



Final Regulatory Analyses:

Including the:

- Final Cost-Benefit Analysis
- Least-Burdensome Alternative Analysis
- Administrative Procedure Act Determinations
- Regulatory Fairness Act Compliance

Chapter 173-400 WAC
General Regulations for Air Pollution
Sources

and

Chapter 173-401 WAC
Operating Permit Regulation

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For the

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¹ www.ecology.wa.gov/contact

Department of Ecology's Regional Offices

Map of Counties Served



Southwest Region 360-407-6300	Northwest Region 206-594-0000	Central Region 509-575-2490	Eastern Region 509-329-3400
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Region	Counties served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	P.O. Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	P.O. Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W Alder St Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N Monroe Spokane, WA 99205	509-329-3400
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Final Regulatory Analyses

Including the:

Final Cost-Benefit Analysis

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Administrative Procedure Act Determinations

Regulatory Fairness Act Compliance

Chapter 173-400 WAC, General Regulations
for Air Pollution Sources

Chapter 173-401, Operating Permit Regulation

Air Quality Program
Washington State Department of Ecology

Olympia, WA

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DEPARTMENT OF
ECOLOGY
State of Washington

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Abbreviations and Acronyms

EPA	Environmental Protection Agency
CAA	Clean Air Act
SIP	State Implementation Plan
STM	Source Test Manual - Procedures for Compliance Testing, by the Washington State Department of Ecology
RCW	Revised Code of Washington
ppm	parts per million
WAC	Washington Administrative Code

Executive Summary

This report presents the determinations made by the Washington State Department of Ecology as required under Chapters 34.05 RCW and 19.85 RCW, for amendments to the Washington Administrative Code: *General Regulations for Air Pollution Sources (Chapter 173-400 WAC)* and *Operating Permit Regulation (WAC 173-401-635)*. This includes the:

- Preliminary Cost-Benefit Analysis (CBA)
- Least-Burdensome Alternative Analysis (LBA)
- Administrative Procedure Act Determinations
- Regulatory Fairness Act Compliance

All determinations are based on the best available information at the time of publication. We encourage feedback (including specific data) that may improve the accuracy of this analysis.

Background

This rulemaking is primarily administrative in nature.

Multiple levels of government (federal, state, and local) protect air quality for the public. The U.S. Environmental Protection Agency (EPA) administers the federal Clean Air Act (CAA). The EPA in turn relies on local governments, state, local and Tribal, to carry out work to meet the Act's requirements.

The amendments to Chapter 173-400 WAC adopt by reference updated federal regulations. They also reference an updated technical document issued by the Washington State Department of Ecology: *Source Test Manual – Procedures for Compliance Testing (STM)*. The updated STM, with a publication date of February 12, 2025 replaces the manual published in 2004 which is currently referenced in the WAC.

This rulemaking also repeals WAC 173-401-645, thereby aligning Washington state's rules with EPA's July 2023 decision to remove the emergency defense provisions in regulations under Title V of the federal CAA.² The EPA directed state air quality permitting authorities to make necessary changes to their operating permit programs to reflect this change.

It also corrects a typographic error in the Washington Administrative Code (WAC) 173-401-925, which incorrectly references another part of the WAC.

Costs and Benefits of the rule

We conclude the benefits of the rule amendments are greater than the costs. The amendments are not expected to impose significant costs. They bring the benefits of aligning the

² [Fact Sheet \(epa.gov\)](https://www.epa.gov/system/files/documents/2023-07/Fact%20Sheet%20-%20Affirmative%20Defense%20Final%20Rule.pdf), <https://www.epa.gov/system/files/documents/2023-07/Fact%20Sheet%20-%20Affirmative%20Defense%20Final%20Rule.pdf>

Washington Administrative Code (WAC) with current federal standards and providing a more current, up to date STM for use by regulated parties. See Chapters 2, 3, 4 and 5 for further discussion.

Least Burdensome Alternative

We consider the amendments the least burdensome alternative. The consequence of not adopting the amendments is that the rule would continue to adopt by reference federal rules that have since been updated. The rule would also reference an outdated version of the *Source Test Manual*. See Chapter 6 for further discussion.

Regulatory Fairness Act

We determine the amendments, since they adopt by reference federal standards and don't impose significant costs to businesses, to be exempt from the Regulatory Fairness Act. See Chapter 7 for further discussion.

Chapter 1: Background and Introduction

1.1 Introduction

This report presents the determinations made by the Washington State Department of Ecology as required under Chapters 34.05 RCW and 19.85 RCW, for the amendments to the *General Regulations for Air Pollution Sources* and *Operating Permit Regulation* rules (Chapter 173-400 WAC and Chapter 173-401 WAC; the “rule”). This includes the:

- Preliminary Cost-Benefit Analysis (CBA)
- Least-Burdensome Alternative Analysis (LBA)
- Administrative Procedure Act Determinations
- Regulatory Fairness Act Compliance

The Washington Administrative Procedure Act (APA; RCW 34.05.328(1)(d)) requires Ecology to evaluate significant legislative rules to “determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the law being implemented.” Chapters 1 – 5 of this document describe that determination.

The APA also requires Ecology to “determine, after considering alternative versions of the rule...that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives” of the governing and authorizing statutes. Chapter 6 of this document describes that determination.

The APA also requires Ecology to make several other determinations (RCW 34.05.328(1)(a) – (c) and (f) – (h)) about the rule, including authorization, need, context, and coordination. Appendix A of this document provides the documentation for these determinations.

The Washington Regulatory Fairness Act (RFA; Chapter 19.85 RCW) requires Ecology to evaluate the relative impact of rules that impose costs on businesses in an industry. It compares the relative compliance costs for small businesses to those of the largest businesses affected. Chapter 7 of this document documents that analysis, when applicable.

All determinations are based on the best available information at the time of publication. We encourage feedback (including specific data) that may improve the accuracy of this analysis.

1.1.1 Background

Multiple levels of government (federal, state, and local) protect air quality for the public.

Federally, Congress passed the Clean Air Act in 1970. That same year, Congress created the EPA, giving it the primary role in carrying out the law. The EPA has been responsible for a variety of CAA programs to reduce air pollution nationwide.

The EPA's guide to the CAA states "[it] is a federal law covering the entire country. However, states, tribes and local governments do a lot of the work to meet the Act's requirements. For example, representatives from these agencies work with companies to reduce air pollution. They also review and approve permit applications for industries or chemical processes."³

Additionally, "...the [CAA] requires EPA to establish national ambient air quality standards for certain common and widespread pollutants based on the latest science. EPA has set air quality standards for six common "criteria pollutants": particulate matter (also known as particle pollution), ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead. States are required to adopt enforceable plans to achieve and maintain air quality meeting the air quality standards."⁴

The EPA describes State Implementation Plans (SIPs) as "... a collection of regulations and documents used by a state, territory, or local air district to implement, maintain, and enforce the National Ambient Air Quality Standards, or NAAQS, and to fulfill other requirements of the [CAA]"⁵

Importantly: "The official SIPs are contained in regulations promulgated in the Federal Register and codified in the U.S. Code of Federal Regulations."⁶ Typically, WAC amendments precede EPA acceptance of a SIP.

Bringing the WAC into alignment with Washington's SIP and current federal regulations are key aspects of this rule. One of the amendments in this rulemaking seeks to address a portion of Washington's WAC that is "excepted" (not currently accepted) as part of the state's SIP.

Additionally, the Washington State CAA also stipulates: "It is declared to be the policy of the state of Washington through the Department of Ecology to cooperate with the federal government in order to insure the coordination of the provisions of the federal and state [CAA]s..."⁷

1.2 Summary of the rule amendments

The rule amendments:

³ [Guide to the Clean Air Act](https://www.epa.gov/sites/default/files/2015-08/documents/peg.pdf), <https://www.epa.gov/sites/default/files/2015-08/documents/peg.pdf>

⁴ [Clean Air Act Requirements and History | US EPA](https://www.epa.gov/clean-air-act-overview/clean-air-act-requirements-and-history), <https://www.epa.gov/clean-air-act-overview/clean-air-act-requirements-and-history>

⁵ [About Air Quality Implementation Plans | US EPA](https://www.epa.gov/air-quality-implementation-plans/about-air-quality-implementation-plans#what-is-a-sip), <https://www.epa.gov/air-quality-implementation-plans/about-air-quality-implementation-plans#what-is-a-sip>

⁶ [Washington SIP: EPA Approved Regulations \(Table 1 - Statewide\) | US EPA](https://www.epa.gov/air-quality-implementation-plans/washington-sip-epa-approved-regulations-table-1-statewide#documents), <https://www.epa.gov/air-quality-implementation-plans/washington-sip-epa-approved-regulations-table-1-statewide#documents>

⁷ [WA policy to cooperate with federal government](https://app.leg.wa.gov/RCW/default.aspx?cite=70A.15.1090), <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.15.1090>

- Change the adoption by reference date of federal air quality rules to the adoption date of this rule (WAC 173-400-025).
- Update a reference to Ecology's *Source Test Manual - Procedures for Compliance Testing*" (STM) (WAC 173-400-040, 105).
- Remove old STM methods as testing options and a limit on carbonyl for incinerators (WAC 173-400-050, 060).
- Repeal the emergency defense for air emission exceedances, per federal mandate (WAC 173-401-645)

1.3 Reasons for the rule amendments

Chapter 173-400 WAC

Amendments to this chapter are needed to incorporate and enforce an updated version of Ecology's STM. The manual establishes testing and technical requirements for industrial emitters, Washington clean air agencies, and other entities conducting testing and certification of stationary air pollution sources.⁸

Ecology staff identified outdated and unused methods and removed them from the manual, which was last updated in September 2004. The remaining methods have been updated. The updated version will also be ADA-compliant, accessible, and formatted for publication on Ecology's website following adoption of the rule.

Chapter 173-401 WAC

In July 2023, the EPA announced their decision to remove the emergency affirmative defense provisions under Title V of the CAA and directed state permitting authorities to make necessary changes to their operating permit programs. The federal rule became effective Aug. 21, 2023. This rulemaking will repeal WAC 173-401-645 thereby aligning Washington state's rules with the EPA's decision. In addition, it will correct a typographic error in WAC 173-401-925, which references WAC 173-491-920, where 173-401-920 was intended.

Together, these changes will correct outdated rule language and technical guidance, keep

⁸ Examples of local clean air agencies, which also enforce CAA requirements, are the Puget Sound Clean Air Agency and the Spokane Regional Clean Air Agency.

Ecology's rules aligned with federal regulations and best scientific practices, and make documents more accessible to stakeholders and the public.

1.4 Document organization

The chapters of this document are organized as follows:

- **Chapter 2 - Baseline and the rule amendments:** Description and comparison of the baseline (what would occur in the absence of the rule amendments) and the rule requirements.
- **Chapter 3 - Likely costs of the rule amendments:** Analysis of the types and sizes of costs we expect impacted entities to incur as a result of the rule amendments.
- **Chapter 4 - Likely benefits of the rule amendments:** Analysis of the types and sizes of benefits we expect to result from the rule amendments.
- **Chapter 5 - Cost-benefit comparison and conclusions:** Discussion of the complete implications of the CBA.
- **Chapter 6 - Least-Burdensome Alternative Analysis:** Analysis of considered alternatives to the contents of the rule amendments.
- **Chapter 7 - Regulatory Fairness Act Compliance:** When applicable. Comparison of compliance costs for small and large businesses; mitigation; impact on jobs.
- **Appendix A - APA Determinations:** RCW 34.05.328 determinations not discussed in chapters 5 and 6.

Chapter 2: Baseline and the Rule Amendments

2.1 Introduction

We analyzed the impacts of the rule amendments relative to the existing rule, within the context of all existing requirements (federal and state laws and rules). This context for comparison is called the baseline and reflects the most likely regulatory circumstances that entities would face if Ecology did not adopt the rule.

2.2 Baseline

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

For this rulemaking, the baseline includes:

- The federal Clean Air Act, CFR, Title 40, Chapter I, Subchapter C.
- Washington State's Clean Air Act, Chapter 70A.15 RCW.
- Chapter 173-400 WAC, General Regulations for Air Pollution Sources.
- WAC 173-401-645, the section of the WAC containing the emergency defense provision.
- The EPA approved SIP for Washington State, 40 CFR Part 52, subpart WW.⁹

2.3 The rule amendments

Summary of the rule amendments

The rule amendments:

- Change the adoption by reference date of federal air quality rules to the adoption date of this rule (WAC 173-400-025).
- Update a reference to Ecology's *Source Test Manual - Procedures for Compliance Testing*" (STM) (WAC 173-400-040, 105).
- Remove old STM methods as testing options and a limit on carbonyl for incinerators (WAC 173-400-050, 060).
- Change the adoption by reference date of federal air quality rules to the adoption date of this rule (WAC 173-400-025).

⁹ [Washington's SIP](https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-52/subpart-WW), <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-52/subpart-WW>. (Carbonyl limit in WAC 173-400-050(2) excepted.)

2.3.1 Change the adoption by reference date of federal air quality rules to the adoption date of this rule (WAC 173-400-025)

Baseline

In WAC 173-400-025, the federal rules referred to in Chapter 173-400 WAC are adopted by reference as they existed on August 24, 2022.

The Amendment

The rule changes the date of adoption of federal rules as they exist to February 12, 2025, which is the adoption date this rule.

Expected impact

There is no expected cost from this aspect of the rule, as compared to the baseline. Washington benefits by maintaining good standing to implement the federal CAA as required by RCW 70A.15.1090.

The latest federal standards were issued February 7, 2024.¹⁰

2.3.2 Update a reference to Ecology's Source Test Manual (WAC 173-400-040, 105).

Baseline

In WAC 173-400-040, 105 the STM as of September 20, 2004 is referenced. The manual contains 14 methods of testing for determining amounts of air pollution from sources of emissions.

The Amendment

An updated STM, with a publication date of February 12, 2025, will be referenced to replace the 2004 manual. The updated manual contains two methods for evaluating air pollution sources. 12 previously approved testing methods are removed.

Expected impact

No significant cost is expected due to the changes in the STM to be referenced. The 2004 version of the STM contains outdated information and testing methods. The 12 removed

¹⁰ [National Ambient Air Quality Standards \(NAAQS\) for PM | US EPA](https://www.epa.gov/pm-pollution/national-ambient-air-quality-standards-naaqs-pm), <https://www.epa.gov/pm-pollution/national-ambient-air-quality-standards-naaqs-pm>

procedures have been replaced in practice by other testing methods available elsewhere and are no longer needed in Ecology's manual. While regulated parties could use the outdated methods, outreach indicated they were in disuse and there was no opposition to their removal. The STM was meant to contain only testing methods not available elsewhere.¹¹ Some of the newer alternative methods are both improved and safer and contained in federal regulations. The changes in the two retained procedures add additional options for testing, lessening the compliance burden without reducing the effectiveness of the testing methods. The regulated community benefits by having an up to date and more concise guidance manual.

2.3.3 Remove old Source Test Manual methods as testing options and limits on carbonyl (WAC 173-400-050, 060).

Baseline

WAC 173-400-050 is titled "Emission standards for combustion and incineration units". STM methods are allowed in testing for particulate matter and carbonyl emissions. WAC 173-400-050 also specifies, for incinerators, a limit for carbonyls of 100 parts per million (ppm).

The 100-ppm carbonyl limit has been removed from the Washington's SIP, with the EPA's approval. However, the carbonyl limit currently in this section is excepted from that approval.¹² This amendment makes the WAC and SIP consistent in this regard, allowing the EPA to remove the exception. SIPs are incorporated into federal regulations and published in the Code of Federal Regulations.¹³

In WAC 173-400-060, test methods in the current STM are allowed in determining compliance for particulate emissions of general process units.

The Amendment

The rule removes methods in the 2004 STM as an option for testing for particulate matter for combustion, incinerator, and general process units.

For incinerators, it removes the 100-ppm carbonyl limit.

Expected impact

¹¹ Communications with Ecology's Air Quality Program, 7/24.

¹² [eCFR :: 40 CFR Part 52 Subpart WW, Washington](https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-52/subpart-WW), <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-52/subpart-WW>, See Table 2.

¹³ [Washington SIP: EPA Approved Regulations \(Table 1 - Statewide\) | US EPA](https://www.epa.gov/air-quality-implementation-plans/washington-sip-epa-approved-regulations-table-1-statewide#documents), <https://www.epa.gov/air-quality-implementation-plans/washington-sip-epa-approved-regulations-table-1-statewide#documents>

Minimal if any cost is expected from this change while the state will benefit by having an updated STM and a WAC more consistent with its SIP.

The 2004 version of the STM contains outdated information and testing methods.

The 12 test methods to be removal have been replaced in practice with other more complete, appropriate, and in some cases, safer, methods specified in 40 C.F.R. Parts 50, 60, 61, 63.^{14, 15}

We don't expect parties to want to use the old methods and received no opposition to their removal during outreach.

The changes in the two retained procedures add additional options for testing, lessening the compliance burden without reducing the effectiveness of the testing.

The removal of the carbonyl limit makes the WAC consistent with other parts of Washington State's federally approved SIP, which is part of the baseline.

2.3.4 Repeal of WAC 173-401-645

Baseline

WAC 173-401-645 allows an emergency situation as a defense for exceeding air emissions standards. An emergency consists of "... any situation arising from sudden and reasonably unforeseeable events beyond the control of the source [of the pollution] ...".¹⁶

This provision allows air pollution sources to avoid liability in enforcement proceedings by arguing the violations of emissions limitations were caused by an "emergency".

The Amendment

The amendment repeals WAC 173-401-645, where this defense is established. This aligns the state's rules with EPA's July 2023 decision to remove the emergency affirmative defense provisions from federal operating permit regulations under Title V of the federal CAA.¹⁷

Expected impact

There is no expected cost from this aspect of the rule. It is outside of Ecology's discretion.

The EPA directed state air quality permitting authorities to make necessary changes to their operating permit programs.

¹⁴ Communications with Ecology's Air Quality Program, 7/24.

¹⁵ Dichloromethane, a hazardous solvent was prescribed in one method. Other less harmful solvents have been demonstrated to be as effective.

¹⁶ [WAC 173-401-645](https://app.leg.wa.gov/WAC/default.aspx?cite=173-401-645), <https://app.leg.wa.gov/WAC/default.aspx?cite=173-401-645>

¹⁷ [Fact Sheet \(epa.gov\)](https://www.epa.gov/system/files/documents/2023-07/Fact%20Sheet%20-%20Affirmative%20Defense%20Final%20Rule.pdf), <https://www.epa.gov/system/files/documents/2023-07/Fact%20Sheet%20-%20Affirmative%20Defense%20Final%20Rule.pdf>

Washington state will benefit by being in compliance with federal regulations. The federal rule became effective August 21, 2023.¹⁸ Generally, if federal authorities determine states are not in compliance with the federal CAA they may need to intervene with a Federal Implementation Plan to ensure the requirements of the federal law are met. This would entail developing a federal plan to stand in lieu of the state's either inadequate or missing plan.

¹⁸ [Fed Register](https://www.federalregister.gov/documents/2023/07/21/2023-15067/removal-of-title-v-emergency-affirmative-defense-provisions-from-state-operating-permit-programs-and), <https://www.federalregister.gov/documents/2023/07/21/2023-15067/removal-of-title-v-emergency-affirmative-defense-provisions-from-state-operating-permit-programs-and>

Chapter 3: Likely Costs of the Rule Amendments

3.1 Introduction

We analyzed the likely costs associated with the rule amendments, as compared to the baseline. The rule amendments and the baseline are discussed in detail in Chapter 2 of this document.

3.2 Cost analysis

Summary of the rule amendments

The rule amendments:

- Change the adoption by reference date of federal air quality rules to the adoption date of this rule (WAC 173-400-025).
- Update a reference to Ecology's *Source Test Manual - Procedures for Compliance Testing* (STM) (WAC 173-400-040, 105)
- Remove old STM methods as testing options and a limit on carbonyl for incinerators (WAC 173-400-050, 060)
- Repeal the emergency defense for air emission exceedances, per federal mandate (WAC 173-401-645)

3.2.1 Change the adoption date of federal air quality rules to match the adoption date of this rule (WAC 173-400-025)

There is no expected cost from this aspect of the rule, as it meets requirements that fall outside Ecology's discretion.

This amendment updates Chapter 173-400 WAC to make it consistent with federal standards. The latest federal standards were issued February 7, 2024.¹⁹

¹⁹ [National Ambient Air Quality Standards \(NAAQS\) for PM | US EPA](https://www.epa.gov/pm-pollution/national-ambient-air-quality-standards-naaqs-pm), <https://www.epa.gov/pm-pollution/national-ambient-air-quality-standards-naaqs-pm>

3.2.2 Update a reference to Ecology’s Source Test Manual (WAC 173-400-040, 105)

No significant cost is expected due to the changes in the new STM to be referenced. The 12 removed procedures have been replaced in practice by other testing methods.²⁰ We don’t expect parties to want to use the old methods and received no opposition to their proposed removal during outreach.

The changes in the two retained procedures add additional options for testing, lessening the compliance burden without reducing the effectiveness of the testing methods.

3.2.3 Remove old Source Test manual methods as testing options and a limit on carbonyl for incinerators (WAC 173-400-050, 060)

No significant cost is expected due to the removal of methods in the STM as testing options. The testing methods have already been replaced in practice by other, more appropriate and complete, testing methods.²¹ We don’t expect parties to want to use the old methods and received no opposition to their proposed removal during outreach.

No cost is expected from the removal of the 100-ppm carbonyl limit for incinerators. This amendment has been approved by the EPA. The limit’s presence is currently “excepted” from Washington’s SIP. The removal brings this part of the WAC into alignment with the rest of the SIP, which has the force of a federal regulation.²²

3.2.4 Repeal the emergency defense for air emission exceedances, per federal mandate (WAC 173-401-645)

No cost is expected from this aspect of the rule.

The EPA directed state air quality permitting authorities to make necessary changes to their operating permit programs. The federal rule became effective August 21, 2023.²³

²⁰ Communications with Ecology’s Air Quality Program, 7/24.

²¹ Communications with Ecology’s Air Quality Program, 7/24.

²² [Washington SIP: EPA Approved Regulations \(Table 1 - Statewide\) | US EPA](https://www.epa.gov/air-quality-implementation-plans/washington-sip-epa-approved-regulations-table-1-statewide#documents), <https://www.epa.gov/air-quality-implementation-plans/washington-sip-epa-approved-regulations-table-1-statewide#documents>

²³ [Fed Register](https://www.federalregister.gov/documents/2023/07/21/2023-15067/removal-of-title-v-emergency-affirmative-defense-provisions-from-state-operating-permit-programs-and), <https://www.federalregister.gov/documents/2023/07/21/2023-15067/removal-of-title-v-emergency-affirmative-defense-provisions-from-state-operating-permit-programs-and>

Chapter 4: Likely Benefits of the Rule Amendments

4.1 Introduction

We analyzed the likely benefits associated with the rule amendments, as compared to the baseline. The rule amendments and the baseline are discussed in detail in Chapter 2 of this document.

4.2 Benefits analysis

The rule amendments:

- Change the adoption by reference date of federal air quality rules to the adoption date of this rule (WAC 173-400-025).
- Update a reference to Ecology's *Source Test Manual - Procedures for Compliance Testing* (STM) (WAC 173-400-040, 105).
- Remove old STM methods as testing options and a limit on carbonyl for incinerators (WAC 173-400-050, 060).
- Repeal the emergency defense for air emission exceedances, per federal mandate (WAC 173-401-645)

4.2.1 Change the adoption by reference date of federal air quality rules to the adoption date of this rule (WAC 173-400-025).

Washington benefits by having adopted the most recent federal standards. The authorizing legislation for the rulemaking, the Washington state CAA states: "It is declared to be the policy of the state of Washington through the Department of Ecology to cooperate with the federal government in order to insure the coordination of the provisions of the federal and state clean air acts...)." ²⁴ This amendment contributes to realizing this intent.

4.2.2 Update a reference to Ecology's Source Test Manual (WAC 173-400-040, 105).

The revised methods remaining in the updated STM have more options within them than in the old ones. The benefit is more flexibility for regulated entities using these methods. The removal of the other outdated, unused methods reduces the document's size, making it easier to navigate, and brings it up to date.

²⁴ [WA policy to cooperate with federal government.](https://app.leg.wa.gov/RCW/default.aspx?cite=70A.15.1090), <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.15.1090>

4.2.3 Remove old Source Test Manual methods as testing options and a limit on carbonyl for incinerators (WAC 173-400-050, 060).

The benefit is removal of outdated methods as testing options for air pollution sources. The removal of old STM methods brings the WAC into better alignment with current practice.

We don't expect parties to want to use the old methods and received no opposition to their proposed removal during outreach.

Federally accepted methods superseding those in the old STM are widely available and in use (40 CFR Part 60, Appendix A).

The removal of the 100-ppm carbonyl limit brings the WAC into alignment with the SIP regarding carbonyl limits. The EPA has already approved this change in the SIP.²⁵ As noted in section 1.1.1 above, approved SIPs are published in the Code of Federal Regulations.

4.2.4 Repeal the emergency defense for air emission exceedances, per federal mandate (WAC 173-401-645)

Washington benefits by being in compliance with federal CAA regulations.

The EPA directed state air quality permitting authorities to make necessary changes to their operating permit programs. The federal rule became effective August 21, 2023.²⁶

²⁵ Personal communication with Ecology's Air Quality Program, 7/24

²⁶ [Fed Register](https://www.federalregister.gov/documents/2023/07/21/2023-15067/removal-of-title-v-emergency-affirmative-defense-provisions-from-state-operating-permit-programs-and), <https://www.federalregister.gov/documents/2023/07/21/2023-15067/removal-of-title-v-emergency-affirmative-defense-provisions-from-state-operating-permit-programs-and>

Chapter 5: Cost-Benefit Comparison and Conclusions

5.1 Summary of costs and benefits of the rule amendments

Minimal if any costs are expected to result from the rule amendments.

Washington state benefits by having its WAC made consistent with current federal regulations. It will also have an updated STM, free of outdated material, for regulated entities to refer to.

5.2 Conclusion

We conclude, based on a reasonable understanding of the quantified and qualitative costs and benefits likely to arise from the rule amendments, as compared to the baseline, that the benefits of the rule amendments are greater than the costs.

Chapter 6: Least-Burdensome Alternative Analysis

6.1 Introduction

RCW 34.05.328(1)(c) requires Ecology to “...[d]etermine, after considering alternative versions of the rule and the analysis required under (b), (c), and (d) of this subsection, that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated under (a) of this subsection.” The referenced subsections are:

- (a) Clearly state in detail the general goals and specific objectives of the statute that the rule implements;
- (b) Determine that the rule is needed to achieve the general goals and specific objectives stated under (a) of this subsection, and analyze alternatives to rule making and the consequences of not adopting the rule;
- (c) Provide notification in the notice of proposed rulemaking under RCW 34.05.320 that a preliminary cost-benefit analysis is available. The preliminary cost-benefit analysis must fulfill the requirements of the cost-benefit analysis under (d) of this subsection. If the agency files a supplemental notice under RCW 34.05.340, the supplemental notice must include notification that a revised preliminary cost-benefit analysis is available. A final cost-benefit analysis must be available when the rule is adopted under RCW 34.05.360;
- (d) Determine that the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented.

In other words, to be able to adopt the rule, we must determine that the requirements of the rule are the least burdensome set of requirements that achieve the goals and objectives of the authorizing statute(s).

We assessed alternative rule content, and determined whether they met the goals and objectives of the authorizing statute(s). Of those that would meet the goals and objectives, we determined whether those chosen for inclusion in the rule amendments were the least burdensome to those required to comply with them.

6.2 Goals and objectives of the authorizing statute

The authorizing statute for this rule is Chapter 70A.15 RCW, Washington Clean Air Act. Among its goals and objectives are:

- “...to preserve, protect, and enhance the air quality for current and future generations.”²⁷
- “...to encourage coordination and cooperation between the state, regional, and local units of government, to improve cooperation between state and federal government, public and private organizations, and the concerned individual, as well as to provide for the use of all known, available, and reasonable methods to reduce, prevent, and control air pollution.”¹⁷
- “The department shall ... provide the regulated community, especially small businesses with information on air pollution laws, rules, compliance methods, and technologies ...”²⁸
- “... to cooperate with the federal government in order to insure the coordination of the provisions of the federal and state clean air acts...”²⁹

6.3 Alternatives considered and why they were excluded

We considered the following alternative rule requirements, and did not include them in the rule amendments. Each section below explains why we did not include these alternatives.

- No amendments to Chapter 173-400 WAC
- No amendments to Chapter 173-401 WAC

6.3.1 No Amendments to Chapter 173-400 WAC

We considered not amending Chapter 173-400 WAC, but the amendments are limited in scope and non-controversial. Additionally, the amendments reflect compliance methods currently preferred and in practice. Leaving the outdated testing methods in the STM would be inconsistent with the intent of the authorizing RCW regarding compliance methods, cited above in this chapter.

Additionally, making no amendments would leave the WAC misaligned with federal regulations. New federal standards have been issued and the rule adopts those. Not adopting the updated federal standards would be contrary to the authorizing RCW’s (see section 6.2 above) intent to coordinate federal and state CAAs.

²⁷ [RCW 70A.15.1005: Declaration of public policies and purpose. \(wa.gov\)](https://app.leg.wa.gov/RCW/default.aspx?cite=70A.15.1005),
https://app.leg.wa.gov/RCW/default.aspx?cite=70A.15.1005

²⁸ [RCW 70A.15.1050: Technical assistance program for regulated community. \(wa.gov\)](https://app.leg.wa.gov/RCW/default.aspx?cite=70A.15.1050),
https://app.leg.wa.gov/RCW/default.aspx?cite=70A.15.1050

²⁹ [RCW 70A.15.1090: Policy to cooperate with federal government. \(wa.gov\)](https://app.leg.wa.gov/RCW/default.aspx?cite=70A.15.1090),
https://app.leg.wa.gov/RCW/default.aspx?cite=70A.15.1090

6.3.2 No Amendments to Chapter 173-401 WAC

Not amending Chapter 173-401 WAC wasn't a realistic option, as the removal of a section in Chapter 173-401 WAC (affirmative defense provisions) was directed by the EPA. In July 2023, the EPA updated the federal rule under Title V of the Clean Air Act and directed states to make the necessary changes to align their operating permit programs with the updated federal rule.

Additionally, not removing the provision would fail to meet the directive of the authorizing statute which mandates cooperation with federal regulations, as cited above in this chapter.

6.4 Conclusion

After considering alternatives, within the context of the goals and objectives of the authorizing statute, we determined that the rule represents the least-burdensome alternative of possible rule requirements meeting the goals and objectives.

Chapter 7: Regulatory Fairness Act Compliance

We analyzed the compliance costs of the rule amendments in Chapter 3 of this document. We determined that it does not affect small businesses and incorporates without change federal regulations. Based on this analysis, Ecology is exempt from performing additional analyses under the Regulatory Fairness Act, RCW 19.85.025(4), as it “does not affect small businesses.” Additionally, the amendments incorporate by reference “... without material change federal statutes or regulations...”, which exempts them by RCW 19.85.025(3) and its reference to just quoted RCW 34.05.310(4)(c).

References

U.S. EPA Fact Sheet, “Final Rule: Removal of Title V Emergency Affirmative Defense Provisions from State Operating Permit Programs and the Federal Operating Permit Program”, 2023. [Fact Sheet \(epa.gov\)](https://www.epa.gov/system/files/documents/2023-07/Fact%20Sheet%20-%20Affirmative%20Defense%20Final%20Rule.pdf), <https://www.epa.gov/system/files/documents/2023-07/Fact%20Sheet%20-%20Affirmative%20Defense%20Final%20Rule.pdf>

U.S. Environmental Protection Agency, National Ambient Air Quality Standards (NAAQS) for PM, March 6, 2024. [National Ambient Air Quality Standards \(NAAQS\) for PM | US EPA](https://www.epa.gov/pm-pollution/national-ambient-air-quality-standards-naaqs-pm), <https://www.epa.gov/pm-pollution/national-ambient-air-quality-standards-naaqs-pm>

U.S. Environmental Protection Agency, The Plain English Guide to the Clean Air Act, April 2007. [The Plain English Guide to the Clean Air Act \(epa.gov\)](https://www.epa.gov/sites/default/files/2015-08/documents/peg.pdf), <https://www.epa.gov/sites/default/files/2015-08/documents/peg.pdf>

Appendix A: Administrative Procedure Act (RCW 34.05.328) Determinations

RCW 34.05.328(1)(a) – Clearly state in detail the general goals and specific objectives of the statute that this rule implements.

See Chapter 6.

A. RCW 34.05.328(1)(b) –

1. Determine that the rule is needed to achieve the general goals and specific objectives of the statute.

See chapters 1 and 2.

2. Analyze alternatives to rulemaking and the consequences of not adopting this rule.

Chapter 173-400 WAC. The rulemaking will revise the publication date for Ecology’s STM. The STM establishes additional methods for testing and certification of air pollution controls on air pollution sources. The rulemaking will also update Section -025 to update the rule adoption date for purposes of adopting federal regulations by reference. The consequence of not adopting the amendments is that the rule will continue to reference the outdated version of the STM and continue to adopt by reference federal rules that have since been updated.

Chapter 173-401 WAC. The rulemaking will repeal Section -645 to align with EPA’s July rule update which removed the affirmative defense provisions in federal operating permit program regulations. EPA directed state permitting authorities to make necessary changes to their operating permit programs to align with the updated federal rule. This rulemaking will also correct an incorrect reference in Section -925. The consequence of not removing the affirmative defense provisions is that Ecology’s regulations remain out of alignment with federal standards.

Alternatives were not viable as these fixes can only be accomplished through rule amendments.

Please see the Least Burdensome Alternative Analysis, Chapter 6 of this document, for discussion of alternative rule content considered.

B. RCW 34.05.328(1)(c) - A preliminary cost-benefit analysis was made available.

When filing a rule proposal (CR-102) under RCW 34.05.320, Ecology provides notice that a preliminary cost-benefit analysis is available. At adoption (CR-103 filing) under RCW 34.05.360, Ecology provides notice of the availability of the final cost-benefit analysis.

- C. **RCW 34.05.328(1)(d) – Determine that probable benefits of this rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented.**

See Chapters 1 – 5.

- D. **RCW 34.05.328 (1)(e) - Determine, after considering alternative versions of the analysis required under RCW 34.05.328 (b), (c) and (d) that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated in Chapter 6.**

Please see Chapter 6.

- E. **RCW 34.05.328(1)(f) - Determine that the rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.**

The amended rules do not require covered parties to violate existing state and federal law. Ecology is updating references and the removing affirmative defense provisions to align with updates to federal rules.

- F. **RCW 34.05.328 (1)(g) - Determine that the rule does not impose more stringent performance requirements on private entities than on public entities unless required to do so by federal or state law.**

The amended rules do not impose more stringent performance requirements on private entities than on public entities. The STM offers additional methods for testing and certification. It does not impose requirements.

- G. **RCW 34.05.328 (1)(h) Determine if the rule differs from any federal regulation or statute applicable to the same activity or subject matter.**

No.

- If **yes**, the difference is justified because of the following:
 - (i) A state statute explicitly allows Ecology to differ from federal standards.
 - (ii) Substantial evidence that the difference is necessary to achieve the general goals and specific objectives stated in Chapter 6.

- H. **RCW 34.05.328 (1)(i) – Coordinate the rule, to the maximum extent practicable, with other federal, state, and local laws applicable to the same subject matter.**

The amendments to the STM were coordinated through routine meetings with state and local operating permitting staff. The remaining updates to Chapter 173-400 WAC are administrative.

The amendments to Chapter 173-401 WAC are to align with EPA’s July 2023 update to the federal operating permit program rules which removed the affirmative defense provisions.