

Appendix A. Correspondence

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DEPARTMENT OF ECOLOGY

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June 2, 2011

Mr. Dennis J. McLerran
Regional Administrator
U. S. Environmental Protection Agency, Region 10
1200 Sixth Avenue, Suite 900
Seattle WA, 98101-3140

RE: National Ambient Air Quality Standard for Sulfur Dioxide – WA State Designations

Dear Mr. McLerran:

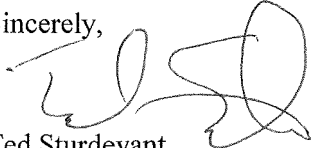
Thank you for your April 4, 2011, letter requesting submission of the state of Washington's recommended designations for the new primary National Ambient Air Quality Standard (NAAQS) for Sulfur Dioxide (SO₂) by June 3, 2011.

On June 3, 2010, the EPA Administrator signed the final rule establishing a new 1-hour primary SO₂ NAAQS of 75 parts per billion (ppb) to protect public health. The rule was published in the Federal Register on June 22, 2010 (75 FR 35520). The Clean Air Act provides each state with an opportunity to recommend designations of attainment (meets the NAAQS), nonattainment (does not meet the NAAQS), or unclassifiable (insufficient information) for all areas of the state.

The Director of the Washington State Department of Ecology has been designated by the Governor with responsibility for the state implementation plan under the Clean Air Act. As the designee of the Governor, I recommend that the entire state of Washington be designated unclassifiable. The state of Washington does not have any ambient monitoring data and air quality modeling analysis that can serve as a basis for designations.

If you have questions about the recommendation, please contact Doug Schneider of my staff at (360) 407-6874 or doug.schneider@ecy.wa.gov.

Sincerely,


Ted Sturdevant
Director

cc: Steve Body, Region 10 EPA
Stu Clark – Ecology, Air Quality Program Manager
Laurie Hulse-Moyer – Ecology, Air Quality Program
Julie Oliver – Ecology, Air Quality Program
Mike Ragan – Ecology, Air Quality Program
Doug Schneider – Ecology, Air Quality Program
Washington Air Quality Managers Group





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10

1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF THE REGIONAL
ADMINISTRATOR

MAR 30 2015

Ms. Maia D. Bellon
Director
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-7600

RECEIVED

APR - 1 2015

DEPARTMENT OF ECOLOGY
OFFICE OF DIRECTOR

Dear Ms. Bellon:

I am writing to update you on the status of the U.S. Environmental Protection Agency's progress in implementing the primary National Ambient Air Quality Standard for sulfur dioxide (SO₂) set in 2010 at 75 parts per billion (ppb) as a 1-hour average. In July 2013, the EPA identified 29 areas in 16 states as non-attainment and expressed the intent to address designations for the remainder of the country in separate future actions.

On March 2, 2015, the U.S. District Court for the Northern District of California accepted as an enforceable order an agreement between the EPA and Sierra Club and Natural Resources Defense Council to resolve litigation concerning the deadline for completing the designations. The court's order directs the EPA to complete designations in three additional rounds: the first round by July 2, 2016, the second round by December 31, 2017, and the final round by December 31, 2020. The EPA will designate areas as either non-attainment, unclassifiable/attainment, or unclassifiable.

In the first round of designations, the EPA will designate two groups of areas: 1) areas that have newly monitored violations of the 2010 SO₂ standard; and 2) areas that contain any stationary source that (as of March 2, 2015) has not been announced for retirement and according to the EPA's Air Markets Database either emitted in 2012 either (a) more than 16,000 tons of SO₂, or (b) more than 2,600 tons of SO₂ and had an emission rate of at least 0.45 pounds SO₂/mmBtu. Enclosed is the schedule we intend to follow to meet the July 2, 2016, deadline.

While there are currently no violating monitors and no sources in your state meeting the criteria established in the court's order for the round of designations that the EPA will complete by July 2, 2016, we are providing you with information and resources that may be of use throughout the entirety of the designations process, including the rounds of designations that the EPA will complete by December 31, 2017, and December 31, 2020. First, the EPA has updated its March 24, 2011, designation guidance for the 2010 SO₂ standard to support analysis of designations and boundaries for these next rounds of designations. Secondly, the EPA has provided two technical assistance documents that provide advice on the use of modeling and monitoring data when determining if an area is meeting or not meeting the 2010 SO₂ standard. Each of these three documents can be found on the EPA's website at <http://epa.gov/airquality/sulfurdioxide/implement.html>. Thirdly, additional information guiding the round of initial designations to be completed by July 2, 2016; including a table of electric power plant sources that exceed the emissions thresholds established in the court's order, a table of the locations where ambient air quality monitors may be recording preliminary violations of the 2010 SO₂ standard, and a table of states and tribes that have a border located within

20 kilometers of a sources in a neighboring state that exceeds those emissions thresholds. See <http://epa.gov/airquality/sulfurdioxide/guidance.html>.

The court's order directs the EPA to complete the second of the next three rounds of area designations by December 31, 2017. These designations would address areas where states have not installed and begun operating a new SO₂ monitoring network meeting the EPA's specifications referenced in our proposed rule titled, "Data Requirements Rule for the 1-Hour SO₂ Primary NAAQS." This rule, which was proposed in the *Federal Register* on May 13, 2014, would direct state and tribal air agencies to provide data to characterize current air quality in areas with large sources of SO₂ if such areas do not have sufficient air quality monitoring in place to identify maximum SO₂ concentrations. The data collected, as a result of this proposed rule, once promulgated and implemented, would be used in the designations process. Lastly, the court's order directs the EPA to designate all remaining areas by December 31, 2020. The EPA will provide states with additional information on the designations process associated with these later deadlines at a later date.

We look forward to continued dialogue with you and your staff as we work together to implement the 2010 SO₂ standard and achieve its intended public health protection. For additional information regarding designations for the 2010 SO₂ standard, please visit our website at www.epa.gov/so2designations. Should you have any questions, please do not hesitate to call me or Steve Body of my staff, at (206) 553-0782 or body.steve@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Dennis J. McLerran", written in a cursive style.

Dennis J. McLerran
Regional Administrator

Enclosure

cc: Mr. Stuart Clark
Air Program Manager
Department of Ecology

Ms. Nancy Pritchett
Department of Ecology

ENCLOSURE

TIMELINE FOR 2010 PRIMARY SO ₂ NAAQS DESIGNATION PROCESS FOR AREAS ASSOCIATED WITH JULY 2, 2016, COURT-ORDERED DEADLINE*	
Milestone	Date**
Court Order	March 2, 2015
Impacted states [and tribes] may submit updated recommendations and supporting information for area designations to the EPA	No later than September 18, 2015
The EPA notifies impacted states [and tribes] concerning any intended modifications to their recommendations (120-day letters)	o/a January 22, 2016, but absolutely no later than 120 days prior to final designations, <i>i.e.</i> , March 2, 2016
The EPA publishes public notice of state recommendations and the EPA's intended modifications and initiates 30-day public comment period	o/a February 3, 2016
End of 30-day public comment period	o/a March 4, 2016
Impacted states [and tribes] provide additional information to demonstrate why an EPA modification is inappropriate	o/a April 8, 2016
The EPA promulgates final SO ₂ area designations (no later than 16 months from Court Order)	No later than July 2, 2016

* The court's order also directs the EPA to promulgate additional rounds of designations by December 31, 2017, and by December 31, 2020.

** o/a = on or about



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January 22, 2016

Kathryn Mitchell
Alcoa Intalco Works
4050 Mountainview Rd.
Ferndale, WA 98248-0937

David Hulse
Alcoa Wenatchee Works
6200 Malaga/Alcoa Highway
Malaga, WA 98828-9784

RE: Status of Alcoa Primary Metals Intalco Works and Alcoa Primary Metals Wenatchee Works regarding compliance with the 2010 1-hour Sulfur Dioxide National Ambient Air Quality Standard and area attainment designation process.

Dear Ms. Mitchell and Mr. Hulse:

Thank you for working closely with us over the last months to help us prepare our responses to the Environmental Protection Agency (EPA) related to the 2010 1-hour Sulfur Dioxide National Ambient Air Quality Standard and area attainment designation process.

In 2010 the Environmental Protection Agency (EPA) established a new 1-hour ambient air quality standard (NAAQS) for sulfur dioxide (SO₂). EPA proposed the Data Requirements Rule (DRR) in 2014 and identified approaches to characterize SO₂ concentrations around large SO₂ emitters. In August 2015 EPA issued the SO₂ DDR, directing how states are to determine whether all areas of a state meet the new SO₂ standard. Under the rule, each state must evaluate ambient air quality impacts from stationary sources with emissions greater than 2,000 tons of SO₂ per year in order to determine the areas' attainment status with the standard. The date by which Ecology must submit its attainment status proposal(s) to EPA will depend on the approach selected by Ecology. EPA will make the final determination of an area's attainment status.



Kathryn Mitchell
David Hulse
January 22, 2015
Page 2


According to the most recent year emissions data we have, Intalco Works and Alcoa-Wenatchee facilities emitted more than 2000 tons of SO₂ and are on the list of sources subject to the DDR requirements. On January 22, 2016, Ecology notified EPA which sources Ecology will further evaluate per the requirements of the 2015 rule. A copy of the letter sent to EPA is enclosed for your records.

By July 1, 2016, Ecology must inform EPA, whether the air quality around each identified source will be evaluated through ambient monitoring, through air quality modeling, or whether Ecology and the source's owner have agreed to new emission limit(s) that will keep the source(s) emissions below the rule's 2,000 tons per year threshold. Alcoa approached Ecology requesting the monitoring approach for the two facilities. Ecology and Alcoa staff have held several meetings to identify requirements, costs, and technical specifications for both the modeling and monitoring approaches.

Ecology will continue working closely with you to identify any pertinent information, and will fully and carefully consider the collected information when determining which approach the agency will use. We will notify you once the decision is made.

If you have any questions, please contact Anya Caudill at Anya.Caudill@ecy.wa.gov or (360) 407-6630 or Al Newman at Alan.Newman@ecy.wa.gov or (360) 407-6810.

Sincerely,



Stuart A. Clark, Manager
Air Quality Program

Enclosure

cc: Garin Schrieve, Ecology



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January 22, 2016

Janis Hastings, Associate Director
Office of Air, Waste and Toxics
U.S. EPA Region 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

RE: A list of large sources of sulfur dioxide (SO₂) emissions in Washington State to be evaluated for determining attainment status for the 2010 1-hour SO₂ National Ambient Air Quality Standard.

Dear Ms. Hastings:

Pursuant to EPA's Data Requirements Rule for the 2010 1-Hour SO₂ Primary National Ambient Air Quality Standard (NAAQS), published on August 21, 2015, the Washington State Department of Ecology (Ecology) submits to the EPA a list of the SO₂ emissions sources in Washington State that exceeded the 2,000 tons per year (tpy) threshold during the most recent representative year.

The Data Requirements Rule directs states to characterize current air quality in areas with sources of sulfur dioxide (SO₂) emissions that exceed 2,000 tpy to identify maximum 1-hour SO₂ concentrations in ambient air. Ecology identified three facilities that emitted more than 2,000 tpy of SO₂ emissions in 2014. These facilities are:

Facility Name	Lat	Long	FIPS	2014 SO ₂ (Tons)	County
Alcoa Primary Metals Intalco Works	48.84699	122.70589	53073	4,794	Whatcom
Alcoa Primary Metals Wenatchee Works	47.35847	120.13121	53007	2,935	Chelan
TransAlta Centralia Generation, LLC	46.7558	122.8565	53041	3,037	Lewis

For each source on the list, Ecology will notify EPA by July 1, 2016, whether:

- It will characterize air quality through ambient monitoring or air quality modeling or,
- Ecology and the source's owner have agreed to new emission limit(s) that will keep the source(s) emissions below the rule's 2,000 tons per year threshold.

The approach identified by Ecology for each source and its associated area will determine the submittal and timing requirements for determining compliance status with the 2010 1-hour SO₂ NAAQS. Ecology will use this information to provide recommendations to EPA on the area's attainment status. EPA will make the final determination on whether the area attains the standard.

If you have any questions about the listed sources, please contact Anya Caudill at Anya.Caudill@ecy.wa.gov or 360-407-6630.

Sincerely,



Stuart A. Clark, Manager
Air Quality Program

cc: Debra Suzuki, EPA Region 10
Uri Papish, Southwest Clean Air Agency
Mark Asmundson, Northwest Clean Air Agency
Maia D. Bellon, Director
Garin Schrieve, Ecology



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May 3, 2016

Kathryn Mitchell
Alcoa Intalco Works
4050 Mountainview Rd.
Ferndale, WA 98248-0937

David Hulse
Alcoa Wenatchee Works
6200 Malaga/Alcoa Highway
Malaga, WA 98828-9784

RE: Monitoring approach for evaluating Alcoa Primary Metals Intalco Works and Alcoa Primary Metals Wenatchee Works compliance with the 2010 1-hour Sulfur Dioxide National Ambient Air Quality Standard.

Dear Ms. Mitchell and Mr. Hulse:

Thank you for working closely with us on determining the preferred approach for evaluating sulfur dioxide (SO₂) levels in the area around Alcoa's two facilities in Washington. As we discussed at the meeting on April 14th, this letter provides written notice of Ecology's decision to use an ambient monitoring approach to determine each area's compliance with the 2010 1-hour SO₂ National Ambient Air Quality Standard (NAAQS).

In our January 22, 2016 letter, we notified you that Ecology identified these two facilities as subject to the Environmental Protection Agency (EPA) 2015 SO₂ Data Requirements Rule (DRR). EPA concurred with Ecology's determination on March 21, 2016. The next key milestone for purposes of DRR implementation is July 1, 2016. Ecology must notify EPA about the approach (air quality modeling, ambient monitoring, or establishment of a federally enforceable emission limit) it will use to characterize air quality in the respective area of each listed source by this date.

Alcoa approached Ecology in 2014 requesting the monitoring approach for the two facilities. Ecology and Alcoa staff held several meetings to identify requirements, costs, and technical specifications for both the modeling and monitoring approaches. After extensive consultations with your staff, Ecology has made the decision to pursue a monitoring approach for both facilities. Ecology's decision is contingent upon Alcoa's continued commitment to install and operate the necessary ambient air quality monitoring equipment at the identified monitoring sites per Ecology's specifications, and to reimburse Ecology for the support and oversight the monitoring approach

Kathryn Mitchell
David Hulse
May 3, 2016
Page 2

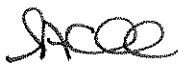
requires. Ecology will work with Alcoa to draft the details of this arrangement in an Agreed Order and a separate cost-reimbursement contract ensuring Alcoa's ambient SO₂ monitoring operations adhere to all Ecology and federal requirements.

The monitors must be fully operational by January 1, 2017. EPA will use the monitoring data collected during 2017, 2018, and 2019 to determine each area's SO₂ NAAQS attainment status or for other actions to ensure protection to the public from the short-term health effects associated with exposure to SO₂ concentrations that exceed the NAAQS. Under the consent decree approved by the Court on March 3, 2015¹, EPA must designate the areas with operational monitoring networks by December 31, 2020. Those undesignated areas that do not have operational SO₂ ambient monitoring networks must be designated by December 31, 2017.

Ecology will include relevant information about the identified SO₂ monitoring network in the agency's Annual Monitoring Network Plan required by 40 CFR 58.10 and due to EPA by July 1, 2016. Ecology will provide an opportunity for the public to review the plan before submitting it to EPA. Ecology expects to open the public comment period on this plan no later than the end of May. EPA will issue a final determination on the number and location of the SO₂ monitors for each facility. Once approved, Alcoa must operate the SO₂ ambient monitors continually until approved for shut down by EPA.

If you have any questions, please contact Anya Caudill at Anya.Caudill@ecy.wa.gov or (360) 407-6630 or Al Newman at Alan.Newman@ecy.wa.gov or (360) 407-6810.

Sincerely,



Stuart A. Clark, Manager
Air Quality Program

cc: Garin Schrieve, Ecology

¹ On March 3, 2015 the US District Court, Northern District of California (Court) approved a consent order proposed by the Sierra Club and the Natural Resources Defense Council (NRDC) requiring the EPA to meet mandatory deadlines for issuing designations relative to attainment of the SO₂ 1-hour NAAQS for all areas of the nation.



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June 28, 2016

Janis Hastings, Associate Director
Office of Air, Waste, and Toxics
U.S. EPA Region 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

RE: Identifying approach to evaluating levels of sulfur dioxide (SO₂) air pollution around three facilities in Washington State.

Dear Ms. Hastings:

In January 2016, Washington State Department of Ecology (Ecology) identified three large sources of SO₂ emissions in Washington as subject to EPA's Data Requirements Rule for the 2010 1-Hour SO₂ Primary National Ambient Air Quality Standard (NAAQS). Under the rule, Ecology must characterize the area around the sources, using either monitoring or modeling approach, for determining whether the area attains the 2010 SO₂ NAAQS.

In March 2016, EPA concurred with the Ecology's proposed list of sources for evaluation. The table below specifies which approach Ecology will use to characterize the SO₂ concentrations around each of the three facilities.

Facility Name	Lat	Long	FIPS	County	Monitoring or Modeling?
Intalco Aluminum Corporation (Formerly Alcoa Primary Metals Intalco Works)	48.84699	122.70589	53073	Whatcom	Monitoring
Alcoa Wenatchee LLC (Formerly Alcoa Primary Metals Wenatchee Works)	47.35847	120.13121	53007	Chelan	Monitoring
TransAlta Centralia Generation, LLC	46.7558	122.8565	53041	Lewis	Modeling

Ms. Janis Hastings
June 28, 2016
Page 2

For the two aluminum smelters, Ecology proposes to add new SO₂ ambient air monitors to the state network. Ecology will provide details about the number and location of the new SO₂ monitors in the 2016 Ambient Air Monitoring Network Report. Ecology will submit the report to EPA following the public comment period on or before July 1, 2016. Ecology appreciates Region 10 staff time and participation in the preliminary discussions and review of the proposed monitoring site locations.

Attached to this letter is the modeling protocol Ecology intends to use for modeling concentrations of SO₂ in the ambient air around TransAlta Centralia power plant. We are submitting this modeling protocol to you for your approval.

Ecology will use the modeling and monitoring results to develop recommendations to EPA on whether each area attains the SO₂ standard. For non-monitored areas, Ecology intends to submit its recommendation to EPA ahead of the January 13, 2017 deadline. Ecology will provide its recommendation to EPA for the monitored areas around the smelters after we collect three years of monitoring data (2017 – 2019).

If you have any questions about this letter, please contact Anya Caudill at anya.caudill@ecy.wa.gov or 360-407-6630.

Sincerely,

A handwritten signature in blue ink that reads "Stuart A. Clark".

Stuart A. Clark, Manager
Air Quality Program

Enclosure: Modeling Protocol

Scanned copy of the letter emailed to:

Debra Suzuki, EPA Region 10
Uri Papish, Southwest Clean Air Agency
Mark Asmundson, Northwest Clean Air Agency
Maia D. Bellon, Director
Garin Schrieve, Ecology
David Nicol, EH&S Manager, TransAlta Centralia Generations LLC
Kathryn Mitchell, Intalco Alcoa Environmental Manager
David Hulse, Alcoa Wenatchee Environmental Manager



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August 9, 2017

Michelle L. Pirzadeh (Acting Regional Administrator)
U.S. EPA Region 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101

RE: Washington State Area Designation Recommendation for the 2010 One-hour Sulfur Dioxide NAAQS

Dear Ms. Pirzadeh:

As the Governor's designee for the Washington State Implementation Plan (SIP) for air quality, I hereby submit an update to the 2011 Washington State area designation recommendation for the 2010 one-hour Sulfur Dioxide (SO₂) National Ambient Air Quality Standard (NAAQS). The enclosed recommendation includes the technical analysis supporting our recommendations, an overview of our public involvement process and our response to comments.

In August 2016, the Environmental Protection Agency (EPA) clarified in rule how states were to characterize SO₂ levels to determine an area's compliance status.

In accordance with the rule and the federal Clean Air Act, the Department of Ecology (Ecology) recommends two counties as attainment, 34 counties as attainment/unclassifiable and makes no recommendation for three counties where ambient monitoring is still in process.

Ecology identified three facilities in Washington that emitted more than 2,000 tons of SO₂ in 2014: two aluminum smelters and one coal-fired power plant.

Facility Name	2014 SO ₂ (Tons)	County
Intalco Aluminum LLC. (previously Alcoa Primary Metals Intalco Works)	4,794	Whatcom
Alcoa Primary Metals Wenatchee Works	2,935	Chelan/Douglas
TransAlta Centralia Generation, LLC	3,037	Lewis

Ecology and the EPA approved requests from the two aluminum smelters to install new SO₂ ambient air quality monitoring networks around the plants. The monitoring equipment began operation by January 1, 2017 as required in 40 C.F.R. 51.1203(c)(2). Once we collect and analyze three years of monitoring data (2017-2019), we will provide a designation recommendation to the EPA for all three counties.

Ecology modeled ambient SO₂ levels surrounding TransAlta's coal-fired power plant in Lewis County and provided the modeling analysis to the EPA in January 2017. Based on the results of the analysis and emissions inventory data, Ecology recommends designating Lewis and Thurston counties as attainment.



Michelle L. Pirzadeh
August 9, 2017
Page 2

Ecology recommends designating the rest of the state (34 counties), as attainment/unclassifiable based on available emissions inventory data, absence of large SO₂ facilities, and high likelihood of the areas attaining the standard.

The table below summarizes Washington State designation recommendation:

Washington State Counties – Designation Recommendations					
Attainment	Attainment / Unclassifiable				No Recommendation
Lewis Thurston	Adams Asotin Benton Clallam Clark Columbia Cowlitz Ferry Franklin	Garfield Grant Grays Harbor Island Jefferson King Kitsap Kittitas Klickitat	Lincoln Mason Okanogan Pacific Pend Oreille Pierce San Juan Skagit Skamania	Snohomish Spokane Stevens Wahkiakum Walla Walla Whatcom Whitman Yakima	Chelan Douglas Whatcom

Ecology followed all state and federal procedural requirements for soliciting public review and comments on this proposal. We posted a notice for public comment and a hearing notice.

Ecology held a comment period from April 26, 2017 to May 26, 2017. We did not hold a hearing because we did not receive a request for one. We received two comments. We did not receive opposing comments. Along with the technical analysis supporting our recommendations, the enclosed document includes our response to comments, copies of the comments, and public involvement notices.

If you have any questions, please contact Anya Caudill at Ecology. Anya can be reached at Anya.Caudill@ecy.wa.gov or (360) 407-6630.

Sincerely,



Maia D. Bellon
Director

Enclosure: Washington State Area Designation Recommendation for the 2010 One-hour Sulfur Dioxide National Ambient Air Quality Standard

cc: Mark Asmundson, Northwest Clean Air Agency
Anya Caudill, Ecology (for records file)
Keith Hurley, Yakima Region Clean Air Agency
Craig Kenworthy, Puget Sound Clean Air Agency
Fran McNair, Olympic Region Clean Air Agency
Julie Oliver, Spokane Clean Air Agency
Uri Papish, Southwest Clean Air Agency
Robin Priddy, Benton Clean Air Agency
Garin Schrieve, Ecology Debra Suzuki, EPA Region 10



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August 7, 2018

U.S. Environmental Protection Agency
EPA Docket Center
Attention Docket ID No. EPA-HQ-OAR-2013-0566
1200 Pennsylvania Avenue, NW
Washington, DC 20460

To Whom It May Concern:

Washington State Department of Ecology (Ecology) appreciates the opportunity to comment on the U.S. Environmental Protection Agency's (EPA) proposed decision to retain the primary National Ambient Air Quality Standards (NAAQS) for sulfur oxides (SO_x) published in the Federal Register on June 8, 2018 (83 FR 26752).

Ecology is the state regulatory agency overseeing development of State Implementation Plans and carrying out strategies to ensure Washington meets all NAAQS. Ecology was actively involved in discussions and comments leading to the establishment of the primary 1-hour SO_x NAAQS in 2010.

In the proposed rule, EPA states that based on its review of health effects evidence and quantitative information, "the Administrator proposes to conclude that the current primary SO₂ standard is requisite to protect public health, with an adequate margin of safety, from effects of SO_x in ambient air and should be retained, without revision."¹ EPA lays out reasonable rationale to retain the existing averaging time, form, and level of the SO₂ standard. Ecology supports this proposal.

Ecology encourages EPA to continue its commitment to timely review of the most recent scientific evidence to establish NAAQS that protect public health and welfare, as well as the agency's reliance on advice from Clean Air Scientific Advisory Committee.

Subsequent NAAQS reviews informed by the latest health effects research may decrease the uncertainty surrounding health effects at lower levels and support a more stringent standard in the future. Based on the research and comments provided for the 2010 standard, Ecology encourages EPA to continue investigating the need for a new 24-hour standard in a not-to-be

¹ *Review of the Primary National Ambient Air Quality Standards for Sulfur Oxides, Proposed Action*, U.S. Environmental Protection Agency (June 8, 2018), p. 26,753 – <https://www.gpo.gov/fdsys/pkg/FR-2018-06-08/pdf/2018-12061.pdf>, p. 26,754

August 7, 2018

Page 2

exceeded format to protect against multiple high exposures in a day. Because of asthmatics' sensitivity to SO₂, a one-hour standard alone may not be sufficiently protective. Given the extensive scientific evidence of SO₂'s adverse health effects and CASAC's recommendations in 2009, EPA should consider a new 24-hour standard to protect against multiple high level exposures in a single day.

Additionally, Ecology would like to bring to the EPA's attention that delays and uncertainties in implementing the 2010 SO₂ NAAQS potentially undermined the intended protective nature of the standard and health impacts prevention. The intent of the Clean Air Act is to ensure that areas are evaluated and designated within three years of EPA promulgating a new standard so the states can address any problematic areas as expeditiously as practicable. In 2010, EPA anticipated that all states would be in attainment of the 2010 SO₂ NAAQS by 2017. This did not occur, unfortunately.

We encourage EPA to take all necessary steps within its control to prevent any delays in implementing the NAAQS. Public health should not be compromised by delayed implementation of health-based standards.

Thank you for the opportunity to provide comments on this proposal.

Sincerely,

A handwritten signature in black ink, appearing to read "Stuart A. Clark". The signature is fluid and cursive, with the first name "Stuart" and last name "Clark" clearly distinguishable.

Stuart A. Clark
Air Quality Program Manager



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

*Northwest Regional Office • 3190 160th Avenue SE • Bellevue, Washington 98008-5452 • (425) 649-7000
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April 30, 2019

The Honorable Jon Mutchler, Mayor
City of Ferndale
PO Box 936
Ferndale, WA 98248

Re: Sulfur Dioxide Air Quality Monitoring

Dear Mayor Mutchler:

I am writing to inform you that the Washington Department of Ecology (Ecology) has measured elevated levels of sulfur dioxide (SO₂) in the air near the Alcoa Intalco Works (Intalco) aluminum smelter near Ferndale.

In 2010, the U.S. Environmental Protection Agency strengthened the national ambient air quality standard for sulfur dioxide, a common form of air pollution, due to studies showing impacts to human health at lower levels. Based on this new federal standard, Ecology has been collecting additional air quality data on major sources of SO₂ emissions in Washington State to ensure compliance. The only area in our state that may have problems meeting the national standard is downwind of the Intalco aluminum smelter.

Pursuant to our delegated authority under the federal Clean Air Act, Ecology is responsible for regulating air emissions from Intalco. Ecology and Intalco agreed on the need to collect additional data on potential air quality impacts around the facility, and located two new SO₂ monitors in the area in 2016. Since 2017, those monitors have recorded SO₂ readings above the new national standard at certain times of the year.

Breathing elevated levels of SO₂ causes inflammation and tightening of airways, and can trigger asthma symptoms. SO₂ typically dissipates very quickly, but people living or working close to the plant may have been exposed to short-term levels that pose a risk to those with preexisting breathing or health issues. At this time, Ecology has no evidence that elevated levels of SO₂ have reached Ferndale or other nearby communities.

Ecology and Intalco are discussing steps to reduce SO₂ emissions at the smelter. However, based on measurements from the past two years, we expect the high SO₂ readings to trigger

The Honorable Jon Mutchler, Mayor

April 30, 2019

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additional federal air quality requirements that could affect other local industries and nearby communities.

While Intalco's air emissions are regulated by Ecology, Northwest Clean Air Agency covers most other aspects of air quality in the region. Ecology is committed to working collaboratively with the Northwest Clean Air Agency to address SO₂ levels and protect air quality. In the weeks and months ahead, the two agencies will provide the public with information on SO₂ pollution in the area and work with Intalco to create a plan to reduce emissions. We have additional information on our website at www.ecology.wa.gov/sulfurdioxide.

Please let me know if our staff can answer any questions for you. I can be reached at (425) 649-7010 or by email at thomas.buroker@ecy.wa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tom Buroker", with a stylized flourish at the end.

Tom Buroker
Regional Director

ecc: Stu Clark, Air Quality Program Manager, Ecology

Focus on Air Quality: Douglas and Chelan Counties Meet Federal Standard for Sulfur Dioxide



More information

[Sulfur Dioxide Designations](#)

Contact information

Anya Caudill
360-791-5499
Anya.Caudill@ecy.wa.gov

Public Comment Period

May 15 – June 24

[Submit comments online](#)

Or, mail your comment to:

Anya Caudill,
Washington State Department
of Ecology, Air Quality Program,
P.O. Box 47600,
Olympia, WA 98504-7600

To request a public hearing,
[email Anya Caudill](#) by **June 16**.

If we get a hearing request, we will
hold it online at **6 p.m. June 22**.
We will post the registration link
to [Ecology's Public Issues and
Events page](#).

Air quality recommendation: Douglas and Chelan counties attain federal standard for sulfur dioxide

The Washington State Department of Ecology has reviewed air quality data and determined that Douglas and Chelan counties meet the 2010 one-hour sulfur dioxide (SO₂) national ambient air quality standard (NAAQS).

Ecology seeks public review and comment on our recommendation to U.S. Environmental Protection Agency (EPA) to designate these two counties “in attainment / unclassifiable” of the SO₂ NAAQS. This means that they comply with the federal standard. “Unclassifiable” designation acknowledges that we do not have monitoring data for all areas in the two counties, however, there are no sources of SO₂ pollution to likely cause exceedances of the standard.

EPA established a new health-based NAAQS for SO₂ on June 22, 2010. Elevated levels of SO₂ pollution are irritating to the upper airway, can cause inflammation and tightening of the airway, and can trigger or exacerbate asthma symptoms.

Under the federal Clean Air Act, when EPA establishes a new standard states must evaluate their compliance with it. The Clean Air Act provides each state the opportunity to recommend areas of the state be designated as in attainment (meaning that they meet the NAAQS), nonattainment (meaning that they do not meet the NAAQS), or as being unclassifiable (meaning there is

insufficient data for the area). EPA often uses a designation of attainment/unclassifiable for areas that do not have significant SO₂ emitters and therefore do not require monitoring.

EPA will review the monitoring and emissions data and feedback from the state before making a final decision as to whether the area is in compliance with the standard. EPA is required to designate these areas by Dec. 31, 2020. EPA will hold a public review and comment period in the fall of 2020, prior to finalizing their decision. You may visit [EPA's web page for Sulfur Dioxide Designations](#).

Sulfur dioxide monitoring

As part of updating the SO₂ standard, EPA required states to conduct additional investigation of air pollution near facilities that emit 2,000 tons or more of SO₂ a year. The Alcoa Primary Metal Works Wenatchee (Alcoa), an aluminum smelter in Chelan County, on the border with Douglas County, met this criterion.

Based on emissions in previous years and prevailing winds, Ecology identified where models predicted the highest SO₂ levels to place the monitoring site. Ecology outlined the siting of the new monitor (Malaga site) in the [2016 Annual Ambient Air Monitoring Network Plan](#) and solicited public comments in May-June 2016, before submitting the plan to EPA.

Even though the facility announced curtailment of its operations in 2016, EPA required Ecology to begin monitoring the SO₂ levels near Alcoa starting in January 2017. Curtailment is different than shut down, and the facility continues to maintain its permit and must demonstrate compliance with the standards.

2017-2019 SO₂ monitoring results

An area is in attainment when a 3-year average of the fourth-highest annual, 1-hour daily maximum levels of SO₂ at a monitoring site is equal or less than 75 parts per billion (ppb). This 3-year, averaged metric is called a "design value." The lower the site's design value, the cleaner the air.

For 2017-2019, Ecology calculated the design value at a monitoring site in Chelan County, near the border with Douglas County, at 1 ppb. Because Alcoa curtailed the facility, the monitoring found very low levels of SO₂. Specifically, the yearly 99th percentiles were: 2017 – 1.1 ppb; 2018 – 1.2 ppb; and 2019 – 1.0 ppb. The design value of 1 ppb is substantially below the standard's 75 ppb. The design value indicates that the area is attaining the standard.

EPA will review the monitoring data and publish an EPA-approved design value for each monitoring site sometime in July 2020, after which the public can review them.

Other SO₂ sources in the counties

There are no other industrial sources of SO₂ in Chelan County. In Douglas County, Ecology permits SO₂ emissions from the Greater Wenatchee Regional Landfill & Recycling Center. Its annual SO₂ emissions between 2011 and 2017 averaged 4.8 tons, with a maximum of 6.2 tons in 2016. This is well-below EPA's threshold of 2,000 tons of SO₂ emissions a year for SO₂ evaluation, and is unlikely to cause SO₂ levels above the standard.

Between the low design value at the Malaga monitoring site and only one other SO₂ source in the two counties that emits small amounts of SO₂ a year, Ecology has no evidence to suspect any area in the two counties to be in violation of the SO₂ standard.

Background

In 2011, Washington recommended that EPA designate all areas in the state as unclassifiable due to insufficient SO₂ data to determine attainment status. EPA did not proceed with designating the areas at that time. Instead, on Aug. 21, 2015, EPA issued a Data Requirements Rule (DRR), directing states to collect additional SO₂ data to assist EPA in determining how each area meets the standard.

Under the DRR, EPA established several ways and schedules for the states to carry out SO₂ evaluations through a process of four rounds of designations. Washington areas met criteria for review in the third and fourth round of designations.

In December 2017, EPA completed the third round of designations, in which it designated 36 out of 39 Washington counties as either in attainment / unclassifiable or unclassifiable. You may review the EPA's decision in this [Technical Support Document](#).

The three remaining counties, Chelan, Douglas and Whatcom, are a part of the fourth round of designations, in which EPA will evaluate the SO₂ monitoring data collected over the three-year period of 2017-2019. The monitoring sites are located downwind of the two largest SO₂ sources in the state: Alcoa Primary Metals Wenatchee Works in Chelan County near the border with Douglas County, and Intalco Aluminum LLC in Whatcom County.

Chelan and Douglas counties are in the eastern part of the state, and Whatcom County is in the western part of the state. Due to geographic and jurisdictional differences between the remaining two areas, this recommendation only applies to Chelan and Douglas Counties.

Questions

Media inquiries: Andrew Wineke by email at Andrew.Wineke@ecy.wa.gov or call 360-791-1939.

To request ADA accommodation, contact Ecology's ADA Coordinator by email at ecyadacoordinator@ecy.wa.gov, or call 360-407-6831, 711 (relay service), or 877-833-6341 (TTY). More about our [accessibility services](#).

En Español

El Departamento de Ecología del estado de Washington revisó los datos de calidad del aire y determinó que los condados de Douglas y Chelan cumplen con la norma nacional de calidad del aire ambiente del 2010 para el dióxido de sulfuro (SO₂) en una hora. Ecología recomienda que los dos condados sean designados en logro/sin clasificación para esta norma, es decir, que están en conformidad. Invitamos al público a revisar y a comentar sobre la recomendación propuesta a la EPA (por sus siglas en inglés). Para más información, visite [la página web para las designaciones de dióxido de sulfuro](#).

Periodo de Comentario Público: 15 de mayo al 24 de junio

- [Someta sus comentarios en línea](#)
- O envíe sus comentarios por correo a: Anya Caudill, Washington State Department of Ecology, Air Quality Program, P.O. Box 47600, Olympia, WA 98504-7600

Para solicitar una audiencia pública sobre esta recomendación, [envíe un correo electrónico a Anya Caudill](#) a más tardar el **16 de junio**. Si se solicita una audiencia, la conllevaremos en-línea a las 6 p.m. el 22 de junio. El enlace para registrarse se publicará a [la página de Ecología de Asuntos Públicos y Eventos](#).