

Boeing (Kristin Marshall)

Please see attached comments from The Boeing Company.

February 13, 2026

Anthony Bruma
Rulemaking Lead
Washington State Department of Ecology
300 Desmond Drive SE
Lacey, WA 98503

Subject: Comments on Chapter 173-448 WAC Preliminary Draft Rule Language

Dear Mr. Bruma,

The Boeing Company appreciates the opportunity to comment on the Department of Ecology's (Ecology or the Department) preliminary draft rule language for Chapter 173-448 WAC, Air Quality in Overburdened Communities Highly Impacted by Air Pollution (the draft rule). We support Ecology's goals to meet the statutory requirements of the Washington Climate Commitment Act (CCA, as codified in Chapter 70A.65 RCW). But to achieve these goals while maintaining fidelity to the CCA and ensuring fairness and predictability to regulated entities, the Department should make several key changes to the regulations before issuing a proposed rule. Notably, Boeing Auburn and Boeing Everett are currently covered facilities under the CCA, and it is with this perspective that we request specific revisions to the draft text before Ecology publishes a formal proposed rule to avoid unintended operational and capital impacts.

Boeing continues to engage our stakeholders on all sustainability aspects of our business while making progress on our goals, managing risk and enhancing our culture, which is all underpinned by our values of safety and quality, trust, people focus, ownership and innovation. As an indicator of our progress, in 2023, Boeing achieved our 2025 energy and greenhouse gas (GHG) targets two years early. Moreover, Boeing's newest airplanes are 20%-30% more efficient than the in-service airplanes they typically replace. The company's 2030 sustainability targets include the following:

Sustainable Operations

- Achieve 20% GHG reduction in Scope 1 and Scope 2 market-based emissions from 2023 base year
- Achieve 100% renewable electricity
- Achieve 3% reduction of natural gas intensity from 2023 base year

Innovation and Clean Tech

- All production commercial airplanes will be 100% SAF compatible
- Support the commercial aviation industry's ambition to achieve net-zero carbon emissions for global commercial aviation operations
- Build and certify our first zero-emission, electric, autonomous aircraft via Wisk

The Boeing Company is proud to work with businesses in Washington to create jobs and economic opportunity as we work together to provide the world's most advanced aerospace products and services. We have more than 64,000 employees and over 1,000 suppliers in

the state. In the most recent five years (2019-2023) published on the State of Washington's site, emissions reported to Ecology from CCA-covered Boeing facilities have dropped by 13%.

Ecology's draft rule implements RCW 70A.65.020 but also adds multiple procedural, substantive, and technical requirements that go beyond the statute's text. These additions increase compliance risk, create new reporting and engineering burdens, and introduce data quality and compliance uncertainty for regulated entities. The comments below focus on technical issues, where the draft rule exceeds statutory requirements, and suggest approaches the Department can undertake to bring the rule back into alignment with the statute.

1. Definitions of scope and applicability

To help ensure regulatory certainty for all stakeholders, we suggest some refinements to the draft rule's applicability language. The draft rule uses "may" and "contribute to" in ways that are too broad and create uncertainty about which facilities are regulated, which poses unnecessary planning, permitting, and capital allocation risk to many sites. For instance, the use of "contribute to" in WAC 173-448-020(1) could sweep in non-industrial emitters, as countless human activities contribute to criteria pollutant emissions.

We suggest that Ecology replace "may be covered" in WAC 173-448-020(2) with "is covered when," combined with defined objective triggers (e.g., emissions above specific thresholds or modeled impact attributable to the facility above a certain ambient concentration threshold).

We further urge Ecology to refine "contribute to" to require a demonstrated, material contribution (for instance, modeled or monitored contribution greater than 25% of the monitored pollutant concentration at a representative receptor, or exceedance of a defined contributor threshold).

Furthermore, designations about contributions should not be based on single-event or single-year spikes, absent corroborating evidence.

Objective triggers reduce arbitrary designations and focus resources on meaningful contributors. This ensures rule language aligns with 70A.65.020 RCW.

2. Data quality, monitoring, and use of non-regulatory sensors

The draft rule would allow the use of non-regulatory monitors and sensors, which lack the quality assurance and quality control (QA/QC) measures of regulatory air quality monitors, for design value calculations. Reliance on such potentially inaccurate, low-cost devices risks arbitrarily subjecting sources to regulation. Such devices should not be used for Ecology's enforcement decisions or drive a regulated entity's capital expenditure decisions.

Decisions based on low-quality data could impose expensive controls erroneously. To avoid this, Ecology should require that only federal reference method (FRM) or federal equivalent method (FEM) monitors or other Environmental Protection Agency-approved methods may be used for regulation of affected facilities unless a non-regulatory sensor has been

collocated with an FRM/FEM monitor for at least 12 months and meets bias/precision limits (e.g., $\pm 10\%$ bias, $R^2 \geq 0.9$). Furthermore, any monitor used in decisions about regulated facilities should be required to have documented QA/QC plans, metadata, calibration logs, chain-of-custody, and public access to data before any Ecology regulatory action.

To support this, Ecology could define minimum data completeness, calibration, maintenance, metadata reporting, and chain-of-custody requirements for all sensors and monitors used in design value calculations. Ecology could publish a list of approved sensor types and documented validation protocols prior to use.

Undertaking these measures would help ensure defensible data and prevent inappropriate compliance costs based on poor-quality inputs.

3. Definitions and objective criteria for high priority emitters

The high priority emitter definition in the draft rule is overly broad. Moreover, it is dissonant that a single-year exceedance could render a source a high priority emitter while removal of such a designation requires five years below thresholds. The current definition's reliance on "contributes to criteria air pollution" could result in inconsistent or arbitrary designations. The current definition also could cause regulatory whipsaw or make smaller sources than the Legislature intended subject to regulation.

Ecology could clarify applicability by making the high priority emitter designation require both (a) exceedance of specified, clearly defined emissions thresholds and (b) modeling or monitoring evidence that the source's contribution to ambient concentration is material (e.g., $\geq 40\%$).

Ecology should also harmonize entry and exit criteria by requiring multi-year evidence for designation and allow removal based on the same number of subsequent years below threshold.

Objectivity and symmetry reduce the risk of arbitrary or unfair designations and ensure the list flags sources appropriately.

4. Baseline methodology, thresholds, and emissions reporting cadence

Unclear baselines affect percent-reduction targets and the difficulty and cost of compliance. In addition, the proposed operational reporting burdens may be infeasible or duplicative.

We suggest that Ecology set the facility baselines as the average of either the 2015-2019 period, for consistency with baselines in the CCA cap-and-invest program, or the five most recent normal operating years excluding demonstrably atypical years (e.g., pandemic, force majeure) with Ecology-approved, facility-documented reasoning.

Ecology should also limit routine reporting cadence to the level consistent with existing permitting (e.g., annual for emission inventories, monthly for major source continuous emissions monitoring, if applicable, and daily only where continuous emissions monitoring is already in place and required by permit). Furthermore, Ecology should extend requested

submission windows to 60–90 days for inventories or new data to allow for consolidation and QA/QC.

Reasonable baselines and reporting frequencies prevent over-burden and are consistent with existing air program practices.

5. Feasibility, economic analysis, and scope of required actions

In the draft rule, there is potential for infeasible retrofit mandates, production constraints, and high-cost mandates without objective consideration of feasibility and cost.

To reduce these undesirable outcomes, Ecology should define “technical and economic feasibility” criteria (e.g., cost per ton removed thresholds, net present value analysis, impact on production capacity, and reasonable payback period). Ecology should also be required to provide written findings when proposing controls that exceed feasibility thresholds.

Ecology should allow submission of in-house engineering assessments for initial review, with third-party or in-house Professional Engineer (PE) stamped reports required only where Ecology demonstrates need. In all cases, Ecology should provide confidentiality protections.

Ecology must prohibit emission limits that effectively require reductions in production.

The language around “needs of the specific community” is unclear and may be very difficult to assess objectively. We suggest that Ecology instead replace this language with concrete criteria (e.g., community wages, economic contributions, health-based metrics) and require transparent weighting alongside technical feasibility.

By undertaking these changes, Ecology can ensure solutions are workable and proportionate and that they protect production capability.

6. Enforcement process, timelines, and appeals

The draft rule requires mandatory adoption of stricter limits and potentially other requirements by high priority emitters if criteria are met. A high priority emitter that appeals an enforceable order would face unclear review timelines and have no interim protections. Entities could therefore face orders with limited time to respond or implement requirements and uncertain appeal timelines and outcomes.

We suggest that Ecology clarify the procedural steps and timelines the Department will follow before issuing enforceable orders, including mandatory consultation with the regulated entity or community, a defined Ecology review period, and reasonable compliance timelines after order issuance (e.g., phased compliance with engineering-based schedules).

Furthermore, filing an administrative appeal (or petition) should stay the imposition of penalties for noncompliance with an enforceable order and any operational restrictions or requirements beyond pre-existing permit conditions.

The timelines for capital expenditure and specialty equipment used in industry can be long. We suggest minimum phase-in schedules for capital controls: 24 to 36 months for engineered retrofits and 36 to 60 months for major capital projects, with Ecology to consider lead times and supply chain constraints.

Fair processes and predictability reduce undue compliance and operational risk.

7. Narrowing scope and aligning with statutory programs

Section 110 of the draft rule would benefit from refinement. Importantly, the statute's mitigation mandate in RCW 70A.65.020(3) is expressly limited to facilities "sited after July 25, 2021" that receive allowances under RCW 70A.65.110, while the proposed WAC 173-448-110(2) would impose that same particulate matter (PM) mitigation obligation on an existing emissions-intensive, trade-exposed (EITE) facility that merely modifies operations.¹ This inconsistency may increase compliance steps and potentially cause overlap with allowance programs.

The proposed rule, when issued, should limit section 110 to mitigation obligations for eligible facilities sited after July 25, 2021 that receive allowances under RCW 70A.65.110, and limit the mitigation metric to mass-based PM tonnage increases within the identified community or modeled receptor concentration increases *attributable to the facility*. Ecology should allow off-site, locally-targeted mitigation (e.g., verified in-community PM reduction programs) where equivalent reductions are demonstrated, and should not require net-zero ambient increases unless shown feasible and proportionate.

Ecology should clarify its intent for section 173-448-110. In accordance with 70A.65.020(3), it should apply only to particulate matter for the specific newly sited sources that require mitigation.

It is important to provide clarity and to align the rule with the statute and existing programs.

8. Inclusion of technical evidence

Community engagement is listed as potentially a standalone basis for identifying contributors, which is non-scientific if used alone. Such an approach could drive regulatory action without technical substantiation.

Ecology should require community input to be considered together with quantified evidence (monitoring, emissions inventories, modeling). Ecology should document how community input influenced determinations and require objective corroboration before listing a regulated source as a greatest contributor or high priority emitter.

The proposed rule should also include a requirement for the Department to publish how community input was used in determinations and provide all stakeholders, including regulated

¹ In addition, section 110 erroneously refers to "criteria pollutants" in (2)(b) rather than particulate matter (PM).



entities, with access to the data and analyses that Ecology used to evaluate those inputs before any decisions about facility requirements or designations under the rule.

Giving important weight to technical considerations preserves the value of community input while requiring scientifically defensible action.

We request that Ecology conduct a targeted economic impact analysis for the rule when proposed, covering capital costs, operation and maintenance costs, and potential production impacts for EITE facilities regulated under the CCA.

We also request that Ecology include language about Confidential Business Information (CBI), data access, and dispute resolution. This includes clear procedures for how Ecology will treat proprietary emissions calculations, engineering designs, and economic data; a confidential submission process; and a defined dispute resolution pathway for contested cases.

We look forward to continued engagement with Ecology as it proceeds with rulemaking.

Respectfully submitted,

A handwritten signature in black ink that reads "Kathryn Moxley".

Kathryn (Katie) Moxley
Director, Remediation, Due Diligence, and Environmental & Chemical Policy
Global Enterprise Sustainability
The Boeing Company