



March 20, 2018

Ms. Elena Guilfoil
Air Quality Program
Washington Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

Re: NWPPA comments on Proposed SSM Rulemaking – Ch. 173-400 WAC

Dear Ms. Guilfoil:

Presented in this letter are comments prepared by the Northwest Pulp & Paper Association (NWPPA) on proposed revisions to Ch. 173-400 WAC (WSR 18-04-085, February 5, 2018). Thank you for your extensive outreach to our industry to educate us, and then to listen and learn of our interests with the topics of this rule-making.

The presentation format for these comments will identify a specific regulation section, articulate the requested change or provide a statement in support of the rule revision, and then present the rationale for the request.

WAC 173-400-030 Definition of “Alternative emission limitation” – The proposed rule language implies an ability to customize an AEL to accommodate unique features of a production process, emission unit, control technology, etc., at a facility. NWPPA supports this rule language and requests that Ecology confirm this regulatory intent to support customized AELs.

Comment/Support - The Washington pulp and paper industry and wood products facilities encompass a wide variety of manufacturing technologies, with both common and sometimes unique emission units and control technologies, of various ages and performance capabilities, and emission profiles. Creating a regulatory mechanism to design an AEL to account for operation- or emission unit-specific features is reasonable and necessary.

WAC 173-400-030 Definition of “Alternative emission limitation”

Comment/Support – At various locations in this proposed rule, the term “Alternative emission standard” is used (see -040(2)(d) or -040(2)(f), as examples). We assume AEL and AES are synonymous, in which case it would be best to use a common term throughout the regulation.

WAC 173-400-030 Definition of “Industrial furnace” – It appears the only use of the term “Industrial furnace” occurs in WAC 173-400-040(2)(f) where provision for an alternative emission standard during furnace refractory curing is addressed. The reference in the proposed “Industrial furnace” definition is to 40 CFR 260 “Hazardous Waste Management System.”

Comment/Support – The 40 CFR 260 definition offers a broad list of devices that use thermal treatment to accomplish recovery of materials or energy. It seems odd to inject a definition from an EPA hazardous waste regulation into WAC 173-400. Any association of “hazardous waste” with 40 CFR 63, Subpart DDDDD emission units could create perception problems and maybe unintended regulatory outcomes. Instead of referencing the 40 CFR 260 list, perhaps it could simply be presented in full in the Industrial Furnace definition.

WAC 173-400-030 –Ecology should support and encourage consistency of startup and shutdown definitions with federal use of Startup/Shutdown provisions.

Comment/Support – Washington pulp and paper mills are subject to federal NSPS and NESHAPs regulations, which offer other definitions of startup and shutdown. See, for example, 40 CFR 63 [Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters](#). These varied definitions, each with a traditional meaning and regulatory history, have some potential to create confusion and disagreements as the terms are applied and different definitions are used for the same unit (for example, in ascertaining when an excess emission has occurred, or the characterization of an excess emission, or in the notification/reporting obligations for these events).

WAC 173-400-030 Definitions of “Hog fuel” and “Wood-waste” – Various definitions of these terms exist in federal/state regulation, and across other regulatory programs. Characterizing wood-derived fuels as “solid waste” stigmatizes these valued materials and risks unnecessary/unintended regulatory attention. This revision of WAC 173-400 provides the opportunity to update the rule with precise and consistent terminology.

Comment/Support – Consider the inconsistent characterization of wood fuels as solid waste in just these five regulatory sections:

WAC 173-400-030 “Wood-waste” means “solid waste that consists of wood pieces or particles generated as a by-product from the manufacturing of wood products, and the handling and storage of raw materials, trees, stumps. This includes ...”.

WAC 173-400-030 “Hog fuel” means wood-waste that is reduced in size to facilitate burning.

40 CFR 63 Subpart DDDDD—[National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters](#)

uses the term “Biomass or bio-based solid fuel means any biomass solid fuel that is not a solid waste. This includes, but is not limited to, wood residue; wood products (e.g., trees, tree stumps, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings, and shavings); ...”.

40 CFR 241 *Identification of Non-Hazardous Secondary Materials that are Solid Wastes When Used as Fuels or Ingredients in Combustion Units* includes very long and detailed definitions of “Clean cellulosic biomass”, “Construction and demolition (C&D) Wood”, “Paper recycling residuals”, “Resinated wood”, and “Traditional fuels.” Despite the name of this regulation, it specifically identifies Secondary Materials that are not classified as Solid Waste, and these include the biomass-derived fuels.

Proposed WAC 173-350-021 *Determination of Solid Waste* – The Department of Ecology is proposing new language in the state Solid Waste Management Regulation to clarify what qualifies as a solid waste. In subsection -021(3) criteria are proposed to delineate what will not be considered a solid waste. It is not premature to note that pulp and paper mill management/use of those fuel types described as hog fuel, wood-waste, biomass of bio-based solid fuel, clean cellulosic biomass, etc., will not be classified as “solid waste” (and thus avoiding regulation by WAC 173-350), if certain, easily demonstrated, material management practices are followed.

The current rule-making presents an opportunity to work toward consistency of terms/meaning, and to modernize the regulatory language in WAC 173-400. Given that most wood fuel-fired units in Washington are subject to the NESHAP and RCRA requirements it makes sense to draw closer to that rule language. The terms, definitions, conditions, requirements, etc., in these rules encompass modern regulatory judgments on all aspects of combusting fuels and pollutant emission control/air quality protection. More specifically, NWPPA suggests the terms “Wood-waste” and “Hog fuel” be removed from the rule. While it would be cumbersome to reference the federal regulatory requirements into WAC 173-400-030, -040, and -070, perhaps a simple hybrid approach would be to utilize a new term and definition in place of wood-waste and hog fuel. We suggest the following.

“Biomass or bio-based solid fuel” is fuel that consists of wood pieces or particles generated as a by-product from the manufacturing of wood products, and the handling and storage of raw materials, trees, and stumps. This includes, but is not limited to, sawdust, chips, shavings, bark, pulp, log sort yard material, effluent treatment solids, and non-hazardous secondary materials used as fuel in a combustion unit as approved by the Environmental Protection Agency through provisions of 40 CFR 241.

WAC 173-400-035(5)(a) and (b) – Ecology should recognize the needed demonstration of NAAQS compliance associated with short-term, emergency use of non-road engines can be confidently based on a regulatory and engineering judgment. In a time-constrained emergency situation, this will shorten the review time to receive the necessary written approval to proceed with non-road engine use.

Comment/Support – Unexpected/emergency events occasionally occur at pulp and paper facilities which require use of non-road engines. “Time will be of the essence” in re-establishing an adequate electricity supply. (As an example, consider a mill-wide electrical outage coupled with a continuing need for electricity to operate wastewater treatment system components.) A rule requirement at subsection -035(5)(a)(i) is to submit sufficient information to demonstrate attainment of NAAQS. This demonstration is a pre-requisite to obtaining the -035(5)(b) written agency approval. The subsection -035(8) provision allowing the permitting authority up to 15 days to complete a notice of intent review is unworkable in an emergency situation.

Emergency reliance on non-road engines will be short duration, and usually a matter of a few days. (Note that longer operational periods would trigger new source permitting as a stationary source.) The NAAQS’s of regulatory interest for the subsection -035(5)(a) review are the 1-hour, 3-hour or daily criteria pollutant standards for CO, SO₂, NO_x and PM_{2.5}. The regulatory structure of these ambient air quality standards is based on the 3-year average of the 98th (or 99th for sulfur dioxide) percentile of daily maximum measured values. Please consider:

- The 1-hour SO₂ standard is based on the 3-year average of the 99th percentile of daily maximum 1-hour values. Even if we ignore the 3-year averaging, use of the diesel engines for 3 days or less per year precludes concentrations attributable to the engine operation from consideration in a NAAQS analysis. The required use of ultra-low sulfur diesel-content fuel much reduces any possibility of unacceptable ambient air impacts.
- Professional judgement will enable Ecology to conclude that an exceedance of the relatively high ambient CO standards is virtually impossible because CO emissions from non-road engines are low relative to the ambient standards.
- The daily PM_{2.5} standard is based on the 3-year average of the 98th percentile of the daily values. Even if we ignore the 3-year averaging, use of the diesel engines for less than 8 days per year precludes concentrations attributable to the engine operation from consideration in a NAAQS analysis.
- Similarly, the 1-hour NO_x standard is based on the 3-year average of the 98th percentile of daily maximum 1-hour values. Even if we ignore the 3-year averaging, use of the diesel engines for less than 8 days per year precludes concentrations attributable to the engine operation from consideration in a NAAQS analysis.

To be extremely conservative, NWPPA would suggest that non-road engine usages of 3 days per year or less would be recognized as compliant with the literal structure of these short-term

ambient air quality standards. This would be based on a professional judgement and support expeditious permitting agency review and written approval. This reasoning is supported by EPA modeling guidance that discusses modeling of non-road engines. EPA proposes to ignore units that are used less than 500 hours in a year. In addition, other EPA guidance advises that emissions from infrequent startup/shutdown scenarios not be included in short-term NAAQS modeling analyses (1-hour NAAQS Modeling Guidance, US EPA, March 2011. See <http://epa.gov/ttn/scram/guidance/clarification/Additional> Clarifications).

WAC 173-400-040(2)(a)(ii) – Soot Blowing/Grate Cleaning. NWPPA appreciates the proposed provision to accommodate the higher, short-term particulate loading (and thus stack opacity) that might occur during these routine operating conditions.

Comment/Support – We encourage the Department to include this provision in the final rule.

WAC 173-400-040(2)(e)(i) – Words omitted? This subsection appears to be missing the phrase “Permitting authority is notified...”. Without that verbiage, subsections –(2)(e)(i)(A) and (B) lack context.

WAC 173-400-040(2)(e)(i) and (ii) – NWPPA appreciates the development of an Alternative Emission Limit to apply during Startup/Shutdown periods. However, the notification requirements are unnecessarily prescriptive, and this could inadvertently preclude access to the proposed Alternative Emission Limit. The conditions defining startup are too limiting.

Comment/Support – Several comments:

1. -(2)(e)(i) -- What is the reasoning behind specifying “at least twenty-four hours” regulatory agency notice as a criterion for reliance on the AEL? The proposed rule language does not suggest the permitting authority intends to approve/disapprove a facility decision to startup/shutdown a boiler. As such, providing advance notice of boiler operation is a courtesy but with low regulatory oversight value. And why 24-hours as opposed to any other time period? Would a facility lose access to the AEL if a notice was delayed to less than 24-hours before a startup/shutdown? On boiler startup, what is significant about a two-hour notice window? As perspective, we note that proposed WAC 173-400-108(1)(a) proposes a 12-hour timeframe to report excess emissions that potentially threaten human health of safety. Providing notice of a boiler startup is certainly less critical.

Boiler operators and facility environmental professionals have numerous responsibilities during periods of equipment startup or shutdown. Adhering to good air pollution control practices may require attention to priorities other than submitting pro forma notices to a permitting authority within certain time windows. Since the structure of the AEL does not suggest a permitting authority will/must make and announce a regulatory judgment based on the notice information, would it be acceptable to adjust

the specific 24- and 2-hour notice windows from these regulation subsections, and simply require “timely” notices? Here again, if Ecology is amenable NWPPA is certainly willing to help or propose rule language to accomplish a pragmatic notice procedure.

2. -(2)(e)(ii) – Consistent with its definition in WAC 173-400-030, “Startup” should be considered the “setting in operation” of an emission unit. Contrary to -2(e)(ii), boiler Startup begins before “fuel is ignited in the boiler fire box.” As one example, an early boiler startup action is to run the ID fan to purge any explosive gases from ducting, primary collectors, and the ESP or other dry collector. On some occasions particulate has collected on these surfaces and would be exhausted and measured as opacity (the ESP would not have been energized on a cold startup) at >20% for longer than three minutes.

There are certainly boiler unit and control equipment-specific considerations, but the point is that adherence to the -030 “setting in operation” phrasing for reliance on the Startup AEL is superior to “fuel is ignited in the boiler.”

WAC 173-400-040(2)(e)(i)(B) and 173-400-109(4) – Confusing language about shutdowns due to malfunctions, and malfunctions during startups or shutdowns. Proposed 173-400-040(2)(e)(i)(B), which concerns when a boiler operator must report the startup of a boiler after “an unplanned shutdown (i.e., malfunction),” contains a note stating that “A Shutdown due to a malfunction is part of the malfunction.” And 173-400-109(4) says that “Excess emissions that occur due to an upset or malfunction during a startup or shutdown event are treated as an upset or malfunction under subsection (5) of this section.” These statements (aggravated by the fact that there are no definitions in the proposed rule for “malfunction,” “unplanned,” or “upset”) are confusing. Clarification is needed.

Comment/Support –There are planned boiler shutdowns and unplanned boiler shutdowns, and the latter may or may not be caused by a malfunction. (We are not sure whether Ecology intends any distinction between an “upset” and a “malfunction,” so we will just use “malfunction” for purposes of these comments.) While the different circumstances may have some impact on when the permitting authority wishes to be notified of the shutdown, there is no apparent reason for applying an AEL to a shutdown under one circumstance but not another. Likewise, an AEL for startup periods should apply regardless of whether the startup occurs after a shutdown related to a malfunction. The note following 173-400-040(2)(e)(i)(B) is unnecessary and could be read to limit the applicability of AELs to only certain types of shutdowns.

We have always assumed that WAC 173-400-107 *Excess Emissions* provisions apply for unplanned shutdowns and malfunctions that result in excess emissions. Likewise, we assume that Ecology intends for the *Unavoidable Excess Emissions* provisions in proposed WAC 173-400-109 to apply when an unplanned shutdown causes the source to exceed an applicable emission standard including any AEL that applies during shutdowns. We also assume the

Unavoidable Excess Emissions provisions would apply if a malfunction occurs during a startup or shutdown (e.g., a wet scrubber pump fails). This would be the case regardless of whether that startup or shutdown was planned, and that malfunction causes the source to exceed an applicable emission standard including any AEL that applies to startup or shutdown of that source. That intention should be made clearer by adding “(i.e., emissions above an applicable standard, including any alternative emission limit applicable to the startup or shutdown of the source)” after “Excess emissions” in proposed WAC 173-400-109(4). (Additionally, if Ecology retains references in the rule to “an upset or malfunction,” then it also needs to add “or upset” to 173-400-109(5)(d), which deals with circumstances when “the emitting equipment could not be shutdown during the malfunction....”)

WAC 173-400-082 Alternative Emission Limit -- NWPPA appreciates the creation of a regulatory mechanism to establish an Alternative Emission Limitation. The information requirements in subsection -082(3)(c) are unnecessarily comprehensive and build-in a regulatory process that is out-of-proportion to the environmental/regulatory significance of the underlying need. Ecology is requested to re-draft and slim down this section.

Comment/Support – The need for an Alternative Emission Limit will exclusively address short-term and (likely) infrequent elevated emissions associated with equipment startup and shutdown. The best information indicates this is a condition with insignificant pollutant emission impacts. Good engineering judgments support that incremental emissions during startup and shutdown conditions represent a minor contribution to the total permitted emissions a unit will produce over the course of a year. A previous comment explained guidance on assessing NAAQS impacts for infrequent, short-term startup/shutdown events. Further, consider that virtually every emission unit in pulp and paper mills has satisfied NSR BACT or LAER, and/or NESHAPs requirements. And finally, that equipment startup and shutdown periods are sub-optimal conditions, and facilities are motivated to move toward stable and full operational capacity quickly and in a safe manner (a “low emission operating posture”).

From this perspective it is somewhat disheartening that WAC 173-400-082 consumes four pages of rule text to elicit information. Ecology seems to propose a \$100 solution to a 10-cent problem. While some of the procedural requirements are unavoidable, we suggest that several of the subsection -082(3)(c) requirements to “Demonstrate” or “Describe” are not essential to support an AEL determination. In particular:

- Subsections -082(3)(c)(ii) and (iii) are redundant. One of those could be eliminated.
- Subsection -082(3)(c)(v) is broad and however answered would not provide information relevant to setting an AEL. This could be removed.
- Subsections -082(3)(c)(v) and (vi) – Most of the information solicited in addressing (c)(ii) will address these two subsections.

- Subsection -082(3)(c)(vii) is largely redundant with (c)(iv) and (c)(viii).
- AEL applicants and permitting agency staff could well struggle to determine an adequate "demonstration."

WAC 173-400-107 Excess Emissions, -108 Excess Emission Reporting, and -109 Unavoidable Excess Emission - NWPPA supports the practical regulatory approaches proposed in these sections.

Thank you for considering these comments. Feel free to contact us should any questions arise.

Sincerely,

A handwritten signature in black ink, appearing to read "Christian M. McCabe". The signature is fluid and cursive, with the first name being the most prominent.

Christian M. McCabe
Executive Director
Northwest Pulp & Paper Association