



Overview Performance Audit Report Air Operating Permit Program

Review Year 2020

Review Period State Fiscal Years 2016 – 2019

(July 1, 2015 – June 30, 2019)

By

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¹ www.ecology.wa.gov/contact

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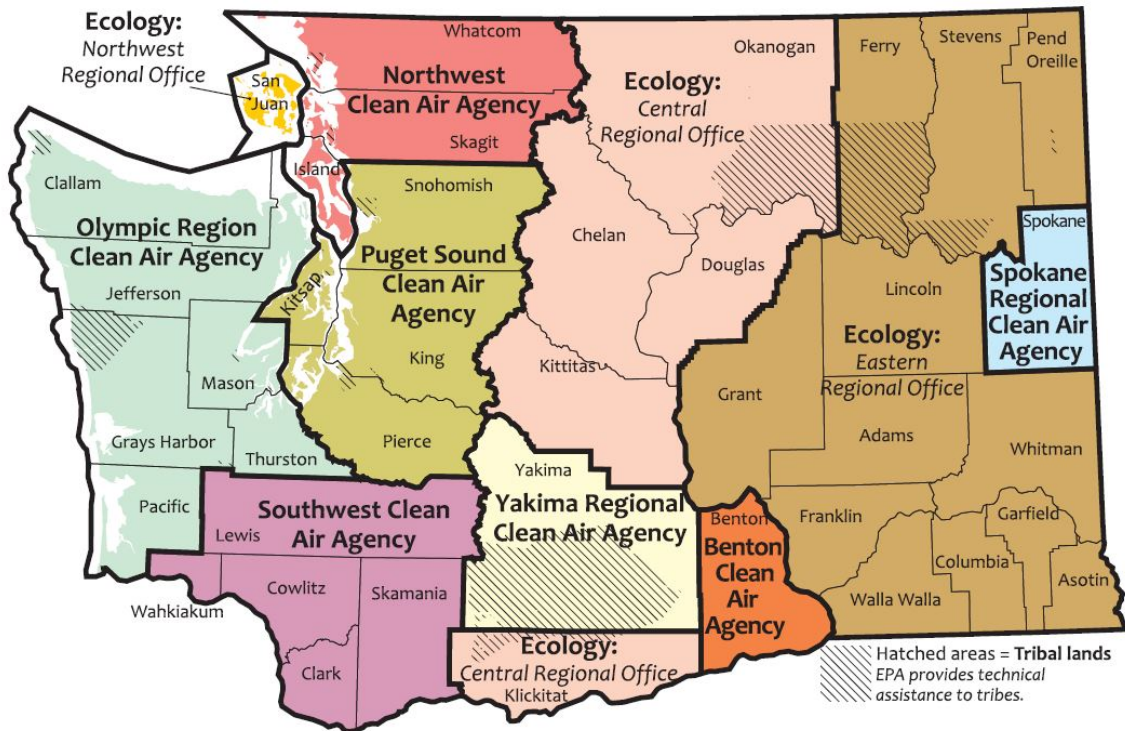
Air Quality Program
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DEPARTMENT OF
ECOLOGY
State of Washington

Washington Clean Air Agencies



Agency	Counties served	Mailing Address	Phone
Ecology Air Quality Program	Across Washington	P.O. Box 47600 Olympia, WA 98504-7600	360-407-6800
Benton Clean Air Agency	Benton	526 South Steptoe Street Kennewick, WA 99336	509-783-1304
Northwest Clean Air Agency	Island, Skagit, Whatcom	1600 South Second Street Mount Vernon, WA 98273	360-428-1617
Olympic Region Clean Air Agency	Clallam, Grays Harbor, Jefferson, Mason, Pacific, Thurston	2940 Limited Lane NW, Suite B Olympia, WA 98502	360-539-7610 or 1-800-422-5623
Puget Sound Clean Air Agency	King, Kitsap, Pierce, Snohomish	1904 Third Avenue, Suite 105 Seattle, WA 98101	206-343-8800 or 1-800-552-3565
Southwest Clean Air Agency	Clark, Cowlitz, Lewis, Skamania, Wahkiakum	11815 NE 99 th Street, Suite 1294 Vancouver, WA 98682	360-574-3058 or 1-800-633-0709
Spokane Regional Clean Air Agency	Spokane	3104 East Augusta Avenue Spokane, WA 99207	509-477-4727
Yakima Regional Clean Air Agency	Yakima	186 Iron Horse Court, Suite 101 Yakima, WA 98901	509-834-2050

Further details of Clean Air Agencies within the map, but not listed, can be found at <https://ecology.wa.gov/About-us/Our-role-in-the-community/Partnerships-committees/Clean-air-agencies>

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Executive Summary

Washington's air operating permit (AOP) program undergoes an overview performance audit every three years, as required by Washington Administrative Code (WAC) 173-401-920(4). This report represents an overview performance audit conducted in 2020 covering state fiscal years 2016 – 2019 (July 1, 2015 – June 30, 2019).

An audit advisory committee (the Committee) is required to conduct the overview performance audit to ensure the state's AOP programs are being administered and managed in accordance with Revised Code of Washington (RCW) 70A.15 and Chapter 173-401 WAC. The Committee includes representatives from the Department of Ecology (Ecology), Washington's seven local clean air agencies, and the regulated community. The Committee provides Ecology with performance audit support, including observations and recommendations to improve our state AOP programs. For the 2020 overview performance audit, the Committee reviewed:

- The 2017 performance audit report
- Environmental Protection Agency's (EPA) State Review Framework report
- The conclusions reached by EPA during their recent Title V program reviews, and
- Information submitted by participating agencies to EPA as part of the semi-annual Title V permit data reports (TOPS) that occurred during the review period.

General audit observations

AOP programs are managed in accordance with RCW 70A.15 and Chapter 173-401 WAC. In general, Ecology and the local clean air agencies are satisfying program requirements. The following is a summary of the Committee's observations. Find more details in the "Observations" section of this report.

By the end of this audit review period, all existing facilities subject to Title V either operated under an effective AOP, or operated under an "application shield." This result means there were no expired permits by the end of the audit review period. More specifically, the majority (89%) of existing facilities in Washington operated under an effective AOP. The remaining facilities (11%) operated under an "application shield" granted by the air permitting agency as provided under Chapter 173-401-705 WAC for initial AOPs and Chapter 173-401-620(i) WAC for AOP renewals.

Permit renewal issuance rates have improved for several agencies during the audit review period. Rates have remained static or fluctuated for others. In general, TOPS data suggests that roughly half of the AOP renewal applications require the existing permit be extended to allow time for them to be completed. As noted in a 2018 review by the National Association of Clean Air Agencies (NACAA), AOP permit renewal backlogs are common for permitting programs across the United States.²

² <http://4cleanair.org/#:~:text=NACAA%20is%20the%20national,%20non-partisan,%20non-profit%20association%20of,and%20effectiveness%20of%20state%20and%20local%20air%20agencies>.

EPA conducted one Title V Program review of a single agency in Washington State during the audit review period. Based on similar findings from EPA Title V program reviews conducted prior to and subsequent to this Overview Performance Audit, the Committee concluded that many of the areas for improvement noted by EPA apply statewide. In particular, all agencies should address EPA's comments on the content of Statements of Basis (SBs) regarding details, clarity, and implementation of applicable federal requirements within the permit. It is important to note that air agencies have worked over the last three years on permit language, and have achieved more useful SBs and permits. However, there are still common opportunities for improvements.

For some agencies, data that is entered into the Integrated Compliance Information System (ICIS) does not always accurately match agency files. Also, untimely data entry can cause delayed reviews and resolutions of high priority violations (HPVs).

EPA's program reviews provide an essential means to communicate expectations and guidance to permit writers. The Committee concluded that results from these reviews could help alleviate the current issues of not having up-to-date or well distributed guidance for new Title V expectations. Additionally, the Committee concluded that sharing final results of EPA reviews statewide rather than just with the subjected air agency could promote change and uniformity. Results could be routinely discussed among air agencies during meetings such as the quarterly permit writers meetings.

Summary of recommendations

All agencies acknowledge the need for continued improvements. Many of the recommendations from EPA reviews have been implemented within agency programs. The following is a summary of the Committee's recommendations. Further details can be found in the "Recommendations" section.

TOPS data shows that permit renewals are not always issued timely. While facilities can continue to operate under extended permits as long as they have submitted a complete permit renewal application, this is not an ideal scenario. Although improvements have been gained, all agencies should continue efforts to issue permits in a timely manner and reduce permit backlogs.

As outlined in EPA reports, agencies agree that continued review of permit programs statewide is still important. Areas for improvement that were identified include providing a more detailed Maximum Achievable Control Technology (MACT), New Source Performance Standards (NSPS), and Compliance Assurance Monitoring (CAM) analyses in SBs, incorporating new applicable requirements in permits as necessary, clarifying in permits what constitutes a deviation, and documenting the compliance history in SBs.

In order to improve ICIS data entry, both with accuracy and timeliness, agencies agree that a "hands-on" approach with training would be beneficial. In addition, agencies may benefit from creating "how-to" sheets in order to complete ICIS data entries in a timely and accurate way, attend available trainings hosted by the EPA, track monthly compliance data to ensure minimum data requirements are met, use whiteboards and other visuals to track routine ICIS entries, streamline agency inspection report formats for comprehensive write-ups, and participate in EPA's annual data verification process.

Committee members recognize the importance of evaluating permit violations in accordance with EPA's 2014 timely and appropriate enforcement response to HPVs policy.³

Routine discussions between agency Title V program managers to address ongoing program issues and streamlining agency processes is recommended in order to clarify guidance and expectations.

Intensive performance audit not recommended

Chapter 173-401-920 WAC provides that the Committee may recommend intensive performance audits for one or more agencies based on the findings of this overview audit. Members do not recommend an intensive performance audit for any agency at this time.

Introduction

Washington's AOP program undergoes an overview performance audit every three years. Chapter 173-401-920(4) WAC provides the parameters for an overview audit, an audit committee (the Committee), and options for an intensive audit. Chapter 173-401 WAC was revised in 2016 and audit requirements were updated to reduce the frequency and better align with the needs of a mature program. Ecology's last audit was conducted in 2017 and covered state fiscal years 2012-2015 (July 1, 2011- June 30, 2015).

The Committee was updated in 2020 and includes representatives from Ecology, each of the seven local clean air agencies, and the regulated community. The purpose of this committee is to provide Ecology with support, and conduct performance audits to ensure state Title V AOP programs are administered and managed in accordance with RCW 70A.15 and WAC 173-401.

The Committee members are:

- Trischa Lohr Barlet – Department of Ecology Air Quality Program (audit coordinator)
- Lilyann Bauder – Department of Ecology Nuclear Waste Program
- Stephanie Ogle – Department of Ecology Solid Waste Management Program – Industrial Section
- Monica Mogg – Northwest Pipeline
- Robin Priddy – Benton Clean Air Agency (BCAA)
- Agata McIntyre – Northwest Clean Air Agency (NWCAA)
- Mark Goodin – Olympic Region Clean Air Agency (ORCAA)
- Carole Cenci – Puget Sound Clean Air Agency (PSCAA)
- Vannessa McClelland – Southwest Clean Air Agency (SWCAA)
- April Westby – Spokane Regional Clean Air Agency (SRCAA)
- Hasan Tahat – Yakima Regional Clean Air Agency (YRCAA)

The Committee reviewed readily available data and reports for the review period, state fiscal years 2016-2019 (July 1, 2015 – June 30, 2019). The items reviewed included the Ecology 2017

³ <https://www.epa.gov/sites/production/files/2015-01/documents/hvpolicy2014.pdf>

Performance Audit report⁴, Spokane Regional Clean Air Agency Title V Program review⁵ (2nd round) and responses, Washington’s 2017 State Review Framework (SRF) report⁶ (3rd round), responses to the SRF within Enforcement and Compliance History Online (ECHO)⁷, and Semiannual Title V Operating Permit data (TOPS)⁸.

The Committee developed an audit schedule, reviewed reports, and submitted observations and recommendations to Ecology. Observations included any trends, program efficiencies, and concerns about agency programs. Recommendations aim to improve the AOP program performance statewide.

Scope and Methodology

For the designated audit period, the Committee reviewed and provided comprehensive observations and recommendations for Washington’s AOP program. Each of the 2020 overview performance audit data metrics were provided to the Committee for review. The data included:

- Ecology’s 2017 AOP Performance Audit report. The report was used to identify previous audit observations and to analyze how recommendations were met.
- TOPS reports submitted to EPA. TOPS reports track AOP permit issuance data and timeliness by agency. The reports help to identify agency trends. Ecology and each local air agency submit these reports twice per year.
- Washington’s 2017 SRF report (3rd round) and agency responses in ECHO. SRF reports track compliance and enforcement performance of the Clean Air Act (CAA), Clean Water Act (CWA), and Resource Conservation and Recovery Act (RCRA) programs. These reviews are conducted by the EPA every five years, and they do not include all state agencies during each review. Programs are evaluated on a one-year performance period. The report was reviewed for AOP findings and recommendations. CAA data submitted in ECHO reflects the agency’s responses to the findings.
- SRCAA’s Title V Program review (Round 2, 2018) and action plan. EPA periodically conducts broad spectrum reviews for state and local Title V Programs to help improve and expedite permitting. EPA does this by identifying good practices that other agencies can learn from and by documenting areas needing improvement. One report was published during the designated audit period.

Observations

Permit issuance

Permit issuance rates have improved for several agencies, while remaining static or fluctuating for others. At the beginning of the review period, the percentage of total outstanding applications and

⁴ <https://apps.ecology.wa.gov/publications/SummaryPages/1702017.html>

⁵ <https://www.epa.gov/caa-permitting/title-v-program-reviews-washington>

⁶ <https://www.epa.gov/compliance/state-review-framework-srf-washington-final-reports>

⁷ <https://echo.epa.gov/oversight/state-review-framework/tracker-recommendations>

⁸ TOPS report analysis submitted to EPA during fiscal years 2016-2019

extended renewal permits was 50% (July - December 2015) and at the end was 47% (January - June 2019) statewide. However, a statewide number isn't as meaningful as looking at permit renewal rates for individual agencies because agencies operate independently. From the time a complete AOP application is received, agencies have 18 months to issue an initial permit or renew a permit before it is considered backlogged. Facilities apply for a renewal permit before the five-year permit term expires.

Issuing timely AOP renewals continues to be a challenge. Roughly half of the permit renewals for existing AOP permits were extended past the five-year term. Although this is allowed under the Title V "application shield," the objective of the program is to issue Title V permit renewals within 18 months of receiving the renewal application. Some agencies made updates to permit renewal applications in order to streamline the renewal process. As discussed in SRCAA's action plan addressing EPA's 2018 Title V Program review, complete initial or renewal applications and existing AOPs remain in effect after the existing permit expires or when initial applications lapse. The Committee identified that agencies could continue to rely on the permit application shield.

The figure below shows permit backlogs for all agencies during the audit period. Backlogs include total extended permits and initial permit applications. It is important to note that the number of sources within each jurisdiction range between 2 to 4 sources (BCAA and YRCAA) and 32 sources (PSCAA).

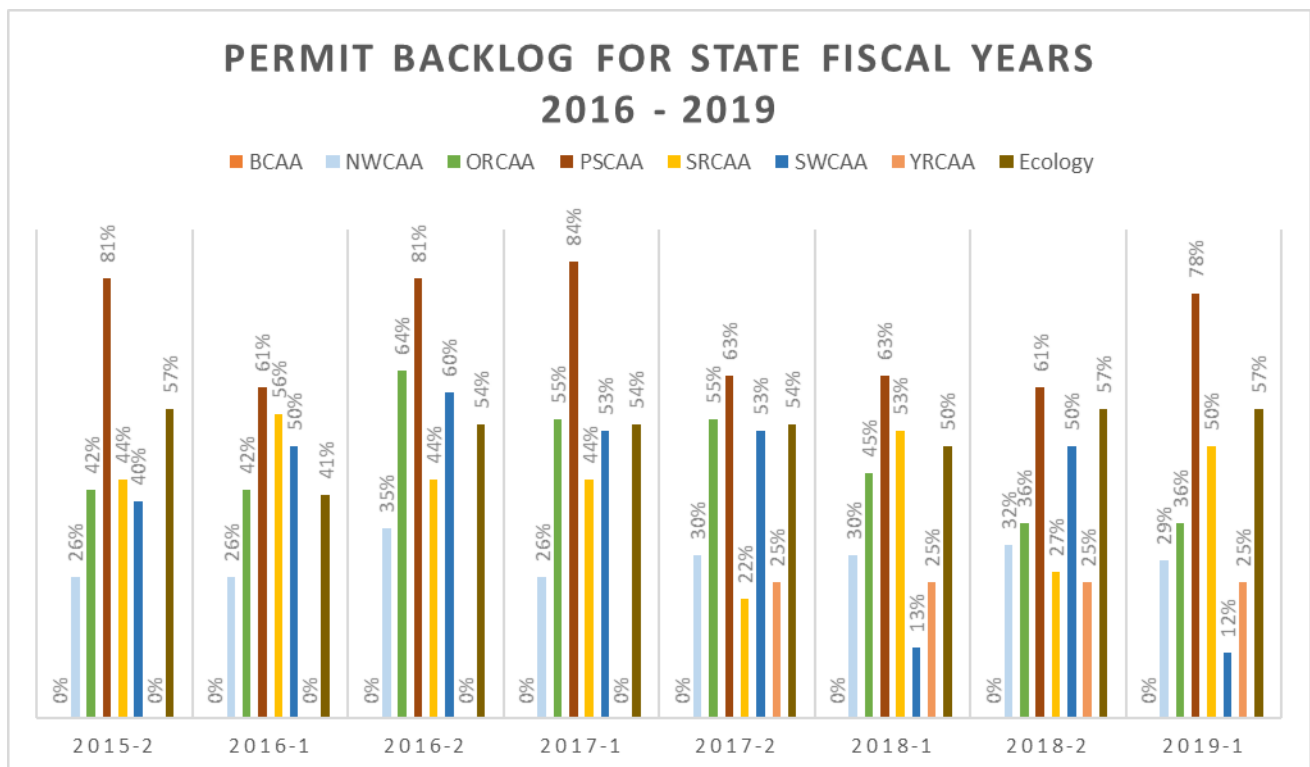


Figure 1 Semi-annual permit backlog for state fiscal years 2016-2019

The Committee noted that part of the backlog is due to staff having several responsibilities in addition to managing complex AOPs. Construction permit applications take priority over AOP

applications, which is required under WAC 173-401-700(5). Other competing priorities such as inspections, stack test reviews, rule writing, emissions inventory, compliance and enforcement work, and recent promulgated federal standards for AOPs cause time constraints. In addition, some initial AOPs such as those for sewage sludge incinerators, are awaiting EPA's issuance of operating plan approvals for subject emission units. Such plans are key elements of AOPs. Some permitting agencies feel they can't issue AOPs without first knowing plan content.

One agency reported an increase of AOP sources, and three agencies have fewer sources since the 2017 overview audit. Three agencies have each increased permitting staff by one. Overall, agencies have 1 to 5.3 permits per engineer⁹. The Committee agreed that there is a relationship between permit backlogs and staff workload, position vacancies, and time that it takes to train new permitting staff. Committee members also reported that each agency has a plan in place to continue to reduce the backlog.

Permit language and content

Over the last three years, agencies achieved more useful SBs and AOPs by improving permit language and content based on feedback from EPA and Ecology, and collaborating with other agencies. Committee members noted that uniformity among agencies is not required as long as all necessary data elements are in AOPs, which has been discussed extensively with EPA.

There are certainly more opportunities for permit writers to improve SBs and AOPs.

Audit materials suggest the following improvements to SBs and AOPs:

- More detailed explanations of AOP, CAM, MACT, and NSPS applicability decisions in SBs.
- Better documentation of Potential to Emit (PTE) for all regulated pollutants including hazardous air pollutants (HAPs) as they apply to the source.
- Include a dedicated section for new applicable federal requirements and rules in SBs.
- Clarify deviations in AOPs to ensure compliance and enforceability.
- SBs should include a permitting history.
- Agencies should use best management practices for keeping track of all permit support documents.
- Remove compliance options that are not used in AOPs and incorporate any new applicable requirements.
- Review permits and implement the federal plan where needed, as opposed to the state plan, for designated facilities. For reference 40 CFR 62.14352(b).

Compliance and enforcement

Ecology programs and local air agencies addressed findings in EPA's 2017 SRF review. Agencies have since implemented compliance and reporting plans where necessary. Agencies have worked to address timeliness of HPV enforcement, but the Committee agrees that delayed reviews and

⁹ Information provided by Committee members for the agency they represent

resolutions of HPVs continue to exist for some agencies. Members recognize the importance of timely HPV enforcement actions and that there are opportunities for program-wide improvement.

EPA's program review of SRCAA noted a continued concern about defining what constitutes a deviation for each permit requirement. Committee members suggested this could be a contributing factor to program-wide penalty assessment inconsistencies.

With regard to ICIS, the Committee highlighted areas of ongoing improvement that persists for Ecology and local air agencies during the review, including:

- Timeliness of data entry.
- Complete documentation and accuracy of information that is entered into the national reporting system, ICIS.
- Files and ICIS data should accurately reflect one another.

Data reporting

Committee members mentioned that if timely ICIS data entry is not met, it is in part due to an increased amount of reporting requirements and fluctuating workloads with higher priority tasks.

Ecology reported that lapses in data reporting requirements could stem from turnover of key compliance staff and newer staff unable to receive proper and timely training. This could lead to not completing requirements on time.

Clarifying guidance and expectations

Although EPA's program reviews provide an essential means to communicate expectations and guidance to permit writers, results of individual reviews aren't always shared between air agencies in Washington. Individual programs could benefit from sharing and implementing guidance provided by EPA to others.

Recommendations

Permit issuance

TOPS data suggests that all agencies are still experiencing permit backlogs and need to improve on timely permit issuance.

All agencies acknowledge the need for improving permit renewal rates and have plans in place to improve in this area, including:

- Maintaining a schedule in order to prioritize Title V renewals more efficiently.
- Staggering permit effective dates when possible to effectively spread out the workload.
- Developing permit templates for standard terms, conditions, and standard formats.
- Streamlining the AOP review process in order to issue permits on time.

Additional recommendations include:

- Agencies that consistently have 50% or more backlog should evaluate what additional resources, planning, and processes would be needed to reduce the backlog.
- Setting and ensuring agency goals that can be met on an annual basis to significantly reduce or eliminate backlogs.
- Form workgroups including agencies who achieved significant reductions or kept backlogs to a minimum to review the steps those agencies have taken to improve in this area.

Permit language and content

State permit writers have responded to EPA’s recommendations to improve internal guidance for developing and updating permits. Committee members noted that continuous improvement in SBs to support permit decisions has value. While not all of these suggestions are needed in all programs, some improvements to consider statewide are:

- More justification about why CAM does, or does not, apply to a source.
- More detailed AOP, MACT, and NSPS applicability, including which pollutants a facility is not considered major status for and why.
- Better documentation of PTE for all regulated pollutants, including hazardous air pollutants (HAPs), when applicable. (PTE for certain pollutants may not be required if that source traditionally emits above the major source thresholds, as they are clearly a major source for that pollutant)
- Clarify compliance approaches when multiple approaches are an option.
- Per EPA reviews, add a section for new applicable federal requirements and rules.
- Include source’s permitting and compliance history when applicable. Historical compliance should be documented and used to determine source test frequencies.
- Clearly define what constitutes a deviation to ensure facilities know when a deviation occurs.
-

The Committee explained that compliance options listed in the permit can be reduced to a single compliance option when the owner/operator knows only that compliance option will be used during the permit term. In these cases, agencies generally list the one MACT option a facility uses. A facility may ask for other available options to be included in the permit if there will be more than a single option used during the term.

The Committee suggested that there could be a wasted effort in calculating PTE for pollutants with emissions over the threshold and a facility’s SB should include actual emissions when this occurs.

As outlined in EPA reports, program staff should continuously review AOPs and their SBs for improvements, be mindful of inconsistent permit formats when constructing initial and renewal permits, and review methods of recordkeeping.

Compliance and enforcement

The Committee understands the importance of timely HPV enforcement actions. Agencies should continue to update, maintain, or create HPV Standard Operating Procedures (SOPs) in accordance with EPA’s timely and appropriate enforcement report to HPVs policy to identify HPVs in a timely

manner. Agencies should ensure timely communication efforts between staff and facilities in order to complete reviews and resolutions of incident reports.

Additional recommendations:

- Revise initial and renewal permits for clarity of deviations to improve penalty and enforcement actions.
- All agencies should participate (or continue participating) in EPA’s quarterly HPV conference calls.

Data reporting

Agencies should continue collaboration with staff responsible for ICIS data entry, attend training hosted by the EPA, and clarify protocols and expectations. In order to improve data entry, both with accuracy and timeliness, as well as during any staff shortages:

- Attend annual ICIS trainings. Schedules can be found on EPA’s website¹⁰ offered through the National Enforcement Training Institute (NETI) or by contacting EPA Region 10’s ICIS data manager.
- Develop “How-to” sheets within agencies for completing ICIS entries in an accurate, more efficient way.
- Agencies could perform their own periodic internal audits or implement an electronic database for file management where QA/QC procedures are not already in place.
- Use spreadsheets or visuals such as whiteboards to track monthly compliance data, routine/annual ICIS entries, and stack tests. Keeping items visual can ensure timely entries.
- Managers should engage with staff to ensure that minimum data requirements can be met within a timely manner.

All agencies should participate in EPA’s annual compliance and enforcement data verification process to verify accurate flow of data into ICIS. This will increase data accuracy that is displayed in ECHO, which is used in EPA’s SRF data metrics. The verification process allows for corrections to be submitted before the data is frozen. EPA offers webinars through their ECHO website¹¹ and recordings can be accessed anytime.

Additionally, report formats for inspections or full compliance evaluations of facilities could be updated so that they are in the same layout. These corrected formats make for more comprehensive write-ups, so that compliance issues can be seen within one document.

Clarifying guidance and expectations

The Committee agrees that having focused and routine discussions between permitting managers would be helpful in addressing some of the ongoing program issues.

¹⁰ <https://icis.zendesk.com/hc/en-us/categories/201119896-Training-Education>

¹¹ <https://echo.epa.gov/help/training>

EPA's Title V Program reviews offer an important feedback mechanism for permit writers and final reports from these reviews should be routinely shared.

Agency permitting and compliance staff should continue attending EPA's Region 10 Title V Workshops to gain understanding of expectations in areas of common concern on new EPA concepts.

Although creating templates and/or guidelines are time consuming, they could potentially help air agencies improve permit issuance rates and reduce permit backlogs.

Intensive Performance Audit

An intensive performance audit is not recommended at this time for any air agency.