STOEL RIVES LLP

760 SW Ninth Ave., Suite 3000
Portland, OR 97205
T. 503.224.3380
F. 503.220.2480
www.stoel.com

THOMAS R. WOOD
D. 503.294.9396
tom.wood@stoel.com

July 7, 2017

**VIA EMAIL**

Joe Westersund
Cleaner Air Oregon Coordinator
Oregon Department of Environmental Quality
700 NE Multnomah Street, Suite #600
Portland, OR 97232
westersund.joe@deq.state.or.us and
cleanerair@deq.state.or.us

**Re: Comments on Cleaner Air Oregon Rulemaking**

Dear Joe:

I am writing in my role as a business representative on the Cleaner Air Oregon ("CAO") Advisory Committee as well as the spokesperson for a coalition of business and manufacturing associations representing over 1,700 businesses in Oregon and approximately 250,000 employees, including nearly 75,000 manufacturing jobs. This broad Coalition of Oregon businesses remains keenly interested in the CAO rulemaking process and is dedicated to the development of a successful regulatory program for all Oregonians. This letter presents the Coalition's comments on and concerns with the process to date, particularly the CAO rule framework discussed at the last Advisory Committee meeting on June 20, 2017.

As we have stated, this diverse, statewide business coalition supports the Governor's goals of creating a predictable regulatory program capable of reducing air toxics and protecting public health without harming Oregon's economy and burdening our agencies. This has been explained in several public hearings, including the following statement's by DEQ Director Whitman:

> We need to provide a predictable framework for all Oregonians so that they know that we're focusing on the highest priority areas, we're doing it in a responsible manner, and we are doing it in a way that is sustainable, and **that is not going to result in other health risks by driving businesses out of the state of Oregon and leading to rural impoverishment that has its own health risks with it**. ***

> [W]e are also anticipating, both as a science, as a health matter, as a practical matter, **the number of facilities** that we actually get into monitoring, or the number of facilities that we start as a regulatory matter requiring people to install expensive emissions control equipment is **going to be limited**, and it's going to be limited to those very highest priority areas. There's no reason to believe that **there's a health crisis in Oregon around industrial air toxics**. We have some localized issues, likely, that we need to address that have been out there probably for some time. But we're going to do this in a rational science-based way that addresses citizens' concern, **but does not drive businesses out of the state of Oregon.**" Whitman Testimony, Joint Committee on Ways and Means, Subcommittee on Natural Resource, May 11, 2017 (emphasis added).

As explained below, the draft program design fails to meet those objectives by proposing to drive businesses out of the state, unnecessarily regulating hundreds of businesses, and impacting rural employers likely creating significant health consequences.

The Coalition supports the goal of maintaining a healthy environment in Oregon and is increasingly concerned that the health of all Oregonians is not being adequately considered in this rulemaking. As has been repeatedly recognized during our Advisory Committee meetings, employment is the best indicator of a community's health. Employment is critical to a community's dignity. The Oregon Department of Environmental Quality ("DEQ") and the Oregon Heath Authority ("OHA") should not reflexively adopt programs from other districts or states that do not face the same challenges faced by Oregon's rural communities, manufacturing sector and working families. This rulemaking's potential to negatively impact Oregon's economy and its working families has not been directly addressed or considered by DEQ, OHA or the Advisory Committee. The agencies' failure to consider the information available to assess the comprehensive impacts of this rulemaking stands in sharp contrast to the agencies' commitment to prioritize Oregon's ability to "grow a thriving and competitive economy"[1] while also protecting environmental and public health. The agencies' discussions and the framework both reflect an approach that has disregarded both this commitment and the underlying reason it was made. Dismissing economic impacts will lead to an under informed rulemaking effort that will result in a program that causes far more harm than good to local health by eliminating manufacturing jobs without meaningfully improving air quality.

---

[1] See http://cleanerair.oregon.gov/about/ (last accessed on April 21, 2017).

With these thoughts in mind, we make the following comments in response to the draft CAO framework discussed at the June 20, 2017 Rulemaking Advisory Committee ("RAC") meeting. These comments reflect the collective concerns of the broad Coalition we represent.

The Proposed Risk Action Levels Are Too Conservative

One of the most critical issues that we have with the CAO rules is that the possible risk action levels ("RALs") that have been discussed to date (e.g. the cancer RAL of 10 in 1 million for new sources and 25 in 1 million for existing sources; the non-cancer RAL of a Hazard Index of 1) are too conservative. For the reasons explained below, both the cancer and non-cancer RALs should be increased so as to make the CAO program viable, practical and realistic. We ask that DEQ change the existing source RALs to 100 in 1 million excess lifetime cancer risk and a Hazard Index of 10.

*Cancer RAL*

There is established precedent indicating that the use of a 100 in 1 million cancer RAL is the best practice for this rulemaking. EPA has adopted such an approach and, as the Obama Administration's agency staff explained in the following 2016 Federal Register preamble for the Subpart MM NESHAP risk and technology review, a RAL of 100 in 1 million is justified given the conservative assumptions that are layered upon one another in the highly complex field of estimating risk. The following quotation from the Obama Administration's EPA is particularly relevant, as it reflects the agency's recent thinking in the context of assessing the impacts of air toxics.

> The Agency in the Benzene NESHAP concluded that "the acceptability of risk under section 112 is best judged on the basis of a broad set of health risk measures and information" and that the "judgment on acceptability cannot be reduced to any single factor." Benzene NESHAP at 38046. The determination of what represents an "acceptable" risk is based on a judgment of "what risks are acceptable in the world in which we live" (*Risk Report* at 178, quoting *NRDC* v. *EPA,* 824 F. 2d 1146, 1165 (D.C. Cir. 1987) (*en banc*) ("Vinyl Chloride"), recognizing that our world is not risk-free.
>
> In the Benzene NESHAP, we stated that "EPA will generally presume that if the risk to [the maximum exposed] individual is no higher than approximately one in 10 thousand, that risk level is considered acceptable." 54 FR at 38045, September 14, 1989. We discussed the maximum individual lifetime cancer risk (or

maximum individual risk (MIR)) as being "the estimated risk that a person living near a plant would have if he or she were exposed to the maximum pollutant concentrations for 70 years." *Id.* We explained that this measure of risk "is an estimate of the upper bound of risk based on conservative assumptions, such as continuous exposure for 24 hours per day for 70 years." *Id.* We acknowledged that maximum individual lifetime cancer risk "does not necessarily reflect the true risk, but displays a conservative risk level which is an upper-bound that is unlikely to be exceeded." *Id.*

Understanding that there are both benefits and limitations to using the MIR as a metric for determining acceptability, we acknowledged in the Benzene NESHAP that "consideration of maximum individual risk . . . must take into account the strengths and weaknesses of this measure of risk." *Id.* Consequently, the presumptive risk level of 100-in-1 million (1-in-10 thousand) provides a benchmark for judging the acceptability of maximum individual lifetime cancer risk, but does not constitute a rigid line for making that determination. Further, in the Benzene NESHAP, we noted that:

"[p]articular attention will also be accorded to the weight of evidence presented in the risk assessment of potential carcinogenicity or other health effects of a pollutant. While the same numerical risk may be estimated for an exposure to a pollutant judged to be a known human carcinogen, and to a pollutant considered a possible human carcinogen based on limited animal test data, the same weight cannot be accorded to both estimates. In considering the potential public health effects of the two pollutants, the Agency's judgment on acceptability, including the MIR, will be influenced by the greater weight of evidence for the known human carcinogen."

*Id.* at 38046. The Agency also explained in the Benzene NESHAP that:

"[i]n establishing a presumption for MIR, rather than a rigid line for acceptability, the Agency intends to weigh it with a series of other health measures and factors. These include the overall incidence of cancer or other serious health effects within the

> exposed population, the numbers of persons exposed within each individual lifetime risk range and associated incidence within, typically, a 50 km exposure radius around facilities, the science policy assumptions and estimation uncertainties associated with the risk measures, weight of the scientific evidence for human health effects, other quantified or unquantified health effects, effects due to co-location of facilities, and co-emission of pollutants."
>
> *Id.* at 38045. In some cases, these health measures and factors taken together may provide a more realistic description of the magnitude of risk in the exposed population than that provided by maximum individual lifetime cancer risk alone. 81 Fed. Reg. 97050-51 (Dec. 30, 2016).

In this passage, EPA explains both the relevance of the 100 in 1 million risk level and the critical importance of looking beyond the simplistic calculation of maximum individual risk. This is particularly important given the conservancy of the risk calculations. For example, in calculating cancer risk, risk calculations typically assume that a business is operating at a set rate for 70 years and that an individual is living in the same house and breathing the outdoor air continuously for that entire time. Setting aside the absurdity of those assumptions, this model fails to account for the differences between indoor and outdoor air. EPA has previously estimated that exposure levels within a home are 20 to 40 percent lower than the values exterior to the home. *National-Scale Air Toxics Assessment for 1996;* EPA 453/R-01-003 at 85 (2001). Thus, exposures are clearly over-estimated and the overall risk assessment approach is extremely conservative. In the face of such conservatism, it is appropriate to select less aggressive RALs than what DEQ is proposing.

*Non-Cancer Risk Action Level*

We are even more concerned about the singularly low non-cancer RALs that DEQ has proposed for new and existing facilities alike. As proposed to date, DEQ would apply the same non-cancer RAL for new and existing sources and set that RAL at a Hazard Index of 1. A Hazard Index of 1 equates to a level at which no observable effects would be observed in a sensitive population. This extremely low RAL is not justified by science or sound public policy. DEQ has repeatedly acknowledged that the intent of the CAO program is not to create an environment with no risk. This is an ill-informed, unachievable and punitive goal; yet that is precisely the goal advanced by the proposal to establish the non-cancer RAL at a Hazard Index of 1. Shackling stationary industrial sources with a non-cancer RAL set at a Hazard Index of 1 may not address health impacts from air toxics, but will certainly result in increased unemployment in

Oregon's manufacturing sector. That result will, predictably, have far greater health impacts on mid- to low-income communities than a more rational RAL. EPA's own definition of the term "Hazard Index" clearly demonstrates the obvious and compelling problem with setting the RAL at a Hazard Index of 1:

> The hazard index (HI) is only an approximation of the aggregate effect on the target organ (e.g., the lungs) because some of the substances might cause irritation by different (i.e., non-additive) mechanisms. As with the hazard quotient, aggregate exposures below an HI of 1.0 derived using target organ specific hazard quotients likely will not result in adverse non-cancer health effects over a lifetime of exposure and would ordinarily be considered acceptable. **An HI equal to or greater than 1.0, however, does not necessarily suggest a likelihood of adverse effects**. Because of the inherent conservatism of the reference concentration (RfC) methodology, the acceptability of exceedances must be evaluated on a case-by-case basis, considering such factors as the confidence level of the assessment, the size of the uncertainty factors used, the slope of the dose-response curve, the magnitude of the exceedance, and the number or types of people exposed at various levels above the RfC. Furthermore, **the HI cannot be translated to a probability that adverse effects will occur, and it is not likely to be proportional to risk**. EPA National Air Toxics Assessment Glossary of Terms; https://www.epa.gov/national-air-toxics-assessment/nata-glossary-terms (emphasis added).

As EPA clearly explains, a Hazard Index of 1 is supposed to represent a level at which no observable adverse effects should ever occur regardless of population or exposure period. Tying emission limits to that extraordinarily conservative level is completely incompatible with DEQ's stated goal of not seeking to eliminate all risk. As EPA has previously explained, the Hazard Index is a tenuous concept that should be used judiciously as it is not a direct measure of risk. For example, see the following EPA discussion:

> The hazard index provides a rough measure of likely toxicity and requires cautious interpretation. The hazard index is only a numerical indication of the nearness to acceptable limits of exposure or the degree to which acceptable exposure levels are exceeded. As this index approaches unity, concern for the potential hazard of the mixture increases. If the index exceeds unity, the concern is the same as if an individual chemical exposure exceeded

> its acceptable level by the same proportion. **The hazard index does not define dose-response relationships, and its numerical value should not be construed to be a direct estimate of risk.** *Guidelines for the Health Risk Assessment of Chemical Mixtures*, EPA/630/R-98/002 at 9-10 (1986) (emphasis added).

At the last RAC meeting, OHA's toxicologist defended having a Hazard Index RAL of 1 by saying that you cannot increase Hazard Index thresholds proportionate to cancer risk thresholds. We do not argue with that point, but that point does not in any way rationalize or justify establishing the non-cancer RAL at a "zero risk" level of a Hazard Index of 1. We are not suggesting that the Hazard Index RAL be set equal to the carcinogen RAL. But the State of Oregon cannot afford to set the Hazard Index at a level that would immediately put the State's entire manufacturing sector on notice that it is unwelcome. We strongly urge DEQ to set both the new source and existing source non-cancer RAL at a level higher than 1. For existing sources, a Hazard Index of 10 is appropriate (consistent, for example, with the progressive San Francisco Bay Area Air Quality Management District) and for new sources a Hazard index of 5 is appropriate.

Finally, as discussed at the last RAC, no RAL should be absolute, whether it is the RAL requiring a Risk Reduction Plan for an existing source or prohibiting issuance of a permit for a new source. As OHA's toxicologist acknowledged at the June 20th RAC meeting, the quality of the assumptions and the level of uncertainty factors applied to determine cancer and non-cancer risk are very inconsistent. In the toxicologist's own example, two chemicals were compared, one with a 1,000-fold uncertainty factor underlying its Hazard Quotient and one with a 3 fold uncertainty factor underlying its Hazard Quotient. The toxicologist's point was that you cannot derive a meaningful Hazard Index by adding these two Hazard Quotients, as they often reflect disparate assumptions even when considering the same target organ. This same fundamental concept should be carried into the establishment of the RALs; no RAL should be considered an absolute threshold requiring action because no exceedance of an RAL actually or directly estimates risk. Any exceedance of an RAL should be the opening of a dialog with a source, and not a mandate for expensive and potentially unnecessary action.

In summary, as this Coalition has repeatedly pointed out, other comparable programs have adopted higher RALs and found that their toxics programs have been quite robust. For example, the San Joaquin Valley Air Pollution Control District ("SJVAPCD") employs carcinogen action levels for existing sources of 100 in 1 million and non-cancer action levels of a Hazard Index of 5. Despite repeated requests, DEQ has provided no basis for why Oregon should start its program with considerably more conservative values. Moreover, DEQ has failed to analyze the impact these regulatory values will have on both the regulated community and the agency. We strongly encourage the Department to increase the RALs to reflect more realistic values that can

achieve the stated objectives of CAO and to expressly state that the exceedance of a RAL triggers the need for further assessment, not a hard-wired requirement for additional controls.

New Emission Units

We are greatly concerned regarding the discussion at the last RAC meeting regarding how new and modified emission units would be treated under CAO. In relation to how new and modified emission units would be addressed, DEQ stated in its slide presentation:

> Facility could choose to install TBACT on new emission units, or perform entire facility risk assessment and either show that total facility risk is at or below risk action level or continue on to a Risk Reduction Plan and Conditional Risk Level if needed, where TBACT would be required.

This statement is the basis for considerable concern among the Coalition members. Oregon's stationary industrial sources submit hundreds of Notice of Construction ("NOC") applications each year. These can consist of any of the four types (Types 1 - 4) of NOCs established by the rules. By rule, Type 1 NOCs are automatically approved within 10 days and Type 2 NOCs are automatically approved within 60 days. This timing reflects both the statutory mandate (ORS 468A.055) as well recognition that emissions are *de minimis*. By contrast, Type 4 NOCs typically take about 18 months for DEQ to process. A predominant element of processing the Type 4 NOC applications is establishing BACT for the small handful of pollutants under consideration. To the extent that DEQ's statement at the RAC meeting suggests that DEQ would specifically address the application of TBACT to all NOC types, that would hold Oregon's economy hostage while DEQ attempts the impossible. Based on our experience, DEQ will be unable to process the NOC applications as suggested, and all growth and expansion of Oregon's industry will essentially cease. This will not only eliminate the competitiveness of Oregon's businesses, it will also prevent beneficial projects from occurring. For example, if a business were seeking to change out a diesel fired process heater for a natural gas fired process heater, the company would be faced with either having to go through a lengthy TBACT assessment or a facility wide risk assessment. Faced with such choices, the equipment will remain unchanged even if that choice hampers the facility's productivity. In addition, understanding the regulatory gridlock, businesses will shift capital investments away from the state slowly costing Oregon jobs and communities. This aspect of the program must be revised.

The addition of new emission units at an existing source should not be subject to more stringent allowable risk requirements than those to which the facility is already subject. New emission units should not be required to demonstrate that they are employing TBACT and that the facility as a whole is meeting the facility-wide allowable risk level. Otherwise sources will be unable to

make relatively simple modifications to existing sources for fear that it would trigger, at the least, a lengthy permitting process and, at the worst, cost-prohibitive measures. Such a program would incentivize sources to continue to operate less efficient and higher emitting equipment, which is bad public policy. Such a program would also serve as a significant disincentive to businesses choosing between expanding their operations in Oregon, or, instead, deciding to go elsewhere.

CAO Should Focus on Actual Emissions and Not Hypothetical Emissions

We continue to urge DEQ to assess actual emissions under the CAO program. At the June 20th RAC meeting, DEQ again floated the idea of basing the CAO program on potential to emit, as reflected by permit limits. As we have stated several times previously, the simplistic idea that potential to emit of air toxics can be derived based on production level assumptions underlying the Plant Site Emission Limits ("PSELs") is just plain wrong. Air toxic emissions are often not consistent with production. In addition, emissions may change over time as different inputs to the process evolve. This would force a facility to overestimate emissions based on the worst-case product mix for each toxic--an outcome that would great overstate risk posed by the facility.

In addition, DEQ staff seemed cavalier about stating that facilities can just accept permit limitations on production so as to limit toxics PTE. However, a mainstay of the Oregon air program and the foundation of the PSEL program is that facilities do not have to take production limits and that nothing about the program is intended to restrict or confiscate existing production capacity. (See, e.g. OAR 340-222-0010 which states the policy underlying the PSEL program as "except as needed to protect ambient air quality standards, PSD increments and visibility, **the EQC does not intend to limit the use of existing production capacity of any air quality permittee**...") The proposal to require the use of potential emissions in inexact, overly-conservative risk estimation calculations and to force facilities to accept production limits would remove important flexibility provided by the PSEL program.

Using potential emissions also is contrary to good public policy. Oregonians are interested in knowing what risk they are actually exposed to. There is very limited utility to being informed of a hypothetical risk that is not actually being presented. A program based on hypothetical risk rather than actual risk will confuse people and misinform the public. DEQ should not embrace such an approach. Other programs, such as the South Coast Air Quality Management District's ("SCAQMD's") program assesses the risk from an existing source's actual emissions in a particular year and not on permitted levels. Under the SCAQMD program, if actual emissions materially change, a source can be required to reassess its impacts and, if it triggers the Health Risk Assessment requirement, periodically update its evaluation. This approach provides the public with a more realistic sense of what risks are present than would be presented if a source had to assess maximum permitted emission levels.

Modeled Receptors Should Reflect Current Land Use Not Hypothetical Land Use

We strongly recommend that DEQ identify receptors based on the current land use and not try to second guess what land use development may or may not occur in the future. We have consistently supported the idea of a toxics program that focuses on receptors where people are actually exposed for relevant and representative periods of time. This equates to a program where receptors are modeled that reflect where people actually live and work.

At the June 20th RAC meeting, staff proposed the idea of considering sidewalks as receptors because homeless people could sleep there and considering receptor locations based on what is allowed by the land use code as opposed to what is actually present. We have serious concerns with both of these concepts. First, DEQ should not designate receptors based on possible locations of transient populations. This is highly hypothetical and swallows any concept of realistically assessing where exposure really occurs. Similarly, residences should only be modeled where they actually exist. Requiring that all areas be assessed regardless of whether they are actually developed for residential use would impose additional hardship on struggling communities. Furthermore, the assumption that zoning is clear about where residential development can and cannot occur is naïve. On forest and farm lands it is possible to develop a residence if specified criteria are met. DEQ's approach would require that all farmlands and forest lands be modeled as residential receptors. There is no reason to take such a conservative approach. Much as the public should not be scared based on hypothetical emissions, the public should not be misled about impacts that are not actually occurring under current land use.

DEQ staff also floated at the June 20th meeting the idea that all public parks and agricultural fields would have to be modeled for acute exposures. This idea grossly exaggerates the risks posed by a facility. People are present in parks and agricultural fields for short periods of time, not for the full 24 hour acute exposure period. Requiring these locations to be assessed as if people were being exposed for a full 24 hours is factually inaccurate and leads to hypothetical impacts that bear little to no resemblance to actual impacts. DEQ should drop this idea from the rule.

Facilities Should Be Able to Perform Ambient Monitoring

Modeling is inherently inaccurate in that it is designed to over-estimate risk. It can serve a useful purpose in identifying relative impacts across locations, but it is no substitute for actual monitoring. Ideally, the CAO program would rely entirely on monitoring. If that is not possible, then any individual source that chooses to engage in a Department approved monitoring effort should be allowed to do so in lieu of having to perform a site-specific Health Risk Assessment. The data that such monitors would generate would be superior to any information generated by a model and would provide far more valuable information to the community. Therefore, any sources that choose to make that investment in monitoring should be incentivized to do so.

Cumulative Area Program Should Not Be Part of the CAO Program at this Time

At the June 20th RAC meeting, DEQ continued to promote the concept of a cumulative area program whereby new sources and the expansion of existing sources would be halted if the impacts at an individual receptor in the area exceeded the risk action level. When queried about how the program would work, there was a general inability to explain specifics such as how a source might work with other sources within the area to lift the expansion moratorium or how simple facility changes could be accomplished once an industrial dead zone was created. Given the lack of specifics and the complexity of setting up such a novel program (DEQ indicated it is unaware of any regulatory program like it in the country), we strongly encourage DEQ to defer this part of the CAO program to a different rulemaking process. The cumulative area impacts program requires more thoughtful consideration prior to proposal.

Conclusion

We are greatly concerned about DEQ's breakneck pace in developing a complex program that the legislature has declined to fund. DEQ should slow down the process so that all of the relevant available information can be assessed. This sentiment was echoed by others at the last RAC meeting, including one of the RAC co-chairs. We strongly urge DEQ to back away from its July 14 rule release date to provide the agency adequate time to consider our comments further and to consider the program's true impacts on Oregonians. Rushing the process risks undermining the expressed desire to rely on sound science and good public policy and, as a consequence, risks undermining the legal footing and, ultimately, the legitimacy of the CAO program.

We look forward to an ongoing dialog to establish a practical and effective program.

Sincerely,

Thomas R. Wood

cc: Richard Whitman (richard.whitman@state.or.us)
Leah Feldon (leah.feldon@state.or.us)
Keith Johnson (keith.johnson@state.or.us)
Lynne Saxton (lynne.saxton@dhsoha.state.or.us)
Jill Inahara (jill.inahara@state.or.us)
Mike Freese (OBI)
Heath Curtis (OFIC)