



PROPOSED RULE MAKING

CR-102 (December 2017) (Implements RCW 34.05.320)

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DATE: June 04, 2019

TIME: 11:56 AM

WSR 19-12-092

Agency: Department of Ecology AO # 18-07

Original Notice

Supplemental Notice to WSR _____

Continuance of WSR _____

Preproposal Statement of Inquiry was filed as WSR 18-15-099 ; or

Expedited Rule Making--Proposed notice was filed as WSR _____; or

Proposal is exempt under RCW 34.05.310(4) or 34.05.330(1); or

Proposal is exempt under RCW _____.

Title of rule and other identifying information: (describe subject) Chapter 173-460 WAC, Controls for New Sources of Toxic Air Pollutants. This rule includes air quality permitting requirements for businesses that emit toxic air pollutants.

For more information on this rulemaking visit: <https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC173-460>

Hearing location(s):

| Date: | Time: | Location: (be specific) | Comment: |
|---------------|----------|---|---|
| July 16, 2019 | 10:00 am | Webinar and in-person at: Department of Ecology 300 Desmond Drive SE Lacey, WA 98503 | Presentation, question and answer session followed by the hearing. We are also holding this hearing via webinar. This is an online meeting that you can attend from any computer using internet access. Join online and see instructions: https://watech.webex.com/watech/onstage/g.php?MTID=e3bd05ebe5ef75af71b97405bfdea30bb For audio call US toll free number 1- 855-929-3239 and enter access code 809 785 606. Or to receive a free call back, provide your phone number when you join the event. |

Date of intended adoption: October 21, 2019 (Note: This is **NOT** the **effective** date)

Submit written comments to:

Name: Elena Guilfoil

Address: Send via US mail at:
Department of Ecology
Air Quality Program
PO Box 47600, Olympia, WA 98504-7600 (US mail)

Or,
Send parcel delivery services to:
Department of Ecology
Air Quality Program
300 Desmond Dr. SE, Lacey, WA 98503

Email: Submit comments by mail, online, or at the hearing.

Fax: N/A

Other: Online: <http://ac.ecology.commentinput.com/?id=t7W9R>

By (date) July 23, 2019 at 11:59 p.m.

Assistance for persons with disabilities:

Contact Ecology's ADA Coordinator

Phone: 360-407-6831

Fax: N/A

TTY: People with speech disability may call TTY at 877-833-6341. People with impaired hearing may call Washington Relay Service at 711.

Email: ecyADACoordinator@ecy.wa.gov

Other: N/A

By (date) July 1, 2019

Purpose of the proposal and its anticipated effects, including any changes in existing rules:

The proposed amendments make the following changes:

- Update the list of toxic air pollutants.
- Recalculate:
 - Acceptable source impact levels (ASILs).
 - Small quantity emission rates (SQERs).
 - De minimis emission values.
- Specify the number of significant digits of emissions rates (i.e., de minimis and SQERs) and concentrations (i.e., ASILs).
- Update language in the rule to use the acronym "TAP" instead of "toxic air pollutant."

Anticipated effects include:

- Increased modeling or health impact analysis when a new project emits a new toxic air pollutant. A project may be subject to increased pollution controls (toxics-BACT) and may need to include additional emission controls.
- More stringent values could result in more emissions analysis and review.
- Less stringent values could result in no emissions analysis and review. Projects at Hanford will likely benefit from the reduced stringency of the methyl mercury ASIL.
- No modeling or health impact analysis for a project with any of the four removed chemicals.
- Added protection for the public from the new pollutants and more protective up-to-date threshold values.

Reasons supporting proposal:

The reasons for the proposed rule amendments are to:

- Align the rule with current scientific information about chemicals, including adjusting for the impacts of early life exposure to a chemical. We are proposing to add some chemicals or modified values based on previous errors in the rule language itself.
- Remove ammonium sulfate as a toxic air pollutant based on our toxicity review in response to a rulemaking petition on this chemical from the Far West Agribusiness Association.
- Improve clarity.
- Remove redundancy.

The "[Decision Making Documentation: Updating Chapter 173-460 WAC](#)" provides the decisions and reasons supporting the proposal for the following topics:

- Updating the list (add or subtract chemicals): retained 387 TAPs, removed 8 TAPs, and added 45 TAPs
- Chemicals considered but not added to the TAP list: seven (acetone, fuel oil, no 2, kerosene and 4 kerosene-based jet fuels)
- Evaluation of ammonium sulfate: removed
- Recalculation of ASILs: updated
- Evaluation of excluding criteria pollutants as TAPs: retained as TAPs
- Evaluation of the use of early life adjustment factors: included so adjusted appropriate ASILs
- Review of the existing ASIL for diethyl and methyl mercury: revised
- Evaluation of ASILs for groups of chemicals (toxicity equivalency): no adjustments
- Revision of the small quantity emission rate modeling parameters: updated modeling parameters
- Recalculation of the small quantity emission rates: recalculated using AERSCREEN model and new modeling parameters
- Recalculation of de minimis emission values: updated using existing methodology (SQER/20)
- Updating the rule to support the rule changes: aligned rule to require two significant digits for emission rates and concentrations

Visit our website for more information explaining the proposed changes:

<https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC173-460>

- Decision Making Documentation: Updating Chapter 173-460 WAC, Controls for New Sources of Toxic Air Pollutants

- Annotated table of proposed TAPs, ASILs, SQERs, and de minimis emission values (Excel spreadsheet)
- Rulemaking stakeholder meeting materials

Statutory authority for adoption: Chapter 70.94 RCW, Washington Clean Air Act

Statute being implemented: Chapter 70.94 RCW, Washington Clean Air Act

Is rule necessary because of a:

- | | | |
|-------------------------|------------------------------|--|
| Federal Law? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| Federal Court Decision? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |
| State Court Decision? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No |

If yes, CITATION:

Agency comments or recommendations, if any, as to statutory language, implementation, enforcement, and fiscal matters: If we adopt this proposal, we will write a rule implementation plan as part of the information we share when we announce the adoption. The purpose of this plan is to inform those who must comply with Chapter 173-460 WAC about how we intend to:

- Implement and enforce the rule.
- Inform and educate persons affected by the rule.
- Promote and assist voluntary compliance for the rule.
- Evaluate the rule.
- Train and inform Ecology staff about the new or amended rule.

Also included in this plan is information about:

- Supporting documents that may need to be written or revised because of the new rule or amended rule.
- Other resources where more information about the rule is available.
- Contact information for Ecology employees who can answer questions about the rule implementation.

We intend to update or develop the following supporting materials:

- Update “Guidance Document: First, Second, and Third Tier Review of Toxic Air Pollution Sources” publication number 08-02-025.
- Clarify that the mass of a specific metal in a compound should be compared to the specific metal ASIL instead of comparing the mass of the entire compound to the metal ASIL.
- Clarify that increased emissions of multiple metal compounds (e.g., Chromium VI) should be summed and compared to the broad ASIL instead of individually for each compound for which an ASIL exists. For example, if a source emits barium chromate, lithium chromate, and strontium chromate, the total chromium VI mass or ambient impact of hexavalent chromium in these compounds must be calculated and compared to the “Chromium(VI) & compounds, NOS” SQER or ASIL.
- Post a searchable spreadsheet of the TAPs table in WAC 173-460-150 on the [“Health impact review of toxic air pollution”](#) webpage.

Please provide comments on other guidance materials or others suggestions that could assist in implementing this rule.

Name of proponent: (person or organization) Department of Ecology Private Public Governmental

Name of agency personnel responsible for:

| | Name | Office Location | Phone |
|-----------------|---|-----------------|----------------|
| Drafting: | Elena Guilfoil | Lacey | (360) 407-6855 |
| Implementation: | Stuart A. Clark – Department of Ecology Air Quality Program | Lacey, WA | (360) 407-6880 |
| | Benton Clean Air Agency | Kennewick | (509) 783-1304 |
| | Northwest Clean Air Agency | Mount Vernon | (360) 428-1617 |

| | | |
|---|-----------|----------------|
| Olympic Region Clean Air Agency | Olympia | (360) 539-7610 |
| Puget Sound Clean Air Agency | Seattle | (206) 343-8800 |
| Southwest Clean Air Agency | Vancouver | (360) 574-3058 |
| Spokane Regional Clean Air Agency | Spokane | (509) 477-4727 |
| Yakima Regional Clean Air Agency | Yakima | (509) 834-2050 |
| Ecology Central Regional Office - Air Quality Program | Union Gap | (509) 575-2490 |
| Ecology Eastern Regional Office - Air Quality Program | Spokane | (509) 329-3400 |
| Ecology Industrial Section (Solid Waste Management Program) | Lacey | (360) 407-6800 |
| Ecology Nuclear Waste Program | Richland | (509) 372-7950 |

Enforcement: Same as implementation

Is a school district fiscal impact statement required under RCW 28A.305.135?

Yes No

If yes, insert statement here:

The public may obtain a copy of the school district fiscal impact statement by contacting:

Name: N/A
 Address: N/A
 Phone: N/A
 Fax: N/A
 TTY: N/A
 Email: N/A
 Other: N/A

Is a cost-benefit analysis required under RCW 34.05.328?

Yes: A preliminary cost-benefit analysis may be obtained by contacting:

Name: Elena Guilfoil
 Address: Dept. of Ecology, P.O. Box 47600, Olympia, WA 98504-7600
 Phone: 360-407-6855
 Fax: N/A
 TTY: People with speech disability may call TTY at 877-833-6341. People with impaired hearing may call Washington Relay Service at 711. To request ADA accommodation for disabilities, or printed materials in a format for the visually impaired, call Ecology at 360-407-7668 or visit <https://ecology.wa.gov/accessibility>.
 Email: elena.guilfoil@ecy.wa.gov
 Other:

No: Please explain:

Regulatory Fairness Act Cost Considerations for a Small Business Economic Impact Statement:

This rule proposal, or portions of the proposal, **may be exempt** from requirements of the Regulatory Fairness Act (see chapter 19.85 RCW). Please check the box for any applicable exemption(s):

This rule proposal, or portions of the proposal, is exempt under RCW 19.85.061 because this rule making is being adopted solely to conform and/or comply with federal statute or regulations. Please cite the specific federal statute or regulation this rule is being adopted to conform or comply with, and describe the consequences to the state if the rule is not adopted.

Citation and description:

This rule proposal, or portions of the proposal, is exempt because the agency has completed the pilot rule process defined by RCW 34.05.313 before filing the notice of this proposed rule.

This rule proposal, or portions of the proposal, is exempt under the provisions of RCW 15.65.570(2) because it was adopted by a referendum.

- This rule proposal, or portions of the proposal, is exempt under RCW 19.85.025(3). Check all that apply:
- | | |
|---|--|
| <input type="checkbox"/> RCW 34.05.310 (4)(b) (Internal government operations) | <input type="checkbox"/> RCW 34.05.310 (4)(e) (Dictated by statute) |
| <input type="checkbox"/> RCW 34.05.310 (4)(c) (Incorporation by reference) | <input type="checkbox"/> RCW 34.05.310 (4)(f) (Set or adjust fees) |
| <input type="checkbox"/> RCW 34.05.310 (4)(d) (Correct or clarify language) | <input type="checkbox"/> RCW 34.05.310 (4)(g) ((i) Relating to agency hearings; or (ii) process requirements for applying to an agency for a license or permit) |
- This rule proposal, or portions of the proposal, is exempt under RCW _____.
Explanation of exemptions, if necessary:

COMPLETE THIS SECTION ONLY IF NO EXEMPTION APPLIES

If the proposed rule is **not exempt**, does it impose more-than-minor costs (as defined by RCW 19.85.020(2)) on businesses?

- No Briefly summarize the agency’s analysis showing how costs were calculated. _____
- Yes Calculations show the rule proposal likely imposes more-than-minor cost to businesses, and a small business economic impact statement is required. Insert statement here:

Proposed amendments to Chapter 173-460 WAC Controls for New Sources of Toxic Air Pollutants

This Small Business Economic Impact Statement (SBEIS) presents the:

- Compliance requirements of the proposed rule.
- Results of the analysis of relative compliance cost burden.
- Consideration of lost sales or revenue.
- Cost-mitigating action taken by Ecology, if required.
- Small business and local government consultation.
- Industries likely impacted by the proposed rule.
- Expected net impact on jobs statewide.

A small business is defined by the Regulatory Fairness Act (chapter 19.85 RCW) as having 50 or fewer employees. Estimated costs are determined as compared to the existing regulatory environment—the regulations in the absence of the rule. The SBEIS only considers costs to “businesses in an industry” in Washington State. This means that impacts, for this document, are not evaluated for non-profit or government agencies.

The existing regulatory environment is called the “baseline” in this document. It includes only existing laws and rules at federal and state levels.

This information is excerpted from Ecology’s complete set of regulatory analyses of the proposed rule. For complete discussion of the likely costs, benefits, minimum compliance burden, and relative burden on small businesses, see the Regulatory Analyses (Ecology publication no. 19-02-012, June 2019).

COMPLIANCE REQUIREMENTS OF THE PROPOSED RULE, INCLUDING PROFESSIONAL SERVICES

The baseline for our analyses generally consists of existing rules and laws, and their requirements. This is what allows us to make a consistent comparison between the state of the world with and without the proposed amendments.

For this proposed rulemaking, the baseline includes:

- The existing rule, Chapter 173-460 WAC, Controls for New Sources of Toxic Air Pollutants
- The authorizing statute, Chapter 70.94 RCW, Washington Clean Air Act

The proposed amendments:

- Update the TAP list.
- Recalculate:
 - De minimis emission values.
 - SQERs.

- ASILs.
- Specify the number of significant digits of emissions rates (i.e., de minimis and SQERs) and concentrations (i.e., ASILs).
- Update language in the rule to use the acronym “TAP” instead of toxic air pollutant.

1. Update the TAPs list

Baseline

The baseline rule contains 395 TAPs.

Proposed

The proposed amendments remove and add chemicals to the list of TAPs.

Removing chemicals from the TAP list

We are proposing to remove eight TAPs from the baseline TAP list. We are basing these amendments on the:

- Lack of sufficient scientific data to retain the chemical on the list.
- Chemical being redundant with other chemicals or chemical groups on the list.

Adding chemicals to the TAP list

We are proposing to add 45 chemicals to the baseline TAP list. We are basing these amendments on current scientific information sufficient to identify the chemical as a TAP. We then set an appropriate ASIL, SQER, and de minimis emission value for it.

Expected impact

Removing chemicals from the TAP list

New or modified facilities emitting four of the chemicals we are proposing to remove from the TAP list would potentially be required to do less modeling or health impact analysis as part of permit application if their emissions exceed the baseline SQER. If emissions of these chemicals exceed baseline ASILs, they could be able to reduce the amount of pre-planned emissions controls:

- 5-Nitro-o-anisidine
- Ammonium sulfate
- Dibromochloromethane
- Melphalan hydrochloride

New or modified facilities emitting these four chemicals will notice no change because emissions from those chemicals are subject to another TAP:

- Chromic acid
- Chromium hexavalent: soluble, except chromic trioxide
- Pentabromodiphenyl ether
- Tetrabromodiphenyl ether

If a permitting agency permits a facility under the baseline and they exceed only the baseline de minimis levels for removed TAPs, the facility could become exempt from permitting (all TAP emissions below de minimis).

Adding new chemicals to the TAP list

New or modified facilities emitting the chemicals we propose to add to the as TAPs would potentially be required to do additional modeling or health impact analysis as part of a permit application. This occurs if their emissions of those chemicals exceed proposed de minimis emission values or SQERs. If emissions of these chemicals exceed proposed ASILs, they would need to pre-plan additional emissions controls or submit a health impact assessment under Second Tier Review.

If the baseline does not require facilities to do additional analysis (because they do not emit baseline TAPs in excess of de minimis levels), they would need to do additional analysis if they emit a proposed new TAP in excess of the de minimis level.

The public also benefits from added protection from the proposed new TAPs. They are based on up-to-date scientific values and better reflect their true toxicity.

2. Recalculate de minimis emission values

Baseline

The baseline rule includes de minimis emission values for 395 TAPs. New or modified facilities emitting below these levels are not subject to additional emissions analysis (First Tier Review Review).

Proposed

The proposed amendments would modify de minimis emission values for 428 TAPs (including the new and removed TAPs; see section 2.3.1). 0.5 percent of de minimis values increase (become less stringent), while 99.5 percent decrease (become more stringent).

We note that one percent of de minimis levels change the number of significant figures to which facilities report and compare emissions in a permit application. While rounding to the appropriate number of significant figures can numerically change the de minimis level, facilities round reported emissions in the same way. The comparison between de minimis levels and reported emissions is therefore unchanged.

Expected impact

Increasing de minimis values would result in reduced emissions analysis and review for these TAPs if they emit them. If these were the only TAPs they emit, they would not need the First Tier Review at all.

Decreasing de minimis values would result in more emissions analysis and review for those TAPs if they emit them. If these were the only TAPs they emit, they would need the First Tier Review that they would not need under the baseline.

Decreasing de minimis values also better protects the public. We base them on up-to-date scientific values that better reflect their true toxicity. This indicates the baseline under-protects public health compared to the proposed amendments.

3. Recalculate small quantity emission rates

Baseline

The baseline rule includes SQERs for 395 TAPs. New or modified facilities emitting above these levels are subject to more complex dispersion modeling or additional analysis when emissions exceed ASILs (Second Tier Review review).

Proposed

The proposed amendments would modify SQERs for 432 TAP (including the new and removed TAPs; see section 2.3.1). About 0.5 percent of SQERs increase (become less stringent), while 99.5 percent decrease (become more stringent).

Expected impact

SQERs increasing could result in facilities needing less emissions modeling for these TAPs, if they emit them. For TAPs with lower or new SQERs under the proposed amendments, this could result in a larger number of TAPs for which additional emissions modeling is required (or operational changes to reduce emissions below the SQER).

The public also benefits from added protection from the TAPs with decreasing SQERs. We base them on up-to-date scientific values that better reflect current dispersion modeling techniques. This indicates the baseline may in some cases under-protect public health compared to the proposed amendments.

4. Recalculate acceptable source impact levels

Baseline

The baseline rule includes ASILs for 395 TAPs. New or modified facilities may not emit above these levels, and so pre-plan additional emissions controls.

Proposed

The proposed amendments would modify ASILs for 150 TAPs (including new and removed TAPs). About 16 percent of ASILs would increase (become less stringent), and 18 percent would decrease (become more stringent). ASILs for 66 percent of TAPs would not change under the proposed amendments.

Proposed amendments to acceptable source impact levels

| Proposed Changes | Number of TAPs | Percent |
|--------------------------------|-----------------------|----------------|
| Decrease (more stringent) | 79* | 18% |
| Increase (less stringent) | 71** | 16% |
| No change | 105 | 24% |
| No change – significant digits | 181 | 42% |
| Total | 436 | 100% |

* Reflects 34 TAPs with more stringent values and 45 new TAPs.

** Includes four removed TAPs not covered by another listed TAP.

Expected impact

Higher ASILs could result in facilities not needing to pre-plan as many emissions controls (plan for emissions control or other measures) as under the baseline. Lower ASILs could mean they incur Second Tier Review costs, or need to pre-plan for additional controls, if they emit the TAPs for which ASILs would change under the proposed amendments.

The public also benefits from added protection from the TAPs with decreasing ASILs. We base them on up-to-date scientific values that better reflect current understanding of toxicity, instead of the information supporting their baseline SQERs. This indicates the baseline under-protects (18 percent of TAPs) or over-protects (16 percent of TAPs) public health compared to the proposed amendments.

5. Specify the number of significant digits

Baseline

The existing rule varies in the number of significant digits used for emissions rates and concentrations.

Proposed

The proposed amendments round all values to two significant digits.

Expected impact

We do not expect this proposed amendment to result in costs or benefits other than clarity. Since values are rounded, this amendment would not change exceedances of de minimis emission values, SQERs, or ASILs.

6. Use “TAP” acronym

Baseline

We use the term “toxic air pollutant” throughout the existing rule.

Proposed

We replace the term “toxic air pollutant” with “TAP.”

Expected impact

We do not expect this proposed amendment to result in costs or benefits other than clarity through conciseness.

COSTS OF COMPLIANCE: EQUIPMENT

Compliance with the proposed amendments, compared to the baseline, is not likely to impose additional costs of equipment.

COSTS OF COMPLIANCE: SUPPLIES

Compliance with the proposed amendments, compared to the baseline, is not likely to impose additional costs of supplies.

COSTS OF COMPLIANCE: LABOR

Compliance with the proposed amendments, compared to the baseline, is not likely to impose additional costs of labor.

COSTS OF COMPLIANCE: PROFESSIONAL SERVICES

Potential First Tier Review, TBACT, and permitting costs for unidentified facilities emitting added TAPs.

Recalculated de minimis emission values:

- Annual cost of between \$4 thousand and \$38 thousand across five identified facilities. The equivalent present value is \$61 thousand to \$638 thousand.
- Potential First Tier Review, TBACT, and permitting costs for unidentified facilities emitting TAPs above a proposed more stringent de minimis value.

Recalculated SQERs:

- Annual cost of \$380 thousand for additional emissions modeling across 53 facilities. The equivalent present value is \$6.5 million over 20 years.
- Potential additional costs of up to \$3.6 million over 20 years for analysis of two TAPs for which averaging periods would change.
- Potential Second Tier Review costs for unidentified facilities emitting TAPs above a proposed more stringent SQER.

Recalculated ASILs:

- Annual cost of up to \$481 thousand for complex modeling and health impact assessment across 53 facilities. The equivalent present value is \$8.2 million over 20 years.
- Potential Second Tier Review costs for unidentified facilities emitting TAPs above a proposed more stringent ASIL.

COSTS OF COMPLIANCE: ADMINISTRATIVE COSTS

Where applicable, Ecology estimates administrative costs (“overhead”) as part of the cost of labor and professional services, above.

COSTS OF COMPLIANCE: OTHER

N/A

COMPARISON OF COMPLIANCE COST FOR SMALL VERSUS LARGE BUSINESSES

We calculated the estimated per-entity costs to comply with the proposed amendments, based on the primary compliance costs estimated in Chapter 3, and the primary compliance cost savings estimated in Chapter 4. In this section, we summarize compliance cost per employee at affected businesses of different sizes.

The average affected small business likely to be covered by the proposed amendments employs about eight people. (Database of Washington employment. Where ranges of employment were provided, we used the lowest number of employees in the range.) The largest ten percent of affected businesses employ an average of 10,500 people. (Ibid. Note that the primary employment database lists highest-employment businesses as 10,000+. The actual average for the largest ten percent of businesses is likely higher. This would make the disproportions shown in Table 7 larger.) Based on cost estimates from Chapter 3, we estimated the following compliance costs per employee. Some existing private employers potentially experience a net benefit, through avoided Second Tier Review costs or reductions in pre-planned emissions control equipment. Negative low net cost indicates a potential reduction in compliance costs.

Change in compliance costs per employee for small and large businesses

| Small Businesses | | Largest 10 Percent of Businesses | |
|------------------|-------------|----------------------------------|--------|
| Low | High | Low | High |
| (\$5,500.00) | \$19,000.00 | (\$5.50) | \$5.00 |

While cost savings per employee are disproportionately larger for small businesses when a cost-savings is experienced, compliance costs are disproportionately higher for small businesses when net compliance costs are positive. We conclude that the proposed amendments are likely to have disproportionate impacts on some small businesses, and therefore must include elements in the proposed amendments to mitigate this disproportion, as far as is legal and feasible.

CONSIDERATION OF LOST SALES OR REVENUE

Businesses that would incur costs could experience reduced sales or revenues if the changes would significantly affect the prices of the goods they sell. The degree to which this could happen is strongly related to each business's production and pricing model (whether additional lump-sum costs significantly affect marginal costs), as well as the specific attributes of the markets in which they sell goods, including the degree of influence of each firm on market prices, and the relative responsiveness of market demand to price changes.

We used the REMI PI+ model for Washington State to estimate the impact of the proposed amendments on directly affected markets, accounting for dynamic adjustments throughout the economy. The model accounts for inter-industry impacts; price, wage, and population changes; and dynamic adjustment of all economic variables over time.

For existing facilities (representing potential future facilities in each year), we identified the associated industry. (See <https://www.census.gov/eos/www/naics/index.html> for more NAICS information, industry groupings, and descriptions.) For pre-construction permits for which we did not have corresponding emissions data that was comparable with the baseline and proposed amendments, we assumed costs and benefits estimated for modeled facilities were distributed across identified industries in the same proportions as in facilities on which we had comprehensive emissions data. Net compliance costs (positive or negative) were assumed to be transfers to/from environmental consultants (NAICS 5413, Engineering Services, including environmental engineering services).

The REMI PI+ model output represents many aspects of the state economy, modeling the impact of positive and negative transfers across industries, and comparing it to a baseline model reflecting the status quo and forecast trends. To examine whether businesses were likely to lose sales or revenue, we looked at model output related to prices and demand (sales reflected in dollars). While the aggregate net increase in economic activity would create a very small increase in statewide (all industry) total demand (less than 1/100 of one percent), none of the industries we identified as incurring net compliance costs or experiencing net compliance benefits were found to experience a significant change in demand. Similarly, the model indicated that there would be no significant impacts to commodity prices or the overall price level. We therefore do not expect businesses to experience a significant impact to their sales and revenue.

MITIGATION OF DISPROPORTIONATE IMPACT

The RFA (RCW 19.85.030(2)) states that:

Based upon the extent of disproportionate impact on small business identified in the statement prepared under RCW 19.85.040, the agency shall, where legal and feasible in meeting the stated objectives of the statutes upon which the rule is based, reduce the costs imposed by the rule on small businesses. The agency must consider, without limitation, each of the following methods of reducing the impact of the proposed rule on small businesses:

- (a) Reducing, modifying, or eliminating substantive regulatory requirements;
- (b) Simplifying, reducing, or eliminating recordkeeping and reporting requirements;
- (c) Reducing the frequency of inspections;
- (d) Delaying compliance timetables;
- (e) Reducing or modifying fine schedules for noncompliance; or
- (f) Any other mitigation techniques including those suggested by small businesses or small business advocates.

We considered all of the above options, and included the following legal and feasible elements in the proposed amendments that reduce costs. In addition, we considered the alternative amendment contents discussed in Chapter 6, and excluded those elements that would have imposed excess compliance burden on businesses:

- Adding steps to address mixtures of TAPs.
- Using more protective parameters to establish SQERs.
- Maintaining the baseline de minimis, SQER, and ASIL values for methyl and diethyl mercury.
- Adding acetone as a TAP.
- Adding certain fuels as TAPs.

Because the purpose of this rulemaking is to update the basis of pre-construction permitting to current scientific values and understanding of toxicity, it is otherwise difficult to reduce compliance costs stemming from the proposed amendments. Moreover, it is difficult to reduce compliance costs specifically for small businesses, since there is not necessarily a correlation between business size and the types or amounts/rates of TAPs they emit. If review of new or modified facilities was reduced below what is deemed necessary based on current evidence regarding the toxicity of TAPs, for small businesses, the rule would not be able to meet the goal of protecting public health and the environment in the authorizing statute.

SMALL BUSINESS AND LOCAL GOVERNMENT CONSULTATION

Ecology involved small businesses and local government in its development of the proposed amendments by:

- Holding public meetings including representatives from:
 - Business associations (typically representing many small businesses)
 - Consultants
 - Local air agencies
 - Local governments (city, county)
 - Federal agencies
 - Environmental groups
 - Members of the public
- Communicating through the Air Quality Program distribution list, including:
 - Forty-six representatives from government agencies (excluding Ecology)
 - Sixteen representatives from local air agencies
 - Twelve representatives from organizations representing industry
 - Four representatives from local governments
 - Ninety-three direct representatives of industry
 - Forty consultant representatives
- Communicating through the distribution list created for this rulemaking, including:
 - Fourteen representatives from government agencies (excluding Ecology)
 - Eleven representatives from local air agencies
 - Two representatives from organizations representing industry
 - Eleven direct representatives of industry
 - Five consultant representatives

We note that it is time consuming and costly to participate in the rulemaking process, and this can be a significant effort to small businesses. However, we did consult with them through organizations representing broader industries.

NAICS CODES OF INDUSTRIES IMPACTED BY THE PROPOSED RULE

1141 Shellfish fishing
2373 Highway, street, and bridge construction
3119 Coffee and tea manufacturing
3211 Sawmills
3222 Other paperboard container manufacturing
3323 Architectural and structural metals manufacturing
3345 Other measuring and controlling device manufacturing
3364 Aircraft manufacturing
3366 Ship and boat building
4233 Lumber, plywood, millwork/wood panel merchant wholesalers
4239 Miscellaneous durable goods merchant wholesalers
4241 Industrial and personal service paper merchandise wholesalers
4244 Other grocery and related products merchant wholesalers
4412 Boat dealers
4452 Fish and seafood markets
4523 Warehouse clubs and supercenters
4539 All other miscellaneous store retailers (excluding tobacco stores)
4821 Line-haul railroads
5112 Software publishers
5415 Custom computer programming services
5416 Other management consulting services
5629 Remediation services
6214 Freestanding ambulatory surgical and emergency centers
6221 General medical and surgical hospitals
6231 Nursing care facilities (skilled nursing facilities)
8122 Cemeteries and crematories
8129 Pet care (except veterinary) services

IMPACT ON JOBS

We used the REMI PI+ model for Washington State to estimate the impact of the proposed amendments on jobs in the state, accounting for dynamic adjustments throughout the economy. The model accounts for inter-industry impacts; price, wage, and population changes; and dynamic adjustment of all economic variables over time. The proposed amendments would result in transfers of money within and between industries. We based model inputs on forecast quantifiable costs and benefits (cost-savings) estimated in Chapters 3 and 4.

For existing facilities (representing potential future facilities in each year), we identified the associated industry (see NAICS list in section 7.6). (See <https://www.census.gov/eos/www/naics/index.html> for more NAICS information, industry groupings,

and descriptions.) For pre-construction permits for which we did not have corresponding emissions data that was comparable with the baseline and proposed amendments, we assumed costs and benefits estimated for modeled facilities were distributed across identified industries in the same proportions as in facilities on which we had comprehensive emissions data. Net compliance costs (positive or negative) were assumed to be transfers to/from environmental consultants (NAICS 5413, Engineering Services, including environmental engineering services).

The REMI PI+ model output represents many aspects of the state economy, modeling the impact of positive and negative transfers across industries, and comparing it to a baseline model reflecting the status quo and forecast trends. To examine the proposed amendments' impact on jobs, we looked at the aggregate jobs impact (across all industries and jobs in the state), as well as jobs impacts specific to industries directly impacted by the proposed amendments, and the industry of consultants that receive increases in emissions analysis spending, or lose income when emissions analysis spending is reduced or avoided. Since jobs impacts vary by year (as the state economy adjusts to a change in expenditures), the table below summarizes low and high impacts to jobs.

Modeled impacts on jobs (thousands of jobs)

| | Low | High |
|---|--|--------------|
| Total employment | 0.001 | 0.003 |
| Industries with highest net costs | | |
| Highest net cost: NAICS 23 – Construction | 0.000 | 0.001 |
| Second highest net cost: Federal civilian | Less than one job (< 0.000 thousand jobs) | |
| Industries with highest net benefits | | |
| NAICS 3211 – Sawmills and wood preservation | Less than one job in each industry (< 0.000 thousand jobs) | |
| NAICS 5415 – Computer systems | | |
| NAICS 5416 – Management, scientific, and technical consulting services | | |
| NAICS 6214, 6215, 6219 – Outpatient, laboratory, and other ambulatory care services | | |
| NAICS 5413 – Engineering services | | |

These prospective changes in overall employment in the state are the sum of multiple small increases and decreases across all industries in the state.

The public may obtain a copy of the small business economic impact statement or the detailed cost calculations by contacting:

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TTY: People with speech disability may call TTY at 877-833-6341. People with impaired hearing may call Washington Relay Service at 711. To request ADA accommodation for disabilities, or printed materials in a format for the visually impaired, call Ecology at 360-407-7668 or visit <https://ecology.wa.gov/accessibility>.

Email: elena.guilfoil@ecy.wa.gov

Other:

| | |
|-------------------------------|--|
| Date: June 3, 2019 | Signature:  |
| Name: Polly Zehm | |
| Title: Deputy Director | |