DEPARTMENT OF ECOLOGY
State of Washington

Concise Explanatory Statement

Chapter 173-230 WAC: Certification of Operators of Wastewater Treatment Plants

Summary of Rulemaking and Response To Comments

July 2019

Publication 19-10-029

Publication and Contact Information

This document is available on the Department of Ecology's website at:
https://fortress.wa.gov/ecy/publications/summarypages/1910029.html

For more information contact:

Water Quality Program
P.O. Box 47600
Olympia, WA 98504-7600
Phone: 360-407-6600

Washington State Department of Ecology — www.ecology.wa.gov

- Headquarters, Olympia 360-407-6000
- Northwest Regional Office, Bellevue 425-649-7000
- Southwest Regional Office, Olympia 360-407-6300
- Central Regional Office, Union Gap 509-575-2490
- Eastern Regional Office, Spokane 509-329-3400

Concise Explanatory Statement

Chapter 173-230 WAC

Certification of Operators of Wastewater Treatment Plants

Water Quality Program

Washington State Department of Ecology

Olympia, Washington

This page intentionally left blank

Table of Contents

Introduction

The purpose of a Concise Explanatory Statement is to:

- Meet the Administrative Procedure Act (APA) requirements for agencies to prepare a Concise Explanatory Statement (RCW 34.05.325).
- Provide reasons for adopting the Rule.
- Describe any differences between the proposed Rule and the adopted Rule.
- Provide Ecology's response to public comments.
- This Concise Explanatory Statement provides information on The Washington State Department of Ecology's (Ecology) Rule adoption for:

Title:	Certification of Operators of Wastewater Treatment Plants
WAC Chapter(s):	173-230
Adopted date:	July 10, 2019
Effective date:	August 10, 2019

To see more information related to this rulemaking or other Ecology rulemakings please visit our website: https://ecology.wa.gov/About-us/How-we-operate/Laws-rules-rulemaking.

Reasons for Adopting the Rule

Legislation passed in 2018, amending Chapter 70.95B RCW (Chapter 213, Laws of 2018) directing Ecology, with the advice of an advisory committee, to establish an initial fee schedule in the Rule. This rulemaking does this as well as other necessary updates to modernize and make more clear the requirements and the procedures for obtaining and maintaining an operator certification in Washington State.

As part of this rulemaking we have focused on the following changes:

- Establishing a new fee schedule as directed by the Legislature in 2018.
- Providing for an Operator in Training (OIT) and respective education and experience qualifications for groups II-IV.
- Updating rule language to acknowledge new technologies in wastewater treatment.
- Reorganizing the Rule to create standalone sections where more information and clarity are needed.
- Clarifying and adding rule language to align with existing program practices.

The main anticipated effect of this rulemaking will be the establishment of a fee schedule in the Rule that fully funds the Operator Certification Program as directed by the Legislature.

The anticipated effects of the other changes proposed include less confusion over requirements and an increase in opportunities for wastewater treatment plant operators due to the creation of new Operator in Training group levels.

Differences between the Proposed Rule and Adopted Rule

RCW 34.05.325(6)(a)(ii) requires Ecology to describe the differences between the text of the proposed Rule as published in the Washington State Register and the text of the Rule as adopted, other than editing changes, stating the reasons for the differences.

There are some differences between the proposed Rule filed on March 12, 2019 and the adopted Rule filed on July 10, 2019. Ecology made these changes for all or some of the following reasons:

- In response to comments we received.
- To ensure clarity and consistency.

The following content describes the changes and Ecology's reasons for making them.

WAC 173-230-250

To clarify, "wastewater treatment plant designer and/or builder" was added to the list of allowable relevant experience. In addition, we added the previously deleted language "environmental or operations consultant" to the list of allowable relevant experience.

List of Commenters and Response to Comments

The comments received were reviewed and evaluated by Washington State Department of Ecology.

A total of 7 persons provided comments regarding the draft documents. In the comment table, each commenter is referenced by an assigned commenter number.

List of Commenters:

1. Caitlin Hubbard, Commenter: I-1
2. Bryan Petersen, Commenter: I-2
3. Anna Pennington, Commenter: I-3
4. Amber Mummert, Commenter: I-4
5. John Andersen, Phillips 66, Commenter: B-2
6. Gautam Kini, Shell Oil, Commenter: B-1
7. Jessica Spiegel, WSPA, Commenter: O-1

Letter I-1: Caitlin Hubbard

Comment I-1-1

Most municipalities pay for their operators' certification renewals. This money comes from ratepayers - so we have ratepayer/taxpayer dollars going from one entity to another entity that is also funded by ratepayer/taxpayer dollars. Is that ethical?

Response to I-1-1

Ecology is required by law to collect fees to fully fund the Wastewater Operator Certification Program. While it is true that some municipalities pay their employed operators' certification fees, no changes are proposed to the Rule that allows or disallows this practice. It is and has been done under the current Rule and as it is an employee benefits decisions, made by each municipality, it is outside the scope of Ecology's authority and thus the scope of this rulemaking.

Letter I-2: Bryan Petersen

Comment I-2-1

I just want to say that this whole fee increase is ridiculous. Doubling the fee amount is more of a show of not managing the money properly than the costs to run the department efficiently. A five to maybe ten dollar increase might be understandable but doubling it is a joke.

I have two Licenses currently in Idaho and pay less for both. I don't want to hear the wages are better here because they are catching up and fast in that category. Idaho has 3778 total operators 1664 are Waste Water alone. I don't have the numbers for WA but I will bet that it's at least double. The last time Idaho changed their fees was in 2014 and guess what? It went from $35 to $30 yeah that's right they lowered the fee.

*I would like to know what exactly ecology does directly for the operator. If you are in charge of getting training for us that needs a lot of help. Classes are few and far between and seem to be the same damn classes over and over. Safety is important but we need more classes that are related to our everyday duties. Pump classes man hole repair things we do to make the sh** flow.*

As you can see I'm not happy about this rate hike. Were most of these operators who were in this RAC group going to retire soon? Or were they folks that will be taking care of WA Waste Waters for years to come and possibly see another rate hike before they retire. I think this could have been a much different outcome than to put the burden on the hard working operators who are actually out here doing the dirty work.

Response to I-2-1

Fees in Washington State have been capped in statute since the 1980s. Ecology is legally required to fund the program entirely with fees and has been unable to meet this legal requirement. The Legislature recognized this and passed a law removing the fee cap. In 2018 they directed Ecology to establish a new fee schedule in Rule. They did not remove the legal requirement that the program be fully funded by fees. Without a change to this in law, Ecology is unable to fund the program any other way.

Idaho's program is administered through the Idaho Bureau of Licensing (IBOL), overseen by a board, and does not have this same requirement. Idaho's total budget for fiscal year 2019 is $273,000, however, they are not required to fund the program solely on fees. In comparison, through modeling, Ecology determined that approximately $250,000/year is the minimum cost in fees needed to support Washington State's program at its current level. The fees proposed do not increase the funding for the program. Ecology has approximately 2,000 operators.

The national Association of Boards of Certification (ABC) recommends 1 FTE per 1,000 operators, the Washington State wastewater operator certification program

has 1.5 FTE. The fee increase does not address the staff shortage, only the funding needed to maintain the program at its current level of one full-time and one part-time employee to run the entire program. This includes:

- Processing, reviewing, and approving or disapproving applications.
- Individually assessing all applications for required operating and relevant experience, education, and other necessary qualifications. This includes visiting wastewater treatment plants, as needed, to assess wastewater operators' operating experience.
- Determining reciprocity with other states and organizations.
- Reviewing training courses and assessing the appropriate amount of continuing educational credits.
- Individually assessing all reciprocity applications for required operating and relevant experience, education, and other necessary qualifications.
- Issuing invoices for annual renewals.
- Sending out reminder letters for renewals.
- Managing Washington State's contract with ABC for wastewater operator testing.
- Reviewing and processing test scores.
- Reviewing and assessing professional growth requirements for all operators.
- Proctoring exams, when needed.
- Administering the outstanding wastewater treatment plant awards program.
- Attending and presenting at conferences and speaking engagements with operators around the state.
- Assisting and conducting investigations and completing enforcement actions.
- Suspending and revoking certificates as needed due to non-compliance, non-renewals, or non-compliance with a support order or a residential or visitation order.
- Providing operator outreach and support by visiting treatment plants, attending meetings, and explaining certification requirements.
- Providing non-operator support by responding to questions about the program,

The Rule Advisory Committee (RAC) consisted of 2 operators for each Group level - Operator in Training (OIT) to Group IV. One operator from each Group level was from Eastern Washington and the other from Western Washington. The RAC was diverse, with a mix of operators from small, medium, and large facilities, with tribal, retired, and incarcerated operator representation; as well as a mix of operators beginning their career, in the middle of their career, and some towards retirement age or already in retirement.

Ecology researched past payments and found that just a bit more than fifty percent of municipalities reimburse—or outright pay—renewal fees for their operators, as a provided benefit. Therefore, by switching the historic fee structure that has had applications at a higher cost than renewals—and instead having higher renewal fees—we have indirectly spread some of the increased costs of renewal fees to those municipalities that choose to provide fee reimbursement or payment as a benefit they provide their operators.

Ecology appreciates all of the hard work operators do to protect the waters of the state and knows any fee increase can be a difficult adjustment. By charging the higher fees for renewals instead of applications we were able to keep application fees lower for the Group I OIT and Group I levels. Ecology hopes that this will help encourage more entry into the certification program.

Letter I-3: Anna Pennington

Comment I-3-1

Consider including pretreatment sampling or permit management as relevant experience for obtaining a wastewater operator certificate.

Response to I-3-1

We considered pretreatment while amending this Rule. However, by definition, some pretreatment steps fall under the primary treatment type classification (see *Table 4, Treatment Plant Classification Criteria*). Ultimately, we decided not to add pretreatment to the relevant experience list to avoid excluding operators who may be able to use it for operating experience.

We did not consider permit management as relevant experience as it has not come up in our experience or during the rule advisory committee meetings. However, we do have the language "other relevant experience" will be considered on a case-by-case basis for instances such as this where the specific, individual experience will matter in making a determination of relevancy.

Letter I-4: Amber Mummert

Comment I-4-1

These updated Rules responsibly enable the program to be self-sufficient while upholding the integrity of our profession. Thank you to all who put time and effort into developing them.

Response to I-4-1

The Department of Ecology thanks you for your comments and support for the rulemaking and the updated chapter as adopted. It is the result of countless combined efforts over several years, including by operators like yourself.

We very much appreciate the work of the Rule Advisory Committee (RAC). We appreciate the time you gave to attend the RAC meetings. Your assistance helped ensure this updated Rule maintains the longevity of the Operator Certification program by establishing a new fee schedule that fully funds the program—while keeping fees lower for those entry level applications. Thank you again for your contributions to the RAC.

Letter B-2: John Andersen

Comment B-2-1

Dear Ms. Jones,

Phillips 66 Company, Ferndale Refinery operates an NPDES permitted wastewater treatment system (WWTS) in support of its petroleum refinery operations. Wastewater influent to the system are primarily sourced from the refinery activities, but there are small contributions from stormwater, ship ballast water (on a rare occasion) and sanitary wastes. While the sanitary wastewater comprises less than 1% of flow and conventional pollutant loading to the system, it is that contribution which has triggered an obligation under WAC 173-230 Certification of Operators of Wastewater Treatment Plants for our operators to become certified.[1]

For the reasons presented in this letter, we believe these certification requirements are unnecessary for our WWTS operators. As explained herein, the operator training, and on-shift staff support the Refinery provides its WWTS operators ensures that these individuals have the system-wide competence that is required under WAC 173-230. Ecology's proposed revisions Of WAC 173-230 present an opportunity to suggest regulation Changes.

As discussed in detail below, Phillips 66 requests that Ecology clarify that the certification requirements for facilities treating sanitary wastes are only applicable to publicly-owned facilities that treat significant amounts of sanitary wastes.

Background

1. *Phillips 66 Company operates a complex primary and Secondary WWTS at our Ferndale Refinery. System components include:*

- *three surge tanks (a chemical water surge tank, a chemical water retention tank, and an oily water surge tank)*
- *two parallel API oil/water separators with skimmers*
- *two parallel Induced gas flotation units *two parallel moving bed biofilm reactors (MBBR)*
- *two parallel aeration basins two parallel clarifiers*
- *sludge stabilization pond *catchment basin *dewatering basin*
- *stormwater basin*
- *final holding pond*

An average daily influent flow is 2.8 million gallons per day, the sanitary wastewater contribution about 15,000 gallons per day, Or about 0.5% of the total treated wastewater. The contribution of sanitary wastewater flow and its conventional pollutant loading to the WWTS is very low and demands no additional expertise tor successful treatment.

2. *Phillips 66 employs approximately 6 individuals who have partial responsibilities to operate the WWTS. These employees are affiliated with the United Steel Workers, 12-590. Operating the WWTS is not a dedicated, full-time role, as these employees have other responsibilities to other process units. In addition, there are salaried professional staff available on-shift to support the treatment systems operators. These include: Environmental Specialist - compliance reporting (state certified; Operator in Responsible Charge); process Engineers - engineering support for process changes and control: Shift Supervisors - day-to-day operational supervision; Operations Coordinators - day-to-day coordination and scheduling for Operations with the cooperation of the Maintenance Department personnel; Maintenance Dept - coordination and execution of all equipment maintenance, including rotating equipment, fixed piping, instrumentation and controls.*

3. *Competent and compliant operation of the WWTS is critically important for the success of Phillips 66 Ferndale Refinery. Various management tools have been developed to achieve excellent performance. These include:*

- *Standardized and documented operating procedures for each system component*
- *Preventative and incident maintenance programs*
- *Development, updating and adherence to the Treatment System Operating Manual required by the NPDES permit*
- *On-site presence of contracted wastewater treatment consulting and analysis firm Athlon Solutions, a Halliburton Service company.*
- *Unit specific training and qualifications with annual refresher training on procedures and emergency response.*

Suggested Changes in WAC 173-230 Requirements

1. This regulation is clearly targeted to WWTS'S processing domestic sewage and requiring a dedicated operating staff. Similarly, the unequivocal rule language is that "industrial wastewater treatment plants" are not subject to the requirements of this Rule. *These companion statements simply recognize that POTWs and industrial facilities are not the same, and a different approach to gain confidence on operator competence and supervisory over-sight is needed for those facilities to domestic sewage treatment. By comparison, industrial WWTS are privately-owned, with differing influent composition requiring a range of treatment technologies, and system-wide staffing model that could differ from the typical public facility.*

To clearly limit the requirements of WAC 173-230-020 to systems primarily designed and operated to handle significant volumes of sanitary wastes, Phillips 66 requests that the definition of "wastewater treatment plane be revised as follows:

> *"...means a **publicly-owned** facility used to treat any liquid or waterborne waste of domestic origin or a Combination of domestic, commercial, or industrial origin, and that, by its design requires the presence of an operator. It does not include any facility ..."*

This change would clearly align rule applicability to its stated intent and avoid the illogical outcome where a low level domestic sewage contribution subjects the facility to the entire set of WAC 173-230 requirements.

2. The WAC 173-230 objective to compel operator and ostensibly WWTS operating competence can be demonstrated by recognizing the total operating team responsible for treatment system operation. Team credentials, experience and how they are deployed will be a more compelling demonstration of this capability vs, a sole focus on individual operator academic and experience measures. *NPDES permittees are responsible for compliance with permit terms and conditions. This certainly includes decisions on WWTS staffing levels, provision for training, professional skills support, etc. At Phillips 66 the responsibility for WWTS performance is shared across the manufacturing system. WWTS Operators have on-shift access to multiple salaried professional staff to trouble-shoot any operational issues, optimize the treatment process, identify maintenance priorities and work, etc. This is a more robust work practice approach (as opposed to focus on an individual operators' certification status. Yet the WAC 173-230 provides no rule language mechanism to credit this management choice.*

To recognize a system of competence, Phillips 66 requests that Ecology consider adding a new subsection in WAC 173-230-220 Applicability which states:

> *(4)* "In lieu of having one or more operators which have met the competency requirements of WAC approve a facility's competency demonstration. The Demonstration shall indicate the system the facility has onsite to ensure proper wastewater treatment system operation including staff training and supervision. If accepted by the Department the submittal substitute for the requirements in this regulation and would be incorporated into the Treatment System Operating plan required of NPDES permittees."

As a less favored approach, Ecology could be prepared to broadly interpret and apply the language in WAC to facilitate achieving a certification status. For example, the 'case-by-case' provision along with -relevant experience- and "operating experience" and "allowable substitutions" could provide a means for introducing the Phillips 66 Ferndale Refinery WWTS management approach and gaining certification for the operating team.

3. *Finally, we would encourage Ecology to simplify this Rule. We acknowledge this is a well-intentioned regulation that has undoubtedly advanced the overall competence of WWTS*

operators through the years. But it is also a very complex rule and especially bureaucratic in structure and requirements. This current proposed revision takes the rule from eight pages length to 14 pages (partly related to formatting). Ecology might consider whether there is comparable environmental protection value with this expanded rule and, if not, to trim in back.

If you have any further questions, please contact David Schmidtz at [redacted]. John Andersen

Footnote 1: *While "wastewater treatment plant(s)" are exempt from this regulation, the definition of "wastewater treatment System" facilities treating a "combination of domestic, commercial or industrial, thus making those "plants" subject to the regulation. We now believe this is an incorrect interpretation of regulation intent and language. See our suggested Change #1.*

Response to B-2-1

This rulemaking did not change the requirements set forth in RCW 70.95B.030 to have a certified operator in responsible charge of a plant, and an operator in charge of each shift (if there is more than one daily shift). These requirements have been in place since 1973 and since they are set forth by statute, are out of the scope for this Rule.

It is important to note that not all wastewater treatment plants are "publicly-owned" and adding language specifying "publicly-owned" would eliminate all non-publically owned treatment plant owners and operators from this Rule – not just the above mentioned three refineries. This would seriously undermine the integrity of the wastewater operator certification program, which is to ensure wastewater being discharged to waters of the state is meeting all necessary water quality standards and limits in the NPDES permit.

The definition of "wastewater treatment plant" originates in statute (RCW 70.95B.020) and while it excludes industrial treatment plant in that definition, it explicitly ***includes*** systems that comingle or combine industrial origin and domestic wastewater. Ecology disagrees that this is an illogical outcome. The plain language reading clearly intends to make certain that *any* quantity of domestic wastewater is treated properly before being discharged to waters of the state. This includes ensuring the Operator in Responsible Charge and the Lead Operator of a Shift (if a facility is operated in more than one shift), are fully qualified to operate and maintain a wastewater treatment plant. Other operators or staff that work at a facility or with the treatment systems are encouraged to get certification, but are not required to do so.

While Ecology appreciates your comment and suggestion, because this is a statutory definition we are unable to create a different definition in the Rule. The definition in the Rule will remain the same.

Domestic wastewater treatment plants are also NPDES permittees and are required to provide an operations and maintenance manual, standard operating procedures, engineering report, general sewage plan, combined sewer overflow reduction plans,

and are subject to meeting requirements for hydrology and organics loading.

Domestic wastewater treatment plants also have 24/7 staffing as well as training programs and comprehensive standard operating procedures. Each NPDES permit classifies the treatment plant, which sets the necessary group level of the Operator in Responsible Charge and the Lead Operator of a Shift. The plants are classified based on the amount of domestic wastewater treated and discharged as well as the complexity of the plant and the treatment processes. The fact that these facilities only treat a small amount of domestic wastewater influence the plant classification in the NPDES permit, but it does not change the fact that domestic wastewater is being treated and as such, specific legal requirements must be met for these facilities to have the right to discharge this treated wastewater to waters of the state.

Creating an “off-ramp mechanism” to allow an "equivalency" is not a viable option given the statutory definition of a “wastewater treatment plant” and moreover, doing so does not meet the intent of the overriding statute and the wastewater operator certification program. The available “off-ramp” mechanism for these facilities would be for the facilities to cease comingling their domestic wastewater with the industrial wastewater. This would lift the requirement in the NPDES permits for certified operators.

Ecology appreciates the diversity of skill it takes to design, build, and manage treatment plants. We also understand and appreciate the complexity and skill it takes to operate and maintain a treatment plant. Moreover, Ecology is required to ensure this competency and skill under chapter 70.95B RCW. To do so, Ecology relies on a combination of education and experience combined with comprehensive testing to determine competency. Allowing some applicants alternatives to testing would undermine the integrity of the wastewater operator certification program.

Chapter 70.95B RCW requires Ecology to certify individual operators. There is no provision that would allow Ecology to certify a wastewater treatment plant’s operating team as a whole. Since Ecology is required to issue certifications to individual operators, it is not practicable for Ecology to revise WAC 173-230 to determine a way to assess system-wide competence for a wastewater treatment plant. Additionally, it has been Ecology’s experience that even with similar training and availability of resources, each operator has different abilities and competencies. Ecology believes that ignoring these individual differences, and instead assessing a wastewater treatment plant program as a whole, would decrease the integrity of the wastewater operator certification program and would not meet Ecology’s responsibilities per Chapter 70.95B RCW.

Subsection WAC 173-230-250(2), is directly related to the education and experience requirements for certification. If an operator does not meet the operating experience requirements, this section allows for substituting that experience with relevant experience, or non-operating experience. Changing the requirements to allow for less than the current requirements would undermine the integrity of the Wastewater

Operator Certification Program by creating unequal and unfair points of entry for operators. In the long run, Ecology believes this would create unnecessary uncertainty in the qualifications and competency of all certified operators by weakening the overall high standards of the Wastewater Operators Certification Program.

Thank you for your recommendation to reduce the content of the updated Rule. While the Rule is longer in length, Ecology believes the creation of the standalone sections and inclusion of additional details provided in the updated language provide more clarity. Codifying the existing program administration processes ensures consistent implementation into the future giving certainty to Certified Operators.

Additionally, it should be noted that much of the longer length is due to the inclusion of the legally required fee schedule (including the process for future fee changes). Content was added to create the new Operator in Training group levels to aid operators in career development and treatment plants in succession planning. In addition, we made clarifications to the Rule based on current practice and experience administering the current Rule.

Letter B-1: Equilon Enterprises LLC, dba Shell Oil Products US - Puget Sound Refinery

Comment B-1-1

Equilon Enterprises LLC, dba Shell Oil Products US - Puget Sound Refinery operates an NPDES permitted wastewater treatment plant (WWTP) in support of its petroleum refinery operations. Wastewater influent to the system are primarily sourced from refinery processes, but there are small contributions from stormwater, third party wastewater — from Air Liquide, Linde Gas and General Chemical, and sanitary wastes.

While the sanitary wastewater comprises much less than 1% of flow and conventional pollutant loading to the system, it is that contribution which has triggered an obligation under WAC 173-230 Certification of Operators of Wastewater Treatment Plants for our operators to become "certified." [1]

For the reasons presented in this letter, we believe these certification requirements would be burdensome for our WWTP and system operators. An explanation of our operator training and on-shift staff support will demonstrate system-wide competence that is sufficient to fulfil the fundamental objectives of this regulation. Ecology's proposed revisions of WAC 173-230 present an opportunity to both suggest regulation changes and/or gain agreement on sensible application of the rule language considering the work-process based

[1] *While "Industrial wastewater treatment plant(s)" are exempt from this regulation, the definition of "wastewater treatment system" includes those facilities treating a "combination of domestic, commercial or industrial origin…", thus making those "plants" subject to the regulation. We now believe this is an incorrect interpretation of regulation intent and language. See our Suggested Change*

operational model at refinery WWTPs over the operator-focused model that this rule language refers to.

Background

1. *Equilon Enterprises LLC, dba Shell Oil Products US - Puget Sound Refinery operates a complex primary and secondary WWTP at 8505 S Texas Rd, Anacortes WA, 98221. System components include:*

- *Two surge tanks (that also serve as overflow tanks)*
- *Three bay (parallel configuration) API oil/water separator unit*
- *Three (parallel configuration) dissolved air (nitrogen) flotation unit*
- *A pretreatment biotreater (1st stage biotreater)*
- *A three bay oxidation (series configuration) oxidation channel (2nd stage biotreater)*
- *Two secondary clarifiers (parallel configuration)*
- *Intermediary retention basin Stormwater pond*
- *Disinfection system (using sodium hypochlorite/bleach)*
- *Final holding pond*

An average influent flow to the WWTP is 4.3 million gallons per day. The sanitary wastewater contribution is about 15,000-30,000 gallons per day, or about (0.5%-1%) of the total treated wastewater. The contribution of sewage flow and its conventional pollutant loading to the WW'TP is truly insignificant and demands no additional expertise for successful treatment.

2. *Equilon Enterprises LLC, dba Shell Oil Products US - Puget Sound Refinery employs 17 operators who have partial responsibilities to operate the WWTP. These employees are affiliated with the United Steel Workers Union and operate on a shift schedule. Furthermore, operating the WWTP is not a dedicated, full-time role, as these operators have other responsibilities in the refinery that they assume on a scheduling basis. Additional responsibilities over that of operating the WWTP broadly include but may not be limited to tank operations, rail car operations and/or dock operations. The refinery's structural organization around wastewater treatment and management extends to a broader team of personnel that includes but is not limited to Production Shift Team Leaders and Supervisors, production Specialists, process Engineers, Environmental Engineers, Reliability Engineers, Operations and Maintenance Specialists and Instrumentation and Electrical (I&E) Engineers. The Wastewater Treatment Operators are highly trained and skilled in their role that is fundamentally to operate the plant based on well-defined and documented procedures. The more extensive development of advanced trouble-shooting and operating procedures, design calculations, preventative/reactive maintenance related to water treatment and management is carried out by the larger team that is accessible to the operator on a 24 x 7 basis.*

3. Competent and compliant operation of the WWTP is critically important for the success of Shell Puget Sound Refinery's WWTP. Various management tools have been developed to achieve excellent performance. These include:

- *Standardized and documented operating procedures for each system component*
- *Preventative and reactive maintenance programs*
- *Development, updating and adherence to the* Treatment System Operating Manual *required (TSOP) by the NPDES permit*
- *Proactive technical monitoring system that includes unit targets/alarms*
- *24 x 7 support to operators at the WWTP by an extended team of non-shift staff*

Each EP operator goes through an extensive training, qualification and assessment process to both qualify as an EP operator and maintain EP operator proficiency. The training process entails up to 8 weeks of training followed by detailed assessments/interviews with unit trainers and specialists.

Suggestions on WAC 173-230

We acknowledge this is a well-intentioned regulation that has undoubtedly advanced the overall competence of municipal WWTP operators through the years. However, it is primarily intended to WWTP's that process domestic wastewater including sanitary waste with unequivocal rule language that "industrial wastewater treatment plants" are not subject to the requirements of this Rule. These statements simply recognize that POTWs and industrial facilities are not the same, and a different approach to gain confidence on operator competence and supervisory over-sight is needed for facilities dedicated to domestic sewage treatment.

In context of Shell Puget Sound Refinery/ s sanitary wastewater contribution being < 1% of the total treated wastewater, we request consideration and thoughtful applicability to the definition of wastewater treatment plant in WAC 173-230-020. Furthermore, and considering Shell Puget Sound Refinery's work-process based WWTP operating model over an operator-focused operating model, we request Ecology to broadly interpret and apply the language in WAC 173-230-250(2) to facilitate achieving a certification status. The "case-by-case" provision along with "relevant experience" and "operating experience" and "allowable substitutions" could provide a means for introducing Shell Puget Sound Refinery's WWTP management approach and gaining certification for the operating team.

We appreciate the opportunity to comment on proposed changes by Ecology to WAC 173-230. If you have any questions or need further clarifications related to the letter, please contact Gautam Kini, Environmental Engineer (Water) for Shell Puget Sound Refinery at [redacted]*. Sincerely, Brian Robson Environmental Manager, HSSE Department, Shell Puget Sound Refinery, 8505 S. Texas Road, Anacortes, WA, 98221*

Response to B-1-1

This Rule making did not change the requirements set forth in RCW 70.95B.030 to have a certified operator in responsible charge of a plant, and an operator in charge of each shift (if there is more than one daily shift). These requirements have been in place since 1973, and since they are set forth by statute, are out of the scope for this Rule.

The definition of wastewater treatment plants is a statutory definition (RCW 70.95B.020), which the legislature did not change. Therefore, we are unable to amend the definition and the statute language stating a wastewater treatment plant is a combination of domestic or industrial origin.

The size of the treatment plant does not influence the fact that domestic wastewater is being treated and specific requirements for discharging to the waters of the state must be met. Based on the domestic wastewater treatment type and flow provided, and using Table 4, Shell's treatment plant classification is a Class II. Making an exception for industrial facilities based solely on their size does not meet the intent of the law.

Ecology appreciates the diversity of skill it takes to design, build, and manage treatment plants. We also understand the complexity and skill it takes to operate and maintain a treatment plant. Therefore, it is imperative that we rely on comprehensive testing to determine the knowledge and ability of those individuals operating and maintaining the treatment plants. Allowing some applicants alternatives to testing would decrease the integrity of the Wastewater Operator Certification Program.

Subsection WAC 173-230-250(2), is directly related to the education and experience requirements for individual operator certification. If an operator does not meet the operating experience requirements, this section allows for substituting that experience with relevant experience, or non-operating experience. Ecology believes that an 8 week intensive training program and access to other resources / employees is not an adequate substitution for the current Group II requirements which are 3 years of required operating experience as well as a high school diploma or General Education Development certificate. Changing the requirements to allow for less than the current requirements would diminish the integrity of the Wastewater Operator Certification Program.

Please also refer to Response to B-2-1.

Letter O-1: WSPA, 4/26/19

Comment O-1-1

Dear Ms. Jones: The Western States Petroleum Association (WSPA) appreciates the opportunity to provide the Department of Ecology comments on proposed revisions of WAC 173-230 Certification of Operators of Wastewater Treatment Plants. WSPA is a non-profit trade association that represents companies that account for the bulk of petroleum exploration, production, refining, transportation and marketing in the five western states including Washington.

Three WSPA-member facilities are subject to the WAC 173-230 regulation, this because they direct site sewage into their large process wastewater treatment systems (WWTS). While the flow contribution is very small (less than 1% of the influent flow), and the domestic waste characteristics are compatible with the treatment technology provided in the process WWTS, the WAC 173-230 definition of "wastewater treatment plant" causes industrial treatment systems with comingled wastes to be subject to all WAC 173-230 requirements.[1]

This is an unfortunate, but unavoidable reality. For the more sophisticated, major NPDES permittees, there will inevitably be a WWTS management "infrastructure" that directly responds and accomplishes the statutory and regulatory objectives to "protect the public health and to conserve and protect the water resources of the state…" [2]

While the requirements of WAC 173-230 seem best targeted to small POTWs, the WSPA experience is that the demands and prescriptiveness of this Rule is out-of-proportion with the marginal returns in demonstrating operator competence this Rule purports to deliver.

The few comments that follow will offer rule language adjustments to minimize the process burdens this regulation imposes.

1. ***While the definition of "wastewater treatment lane' encompasses a facility receiving domestic wastewater. It also explicitly excludes "industrial treatment plants" from exposure to this Rule. Ecology is encouraged to use discretion in rule development to focus WAC 173-230 requirements on those facilities where the rule provisions are relevant and would provide environmental performance value.***

The definition assigning rule applicability originates in the enabling statute. Here the 1973 legislature clearly distinguished between domestic wastewater treatment (typically publicly-owned/operated) and industrial systems, and ostensibly recognized there could be different approaches to gain and demonstrate confidence on operator competence and supervisory over-sight between these treatment systems. Ecology is encouraged to use discretion to acknowledge this distinction through amendment of the WAC 173-230-200 definition of "wastewater treatment plant" to say

*"…means a **publicly-owned** facility used to treat any liquid or waterborne waste of domestic origin or a combination of domestic, commercial, or industrial origin, and that, by its design*

requires the presence of an operator. It does not include any facility used exclusively by a single-family residence, septic tank with subsoil absorption, industrial wastewater treatment plants ***(including any plants who receive on-site domestic wastewater comprising less than 5% of average treatment system influent),*** *or wastewater collection systems.*

This change would better align rule applicability to its stated intent and avoid the illogical outcome where a very small domestic sewage contribution subjects the facility to the entire set of WAC 173-230 requirements.

2. Ecology should acknowledge that major NPDES permittees will have comprehensive WWTS management tools and can readily demonstrate operator/team competence. An off-ramp mechanism should be built into the regulation to allow for an "equivalency" showing which, if accepted by Ecology will substitute for some/all of the Operator Certification requirements.

WSPA facilities operate "industrial wastewater treatment plants" that are subject to comprehensive NPDES permits. The planning and performance requirements are extensive.[4] Facilities employ a team approach, drawing upon multiple engineering, science, production, maintenance, and operator resources, to accomplish these requirements. Standard Operating Procedures are developed, documented, and training programs deployed. WWTS staffing and 24/7 professional support is provided. The small flow and pollutant load contribution of domestic wastes is compatible with the treatment system technologies provided for refinery process wastewaters.

WSPA would encourage Ecology to focus on the statutory/regulatory objective, and provide a means in the rule to allow a facility-specific demonstration of competent treatment system operation. Consider adding a new subsection in WAC 173-230-220 Applicability which says

> (4) "The department may consider an alternative to WAC 173-230-250 which seeks to demonstrate competency to operate and maintain a wastewater treatment plant to achieve the stated purposes of this regulation. If accepted by the department the submittal would substitute for the requirements in this regulation and would be incorporated into the Treatment System Operating Plan required of NPDES permittees."

WSPA is convinced that a broader system approach, recognizing the professional skills and team credentials, experience, and facility-specific personnel deployment to operate the WWTS, can be a more compelling demonstration of "competence vs. sole focus on individual operator academic and experience measures. NPDES permittees are responsible for compliance with permit terms and conditions. This certainly includes decisions on WWTS staffing levels, provision for training, professional skills support, etc.

3. Proposed subsection WAC 173-230-250(2) offers some flexibility within the structure of the Rule to consider alternative approaches to the literal prescriptive requirements. Whatever the final adopted language might be, WSPA would encourage Ecology to broadly

interpret and apply rule language to accomplish a limited and meaningful outcome demonstrating operator competence.

For example, the "case-by-case" provision along with "relevant experience" and "operating experience" and "allowable substitutions" could perhaps provide a route for introducing a facility WWTS management plan as an alternative to other WAC 173-230-250 requirements. This is a less favored approach to the creation of a focused "equivalency" provision.

4. Finally, as a matter of good public policy, we would encourage Ecology to look for opportunities to shorten and simplify this Rule.

WSPA acknowledges this is a well-intentioned regulation that has undoubtedly advanced the overall competence of WWTS operators through the years (and especially for <1 mgd POTWs). But it is also a very detailed rule and especially bureaucratic in its structure and requirements. From a few open-ended directives in Chapter 70.95B RCW, this Rule has swelled to 14 pages +/- of requirements. The implementation of the adopted rule will lead to many opportunities for oversight or process mistakes. Ecology might consider whether there is comparable environmental protection value with this expanded rule and, if not, to trim it back.

Thank you for your consideration of WSPA's comments. We welcome any questions or comments you might have. Please contact the project manager, Tery Lizarraga at [redacted] *or by email at TLizarraga@wspa.org.*

Footnote 1: *Wastewater treatment plants" are subject to WAC 173-230 requirements, with the definition of this term including those facilities treating a "combination of domestic, commercial or industrial origin…". "Industrial wastewater treatment plant(s)" are exempt from this regulation.*

Footnote 2: *chapter 70.95B RCW*

Footnote 3: *IBID*

Footnote 4: *Facilities employ a team-approach, drawing upon multiple engineering, science, Refinery wastewaters are regulated through very comprehensive NPDES permits, typically running to 75 pages +/-, and layered with WWTS plan and performance requirements. These include: an Operations and Maintenance Manual, a Treatment System Operating Plan, a plan and schedule for assessing the adequacy of treatment system capacity and treatment efficiency, internal plans to respond to "non-routine and unanticipated wastewaters" and planned/unplanned system bypasses, and more.*

Response to O-1-1

Please refer to Response to B-2-1.

Appendix A: Citations

Chapter 173 – 230 WAC
Certification of Operators of Wastewater Treatment Plants

AO #18–02

This citation list contains references for data, factual information, studies, or reports on which the agency relied in the adoption for this Rule making (RCW 34.05.370(f)).

At the end of each citation is a number in brackets identifying which of the citation categories below the sources of information belongs. (RCW 34.05.272).

Table 1: Citation Categories

Citation Categories	
1	Peer review is overseen by an independent third party.
2	Review is by staff internal to Department of Ecology.
3	Review is by persons that are external to and selected by the Department of Ecology.
4	Documented open public review process that is not limited to invited organizations or individuals.
5	Federal and state statutes.
6	Court and hearings board decisions.
7	Federal and state administrative rules and regulations.
8	Policy and regulatory documents adopted by local governments.
9	Data from primary research, monitoring activities, or other sources, but that has not been incorporated as part of documents reviewed under other processes.
10	Records of best professional judgment of Department of Ecology employees or other individuals.
11	Sources of information that do not fit into one of the other categories listed.

- *"Operator Training & Certification Program."* Alaska Department of Environmental Conservation Division of Water, State of Alaska, 2018, dec.alaska.gov/water/operator-certification/. [8]
- *"Operator Certification."* Arizona Department of Environmental Quality, September 5, 2017, azdeq.gov/OperatorCertification. [8]
- *"Wastewater Operator Certification Program Fee Schedule."* California Water Boards State Water Resources Control Board, State of California, November 16, 2017, waterboards.ca.gov/water_issues/programs/operator_certification/docs/forms/fee_increase.pdf. [8]
- *"Idaho Board of Drinking Water & Wastewater Professionals."* State of Idaho Bureau of Occupational Licenses, State of Idaho, 2009, https://ibol.idaho.gov/IBOL/BoardPage.aspx?Bureau=WWP. [8]
- *"Operator Certification."* Montana Department of Environmental Quality, Montana.Gov, deq.mt.gov/Water/OperatorCertification. [8]
- *"Certification Fees."* Nevada Water Environment Association, NWEA, 2018, nvwea.org/index.php/getting-certified/certification-fees. [8]
- *"Fee Schedules for Wastewater System Operator Certification and Operator Certification Program Support."* Oregon Department of Environmental Quality, 340-049-0065, March 1, 2013, https://secure.sos.state.or.us/oard/viewSingleRule.action?ruleVrsnRsn=69564. [7]
- *"Wastewater Operator Certification Fees."* Utah Department of Environmental Quality, July 1, 2009, deq.utah.gov/legacy/certification/water-quality/wastewater-operator-certification-program/applications-forms.htm#wocf. [8]
- *"Certified operator and public water system certification fees."* Washington State Legislature, WAC 246-292-995, January 4, 2014, app.leg.wa.gov/wac/default.aspx?cite=246-292-995. [7]
- *Funding Models and Proposal Summary* Memo, Garret Ward, Rule Advisory Committee Meeting. October 2, 2018. [10]
- 2018 SHB 2298 (Chapter 213, Laws of 2018) Fiscal Note. [4]
- Chapter 70.95B - RCW Domestic Waste Treatment Plants—Operator. [5]
- Chapter 173-230 WAC - Certification Of Operators Of Wastewater Treatment Plants. [7]
- *Renewal Addendum of Agreement for Services Between The Idaho State Board Drinking Water & Wastewater Professionals and The Idaho Bureau of Occupational Licenses*, Exhibit C Cost of Services, State of Idaho Bureau of Occupational Licenses, July 2018, ibol.idaho.gov/IBOL/WWP/Documents/Service%20Contracts/2019%20BOL-WWP%20CONTRACT%20RENEWAL-R.pdf [8]