is legal and feasible in meeting the stated objectives of the federal Clean Water Act, and chapter 90.48 RCW, the State Water Pollution Act. This provision is an important restriction. If a proposed mitigation measure violates federal law or rules, or if it violates state law or rules, then it cannot be undertaken.

The conditions of the general permit based on federal rules are requirements of federal law. Significant mitigation of these conditions would be a violation of federal NPDES program rules, which establish effluent standards. Because these conditions are a consequence of federal law, Ecology cannot mitigate them, and we cannot reduce the associated compliance costs. Recall that these costs were not included in this analysis, as they are not a result of general permit requirements in excess of requirements in federal and state rule. The general permit must contain effluent limits that are at least as strict as federal effluent standards.

Conditions required to meet the AKART requirement of the state Water Pollution Control Act (chapter 90.48 RCW) are also legal requirements that Ecology cannot allow Permittees to violate. Thus, Ecology cannot mitigate compliance costs based on the AKART requirement. Recall that these costs were not included in this analysis, as they are not a result of general permit requirements in excess of requirements in federal and state rule.

Ecology also places conditions in general permits to ensure discharges do not violate the state surface water quality, ground water quality, or sediment management standards (chapters 173-200, 173-201, 173-204, 173-224 WAC). These conditions are legal requirements that Ecology cannot allow permit holders to violate. Compliance costs associated with these permit conditions cannot be mitigated. Recall that these costs were not included in this analysis, as they are not a result of general permit requirements in excess of requirements in federal and state rule.

The above circumstances severely limit Ecology’s ability to reduce the cost, to comply with the

rule, on small businesses. The only costs we can legally mitigate are the costs imposed by permit conditions that are stricter than those required by law.[13] Because, for the most part, the permit simply contains conditions needed to comply with these laws, usually only minor mitigation measures can legally be undertaken. The cost reductions that result are usually small.

Impact of mitigation on effectiveness of general permit

The general permit rule[14] states mitigation only needs to be undertaken when it is legal and feasible in meeting the stated objectives of the federal Clean Water Act and chapter 90.48 RCW, the State Water Pollution Control Act. Even if a proposed mitigation measure is legal, if it would limit the general permit's effectiveness in controlling water pollution too much, it should not be undertaken.

Ecology has reduced the cost of the permit where possible. Reducing costs does not remove the disproportionate impact. There is no basis that would allow Ecology to be more lenient on small businesses without an unreasonable risk of violating federal or state water quality laws and rules.

If Ecology issues a general permit that allows Permittees to harm the quality of the water receiving the discharge then Ecology would be in violation of state and federal law. The elements in the following section can potentially reduce the cost of the permit. Most of the mitigation presented is not only for small businesses, but applies to all Permittees and therefore will benefit small and large businesses alike.

4.2 Mitigation actions

Ecology considered options for lessening the burden of permit compliance on businesses where possible while protecting water quality and maintaining compliance with federal and state law and rule. The primary area where Ecology provided mitigation for smaller, less complicated vessel deconstruction activities is in permit section *S8. Deconstruction and Site Management Plan requirements*. The requirements in this section are scalable based on the size and complexity of the vessel deconstruction project that needs permit coverage. For example, a barge without propulsion systems is likely to contain less hazardous waste and have less potential to discharge spills and debris into state waters. For these vessels, a more streamlined Deconstruction and Site Management Plan would be acceptable. Larger, more complex projects will require more BMPs and are likely to contain more hazardous materials and potential for discharge. The Deconstruction and Site Management Plan for these larger projects will be accordingly more extensive and costly to produce.

Ecology based most of the other requirements of the permit on federal rule. The requirements

[13] chapter 90.48 RCW

[14] chapter 173-226 WAC

in this permit are comparatively more restrictive than for example, the Boatyard General Permit. This is due to the nature of the work and the fact that it occurs over water where options for capturing and treating discharges are limited. The permit therefore relies on more source control BMPs to prevent exposure of pollutants to rainfall and other flows that could cause a discharge. Again, the required BMPs will vary based on the size and complexity of the vessel deconstruction activity.

4.3 Conclusion

This analysis found that the Vessel Deconstruction General Permit likely imposes disproportionate costs on small versus large businesses complying with it. In compliance with WAC 173-226-120, Ecology included elements in the general permit that reduce compliance costs, and attempted to reduce disproportionate costs. Further cost reductions, or reductions to disproportion, were not possible due to limitations of federal and state rules protecting the environment and regulating Permittee behavior.

References

RCW 34.05.272 requires Ecology to categorize sources of information used in significant agency actions made in the Water Quality Program.

Independent peer review: Review is overseen by an independent third party.

Internal peer review: Review by staff internal to Ecology.

External peer review: Review by persons that are external to and selected by Ecology.

Open review: Documented open public review process that is not limited to invited organizations or individuals.

Legal and policy documents: Documents related to the legal framework for the significant agency action, including but not limited to: federal and state statutes, court and hearings board decisions, federal and state administrative rules and regulations, and policy and regulatory documents adopted by local governments.

Data from primary research, monitoring activities, or other sources, but that has not been incorporated as part of documents reviewed under independent, internal, or external peer review.

Employment data by impacted industry taken from Remi database.

Records of the best professional judgment of Ecology employees or other individuals.

Personal communication between Shon Kraley and Rebecca Wood, April 2019 on necessary equipment to conduct on-site Ph monitoring.

Personal communication between Shon Kraley and Als Global, Edge Analytical, and Fremont Analytical, April 2019 on cost of laboratory testing of stormwater samples for various substances.

Other: Sources of information that do not fit into other categories.

United States Bureau of Labor Statistics (2019) http://www.bls.gov/oes/current/oes_wa.htm