TESTIMONY

SENATE ENVIRONMENT AND NATURAL RESOURCES COMMITTEE
Monday, February 12, 2018
3:00pm

Oregonians for Fair Air Regulations

Support SB 1541
Oppose SB 1508

Chair Dembrow, Vice Chair Olsen and Members of the Committee:

Thank you for the opportunity to provide written testimony on an incredibly important issue for the members of the Oregonians for Fair Air Regulations Coalition. Over 1,500 businesses, employees, and community members expressed concerns and opposed the Department of Environmental Quality's air quality regulations due to the detrimental impacts it will have on many Oregon communities. To get these regulations right, for all Oregonians, the legislature must act and pass SB 1541.

Oregonians for Fair Air Regulation (OFAR) is 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 big coalition of Oregon businesses repeatedly submitted public comments during the Cleaner Air Oregon ("CAO") Rulemaking Advisory Committee ("RAC") process and proposed rule with the goal of developing a successful regulatory program for all Oregonians. Oregonians for Fair Air Regulations, however, is gravely concerned about the proposed rules and the profoundly negative impact they will have on Oregon's businesses without commensurate public health benefits.

As we have continually stated, that the 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 overburdening our agencies. The Department committed itself to these very goals in several public hearings, as illustrated by the following statement by Oregon Department of Environmental Quality ("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**.

Whitman Testimony, Joint Committee on Ways and Means, Subcommittee on Natural Resource, May 11, 2017 (emphasis added).

The proposed rules purport to advance Director Whitman's statement by explicitly describing the very "purpose of Oregon's risk-based air toxics permitting program" to include:

> [r]educ[ing] exposure to industrial and commercial air toxics emissions **while supporting an environment where businesses and communities can thrive**.

OAR 340-245-0005(1)(d)(emphasis added).

All of which are laudable objectives which the coalition supports .

Unfortunately, the proposed rules fail to meet those objectives. Far from supporting thriving businesses and communities, the proposed rules would unnecessarily burden hundreds of businesses, with disproportionate impacts on rural employers. Oregonians for Fair Air Regulations is deeply concerned that the proposed rules will drive businesses out of state and discourage job-creating and job-sustaining investments, thereby creating significant health consequences.

Oregon businesses are committed to a clean, vibrant economy.

Oregon businesses have a successful track record of reducing air contaminants, improving Oregon's environment, and protecting community and employee health. This is evidenced by the fact that today: **80 percent of air pollution comes from everyday activities like driving and heating with wood stoves**.[1] Due to substantial investments pollution control technology, **Oregon industrial sources now account for less than 15 percent of air pollutants.**[2] These investments have allowed Oregon manufacturers to remain competitive, create family-wage jobs, and build lasting communities.

This is supported by recent testimony by Director Whitman:

> [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).

[1] Oregon Department of Environmental Quality, What You Can Do for Cleaner Air, *available at* http://www.oregon.gov/deq/aq/Pages/for-Cleaner-Air.aspx (last accessed Nov. 11, 2017).
[2] Oregon Legislative Committee Services, Background brief on Air Quality (Sept. 2012), *available at* https://www.oregonlegislature.gov/lpro/Publications/AirQuality.pdf (last accessed Nov. 11, 2017).

Because Oregon businesses are doing their part and there is no health crisis, DEQ's response should be proportionate. It was not. Rather, the proposed program would place a disproportionate burden on businesses without providing realizable health benefits to Oregon communities.

Economic impact of DEQ's rule will be devastating for businesses and communities.

In providing comments to the agency, OFAR commissioned a study on the true economic impacts of the rulemaking. Attached is a report prepared by a professional economist at Maul, Foster & Alongi ("MFA"), outlining the true economic impacts of this rulemaking which were not completely or accurately considered by DEQ or reported in the agency's statement of the rules' fiscal and economic impact. The analysis found that DEQ failed to complete a full cost-benefit analysis of the rules' impact. On the cost side, applying DEQ's own assumptions (e.g., the number of affected facilities), MFA's analysis reaches striking and alarming conclusions. According to MFA, using DEQ's own assumptions, **this rulemaking could cost Oregon businesses as much as $2.8 billion (net present value) over the next 20 years** (or up to $8.4 billion NPV). In the first five years of the program's implementation alone, per-facility costs could run as high as $15 million net present value. MFA's analysis indicates that small businesses will be among the hardest hit. Again, using DEQ's assumptions, **MFA quantified that the rules' cost to small businesses has the potential to drive those businesses into bankruptcy or out of Oregon**. MFA's report contrasts the CAO program's estimated costs to Oregon businesses with DEQ's failure to quantify the program's benefits. In its own benefits-side analysis, MFA concludes that the program's benefits are extremely uncertain, if present at all. In simple terms, MFA finds that DEQ has not determined whether there is a statewide problem with toxics emissions, or whether that problem (if it exists) could be solved by a program focusing on Oregon's businesses, whose emissions represent a tiny fraction of air toxics statewide.

As the Coalition pointed out in the agency's Rules Advisory Committee meetings and in its written comments, it does not take a professional economist to see that the health of all Oregonians has not been adequately considered in the rulemaking. Repeatedly recognized during the RAC meetings, employment is the best indicator of a community's health. Employment is critical to a community's dignity. DEQ should not reflexively embrace 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, its rural communities and its working families has not been directly addressed or adequately considered by DEQ. The Department has not considered the information available to assess the comprehensive economic impacts of this rulemaking and simply dismissing or downplaying the rules' economic impacts will lead to a program that causes far more harm than good to local health, by eliminating manufacturing jobs without meaningfully improving air quality.

Oregon businesses and employees urged the agency to depart from its approach.

The Cleaner Air Oregon rulemaking process was unlike anything this coalition has seen or experienced in Oregon. The Technical Advisory Committee and then the Rules Advisory Committee met for over a year. This coalition listened in on the Technical Advisory Committee

meetings and actively participated in the Rules Advisory Committee (RAC) meetings, including providing written comments. Following the conclusion of the RAC, DEQ took the rulemaking on the road hosting 7 public meetings – most of which were characterized as having more businesses and employees stating their concerns with the rule and asking for the rule to be reworked. Lastly, in October, DEQ published its proposed rule where ***businesses, employees and community members submitted over 1,500 public comments opposing this rule*** on the basis that it does not work for all of Oregon. Instead, DEQ is proposing unnecessarily burdensome and costly regulations on important regional employers. All of which demonstrates that Oregonians need the legislature, not DEQ to make important policy decisions.

The Legislature, Not DEQ Should Make Economy Influencing Decisions.

DEQ is charting a new course by setting first of its kind laws and policies across all of Oregon's communities. That is why we are here today and in need of SB 1541. It is critical that the legislature understand that manufacturers, employees, and communities are asking the legislature to make the important policy decisions around these impactful policies – not unelected state employees – no matter how well-meaning those state employees are.

There is no question that air quality regulations and public health policy are incredibly complex. That is no exception here. However, these complexities can be boiled down into a series of policy choices which are before you in SB 1541. We believe, these policy choices are best made by Oregon's elected officials.

DEQ rules are out of the mainstream, SB 1541 corrects that.

Importantly, we believe Oregon should design and adopt a mainstream program – one that allows Oregon manufacturers to remain competitive on a national and global scale. Notwithstanding industry's relatively small contribution to air pollution, DEQ has proposed a program that would place Oregon manufacturers at a competitive disadvantage with its national and international competitors – including the few that have air toxics programs – by imposing emissions thresholds many times more stringent than similar programs in other states. Oregon DEQ has been quick to point out that their risk thresholds are similar to others on the west coast. However, this is not entirely accurate. For example, DEQ has created an air toxics regulatory program most similar to the Southern California program whose thresholds are 25 in a million for cancer risk and a hazard index of 3 for noncancer risk, whereas Oregon's is set at 25 and 1 respectively. Many other areas in California have set their risk thresholds much higher. Over half of the California air districts have thresholds which are 100 in a million for cancer and a hazard index of 10 for noncancer risk. Those risk thresholds are what is proposed in SB 1541. DEQ has also alleged that their proposed program is similar to Washington State's program. Again, digging into the details, Oregon's is far more stringent. In fact, Washington does not try to impose their program on existing sources, but rather limits it to new or modified sources. Thus, making it easier to design and engineer for additional pollution control equipment. DEQ's proposed rules are not mainstream and will make Oregon manufacturers, both large and small, less competitive.

Cleaner Air Oregon will overburden a struggling agency.

Not only is DEQ's proposed rule going to be problematic for manufacturers, it will likely be huge burden on the agency. DEQ is potentially trying to adopt a program bigger than it is prepared to manage. In a recent Secretary of State Audit, the audit states that the agency lacks "consistent guidance and support for staff" which slows the permitting process as air quality rules are getting more complex.[3] To help permit writers understand these increasingly complex laws and regulations, one recommendation in 2012 was to update the air quality permit writers' manual, which has not been updated since its original draft, in 1993. This recommendation still has not been addressed. Now the agency is proposing new, more complex regulations without a clear plan of how it can meet existing needs, let alone implement this new, complex program.

We cannot stress enough the important of good, workable regulatory programs with predictable and timely permitting processes. The public must have confidence in the programs that ensure businesses are doing their part in protecting the environment. And business needs efficient regulatory processes that provide consistency and certainty to ensure the investments meet the public goals. This must be part of the discussion before the agency takes on a program of this size and magnitude. Simply giving the agency more money without proper regulatory sideboards will not cure the problems for either business or the agency. For that reason, please oppose SB 1508.

The policies set in SB 1541 are the right policies for a statewide air program in Oregon.

With all of the problems identified above, we strongly believe there is an opportunity to create an air quality regulatory program that works for business, communities and employees. SB 1541 provides a reasonable approach to ensuring Oregon industries and operations are protective of public health.

More specifically, SB 1541 sets policy and provides guidance to the agency by:

Creating a thoughtful, mainstream air toxics program for all of Oregon

- Establishes a thoughtful and attainable health-based program requiring businesses to take action if they pose unreasonable risk to communities.
- The bill sets new, aggressive health-based benchmarks to protect public health.
- Provides businesses and the DEQ certainty in how to reduce risk that supports community and employee concerns.
- Improves community access to good information and timely results.

Holding business accountable – requiring industry investments to reduce emissions

- Closes the "gap" in regulations and ensures that businesses of all sizes reduce and eliminate unreasonable risk from our communities.

[3] Oregon Secretary of State Audit Report, Department of Environmental Quality Should Improve the Air Quality Permitting Process to Reduce Its Backlog and Better Safeguard Oregon's Air, pg 21. (http://sos.oregon.gov/audits/Documents/2018-01.pdf)

- Ensures that all businesses posing unreasonable risk make investments in state-of-the-art, best available control technology that will improve the air for our communities.
- While most business are responsible, and good community partners, SB 1541 holds bad actors accountable and requires controls that reduce their emissions.

Provides DEQ needed resources to strengthen its air programs

- As made clear in a recent Secretary of State audit, DEQ continues to struggle with managing its workload and budget constraints.
- SB 1541 directs DEQ to identify and regulate industry more efficiently and provides needed resources that help them accomplish their mission of, "restoring, maintaining and enhancing the quality of Oregon's air, land and water."

Again, thank you for holding a hearing on this important matter. We strongly believe Oregon's elected officials are best to make profound policy choices that will impact businesses and communities across the state. We are counting on you! **We urge you to support the legislative compromise in SB 1541** this session and **oppose SB 1508** which does not provide certainty and predictability to businesses like ours. The agency, businesses, and communities cannot wait.

Submitted:

Mike Freese
Oregonians for Fair Air Regulations

MEMORANDUM

To: Oregonians for Fair Air Regulations

Date: January 19, 2018

From: Gretchen Greene, PhD Project: 1534.01.01

RE: Comments on Notice of Proposed Rulemaking, Cleaner Air Oregon Statement of Fiscal and Economic Impact

Oregonians for Fair Air Regulations has requested that the economists at Maul Foster & Alongi, Inc. (MFA) review the Notice of Proposed Rulemaking (NOPR) for Cleaner Air Oregon, Statement of Fiscal and Economic Impact. We appreciate this opportunity to report our technical comments to you and to the Oregon Department of Environmental Quality (DEQ) on behalf of Oregonians for Fair Air Regulations. MFA regularly participates in such economic fiscal regulatory analyses and respects the effort put forth by the DEQ in developing their document. The purpose of preparing these comments is to assist DEQ in developing a more scientifically accurate and complete understanding of the potential economic impacts of the proposed regulation for Oregon air toxics. A summary begins the discussion. The second section provides comments on cost impacts, and a third section addresses impacts to small businesses.[1] Following the impacts to small businesses, comments on potential benefit calculations are developed, and then conclusions are briefly restated.

SUMMARY

Cleaner Air Oregon (CAO) would result in unknown and unquantified benefits to human health and the environment, and guaranteed costs to facilities in Oregon. The costs of even the simplest air toxics inventory and assessment are significant for an individual facility, and it is likely that all 2,563 facilities[2] that DEQ estimates will be affected will face some increased costs due to implementation of CAO. While DEQ did not attempt a full cost-benefit analysis in the NOPR fiscal and economic impact statement (FEIS), we have attempted to use the information provided in DEQ's own analysis to more thoroughly evaluate the costs through time and provide a more complete understanding of

[1] It is important to note, however, that this analysis does not reflect any specific Oregon facility, and the information available to MFA is insufficient to allow estimation of whether any specific facility will incur increased costs or the value of those costs.

[2] Page 3 of the Statement of Fiscal and Economic Impact prepared by DEQ (ORS 183.335 (2)(b)(E)). The Notice of Proposed Rulemaking Cleaner Air Oregon (NOPR) prepared by DEQ, October 20, 2017 includes the number of small firms (1,090) and large firms (1,360), the sum of which totals 2,450 estimated number of affected firms (which is not the same as number of affected facilities).

fiscal impacts. This analysis applies the assumptions and estimates in the NOPR FEIS. Where needed, we have developed additional conservative assumptions to demonstrate the overall impact that was not captured by DEQ in the NOPR. Some of the key findings from our analysis include:

- CAO would impose an estimated cost of $2.8 billion in net present value (NPV) to regulated Oregon industries over 20 years, for the medium cost scenario.
- The true cost of CAO to regulated Oregon industries over the next 20 years is uncertain, ranging from $44 million to $8.4 billion NPV.
- CAO's medium annualized average cost to Oregon industry totals more than $140 million each year.
- The expected per-facility cost for CAO over the program's first five years (assuming 80 facilities) ranges from a low of $149,000 (which, as discussed below, is unrealistic) to a high of $15 million, with a medium estimated per-facility cost of over $2.1 million.
- CAO would impose costs on Oregon's small businesses that could meet or exceed the typical profit for small business and discourage future small businesses from locating in Oregon.
- The value of CAO's benefits is uncertain, ranging between $500,000 to $3 million per year, but is not likely to meet or exceed the overall cost to industry.
- Using simple assumptions based on the information provided by DEQ, it is possible that the cost-benefit ratio could be 76 to 1, or that every dollar of benefit costs the state, and Oregon businesses, $76.

Although MFA's analysis incorporates DEQ's own assumptions, it is also important to note that we identified a number of key assumptions in DEQ's analysis that are very conservative, causing DEQ to underestimate CAO's true overall cost. These include:

- Fee increases likely imposed over time to offset the growing cost to DEQ to implement the program as it expands.
- Compliance costs, especially the initial costs of purchasing and setting up pollution control equipment, are greatly underestimated and will likely be much higher than what DEQ assumed in its analysis.
- DEQ's estimated "low cost" for several items are not realistic, such as:
  - Installation and cost of a fabric filter cannot be completed for the estimated low cost of $14,000.
  - Electrostatic precipitators tend to be more costly than fabric filters and cannot be installed for $13,000.

  - The set up and installation of a wet scrubber requires plumbing, insulation, and electrical configurations at a minimum and cannot be completed for the estimated low of $25,000.

- Similarly, the "high cost" estimates provided by DEQ are more representative of midrange costs and do not represent the higher end of anticipated initial costs to facilities. Examples include:

  - Fabric filters and electrostatic precipitators can easily run more than one million dollars, though the high cost stated in the DEQ NOPR is $240,000.
  - The high-end estimate for a wet scrubber should be closer to $750,000 instead of $170,000. In addition to the plumbing, electrical, and insulation costs, these remedies often require that a water treatment system be established. Further, the cost of the scrubbers and chemical inputs can be significant.
  - Biofilters could cost up to ten times as much as the high value of $360,000 identified by DEQ. Biofilters require careful monitoring of the conditions that support microbial communities that consume pollutants. Further, there could be up to an acre of land needed to maintain a facility for the biofilter, plus construction and retrofitting older facilities.

As a result of these notable underestimates, the following analysis that is based on DEQ's underestimates of costs should be considered extremely conservative.

COST ANALYSIS

In an economic analysis of a proposed regulation, the costs (and benefits) are typically evaluated throughout a 10- or 20-year time horizon. This is done by adding up the costs (and benefits) over the time period and discounting the future year costs (and benefits) using a discount rate. This is helpful to capture all impacts, because impacts are often different in the first few years as compared with later years. Results are then presented using the concept of NPV which captures the stream of future costs (and benefits) in one comparable metric. Although DEQ did not complete a cost-benefit analysis for the CAO, MFA developed estimates of the NPV of costs over time using the assumptions made by DEQ for the costs of control mechanisms and other actions required by the proposed rule. Note that there is significant uncertainty in the estimates, resulting in a very large range of potential costs. However, a comprehensive analysis is still possible and MFA has developed this analysis using the DEQ cost values paired with low, high, and medium cost scenarios, as further described below.

The Fiscal and Economic Impacts Analysis developed by the DEQ provided cost ranges for each component of the CAO program and recognizes that the total cost of the program will depend on:

- The number of facilities required to complete the risk assessments
- The specific pollution controls that will be needed for each facility
- Reporting requirements and level of community engagement required for each facility

The program is structured so that each facility will begin assessing its risk by performing a "Level 1 Risk Assessment." This is the simplest and least detailed of the risk assessment types included in the proposed rule, intended to "screen out" facilities from further treatment by the rule. Facilities that do not screen out at Level 1 will need to complete increasingly complex risk assessments, up to a Level 4 Risk Assessment, at which point they will likely be required to implement pollution controls and engage in substantial and repeated public outreach.[3] As proposed, the DEQ will require that only the 80 facilities posing the highest risk (as judged by the DEQ) be included in the program in the first five years. After the first five years, all permitted facilities (identified by the DEQ as totaling 2,563) will be subject to the program.[4]

Table 1 shows the low and high costs for the CAO program as estimated by the DEQ, along with the midpoint (average) for each cost range calculated by MFA.

Table 1
Cost Estimates for CAO from Fiscal and Economic Impact Statement

Program Costs	LOW	HIGH	MIDPOINT
Permitting Fees (total)[a]	$2,500,000	$3,138,395	$2,819,198
Per-Facility Costs			
Reporting Requirements[b]	$120	$1,200	$660
Community Engagement/Public Meetings[c]	$1,400	$6,400	$3,900
Emissions Inventory[d]	$1,200	$60,000	$30,600
Level 1 Risk Assessment[d]	$100	$5,000	$2,550
Level 2 Risk Assessment[d]	$5,000	$35,000	$20,000
Level 3 Risk Assessment[d]	$5,000	$100,000	$52,500
Level 4 Risk Assessment[d]	$5,000	$500,000	$252,500
Initial Cost of Pollution-Control Equipment[e]			
Fabric filter	$14,000	$420,000	$217,000
Electrostatic precipitator	$13,000	$240,000	$126,500
Enclosure	$25,000	$170,000	$97,500

[3] Page 9 of the NOPR.
[4] Page 38 of the NOPR: "...the proposed tiered implementation plan will delay potential impacts to many facilities…"

Table 1
Cost Estimates for CAO from Fiscal and Economic Impact Statement

Program Costs	LOW	HIGH	MIDPOINT
HEPA filter	$17,000	$6,200,000	$3,108,500
Wet scrubber	$25,000	$170,000	$97,500
Thermal oxidizer	$17,000	$6,200,000	$3,108,500
Regenerative thermal	$940,000	$7,700,000	$4,320,000
Catalytic reactor	$21,000	$6,200,000	$3,110,500
Carbon adsorber	$360,000	$2,500,000	$1,430,000
Biofilters	$360,000	$360,000	$360,000
Fume suppressants	$-	$122,000	$61,000
AVERAGE	**$162,909**	**$2,752,909**	**$1,457,909**
Annual Cost of Pollution-Control Equipment[f]			
Fabric filter	$180,000	$6,200,000	$3,190,000
Electrostatic precipitator	$100,000	$7,600,000	$3,850,000
Enclosure	$400	$10,000	$5,200
HEPA filter	$-	$-	$-
Wet scrubber	$19,000	$830,000	$424,500
Thermal oxidizer	$3,500	$5,200,000	$2,601,750
Regenerative thermal	$110,000	$550,000	$330,000
Catalytic reactor	$3,900	$1,700,000	$851,950
Carbon adsorber	$-	$-	$-
Biofilter	$-	$-	$-
Fume suppressants	$-	$-	$-
AVERAGE	**$37,891**	**$2,008,182**	**$1,023,036**

[a]Low numbers from Table 3, page 17 of the Statement of Fiscal and Economic Impact prepared by DEQ (ORS 183.335 (2)(b)(E)), and high numbers from Table 4 of NOPR.
[b]Low and high numbers from Page 26 of the NOPR.
[c]Low and high numbers from Page 27 of the NOPR.
[d]Low and high numbers from Table 6, page 21 of the NOPR.
[e]Low and high numbers from Table 7, pages 23-25 of the NOPR.
[f]Table 7, pages 23-25 of the NOPR.

In order to bound these costs and estimate the economic impact of CAO, MFA prepared scenarios which are then paired with the low, medium, and high costs shown in Table 1. The low-cost estimate assumes that no facilities would be required to complete a Level 2 or higher risk assessment. That is, all facilities would perform a simple Level 1 Risk Assessment, consequently "screen out," and not

have to perform any further risk assessment or action under the CAO rule. As a result, in the low-cost scenario, no facility would have to implement any pollution controls nor conduct any community engagement. This outcome is highly unlikely—if this were the case, there would be no need for the CAO program. We present this low-cost/least-likely scenario to produce the lowest possible estimate of program costs.

The high-cost estimate assumes the opposite: every component of the program will cost the maximum estimated cost provided by the DEQ. Further, we assume that all 80 facilities participating in the program in the first five years will perform a Level 4 Risk Assessment and be required to implement pollution controls and engage in public outreach. We assume that the cost of the pollution controls is the average of the maximum cost for each pollution control estimated by the DEQ. Of the remaining 2,483 facilities included in the next 15 years, we assume that 50 percent of facilities will need to conduct a Level 2 Risk Assessment, 25 percent will conduct a Level 3, and five percent will conduct a Level 4 and will need to implement pollution controls and engage in public outreach. This high-cost estimate is one possible outcome of the program and is intended to reflect a plausible, upper bound on the rule's costs, but one that is reasonably likely. It is worth reiterating here that this upper bound should still be considered conservative, given that it is constrained by use of the DEQ underestimates of cost (see Summary, above).

We also calculate a medium-cost estimate, which relaxes some of the assumptions of the high-cost estimate. We assume that each component of the program will have a cost at the midpoint of the ranges presented by the DEQ. We also assume that of the 80 facilities participating in the first five years, only 75 percent will complete a Level 2 Risk Assessment, 31 percent a Level 3, and 25 percent a Level 4. These Level 4 facilities will need to implement pollution controls and engage in public outreach. Of the remaining 2,483 facilities participating in the following 15 years, only 50 percent will conduct a Level 2 Risk Assessment, 25 percent a Level 3, and five percent a Level 4 requiring pollution controls and public outreach. We view the medium cost outcome as reasonably likely. A summary of the assumptions for all three scenarios is shown in Table 2.

Table 2
Assumptions Used to Develop Scenarios (In Percent)

Scenario Assumptions	Low	Medium	High
In the first five years:			
Facilities completing Level 1 Risk Assessment:	100%	100%	100%
Facilities completing Level 2 Risk Assessment:	0%	75%	100%
Facilities completing Level 3 Risk Assessment:	0%	31%	100%
Facilities completing Level 4 Risk Assessment:	0%	25%	100%

Table 2
Assumptions Used to Develop Scenarios (In Percent)

Scenario Assumptions	Low	Medium	High
In the remaining years:			
Facilities completing Level 1 Risk Assessment:	100%	100%	100%
Facilities completing Level 2 Risk Assessment:	0%	50%	50%
Facilities completing Level 3 Risk Assessment:	0%	25%	25%
Facilities completing Level 4 Risk Assessment:	0%	5%	5%

NOTES:
The number of facilities requiring pollution controls and public engagement is equivalent to the number of facilities completing a Tier 4 Risk Assessment. The cost per pollution control and public engagement is assumed to be the average of the maximums of cost ranges for each pollution control.

Reporting costs and total permitting costs are assumed to be the maximum of cost ranges.

The cost of completing a risk assessment is assumed to be the maximum of cost ranges for that risk assessment tier.

Use of the low scenario assumptions and lowest costs estimated by the DEQ for each program component results in a total cost of $44.5 million in NPV at a 3 percent real discount rate over a 20-year program time horizon. Use of the high scenario assumptions and maximum costs estimated by the DEQ for each program component results in a total cost of $8.4 billion NPV at a 3 percent discount rate for the 20-year program. Use of the medium assumptions and the midpoint of costs estimated by the DEQ for each program component results in a total cost of $2.8 billion NPV at a 3 percent discount rate. These results for the low, high, and medium scenario are provided in Table 3. Table 3 also provides the total industry costs for the first five years, as well as the 20-year costs per facility and the first five-year costs per facility under each of the three scenarios.

Table 3
Estimated Costs to Industry of Proposed CAO Rule

	Low (NPV)	Medium (NPV)	High (NPV)
20 Year Total Cost to Oregon	$44,510,182	$2,813,067,873	$8,375,753,580
5 Year Total Cost to Oregon	$11,942,030	$172,031,115	$1,226,410,338
20 Year Cost Per Facility (2,563 Facilities)	$17,366	$1,097,568	$3,267,949
5 Year Cost Per Facility (80 Facilities)	$149,275	$2,150,389	$15,330,129

Table 4 shows the average cost per facility for the next 20 years. The values represent the total costs paid by the entire set of permitted industrial facilities identified by DEQ as subject to the CAO program, divided by the total number of facilities. Note that these averages are not representative of what any specific facility will pay but simply reflect the estimated average across all facilities. Based on risk and the need for pollution controls, some facilities may pay less, but others may pay much more than the value presented in this table.

Table 4
Facility Program Costs for CAO under Low, Medium, and High Scenarios

Average Cost per Facility	Low Scenario	Medium Scenario	High Scenario
Year 1	$32,670	$165,531	$753,230
Year 2	$30,456	$779,863	$5,781,994
Year 3	$29,569	$413,594	$3,018,705
Year 4	$28,708	$401,548	$2,930,782
Year 5	$27,872	$389,852	$2,845,419
Year 6	$2,032	$70,317	$198,585
Year 7	$917	$136,625	$324,840
Year 8	$891	$75,178	$206,867
Year 9	$865	$72,989	$200,841
Year 10	$840	$70,863	$194,992
Year 11	$815	$68,799	$189,312
Year 12	$791	$66,795	$183,798
Year 13	$768	$64,850	$178,445
Year 14	$746	$62,961	$173,248
Year 15	$724	$61,127	$168,202
Year 16	$703	$59,347	$163,302
Year 17	$683	$57,618	$158,546

Table 4
Facility Program Costs for CAO under Low, Medium, and High Scenarios

Average Cost per Facility	Low Scenario	Medium Scenario	High Scenario
Year 18	$663	$55,940	$153,928
Year 19	$643	$54,311	$149,445
Year 20	$625	$52,729	$145,092
Average Annual	**$8,099**	**$159,042**	**$905,979**

IMPACTS TO SMALL BUSINESSES

The state of Oregon requires an analysis be conducted to evaluate impacts to small businesses, stating in Oregon Revised Statues 183.540,

> If the statement of cost of compliance effect on small businesses required by ORS 183.335 (2)(b)(E) shows that a rule has a significant adverse effect upon small business, to the extent consistent with the public health and safety purpose of the rule, the agency shall reduce the economic impact of the rule on small business.

However, although DEQ provided a range of costs (adverse impact) for small businesses, the analysis does not include mitigation of those economic impacts as required. Instead, the small business impacts section provides some potential costs to small businesses for complying with the proposed rule, such as for administration and equipment. The costs provided have large ranges and some appear very high for a small business. To give two examples, the DEQ analysis states:

> (1) that the cost could increase from $100 to $500,000, based on whether the firm would be required to perform computer modeling or a health risk assessment if cancer risk, chronic noncancer risk, or acute noncancer risk is above risk action levels; and
>
> (2) that the proposed rule could result in initial equipment costs of approximately $13,000 to $18.5 million and then approximately $400 to $7,600,000 in annual operating costs.

The high end of these ranges is not sustainable for most small businesses. However, the analysis does not discuss the potential for the proposed regulation to drive some small businesses out of operation or to relocate out of the state. For example, consider a small business in the metal fabrication industry with about 45 employees. The annual revenue for this company is $6,092,211.[5] Based on the average net profit margin of 2.68 percent to 5.41 percent for this industry,[6] the

[5] Dun & Bradstreet. 2017. Business Information, accessed September 28, 2017.
[6] CSI Market. 2017. Iron and Steel Industry Profitability. Available at (https://csimarket.com/Industry/industry_Profitability_Ratios.php?ind=107), accessed September 28, 2017.

company's net profit might reasonably have ranged from $163,271 to $329,589. Given this, even the low/least-likely scenario would reduce the profits between 9 and 18 percent, and the medium scenario would consume the entire profit margin, accounting for between 130 and 263 percent of profits. Using these numbers, the high-cost scenario would surely drive the company out of business, with the average annual cost estimate exceeding the profits by 930 to 1,878 percent. These estimates are shown in Table 5 below.

Table 5
Potential Impact to Small Business Example

Example Small Business Profits	Estimated Profits	Low Annual Costs/Profit	Medium Annual Cost/Profit	High Annual Cost/Profit
Low	$163,271	18%	263%	1,878%
Midpoint	$246,430	12%	175%	1,244%
High	$329,589	9%	130%	930%
Average	**$246,430**	**13%**	**189%**	**1,351%**

The impacts of the CAO, as proposed, will impose significant costs on small businesses, and will likely result in either: (1) forcing shutdowns of the businesses, or (2) causing the small firms to relocate to states with less formidable regulatory operating costs. The latter result, known as "leakage," implies that Oregon jobs will be lost.

In addition to the loss of jobs that Oregon will face if small firms close or leave the state, such a result implies a concentration of industry, reduced competition, and a less favorable environment for future small businesses to locate or start up in Oregon.

BENEFIT ANALYSIS

The DEQ Fiscal and Economic Statement rightly points out that in order to measure the benefits of the proposed CAO regulation, one would need to know specifically how much improved health might come about with the regulation in place, compared with the health status in Oregon absent the regulation. The analyst would need to know (among other factors) the specific chemicals being emitted, the dose-response relationships, the proximity of populations to facilities and emissions, the specific portion of health illnesses that are related to air toxics, and the prevalence of these illnesses in Oregon now. The best that DEQ can offer is to suggest that "reducing emissions *could* prevent substantial health costs"[7] (emphasis added).

Absent the specific information required to conduct a benefit analysis, the DEQ does estimate total health care costs in Oregon related to asthma, cancer, cardiovascular disease, and birth outcomes. This information is helpful but fails to address the question of whether the proposed CAO rule is likely to impact (reduce) the health outcomes or health care costs.

[7] Page 31 of the NOPR:

Some information regarding whether or not the regulation will bring about the desired health improvement may be found in the Portland Air Toxics Solutions Air Toxics Pollutant Summaries.[8] The report shows that many of the sources of the air toxics in Portland were related not to the proposed regulated facilities (Industry, point sources), but to mobile sources, small businesses like gas stations and home sources (all titled "Area" sources), off road construction equipment (off road mobile sources), "Background" sources from naturally occurring sources, and "Secondary" sources from chemical reactions that take place in the atmosphere. Figures 1 and 2 below show the percentage of each source found for 20 different air toxics of concern, as analyzed in the summary. Figure 1 shows all of the sources, and Figure 2 adjusts the color of the point sources for several of the compounds. For trichloroethylene and perchloroethylene, the concentrations of those pollutants were found to be below the benchmark for concern. For lead, manganese, and nickel compounds, these were not found to be above the benchmark with certainty, but instead the conclusions are that "some local areas of Portland may be above the benchmark."[9] Consequently, the color for those three compounds is displayed using a hatched pattern, while the color for trichloroethylene and perchloroethylene are shown in light blue.

[8] DEQ, 2011. Air Toxics Pollutant Summaries, Portland Air Toxics Solutions, available at: http://www.oregon.gov/deq/FilterDocs/05-AQ-003_AirToxics.pdf

[9] DEQ, 2011. Air Toxics Pollutant Summaries, Portland Air Toxics Solutions, available at: http://www.oregon.gov/deq/FilterDocs/05-AQ-003_AirToxics.pdf, page 17

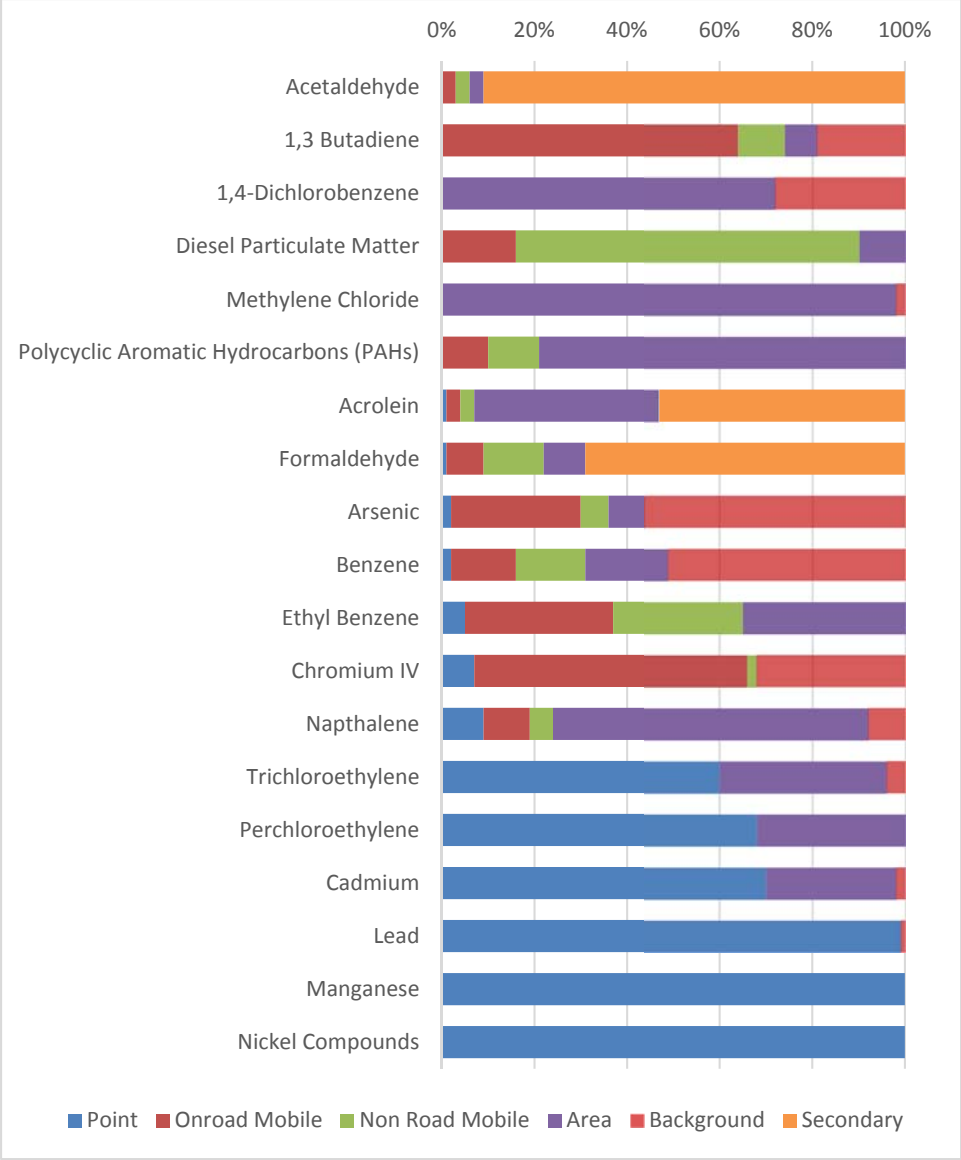

Figure 1: Sources for 20 Air Toxics in Portland Analyzed by DEQ (2011).

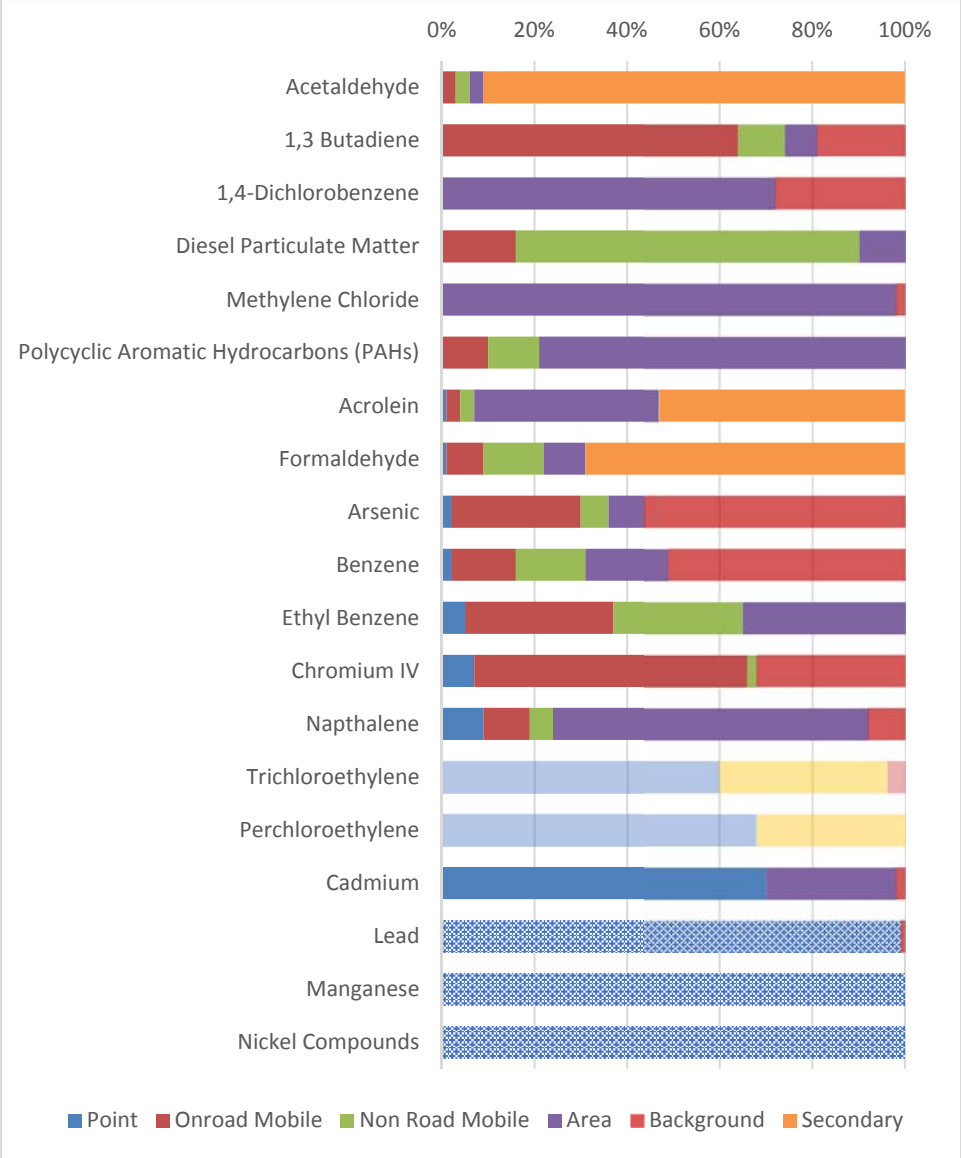

Figure 2: Sources for 20 Air Toxics in Portland Analyzed by DEQ (2011), with point source colors adjusted because concentrations were found to be below the benchmark or results were uncertain.

The implications of this analysis suggest that a total of 6.25 percent of the sources for all pollutants analyzed in this study are related to the point sources that the proposed CAO rule will

address.[10] To bring about an improvement in the health impacts of toxics, the question must be raised about how to address the other 93.5 percent of source types.

Further extrapolating from the benefit discussion in the DEQ statement about annual costs that are potentially attributable to ALL environmental factors can produce some additional insights. First, starting with all costs for each type of health concern and then multiplying by the stated fraction attributable to all environmental factors, the following totals can be calculated for Oregon as annual totals for all environmentally sourced illnesses:

- Asthma—$411,000 to $1.2 million
- Cancer—$38 million to $190 million
- Cardiovascular disease, (assuming 1 to 10 percent are attributable to environmental conditions)—$36 million to $360 million

Totaling these results in $74 to $551 million per year in total costs for all asthma, cancer, and cardiovascular disease estimated to be environmentally attributable. However, which portion of all environmental causes might be attributable to air toxics? DEQ's analysis does not even attempt to say. But, for purposes of illustration, by applying a conservative assumption that 10 percent of all environmentally attributable illnesses were related to air toxic emissions, and that 6.25 percent of those emissions were from point sources, then the total potential benefit in terms of health care cost savings would be between $446,000 and $3.3 million per year. And over 20 years, this totals between $9 and $66 million in NPV–compared to the estimated $2.8 billion in 20-year costs to Oregon businesses under the medium scenario, which is $140 million on an annualized basis.

To take this further, we consider an extreme case and assume that:

- All four million Oregonians live within an exposure radius to a regulated facility (which they do not).
- All facilities were found to require some compliance modification (which, if true, would mean that the costs of this regulation would far exceed the estimated $2.8 billion in the medium scenario).
- The average exposure reductions from the compliance were to be 10 in one million.

This extreme case would imply approximately 40 reduced cases of cancer-, or cardiovascular-, or asthma-related diseases. Given the DEQ estimates of $11,410 in health care costs for a cancer

[10] The 6.25 percent estimate does not account for the different quantities of each of the 20 pollutants, and was developed by excluding the two pollutants that are under the benchmark, and weighing the three that "may be" above the benchmark at 50 percent.

case, and $2,000 to $16,760 for a cardiovascular disease case, then the 40 cases would translate into a savings of at most $640,000 in health care costs at the expense of $2.8 billion.

Finally, the DEQ agrees that health outcomes decline with unemployment, so given the potential for leakage as explained in the small business comments, it is not clear whether this regulation would provide a net benefit gain in public health–that is, more gain than loss. For example, researcher Kate Strully analyzed data from the U.S. Panel Study of Income Dynamics that included over 8,000 individuals.[11] She concluded that:

> Losing a job because of an establishment closure increased the odds of fair or poor health by 54%, and among respondents with no preexisting health conditions, it increased the odds of a new likely health condition by 83%.

CONCLUSIONS

The DEQ's Fiscal and Economic Impacts analysis failed to calculate the overall costs and benefits of the program and, overall, was an incomplete analysis. Nevertheless, after completing a fuller analysis using DEQ's assumptions, the overall result of our review points to the fact that the industry share of the cost burden associated with the proposed CAO is not justified with evidence of commensurate or even any specific benefits from the regulation. The industry could face $8.4 billion or more in NPV costs over the next 20 years extrapolating from estimates provided by the DEQ regarding industry costs. We suspect this number could be much larger if more realistic costs were used in the analysis. Further, the estimate of total cost would be much more accurate if some assessment were made to better understand the magnitude of facilities that might need to adopt additional control technologies as a result of this rule.

In comparison to the certain costs facing the industry, the benefits of the proposed regulation are highly uncertain, and it is not clear if there will be any such benefit. The regulation only addresses facilities, which (as point sources) are a small component of the total sources of toxic emissions. As such, if there is a statewide problem with toxic emissions (which does not seem to have yet been answered by DEQ) then it is still not clear that the CAO rule, as designed, will significantly address the problem. In very crude terms, we have estimated a potential health care cost savings associated with this regulation totaling between $446,000 and $3.3 million per year, with a middle value of $1.8 million if job loss is not taken into consideration. This may be compared with approximately $140 million on average in annualized costs to Oregon businesses under the medium scenario described above. Hence, the potential benefit might be just 1.3 percent of the costs of the regulation, which translates to a benefit to cost ratio of 0.013. In other words, there might be approximately $76 dollars in cost invested to produce $1 dollar of benefit.

Finally, the potential for indirect impacts have not been evaluated. These include the potential for firms, especially small businesses, subject to the CAO rule to either shut down or move to other

[11] Strully, Kate W. 2009. Job Loss and Health in the U.S. Labor Market, Demography, May; 46(2): 221-246.

states. This would reduce the competitiveness of Oregon firms and increase unemployment in Oregon. The increased unemployment in turn would have its own set of health impacts and associated costs.

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Re: Comments on Proposed Cleaner Air Oregon Rules

Dear Joe:

I am writing as the spokesperson for Oregonians for Fair Air Regulations, 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 (referred to in this letter as "Oregonians for Fair Air Regulations" or the "Coalition"). This massive coalition of Oregon businesses repeatedly submitted public comments during the Cleaner Air Oregon ("CAO") Rulemaking Advisory Committee ("RAC") process and remains dedicated to the development of a successful regulatory program for all Oregonians. Oregonians for Fair Air Regulations, however, is gravely concerned about the proposed rules and the profoundly negative impact they will have on Oregon's businesses without commensurate public health benefits.

Oregonians for Fair Air Regulations 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 overburdening our agencies. The Department committed itself to these very goals in several public hearings, as illustrated by the following statement by Oregon Department of Environmental Quality ("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).

The proposed rules purport to advance Director Whitman's statement by explicitly describing the very "purpose of Oregon's risk-based air toxics permitting program" to include:

> [r]educ[ing] exposure to industrial and commercial air toxics emissions **while supporting an environment where businesses and communities can thrive.**

OAR 340-245-0005(1)(d)(emphasis added).

As explained below, the proposed rules fail to meet those objectives. Far from supporting thriving businesses and communities, the proposed rules would unnecessarily burden hundreds of businesses, with disproportionate impacts on rural employers. Oregonians for Fair Air Regulations is deeply concerned that the proposed rules will drive businesses out of state and discourage job-creating and job-sustaining investments, thereby creating significant health consequences.

As discussed in the attached report prepared by a professional economist at Maul, Foster & Alongi ("MFA"), the true economic impacts of this rulemaking were not completely or accurately considered by DEQ or reported in the agency's statement of the rules' fiscal and economic impact. MFA found that DEQ failed to complete a full cost-benefit analysis of the rules' impact. On the cost side, applying DEQ's own assumptions (e.g., the number of affected facilities), MFA's analysis reaches striking and alarming conclusions. According to MFA, using DEQ's own assumptions, **this rulemaking could cost Oregon businesses as much as $8.4 billion (net present value) over the next 20 years.** In the first five years of the program's implementation alone, per-facility costs could run as high as $15 million net present value. MFA's analysis indicates that small businesses will be among the hardest hit.

Again, using DEQ's assumptions, **MFA quantified that the rules' cost to small businesses has the potential to drive those businesses into bankruptcy or out of Oregon**. MFA's report contrasts the CAO program's estimated costs to Oregon businesses with DEQ's abject failure to quantify the program's benefits. In its own benefits-side analysis, MFA concludes that the program's benefits are extremely uncertain, if present at all. In simple terms, MFA finds that DEQ has not determined whether there is a statewide problem with toxics emissions, or whether that problem (if it exists) could be solved by a program focusing on Oregon's businesses, whose emissions represent a tiny fraction of air toxics statewide.

It does not take a professional economist to see that the health of all Oregonians has not been adequately considered in this rulemaking. As was repeatedly recognized during the RAC meetings, employment is the best indicator of a community's health. Employment is critical to a community's dignity. DEQ should not reflexively embrace 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, its rural communities and its working families has not been directly addressed or adequately considered by DEQ. The Department has not considered the information available to assess the comprehensive economic impacts of this rulemaking. As proposed, the Department's Fiscal And Economic Impacts Assessment is therefore incomplete and inadequate. Dismissing or downplaying the rules' economic impacts will lead to a program that causes far more harm than good to local health, by eliminating manufacturing jobs without meaningfully improving air quality.

Coupled with the many underdeveloped, flawed and concerning substantive elements of the proposed rules, the Department's failure to consider the rules' actual impacts to Oregon's economy and communities means this rulemaking cannot move forward on the Department's current schedule. Instead, the Department must slow down and take the time needed to both improve the substance of the rules and thoroughly analyze their true economic impacts, using all available information. Only after that effort is complete should the Department reissue the rules as well as an amended Fiscal and Economic Impact Assessment for another round of public comment.

With these thoughts in mind, Oregonians for Fair Air Regulations makes the following specific comments in response to the proposed CAO rules. These comments reflect the collective concerns of the broad coalition we represent. The comments are not necessarily presented in order of importance.

In order to assist in understanding our comments, we first present Table 1 below which provides a summary of the changes to the proposed rules and rulemaking process that we are requesting. Table 1 must be read in conjunction with the comments below which explain the logic and provide the detail for what Oregonians for Fair Air Regulations is requesting.

Table 1: Summary of Requested Changes to Rules

Proposed Rule	Primary Requested Changes
OAR 340-245-8010 Table 1	• Limit program to new/modified sources. • If existing sources are regulated, change applicable Risk Action Levels ("RALs") to 100 in 1 million excess lifetime cancer risk and a Hazard Index of 10 • Change new source RALs to 25 in 1 million excess lifetime cancer risk and a Hazard Index of 3 • Exempt pollutants emitted below *de minimis* levels from Health Risk Assessment ("HRA") process
OAR 340-245-0100	• Retain the Alternate Non-cancer Risk Action Level ("ANRAL") option for both a specific source and an area • Delete proposed OAR 340-245-0100(a)-(d) • Clarify that an ANRAL can be granted to a source that has not completed a Level 4 risk assessment • Allow ANRAL applicants to refer to scientific data from any credible source (e.g., World Health Organization)
OAR 340-245-0200	• Revise to allow existing sources to model based on their actual emissions • Clarify that Toxic Emission Units ("TEUs") to be covered by a Source Risk Limit need not be modeled • Clarify that Division 245 is not intended to limit use of existing production capacity
OAR 340-245-0020(21) & (48)	• Calculate risk for all sources based on 26 years exposure for 350 days/ per year • Only consider risk at locations where individuals are actually exposed for the averaging period (e.g., 24 hours) • Identify exposure locations based on current, actual land use • Delete the phrase "documented as planned to be zoned" wherever that phrase is used
OAR 340-245-0080 & -0240	• Revise rule to allow ambient monitoring to be completed before a risk assessment is performed or reduction obligations imposed • Allow use of monitoring data to calibrate any future on-site modeling • Allow deferral of HRA if source desired to collect site-specific meteorological data • Allow monitoring for less than 12 months with DEQ's approval
OAR 340-245-0020(5)	• Revise definition of "air toxics" to address exclusively human health

Proposed Rule	Primary Requested Changes
OAR 340-245-0220 & -0240	• Allow delay to implement Risk Reduction Plan based on ambient monitoring • Clarify Risk Reduction Plan extension granted upon showing to DEQ's "reasonable satisfaction" • Incorporate Force Majeure concepts • Clarify there is no community engagement process associated with resubmitting a Risk Reduction Plan to address deficiencies identified by DEQ • Only require a source to consult reasonably available information for purposes of identifying, in the Community Engagement Plan, the various entities within a notification area
OAR 340-245-0030 & -0070	• Limit construction approval process to period after issuance of Permit Attachment • Eliminate 10 day review period for exempt, de minimis and risk reduction categories • Delete requirement that DEQ must approve any facility changes even if no change to Permit Attachment is necessary • Clarify, in OAR 340-245-0070(2)(a)(A) , that construction is allowed whenever total cumulative risk from all air toxics emitted by a new or modified TEU is no more than the total risk from the TEU being replaced or modified
OAR 340-245-0080	• Extend the exemption for gas combustion to include natural gas, liquefied petroleum gas, methane (including landfill gas), propane, biogas, synthetic natural gas and other similar gas streams • Define the combustion of natural gas as TBACT for any combustion device • Delete requirement that DEQ approve all gas and propane combustion calculations
OAR 340-245-0210	• Limit risk assessment to places where people are actually being exposed • Eliminate the prohibition on considering alternate Toxicity Reference Values ("TRVs") in -0210(2)(d))

Proposed Rule	Primary Requested Changes
OAR 340-245-0090	• Defer action on multi-source program until there is enough detail to allow meaningful comment • Exempt gas combustion sources from multi-source program • Limit size of area to a census block or less • Eliminate applicability of Notice of Construction ("NOC") moratorium outside designated multi-source area • Define multi-source areas based on RAL, not 2/3rds of RAL • Develop current emission inventories before assessing multi-source area boundaries • Develop an offset / trading program to decrease economic harm associated with construction moratorium • Perform multi-source area assessment using actual emissions • Limit size of area to maximum of 5 census tracts
OAR 345-245-0310	• Revise monitoring requirements to allow for more source flexibility • Eliminate requirement that acute monitoring must be performed *at least* monthly under all circumstances • Eliminate requirement to assess potential to emit for sources requesting Source Risk Limit • Add language that exceeding a Source Risk Limit is not a violation if the source takes steps to address the exceedance.
OAR 340-245-0220, -0230 & -0330	• Retain Conditional Risk Level concept where TBACT applied • Retain cost-effectiveness as component of TBACT • Eliminate annual community meeting requirement under TBACT once controls installed • Eliminate annual TBACT report where assessment concluded that TBACT consists of no controls • Amend to state that if source subject to a NESHAP, then no additional controls beyond NESHAP compliance • Amend to state that if source subject to NSPS, BACT or LAER, controls are presumptively TBACT if they control toxics • Eliminate consideration of criteria pollutants in determining cost-effectiveness of toxics controls • Eliminate $6,000 per TEU TBACT review fee
OAR 340-245-0020(36)	• Limit notification area to those receptors within the area of impact

Proposed Rule	Primary Requested Changes
OAR 340-245-0250 and individual sections	• Revise to establish DEQ as the leader of all public meetings • Revise deadlines to get the various program requirements to match up • Limit public meetings to an information meeting when an application is received and a meeting upon formal proposal of the Permit Attachment • Eliminate complaint line requirement as this is a toxics program, not a nuisance program • Eliminate requirement that sources establish community committees • Revise public participation requirement to eliminate impractical elements (e.g. sending out applications to every household; requiring that all meetings be held in locations accessible by public transportation) • Eliminate requirement for source to arrange for translators • Eliminate requirement for source to use biased and misleading statement as part of community notice
OAR 340-245-0020(42) & -0030(6)	• Eliminate reconstruction as a concept as it is inconsistent with key program elements • If reconstruction retained, significantly rework the concept (including adding concept of technical and economic feasibility) and renotice
OAR 340-245-0050	• Amend deadlines to allow for time needed to generate a robust work product
OAR 340-245-0340	• Specify that the first step under the CAO program is to generate an emissions inventory consistent with the rules • Revise rules to create a process that generates emissions inventory data that is consistent between different sources • Integrate emissions inventory development process into the risk assessment process
OAR 340-245-0400	• Replace rigid information source hierarchies with specific criteria for recommending a TRV using current and credible scientific information, whatever the information source • For each TRV, provide a discussion of the basis for that value, including justification for why one available value is recommended over others • Revise OAR 340-245-0400(3) to eliminate the selection of ATSDR Intermediate Minimal Risk Levels as acute TRVs and to require that a comprehensive toxicological study completed with public input before any acute TRV value is set equal to or lower than its corresponding chronic TRVs
OAR 340-245-0020(55)	• Revise TEU definition to limit to units emitting toxics and renotice

Proposed Rule	Primary Requested Changes
OAR 340-245-0410 Tables 3 and 5	• Correct errors with TRVs in Table 3 and Risk-Based Concentrations ("RBCs") in Table 5 • Revise TRVs and RBCs to reflect technical comments • Review all TRVs with the Air Toxics Science Advisory Committee ("ATSAC") • Review all acute RBCs with ATSAC • Revise upward the proposed soil ingestion multi-pathway adjustment factor ("MPAF") • Review all MPAFs with ATSAC • Renotice rules with a complete set of information enabling understanding of and comment on the TRVs, MPAFs and RBCs being proposed
OAR 340-218-0110	• Eliminate exclusion of Air Toxics Permit Attachment requirements from Title V permit shield
Fiscal and Economic Impacts	• Revise and renotice Fiscal And Economic Impacts Assessment • Revise rules to mitigate impacts to small businesses

With Table 1 and this introductory overview in mind, we present below our detailed comments on various sections of the rules.

The Proposed Risk Action Levels (Listed at OAR 340-245-8010 Table 1) Are Too Conservative

Among of the most critical issues that we have with the CAO rules are the proposed Risk Action Levels ("RALs") (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 for new and existing sources). The proposed RALs are far too conservative. For the reasons explained below, both the cancer and non-cancer RALs should be increased 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 and the new source RALs to 25 in 1 million excess lifetime cancer risk and a Hazard Index of 3.

Cancer RAL

There is established precedent for the use of a 100 in 1 million cancer RAL for existing sources. The United States Environmental Protection Agency ("EPA") adopted that 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 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 that the risk calculation methodologies deliberately overestimate risk. For example, in assessing cancer risk, the proposed risk calculations assume that a business is operating at a set production rate for 70 years and that an individual is living at the same residence and breathing the outdoor air continuously (24 hours every day) for that entire time (70 years). Setting aside the fact that these assumptions bear no resemblance to reality, this model fails to account for the differences between indoor and outdoor air. EPA has previously estimated that exposure levels within a home to pollutants generated outside of the 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). Indoor exposures to outdoor pollutants are thus clearly overestimated 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

Oregonians for Fair Air Regulations is even more concerned about the singularly low non-cancer RALs that DEQ has proposed for new and existing facilities alike. As proposed, 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. Setting out to create a zero-risk environment would be 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 manufacturing sources with a non-cancer RAL set at a Hazard Index of 1 may not address health impacts from air toxics, but it will result in increased unemployment in Oregon's manufacturing sector. That result will, predictably, have far greater health impacts on mid- to low-income and rural communities than a more rational RAL. EPA's 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).

EPA further clarifies the lack of precision related to Hazard Quotients in the following discussion:

> A hazard quotient less than or equal to one indicates that adverse non-cancer effects are not likely to occur, and thus can be considered to have negligible hazard. HQs greater than one are not statistical probabilities of harm occurring. Instead, they are a simple statement of whether (and by how much) an exposure concentration exceeds the reference concentration (RfC). Moreover, **the level of concern does not increase linearly or to the same extent as HQs increase above one for different chemicals because RfCs do not generally have equal accuracy or precision and are generally not based on the same severity of effect**. Thus, we can only say that with exposures increasingly greater than the RfC, (i.e., HQs increasingly greater than 1), the potential for adverse effects increases, but we do not know by how much.

> **An HQ of 100 does not mean that the hazard is 10 times greater than an HQ of 10. Also an HQ of 10 for one substance may not have the same meaning (in terms of hazard) as another substance resulting in the same HQ.**

EPA National Air Toxics Assessment Glossary of Terms; https://www.epa.gov/national-air-toxics-assessment/nata-glossary-terms (emphasis added).

During the RAC process, 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 agree with that point; EPA itself states in the quote above, that a Hazard Index is not proportionate to risk. But this truism underscores why it is critical to have the non-cancer RAL set at a value greater than a Hazard Index of 1. No justification has been provided to 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.

Amendments to RALs

As shown in Table 2 below, comparable air toxics programs in California have adopted significantly higher RALs than DEQ has proposed. 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.

Table 2. Comparison of DEQ Proposal to Comparable CA Programs

Agency	Existing Source Acceptable Risk Threshold	
	Cancer*	Non-cancer
Bay Area Air Quality Management District (San Francisco)**	100	10
South Coast Air Quality Management District (Los Angeles)	25	3
San Joaquin Valley Air Pollution Control District (Arguably the most comparable district)	100	5
DEQ Proposed	25	1

* in 1 million excess lifetime cancer risk

**After 30 years, at the end of 2017 Bay Area amended its rules to make them more stringent than the values shown (which applied when DEQ proposed its program). Bay Area operated its program for three decades to address the high risk sources and, only then, ratcheted the risk thresholds downwards. DEQ should proceed in the same manner and only make its rules more stringent after it has a mature established program.

No explanation is provided by DEQ as to why it would make its existing source program more stringent than the South Coast Air Quality Management District ("AQMD") program, which has generally been considered the most stringent in the country. South Coast AQMD has a large and experienced staff that supports its toxics program on everything from modeling to monitoring to public relations.

Just as DEQ needs to build its staff resources for the CAO program, it should build the program over time and not start off with a program more stringent than South Coast AQMD's.

DEQ has repeatedly stated that its proposed RALs are consistent with those applied in Washington, although this is inaccurate as to both existing and new sources. Washington's toxics program does not apply to existing sources that do not undergo modifications. If modifications are made, they are required to employ TBACT and are assessed on their own merits (i.e., the toxics from the new equipment, not the whole site, is assessed). This approach properly reflects the difficulty in and punitive nature of retrofitting controls on existing equipment, as opposed to new or modified equipment. For new sources, Washington applies a 10 in 1 million excess lifetime cancer risk standard, but not on a cumulative basis; this standard applies only to that subset of a facility's toxics that exceed the Acceptable Source Impact Level. See, WAC 173-460-090(7). Therefore, the Washington process is considerably narrower than the proposed Oregon process and does not represent a cumulative analysis. Chapter 173-460 WAC does not contain a numerical limit on allowable cumulative cancer risks applicable to new or existing sources. Washington has applied a cumulative risk goal to new sources of 100 in 1 million excess lifetime cancer risk. DEQ is thus proposing a new source standard that is 10 times more stringent than the Washington cumulative risk goal.

DEQ has also repeatedly compared its program to the Louisville Metro Air Pollution Control District program, but has not acknowledged that the Louisville program is significantly less stringent than what DEQ is proposing. For example, in assessing existing sources, the Louisville Metro APCD program only considers 37 chemicals (19 of which can be ignored if not included in a source's federal Toxic Release Inventory Form R report) as compared to the 600-plus chemicals addressed under the proposed DEQ program. In addition, the Louisville Metro APCD program has various exemptions not found in DEQ's proposed program, including an exemption for de minimis emissions and the complete exclusion from consideration of "[e]missions from the combustion of natural gas, liquefied petroleum gas, methane (including landfill gas), or propane." The differences between the Louisville Metro program and what DEQ is proposing are profound.

DEQ has also compared its proposed program to the Idaho, New York and Rhode Island programs. However, like the Washington program, none of these states regulate existing sources. Instead, these states ensure that a source addresses air toxics at times of expansion or new construction. These are measured programs that have successfully regulated air toxics.

Despite repeated requests, DEQ has provided no adequate basis for why Oregon should start its program with considerably more conservative values than programs established in our neighboring states of California and Washington. Moreover, DEQ has failed to analyze the impact these regulatory values will have on both the regulated community, the public at large and the agency.

We strongly encourage the Department to increase the RALs to reflect more realistic values that can achieve the objectives of the CAO program stated in OAR 340-245-0005(2) (i.e., that the risk from existing sources is below 100 in 1 million and hazard index of 3 by 2030). Likewise, similar to Washington, source risk assessments against the RALs should only apply to the subset of air toxics at a facility that are emitted in excess of de minimis levels.

No Limitations Should be Placed on the Ability to Request an ANRAL (OAR 340-245-0100)

Oregonians for Fair Air Regulations supports the idea that regulated sources should have the option of proposing Alternate Non-cancer Risk Action Levels ("ANRALs"). As OHA's toxicologist acknowledged at the June 20, 2017 RAC meeting and EPA explains in the quotes above related to Hazard Quotients, the quality of the assumptions and the level of uncertainty factors applied to determine cancer and non-cancer risk are very inconsistent. In the DEQ 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. The Coalition agrees that, in light of this disparity in the quality of Reference Concentrations ("RfCs") and, hence, Hazard Quotients, there should be a pathway for examining non-cancer risk and establishing an appropriate source-specific non-cancer RAL that reflects the combined risk of the relevant air toxics emitted by the source and their associated RfCs. We likewise support the area-specific ANRAL concept.

Oregonians for Fair Air Regulations requests that DEQ delete the proposed OAR 340-245-0100(1)(a) - (d). The purpose of the ANRAL is to enable DEQ to assess the relevant RfCs and develop a non-cancer RAL that reflects the best science. DEQ should not put hard limits on its discretion. For example, if a given Toxicity Reference Value ("TRV") in Table 3 of the proposed rules is found to be in clear conflict with current science, it would make perfect sense in a science-based program to allow a source to document this to the agency and for the agency to correct the assumptions accordingly. However, the proposed OAR 340-245-0100(1)(d) would prohibit this otherwise common sense approach.

Similarly, OAR 340-245-0100(1)(c) inappropriately prohibits DEQ from granting an ANRAL "for any air toxics with toxicity reference values based on severe health effects." This makes no sense from two perspectives.

First, a RAL is not associated with a single air toxic--it reflects the cumulative impact of all air toxics emitted. It would make no sense to prohibit the use of an ANRAL for a source where 99% of its risk came from emissions not associated with severe health effects just because 1% of the risk was associated with severe health effects.

Second, the whole purpose of an ANRAL is to examine the underpinnings of one or more RfCs. As EPA stated (and as quoted above), "the level of concern does not increase linearly or to the same extent as HQs increase above one for different chemicals because RfCs do not generally have equal accuracy or precision and are generally not based on the same severity of effect...."

The valid reason to issue an ANRAL is to normalize the effects across different RfCs that were developed differently. If the RfC associated with an air pollutant is extremely inaccurate, then the ANRAL process should be an option, regardless of the potential impacts associated with that pollutant. To exclude certain types of pollutants from this type of assessment flies in the face of common sense and brands this program as one that is not based on science.

Proposed OAR 340-245-0005(1)(b) states that the goal of the rules is to "[a]nalyze public health risk from air toxics emissions from industrial and commercial sources based on verified science and data." Imposing arbitrary prohibitions on the use of verified science and data is contrary to this stated goal. For this reason, and the reasons stated above, the proposed OAR 340-245-0100(1)(a) - (d) should be deleted from the final rule.

Oregonians for Fair Air Regulations is also concerned about language not stated in the rule, but that is stated in the implementation document also placed on public notice (*Recommended Procedures for Conducting Air Toxics Health Risk Assessments* or "Draft HRA Procedures"). That document states that ANRALs can only be requested as part of a Level 4 risk assessment. However, there is no reason to limit ANRALs to those situations where a Level 4 risk assessment is required. No such limitation is present in the rule language. We request that it be clarified in the rules that a Level 4 risk assessment is not a prerequisite to requesting an ANRAL.

CAO Should Focus on Actual Emissions and Not Hypothetical Emissions (OAR 340-245-0200)

Oregonians for Fair Air Regulations strongly disagrees with the Department's proposal to require that all modeling be based on potential to emit rather than actual emissions. The proposed OAR 340-245-0200(3) expressly states that all modeling must be based on "pre-existing potential to emit." The term "pre-existing potential to emit" is defined as the potential to emit before taking into account any limits proposed by the source as part of the CAO process. Proposed OAR 340-245-0020(41). This approach should be changed to allow existing sources to model based on actual emissions.

There are multiple flaws with the proposed approach of requiring that modeling be based on potential to emit. First, using potential emissions is contrary to good public policy. Oregonians are interested in knowing what risk they are actually exposed to. There is very limited value in being informed of a hypothetical risk that does not actually exist. A program based on hypothetical risk rather than actual risk will confuse and misinform the public.

DEQ should not embrace such an approach. Other programs, such as South Coast AQMD's program, assess the risk from an existing source's actual emissions in a particular year and not on potential emissions. Under the South Coast AQMD 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.

Second, accurately estimating a source's potential to emit air toxics can range from extremely difficult to impossible. As we have stated previously, the idea that potential to emit of air toxics can be derived based on production level assumptions underlying the Plant Site Emission Limits ("PSELs") is wrong. Air toxic emissions are often not consistent with production. In addition, emissions may change over time as different inputs to the process evolve. A PSEL-derived potential to emit approach would force a facility to overestimate its emissions based on its worst-case product mix for each air toxic--an outcome that would greatly overstate risk posed by the facility.

Third, requiring modeling to be performed based on a source's pre-existing potential to emit contradicts the concept of a Source Risk Limit (proposed OAR 340-245-0310). The proposed rules do not define the process through which a source will establish a Source Risk Limit. The Draft HRA Procedures, however, state that in conducting a Level 3 risk assessment, a source can choose to assess its air toxics emissions using the requested Source Risk Limit (this possibility does not appear to be discussed as an option for a Level 4 risk assessment). However, this language does not appear to be reflected in the rules themselves. Proposed OAR 340-245-0200 should be revised to clarify that a source proposing a Source Risk Limit need not model for those TEUs covered by the Source Risk Limit as the Source Risk Limit supplants the need for further modeling (regardless of the level of risk assessment employed).

Oregonians for Fair Air Regulations is concerned about another aspect of DEQ's focus on a source's potential to emit air toxics. Inherent in that focus is the flawed notion that a facility can or should simply accept permit limitations on production to limit its air toxics potential to emit. However, a mainstay of the Oregon air program and the foundational premise 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**...") (Emphasis added). The proposal to require the use of potential emissions in imprecise, overly-conservative risk estimation calculations and to thereby force facilities to accept production limits would remove essential flexibility provided by the PSEL program. Existing facilities should have the option to model based on their actual emissions.

Risk Based Concentrations and Exposure Locations Should Apply Reasonable Assumptions
(OAR 340-245-0020(21) & (48))

Oregonians for Fair Air Regulations is concerned about the disconnect between the goals of CAO and the requirements for where exposure needs to be assessed. Proposed OAR 340-245-0005(1)(b) states that the goal of the rules is to "[a]nalyze public health risk from air toxics emissions...." However, if a person is not exposed for the requisite period of time at the location being assessed, then the risk analysis will be fundamentally flawed. This issue presents itself in the proposed rules in two ways, each of which should be revised.

First, the proposed rules calculate residential chronic risk based on exposure occurring 24 hours each day for 365 days per year for 70 years. See, proposed OAR 340-245-0020(48) (defining "Risk-Based Concentration"). Assuming a continuous exposure for a full lifetime of 70 years is much higher than what is reasonably or typically assumed for cancer risk assessment applying EPA risk assessment guidelines and does not accurately assess public health risk. EPA's Risk-based Screening Levels ("RSLs") for residential air are based on a more reasonable exposure duration of 26 years for carcinogenic and non-carcinogenic chemicals. DEQ's RBCs should be established by reference to EPA's 26-year duration assumption. The EPA residential exposure assumptions -- of 24 hours per day, for 350 days per year, for 26 years -- are already at the conservative end of what is a reasonable upper-bound estimate:

- Assuming 24-hour daily exposures over a 350-day period does not align with available data. EPA's 2011 Exposure Factors Handbook, for example, reports that the vast majority of time spent by children and adults at their residences is indoors, not outdoors. Exposures attributable to industrial emissions decrease significantly when a person moves indoors. As noted above, EPA has estimated that exposures decrease by 20 to 40 percent indoors, as compared to outdoors.

- Assuming that a resident lives in one location for 26 years is similarly inconsistent with the data. EPA's 2011 Exposure Factors Handbook reports 50th and 90th percentile residence times of 8 years and 32 years, respectively, based on 2007 US Census Bureau data. Another study cited within EPA's 2011 Exposure Factors Handbook (Johnson and Capel 1992) reports mean and 90th percentile residential occupancy periods of 12 years

> and 26 years, respectively. Thus, the available data indicate that the average residential occupancy is between 8 and 12 years.

Accordingly, the definition of Risk-Based Concentration at proposed OAR 340-245-0020(48) should be revised to indicate that residential chronic RBCs must be calculated based on EPA's exposure assumptions and should not apply a grossly overestimated 70-year residential exposure duration. Not even California takes such a conservative position in its air toxics program. If EPA's conservative exposure assumptions are not used, then the residential chronic RBCs for the proposed rules should be no more stringent than DEQ's own standard residential default exposure duration of 30 years for inhalation hazards, as described in DEQ's cleanup program Human Health Risk Assessment Guidance (October 2010). This would make DEQ consistent with the 30-year residential exposure that the California Office of Environmental Health Hazard Assessment ("OEHHA") adopted for use state-wide in assessing air toxics risk under the AB2588 program.

Second, the locations where risk is assessed (defined as the "exposure locations" in the proposed rule (OAR 340-245-0020(21)) need to be revised to reflect actual exposures. As proposed, chronic residential exposure locations are not just locations where a person could actually be exposed, but instead are residential locations where:

> persons may reasonably be present for most hours of each day over a period of many years, including individual houses and areas that are zoned, or documented as planned to be zoned, to allow residential use either exclusively or in conjunction with other uses[.]

Non-residential chronic exposure locations are likewise not confined to actual locations but instead are defined to include locations where:

> persons may reasonably be present for a few hours several days per week, possibly over a period of several years hours of each day over a period of many years, and that is zoned, or documented as planned to be zoned, for uses that do not allow residential use[.]

Similarly, under the proposed rules, acute exposure must be assessed in any location considered to be a chronic exposure location and any other "locations where a person may spend several hours of one day, such as, but not limited to parks and sports facilities."

These definitions of what constitutes an exposure location where risk must be assessed will greatly exaggerate actual risk. That is because these definitions focus on locations that are conceivably possible as opposed to locations that actually exist.

Also, the periods of time that a person has to be present at an exposure location are not clearly tied to the methodology for how risk is determined. For example, if acute risk is determined based on a 24-hour exposure, then a person should have to be there for close to 24 hours. Assessing exposure as if someone were present for 24 hours when nobody is present for more than a few hours will greatly distort the risk assessment.

We strongly recommend that DEQ identify exposure locations based on current, actual land use and not require sources and agency alike to second-guess what land use development may or may not occur in the future, whether under current or planned zoning. For example, residential impacts should be assessed only where residences actually exist, not where they are theoretically allowed under current zoning. Requiring that all areas zoned as residential be assessed as generating residential exposures regardless of whether they are actually developed for residential use would impose considerable hardship on struggling and rural communities, where population may be shrinking. Furthermore, the assumption that zoning is clear about where residential development can and cannot occur is overly simplistic. On forest and farm lands it is possible to develop a residence if specified criteria are met. DEQ's approach appears to require that all farmlands and forest lands be modeled as residential receptors. There is no reason to take such a conservative approach. The public should not be misled about impacts that are not actually occurring under current, actual land use.

Requiring sources to assess exposures against possible future zoning changes would cause risk assessments to become even more attenuated from reality. It is likewise unclear what DEQ means by areas that are "documented as planned to be zoned." What level of documentation is sufficient to require including the area as an exposure location? Whose plan for the area is controlling? Long term planning processes change, and it is irresponsible to guess at what is planned to be changed. DEQ should drop this concept of documented, planned zoning changes from the proposed rules in favor of assessing risk at those locations actually used at the time of the HRA for a particular purpose. DEQ is proposing in OAR 340-245-0030(9)(a)(C) the authority to require updates of HRAs if "[t]he zoning in the area has changed in a way that could materially change the results of the Risk Assessment." If an HRA can be required to be updated based on changed land use, there is no reason to guess at areas where zoning may change in the future.

DEQ's proposed definition of an acute exposure location to include anywhere in which a person could conceivably spend several hours of any one day is likewise overbroad. Defining acute exposure locations in this manner would grossly inflate the risks posed. This definition also bears little relationship to the proposed definition of "acute" as risk which is "evaluated over a 24-hour period." Proposed OAR 340-245-0020(2). While people may be present in parks or on athletic fields for short periods (even several hours at a time), it would be unreasonable and (in many instances, contrary to local land use laws) to assume that people are present at these locations for a full 24-hour acute exposure period.

Requiring such locations to be assessed as if people were being exposed there for a full, 24-hour period is therefore factually inaccurate and will cause the rules to focus unnecessarily on speculative impacts that do not reflect reality.

Ambient Monitoring Should be Rewarded, Not Discouraged, Under the Program (OAR 340-245-0080 & -0240)

Modeling is inherently inaccurate in that it is designed to overestimate risk. Modeling can serve a useful purpose in identifying relative impacts across locations, but it is not equivalent to actual monitoring. Since the CAO program cannot depend solely on monitoring without an extensive and comprehensive state network of monitors, any individual existing source that chooses to engage in a Department approved monitoring effort should be allowed to do so in lieu of having to rely exclusively on modeling when performing a site-specific Health Risk Assessment. However, the proposed OAR 340-245-0080(1)(a)(F) requires that a source that "elects to perform Cleaner Air Oregon monitoring must proceed with [the full risk assessment and risk reduction process] if required, and may not delay those actions because the owner or operator is performing Cleaner Air Oregon monitoring." This requirement to proceed with the expense of a risk assessment and reduction measures while monitoring is being performed places a significant disincentive on performing monitoring. Similarly, the provisions in the proposed OAR 340-245-0240 related to what a source must do if it desires to perform ambient monitoring are excessive and will discourage monitoring while providing no meaningful benefit to the public. Yet, the data generated by properly placed and operated ambient monitors would be more accurate than information generated by a model and would provide more value to the public. Therefore, any sources that choose to make that investment in monitoring should be incentivized to do so. Accordingly, we strongly recommend that the proposed rules be changed so that a source can opt to pursue monitoring as the basis for its Health Risk Assessment. The proposed rules should also be changed to reduce the requirements imposed on a source that volunteers to perform monitoring.

DEQ's apparent bias against ambient monitoring is especially confusing given the agency's own extensive use of ambient monitors to assess acute and chronic impacts. DEQ notes in its implementation document that:

> A year of monitoring results may reasonably provide an annual average concentration at the monitoring station, suitable for comparison with chronic RBCs; however, it is far more difficult to determine the highest daily concentration that could occur at a monitoring location.

This statement appears to contradict DEQ's own public position that its ambient monitors adequately characterized ambient concentrations where they have been deployed.

Even if this statement is taken at face value, it endorses the idea of ambient monitoring being a good means of assessing chronic exposures.

We note that there has been considerable work in recent years using ambient monitoring to calibrate emissions modeling. To the extent that DEQ objects to the use of monitoring because it cannot demonstrate impacts at all locations and during all acute and chronic exposure periods, this can be addressed through the use of combined assessments of modeling and monitoring ("CAMM") results. CAMM studies have been used extensively in recent years to calibrate models to particular circumstances. As stated in the Ontario Ministry of the Environment guidance on CAMM programs:

> Monitoring results can be used to identify systemic biases ("biases") in modeled concentrations, which can occur due to a number of factors including: (a) the adequacy of the surface characteristics, source parameters and building information used in the modelling assessment; and (b) any uncertainties or omissions in the facility's emission data.[1]

CAMM studies enable a source to isolate the times when it is impacting a monitor and use the resulting monitoring data to identify and correct modeling biases. Clearly, modeling versus monitoring is not an either/or choice; rather, the data from properly done monitoring should be used to determine actual concentrations and to adjust any modeled concentrations. This is a well-documented benefit of ambient monitoring and is yet another reason why the HRA process should not be completed before the ambient monitoring process where a source is willing to perform monitoring. Where DEQ monitoring data are already available, a source should be actively encouraged to use those data under a CAMM protocol to correct the modeling for bias. This is the sort of science-based approach that DEQ has repeatedly stated it wants to achieve.

We also note that there are some sources for which the development of an emissions inventory is extremely difficult (e.g. sources with batch operations) or where fugitive emissions are a dominant source. For those sources, ambient monitoring may be the only useful means of developing a reasonable estimation of the facility's risk.

In addition, the rules should be revised to provide DEQ the flexibility to approve a monitoring period of less than 12 months if the circumstances justify the approach.

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[1] Technical bulletin: Using Combined Assessment of Modelled and Monitored (CAMM) results to refine emission-rate estimates; https://www.ontario.ca/page/technical-bulletin-using-combined-assessment-modelled-and-monitored-camm-results-refine-emission.

While the default monitoring period is 12 months, there may be situations where 12 months of data are not needed. For example, seasonal swings are quite common in the Willamette Valley. If the wind is well documented to blow towards receptors for one part of the year and away from receptors for the other part of the year, there is no reason to require ambient monitoring during the portion of the year where the receptors are not impacted.
The rules should allow DEQ the flexibility to approve ambient monitoring periods of less than 12 months if the circumstances merit the approach.

Finally, the rules should specify that an HRA can be deferred to enable the collection of meteorological data if there is reasonable evidence that available data do not accurately characterize the source's location and the source volunteers to collect such data.

Oregonians for Fair Air Regulations strongly encourages the Department to revise its requirements and disincentives related to ambient monitoring. Ambient monitoring should be an activity that is rewarded, as it can ensure more accurate data than can be generated by a program based solely on modeling.

CAO Should Focus Exclusively on Human Health
(OAR 340-245-0020(5))

Proposed OAR 340-245-0005(1) clearly sets the goal of the CAO program as protecting public health. However, the definition of "air toxics" in proposed OAR 340-245-0020(5) defines the term in relation to "adverse effects to human health **or the environment**" (emphasis added). We believe that this reference "to the environment" was a clear error, as there has been no discussion at any point or reflection in the available documentation that the CAO program was intended as an environmental risk program as opposed to a human health program. We request that DEQ revise the definition of "air toxics" to remove the phrase "or the environment."

Risk Reduction Plan Requirements Should be Reasonable
(OAR 340-245-0220; -0240)

We object to the language in proposed OAR 340-245-0240(9) stating that the Department will not consider the time for, or expenses of, ambient monitoring when considering whether to grant an extension of the deadline for implementing a Risk Reduction Plan. If a source commits the considerable time and expense associated with ambient monitoring, and there is a reasonable possibility that the costs associated with the Risk Reduction Plan would not be necessary based on the monitoring results, then that source should not be required to make expenditures associated with the Risk Reduction Plan until monitoring results are available to determine whether risk reduction is needed. It is well documented that modeling overstates ambient concentrations. For example, if a Risk Reduction Plan is required because cancer risk is 30 in 1 million, it is quite plausible that ambient monitoring will demonstrate that actual ambient concentrations are 20 percent lower than those that were generated by a conservative computer

model that does not take into account factors such as particles settling or transforming in the atmosphere. In this example, no Risk Reduction Plan would be required if actual concentrations were 20 percent lower than those generated by AERMOD. In that situation, the source should not be required to complete a Risk Reduction Plan.
The rules should be amended to state that an extension can be granted for implementing a Risk Reduction Plan if it can be demonstrated that there is a reasonable basis to conclude that monitoring being completed by the source may materially affect the Risk Reduction Plan.

We are similarly concerned by the language in proposed OAR 340-245-0220(7) that would leave DEQ with complete discretion to approve or disapprove a request by a source, acting with good cause and in good faith, for an extension of time in which to implement an approved Risk Reduction Plan requirement. While we can appreciate why DEQ would require a source requesting an extension to show good cause for the extension and a good faith effort to implement the plan on its original schedule, DEQ's approval of extension request should not be unreasonably withheld. This is particularly important given that the source's original plan implementation schedule will be part of its enforceable permit attachment. We therefore request that DEQ revise proposed OAR 340-245-0220(7) to make clear that a source making an extension request should only bear the burden of substantiating its request to DEQ's "reasonable satisfaction." We also request that DEQ specifically revise proposed OAR 340-245-0220(3)(g) and -0220(7) to clarify that DEQ will automatically grant an extension request when the requesting source shows that its failure to meet the original plan implementation schedule has or will be caused by a Force Majeure (i.e., an event that is beyond the source's reasonable control despite its good faith efforts).

Finally, we request that DEQ revise proposed OAR 340-245-220(5)(a) to make clear that a source which has resubmitted its Permit Attachment application after addressing deficiencies in the Risk Reduction Plan identified by DEQ does not trigger any new or further community engagement requirements.

Construction Approval Requirements
(OAR 340-245-0030; -0070)

We appreciate the provisions in proposed OAR 340-245-0030(2)(b) saying that, prior to submittal of an Air Toxics Permit Attachment Application or Risk Assessment Notification, a source is not required to obtain construction approval for a new or modified TEU under the CAO rules. However, the construction approval requirements under Division 245 should not apply until after an Air Toxics Permit Attachment is issued, not during the potentially multi-year period between when the application is submitted and DEQ issues the Permit Attachment. Otherwise, sources and the Department will be embroiled in highly complex pre-construction assessments before the baseline regulatory requirements under Division 245 have even been established for a particular source. That will lead to excessive delay, confusion and expense for both DEQ and the sources.

We are concerned that the proposed language in OAR 340-245-0070(2) through (4) makes it unduly difficult for sources to make routine changes that do not trigger substantive obligations under the CAO rules.
Enabling expedited review of projects that are considered risk reduction, exempt or de minimis makes sense. However, this should be a notice and go process and the sources should not have to wait 10 days before proceeding. Sources should only be required to submit documentation of the fact that qualifying projects fall into one of these three categories and then should be allowed to proceed (assuming it has whatever other approvals may be required under OAR 340-210).

As proposed, the construction approval requirements prevent timely action for projects (other than those considered risk reduction, exempt or de minimis) during the time period between when a source submits its Air Toxics Permit Attachment application and when DEQ ultimately acts on that application. As proposed, OAR 340-245-0070(5)(a) states that where a source has submitted an application but has not yet been issued a Permit Attachment and the source does not request an increase to a Source Risk Limit, the source may not proceed with any modifications unless it either obtains written approval from DEQ or it receives an Air Toxics Permit Attachment. This process is punitive and unworkable as it potentially stops a project during the entire time period where DEQ has taken no action in regards to a source under the CAO rules. This process would apply to and potentially delay projects necessary for compliance purposes. A source could face a delay of years between submittal of its application and issuance of an Air Toxics Permit Attachment. There is no basis to impose this additional construction approval burden when DEQ has not even acted on the source's permit. Furthermore, the proposed rule language provides no deadline by which time DEQ must provide the written approval. This appears in direct contradiction of the requirement under ORS 468A.055(4), which states that the failure of the Department to act within 60 days constitutes approval. As stated above, the most appropriate revision to this portion of the rules would be to state that the CAO construction approval requirements do not apply until an Air Toxics Permit Attachment is issued. However, at the very least, default approval should occur within 10 days if the Department does not act; there must be some pathway for a source to proceed in the absence of action from the Department.

We are equally concerned about the requirement in proposed OAR 340-245-0070(5)(b) which prohibits any changes where a source that has submitted an Air Toxics Permit Attachment application and needs an increased Source Risk Limit even though the Department has never acted on the application. If the requested modification was inconsistent with an issued Air Toxics Permit Attachment, then this prohibition might make sense. However, where the Department has not acted on a submitted application, the source should not be locked into the proposed Source Risk Limit in that application until the Air Permit Attachment is actually issued. The source should be able to amend the application and proceed. As drafted, the rules prevent companies from being able to make routine changes--even ones that might be environmentally beneficial--in the time necessary to remain competitive.

DEQ should revise the rules to not impose any requirement other than to revise the pending Air Toxics Permit Attachment application to reflect any facility changes prior to commencing construction.

We have similar concerns about the proposed OAR 340-245-0070(6) which states that DEQ must review and approve in writing any construction or modification that takes place at a source subject to an Air Toxics Permit Attachment even if no change to the Permit Attachment is necessary. If a facility modification is necessary and no change to an existing Permit Attachment is necessary, then DEQ should defer any construction permitting to the Division 210 requirements. As noted above, requiring written authorization is unnecessary and violates state statute. We suggest that this requirement be revised to require notice to the state as part of the Division 210 submittal and no greater authorization than is mandated by the Division 210 requirements.

Proposed OAR 340-245-0070(2)(a)(A) should be revised to make clearer that construction is allowed whenever total cumulative risk from all air toxics emitted by a new or modified TEU is no more than the total risk from the TEU being replaced or modified.

Gas Fired Units
(OAR 340-245-0080)

We support the idea presented in proposed OAR 340-245-0080(3)(b) for natural gas fired units, but do not think it goes far enough. First, the exemption for gas combustion should mirror the Louisville Metro APCD program and extend to natural gas, liquefied petroleum gas, methane (including landfill gas) propane, biogas, synthetic natural gas and other similar gas streams. Second, combustion of natural gas should be expressly identified in the rule as constituting TBACT for any combustion device. The NSPS and NESHAP have all historically recognized that burning natural gas is the lowest emitting form of combustion. Toxic emissions from gas combustion are extremely low and should not be regulated under this program. Evaluating gas combustion emission impacts will consume limited source and Department resources and serve no meaningful purpose. The final rules should completely exempt gas-fired combustion units from review and not impose the requirement to perform a Health Risk Assessment that includes gas combustion emissions.

Proposed OAR 340-245-0080(3)(b)(E) states that DEQ must review and approve "all calculations and determinations" associated with natural gas and propane combustion units. This requirement makes no sense and potentially makes it impossible to comply with other aspects of the program. For example, under proposed OAR 340-245-0050(2), a source must submit a Level 1 risk assessment within 30 days of receiving notice from the Department. If that source has predominantly gas-fired combustion devices, it would be likely to utilize the Level 1 risk assessment pathway.

However, if DEQ required that the agency staff review and approve all calculations and determinations associated with that facility's gas-fired combustion devices before they could be submitted, the source would not meet the 30-day deadline. It is impractical for DEQ to commit its scarce resources to review and approve the individual calculations of every source with a gas-fired combustion device in the state. The agency simply lacks the resources for this.
The rules should be revised to acknowledge that calculations submitted as part of the assessment are subject to DEQ review, but should not require DEQ approval of all gas combustion related calculations and determinations.

Comprehensive Health Risk Assessment Procedures (OAR 340-245-0210)

Oregonians for Fair Air Regulations objects to the notion that a Comprehensive HRA should have to evaluate locations where it is "reasonably likely future human populations [] may be exposed . . . ." A Comprehensive HRA should be focused on where actual people are actually located, not where they are "reasonably likely" to or where they "may be" exposed. When a source gets to the comprehensive HRA stage, it should not be made to develop a conceptual site model based on a guess. Earlier in these comments we noted that the definition of "exposure location" is too broad. We noted that modeling should only consider residential exposures where residences currently exist, as DEQ retains the right in OAR 340-245-0030(9) to require a source to update a previously performed risk assessment if land use changes. However, in the proposed OAR 340-245-0210(2)(c) a Comprehensive HRA is not required to assess impacts at "exposure locations." Instead, the modeling domain is defined anew as "locations of existing and reasonably likely future human populations that may be exposed to air toxics emissions from the source...." We strongly believe that the definition of "exposure location" should be revised consistent with our comments. We also believe that OAR 340-245-0210(2)(c) should then state that an exposure assessment must model or measure air toxics concentrations at exposure locations. Otherwise, the definitions and this subsection contradict each other.

We appreciate the ability in the HRA to introduce modifications to default exposure assumptions (see, proposed OAR 345-245-0210(2)(c)), but there is tension between that and the prohibition on considering alternate toxicity reference values ("TRVs") (see, proposed OAR 345-245-0210(2)(d)). A source performing an HRA needs to be able to address actual toxicity at actual receptors. At the HRA stage, the source should be able to present information that any of the TRVs listed in OAR 340-245-8030 Table 3 are in clear conflict with current science or are otherwise inapplicable to the source or the factual circumstances addressed by the HRA site model.

The Area Multi-Source Program Must be Addressed in a Separate Rulemaking (OAR 340-245-0090)

Oregonians for Fair Air Regulations strongly objects to DEQ moving forward on the area multi-source program proposed in OAR 340-245-0090. The proposed language is extremely vague and fails to offer enough information about the program and how it will be implemented to enable meaningful comment.

The few elements of the area multi-source program that are stated in the rule are gravely concerning. First, proposed Table 1 proposes RALs that are inconsistent with the regulatory goals stated in OAR 340-245-0005(2) in that the goal of the program is to reduce cancer risk from existing stationary sources to 100 in 1 million and to reduce non-cancer risk from existing stationary sources to a Hazard index of 3 by 2030. However, not only does the multi-source program cancer RAL overshoot the goal by imposing a 75 in 1 million threshold, but then the proposed rules decrease the actual RAL considerably by applying a threshold equal to only 2/3rds of the stated RAL. This is both unduly conservative and very misleading. If Table 1 is going to establish RALs, those RALs should be consistent with the program goals. If a RAL is established, the rule should not then apply a threshold for all material purposes equal to 2/3rds of the RAL.

Second, consistent with our comments above, all gas combustion sources should be exempted from consideration under the multi-source program. Gas combustion is the lowest emitting means of combustion-based heat generation and should be left outside of the program so as to avoid the wasteful consumption of state and private effort assessing sources that do not meaningfully contribute to risk. DEQ and industry have limited resources and those resources should not be expended assessing sources that are not at issue.

Third, the proposed rules impose no limits on the size of a multi-source area. If one thing can be learned from the Department's past efforts it is that taking on too large of an area will ensure that the program fails. This was clearly shown in the Portland Air Toxics Solutions ("PATS") efforts where little was accomplished because the area taken on in the first geographic study was so vast and diverse. The final rules should limit each multi-source area to an area no larger than three to five census blocks. This ensures that there is adequate focus on specific local issues and the multi-source area does not grow too large.

Fourth, while the rules do contain some hints as to what a source in or near a multi-source area will face in terms of the construction approval process, no detail is provided as to whether a source within a multi-source area will face any other requirements. The rules appear clear that no new or modified TEUs or sources (other than de minimis or exempt sources) will be allowed within 1.5 kilometers of a designated Multi-Source Risk Area if that new or modified source could potentially increase risk at <u>any</u> exposure location within the designated area.

This requirement appears likely to stop any innovation or expansion within a very large swathe of the community in which a multi-source area is located. In addition, because there does not appear to be an ability to proceed with a risk reduction project (such as is addressed in proposed OAR 340-245-007(2)) in or near to a multi-source area, the proposed rules will have the effect of maintaining higher emissions even where reductions are possible. DEQ should clarify if a moratorium on construction approvals is the sole goal of the multi-source program and provide certainty for the business community by committing to not expand the requirements of the program (as opposed to the language in the Statement of Need document suggesting that this is just an interim stage of the program and that DEQ will soon seek authority to impose additional requirements). DEQ should also clarify that an NOC can be approved for a project in or near a multi-source area where the new TEU might increase risk, but the aggregate source-wide effect will be to decrease risk.

Fifth, DEQ seeks to inappropriately expand the area subject to the multi-source program by 1.5 km in all directions. As proposed, OAR 340-245-0090(3)(a) and -0030(7) (c)(B) state that if any source within 1.5 km of the designated multi-source area increases the risk by any amount at any receptor in the designated multi-source area, that source cannot get construction approval. This approach effectively expands the scope of this program far beyond the application of the modeling intended to define this program. No basis is given for this expansion of the program. We strongly object to this extraterritorial effect of the multi-source program and request that DEQ focus the program on the area defined through modeling and not seek to wrap in sources a mile away in every direction from the boundaries of the multi-source area.

Sixth, proposed OAR 340-245-0040(1)(d) says that DEQ can call up all sources in a designated area and make them do a risk assessment without allowance for time to develop an inventory or consideration as to whether this is actual or potential emissions. Initially, DEQ needs to clarify that the first step in assessing a potential multi-source area will be to work with sources to develop current inventories. Next, the rule should be explicit that such inventories will be of actual emissions and not potential emissions. Due to the additive effects of considering multiple sources, it is critical that risk not be exaggerated beyond meaning by requiring multiple sources within a small area to all assume that they are simultaneously operating at full potential. That will remove any real meaning from the multi-source assessment process. Multi-source area determinations should be performed based on actual emissions or else they are unduly conservative.

Seventh, the multi-source area program should be based exclusively on actual emissions. Combining potential to emit across multiple sources will result in a grossly inaccurate picture of what is actually emitted and what a community is actually being exposed to. The multi-source area program should focus exclusively on actual emissions.

Eighth, one of the best ways to achieve the goals of the multi-source area program would be to enable offsets and trading within a designated area.

This would allow the most cost-effective means of reaching the stated goals. However, not only has DEQ failed to propose any sort of offset/trading program, it has proposed to revise the rules to carve toxics out of being eligible for credit generation under Division 268 thus gutting any potential for trading opportunities to grow.

Ninth, the multi-source area program should not apply to "sources that are not required to have an air permit" (which sources are not reasonably expected to have a significant air toxics impact) and this language should be deleted from OAR 340-245-0040(1)(d)(A) and -0040(2)(c)(A).

The multi-source area program should be developed, if at all, in a separate rulemaking. DEQ is nowhere near ready to propose a regulatory program that could, as conceived, create economic dead zones across the state in which no new sources or expansion of existing sources could occur either within the area or within 1 mile in all directions of that area. Oregon land use laws have required businesses to locate in certain areas. Creating a new, regulatory penalty for following Oregon law is bad public policy. DEQ should defer this part of the CAO program to a different rulemaking process.

Because of the lack of detail in this section of the rules, it is impossible for the Coalition to comment effectively or comprehensively on the multi-source area program. Lacking that detail, the multi-source area program must be withdrawn and renoticed. Before re-noticing the program, DEQ must perform a comprehensive study of how the program will work and how it can be designed to achieve its goals while minimizing economic impacts. One aspect of such a study must be the design of a robust credit-trading program. Another aspect of such a study should be an assessment of whether a new multi-source area program is even necessary given the Department's existing regulatory authority and directive (see OAR 340-246-0130) to assess and address community-wide air toxic emissions impacts from all source types (including, mobile, fugitive, residential, commercial and manufacturing).

Source Risk Limits
(340-245-0310)

We generally support the concept underlying Source Risk Limits. The option of imposing a Source Risk Limit on some or all of a facility creates some potential for flexibility while ensuring that risk is maintained at the target levels or below.

Oregonians for Fair Air Regulations has significant concerns about the monitoring requirements for chronic and acute risk, which appear to be in conflict with each other. Proposed OAR 340-245-0310(1)(a) states that compliance with chronic Source Risk Limits must be monitored monthly unless the Department approves less frequent intervals.

This requirement for monthly monitoring should be deleted as there may be situations where DEQ approves gradated compliance intervals depending on how close to the limit the calculations are. This is a fairly standard compliance monitoring methodology in Title V permits.[2]

By contrast, however, OAR 340-245-0310(1)(b) states that compliance with acute Source Risk Limits must be determined at least monthly *unless more frequent compliance demonstrations are required.* Even making monthly compliance demonstrations for acute risk will be extremely challenging.
Putting an absolute cap on acute Source Risk Limit monitoring whereby the demonstration must be made at least monthly is excessively stringent. We request that the Department revise the absolute requirement in proposed OAR 340-245-0310(1)(b) to mirror the approach in OAR 340-245-0310(1)(a) and require a compliance demonstration at least monthly unless a less stringent schedule is deemed adequate by DEQ based either on the specific facts underlying the Source Risk Limit or based on prior compliance demonstrations showing that future compliance is highly likely.

Oregonians for Fair Air Regulations also has significant concerns about the process leading up to the establishment of a Source Risk Limit. The situation where a Source Risk Limit is most appropriate is in the situation where a source has a challenge defining its potential to emit. This situation may include a source that is performing custom coating and may use a broad array of possible formulations. Defining potential to emit for each individual toxic can be impossible. Our understanding is that the Source Risk Limit concept was developed, in part, to address such a situation. However, this is undercut by the requirement in OAR 340-245-0200(3) which states "[m]odeling will be based on pre-existing PTE." As noted in our comments on the modeling requirements in proposed OAR 340-245-0200, we suggest that OAR 340-245-0200(3) be revised to state that modeling is not required for those TEUs for which a Source Risk Limit is proposed at the time that the initial assessment is performed. Modeling may be required as part of the compliance demonstration, but that should be developed in relation to the monitoring requirements when the Permit Attachment is issued and not as part of the initial demonstration of risk.

Oregonians for Fair Air Regulations also requests that DEQ add rule language clarifying that if a source establishes a Source Risk Limit and exceeds that limit then the exceedance is not a violation if the source takes steps to address the exceedance. The complexity of monitoring under a Source Risk Limit and the multiple layers of conservativeness in the program assumptions make it difficult for sources to comply and ensure that it is highly unlikely that an isolated exceedance would create any significant risk.

[2] For example, Title V permits often decrease monitoring frequency in a step-wise fashion if the past several monitoring results were all comfortably below the limit.

Consistent with the emission action level concepts already in DEQ's rules, DEQ should state that an exceedance of a Source Risk Limit is not an enforceable violation but the failure to take corrective action would be a violation.

TBACT
(OAR 340-245-0220, -230 & -0330)

Oregonians for Fair Air Regulations supports the concept that if an existing source cannot meet the applicable RAL and either already or will soon employ TBACT on all significant TEUs that contribute to the exceedance of RALs, then the facility can obtain a Conditional Risk Level. We also support the idea in the proposed rules that retrofit costs are appropriately considered in a TBACT cost-effectiveness analysis. However, we have several concerns about how TBACT is identified and the TBACT Plan implemented.

First, it is excessive to require a source to have annual community meetings when that source has implemented TBACT and is complying with its TBACT Plan. We read proposed OAR 340-245-0220(7)(g) as requiring that a source have annual TBACT meetings to discuss TBACT for the duration of the time period that the source has a Conditional Risk Level. There are suggestions in the language that this requirement was intended to only apply during that period where TBACT is being implemented; this would explain why proposed OAR 340-245-0220(7)(g) speaks of holding the annual meeting to "receive comments on the most recent progress report." However, this concept is not carried through the rule language. We strongly encourage DEQ to limit the annual community meetings to that time frame during which TBACT is being installed so as to focus on providing updates as the source works towards its ultimate control strategy.

Second, under proposed OAR 340-245-0230(9)(a)(A), DEQ requires that sources submit annual reports to DEQ if the TBACT assessment concluded that no additional controls were appropriate. This requirement is excessive. If the analysis in one year concluded that controls were not technically feasible or otherwise were not considered TBACT, the state of science is not changing so rapidly that annual updates are necessary or appropriate. Annual reports on technology will consume immense source and agency resources to prepare and review. Instead, this report should be on an every five year schedule consistent with the requirement in proposed OAR 340-245-0230(9)(a)(B) to confirm that TBACT is still current for those units for which TBACT does constitute controls. Whether controls are required or not, the ultimate conclusion results in TBACT. There should be no difference in the requirements if TBACT equates to end-of-stack controls versus other types of controls such as work practices or material specifications.

Third, we support the concept that if a source is compliant with a NESHAP, that source is considered to have implemented TBACT. This should not be limited to just sources that have completed the Risk and Technology Review ("RTR") process as the RTR process, as its name suggests, relates specifically to the residual risk assessment after implementation of MACT.

The purpose of TBACT is to determine whether the best controls are in place taking into account cost-effectiveness. MACT, on the other hand, establishes the Maximum Achievable Control Technology with the technology floor established without regard to cost. See, e.g., *Nat'l Lime Ass'n v. EPA*, 233 F.3d 625, 629 (D.C. Cir. 2000). In establishing MACT, EPA is only allowed to take into account cost for existing sources if it decides to make the standards more stringent than that achieved by the best performing 12 percent of existing sources. Therefore, MACT, by definition equals or exceeds TBACT. This should be reflected in the rules by stating that compliance with MACT for a specific emissions unit will always satisfy TBACT. The presumption of a prior control technology determination equating to TBACT should extend to all sources that have implemented controls pursuant to a New Source Performance Standard ("NSPS"), Best Available Control Technology ("BACT") or Lowest Achievable Emission Rate ("LAER") determination that effectively controls toxics. In summary, compliance with a MACT standard should automatically equate to TBACT; compliance with an NSPS, BACT or LAER determination should be accorded a presumption of TBACT upon a demonstration that the required limit addresses toxics emitted by that TEU.
Revising the proposed rules as requested in this third point is needed to ensure that -- insofar as TBACT is concerned -- DEQ's CAO program remains consistent with similar programs in neighboring states. Idaho's air toxics program, for example, goes much further. Idaho's program includes a complete exemption from further consideration for any toxic air pollutant that is the subject to an existing federal NSPS or NESHAP. See IDAPA 58.01.01.210.20.

Fourth, we strongly object to the language in proposed OAR 340-245-0330(3)(c)(C)(iii) and (iv) in which the cost-effectiveness of a particular control being contemplated for TBACT must be assessed on the basis of the criteria pollutants reduced by the control under consideration. TBACT is defined as controls for toxics and TBACT is designed and intended to address air toxics. TBACT is not and cannot be used to reduce criteria pollutants that are not toxics. This is critical both from a policy point of view and a practicality point of view. It is very bad policy to mix the two types of pollutants in an analysis and to coopt the toxics program to reduce pollutants that are not toxics. From a practical point of view it will be difficult to assess cost-effectiveness when considering two different toxics each of which may be controlled by the same control device but which have very different toxicities. Adding in criteria pollutants or even supplanting the toxic with the criteria pollutant as is proposed in OAR 340-245-0330(3)(c)(C)(iii) would make this assessment almost impossible to accurately complete. A control that might destroy a pound per year of a toxic organic but that also destroys 100 tons of carbon monoxide would be considered TBACT even though the emissions of carbon monoxide would pose no threat to human health or the environment. The choice to include criteria pollutants in the cost-effectiveness analysis subverts the entire goal of the program to focus on toxics.

Fifth, we strongly object to the excessive and unreasonable fees associated with TBACT determinations. As proposed, DEQ has stated that it will charge $6,000 per TEU for review of a TBACT determination.

The rules are not clear about whether if a source has to perform an annual update of TBACT it will be charged the full $6,000 per TEU. As proposed, it appears that this is the case which is excessive to say the least. It is also excessive to impose this charge on a "per TEU" basis when a typical source would likely have ten or more TEUs. This greatly adds to the potential cost of the program as a source could face $60,000 to $100,000 in fees just for the Department's review of that source's TBACT determinations. In the major New Source Review program, the Department does not charge fees equal to anything near that amount notwithstanding the permit requiring BACT analyses, modeling review, multiple public notices/meetings and monitoring assessments. The proposed fees are disproportionate to the work required and excessive.

Notification Area
(340-245-0020(36))

The definition of "Notification area," at proposed OAR 340-245-0020(36), should not be based on the greater of the area of impact or a distance of 1.5 kilometers.
People should be notified if they are in the area affected (i.e., the area of impact). If the area of impact is limited to 10 homes, all located on the same side of the plant, then that source should not have to notify the 1,000 homes in the entire 3-km diameter circle surrounding the plant. Such would be extremely burdensome and costly without any beneficial purpose. The proposed rules already incorporate a requirement, at proposed OAR 340-245-0250(3), to inform neighborhood associations or, in the absence of a neighborhood association, to publish a newspaper advertisement; so, the concept of general notice to the community is already accounted for. In summary, the notification area should be limited to those locations within the area of impact as defined in proposed OAR 340-245-0020(8).

Public Notice & Meetings
(340-245-0250 and individual sections)

Oregonians for Fair Air Regulations supports the idea of community involvement in the permitting and assessment processes. However, a distinction needs to be drawn between quality and quantity when it comes to public process. Moreover, the requirement for source-led meetings is contrary to what the public wants and to the purpose of DEQ. A complaint that we hear repeatedly during public processes is that the public wants to hear less from sources and more from DEQ. This is demonstrated in DEQ's own evolution of the public meeting process where the state has minimized the role of the source in public meetings to the point where the source representatives rarely speak. DEQ has a fundamental role in the public process to convey information to the public. By abdicating that role, DEQ risks being viewed as disinterested and lacking authority over the process, thus losing public confidence. Oregonians for Fair Air Regulations encourages DEQ to reduce the number of mandatory public meetings but increase its role in the remaining meetings.

With that overall comment in mind, we have several specific suggested changes.
First, we are concerned that the notice requirements do not line up and will result in meetings that confuse and frustrate the public. Several proposed rule provisions require multiple facility-led public meetings before there is a DEQ public meeting. For example, if a source is preparing a Risk Reduction Plan or a TBACT Plan then, in addition to the DEQ-led public meeting associated with consideration of the draft permit attachment, the source must hold two source-led meetings to discuss the proposed Plan with the community. These meetings would occur in a vacuum as the actual permit attachment has not been developed. The first meeting must be held no later than 45 days after submittal of the Plan and Permit Attachment application. A minimum of 30 days' notice is required of that meeting. However, under proposed OAR 340-245-0300(8)(a), DEQ has 30 days to provide a preliminary assessment as to the "adequacy and completeness" of the permit attachment application and, under proposed OAR 340-245-0210(4), DEQ has 45 days to conduct an initial completeness review if a Level 4 assessment is prepared. Setting aside the issues inherent in these conflicting deadlines, the initial public meeting would be required to be held in relation to a permit application that DEQ has likely not even reviewed at the time meeting notice is provided and which may not be complete at the time of the actual meeting. This will surely confuse the public and cause them to question why the meeting is occurring at all. Similarly, the key element of the Risk Reduction Plan is whether the measures proposed will be adequate to reduce emissions below the RAL (for a Risk Reduction Plan) and yet the source would be required to discuss modeling that had not even been reviewed by DEQ and talk about conclusions that have not yet been endorsed by DEQ. This makes no sense and will serve to confuse and anger the public. DEQ has always held public notice to review permits prior to issuance. That makes sense as there is something tangible to review. Requiring source-led meetings about an application that is in the early stages of review does not advance public knowledge and leads to meeting fatigue and distrust.

Second, the proposed rules require too many public meetings. There is precedent in the major new source review program for the Department to hold a public informational meeting when an application is deemed complete. However, the requirement to hold two source-led public meetings prior to DEQ holding the public meeting for whatever action is requested is excessive. For the permit attachment, at most just one application stage meeting should be required.

Third, DEQ inappropriately requires that sources establish a complaint line as part of the public engagement process. Complaint lines may be appropriate for situations where DEQ is investigating a nuisance odor, but a complaint line is not an appropriate requirement for the completion of a highly technical risk assessment and the issuance of a permit attachment. There are public comment opportunities as part of the issuance process. There is no need for a so-called "complaint" line and its very name is the antithetical to the process of implementing a science-based program.

Fourth, proposed OAR 340-245-0250(1)(h) requires that a source establish a community committee "for regular meetings between community members and the source" if requested to do so by 10 or more residents who live within the notification area.
We are concerned about this requirement for several reasons. First, we believe that it exceeds DEQ's authority to require that a source hold community meetings above and beyond those specifically identified as part of the public outreach process. Second, the rule should specify households, not residents. As written, one household with 10 residents could trigger the requirement. Third, the rule is not clear as to how long and how frequent these meetings must be, making it impossible to comply. If a source sees the need to establish a periodic community forum (such as in response to a request by its community), the source can agree to do so. However, DEQ should strike this portion of the proposed rule as it is not an appropriate legal requirement.

Fifth, the public participation requirements in specific parts of the proposed rules are impractical and unworkable. For example, proposed OAR 340-245-0220 requires that no more than 45 days after submitting a complete "Plan application," the source must hold a community engagement meeting to receive comments on the proposed Plan. Thirty days' notice must be provided and the public notification must "include the Plan and the application."
There are several issues with these requirements. First, the Department, not the source, makes the determination of when an application is complete, but that step is not addressed within the proposed rules. Second, there is no such thing identified in the rules as a "Plan application;" there is the application for a Permit Attachment and the Plan. Third, it is impossible to include the Plan and the application in the notices that under proposed OAR 340-245-0250(3) must be sent to every address within the notification area, among other places. The combined Permit Attachment application and TBACT or Risk Reduction Plan will consist of hundreds of pages that are not appropriate for mass mailing. Combine the requirement to send the application and Plan to a vast number of households with the requirement to translate the notification into any language spoken by 10% or more of the population, and the burden becomes irrational. Third, the proposed OAR 340-245-0250(1)(f) requires that the source "ensure that community member (sic) have sufficient understanding of the technical background to be able to meaningfully engage and provide comment." This last requirement is an impossible burden to place upon the source where the materials involved are highly complex and technical. Another example of how the burdens placed upon the source are not realistic is the requirement in proposed OAR 340-245-0250(2)(a) that the public meetings must be held in a venue that is ADA compliant, is convenient for community members to attend, and can be accessed by public transportation. This requirement exemplifies the urban-centric focus of these rules. Many small communities have little or no public transportation and lack venues appropriate for such a meeting that are fully ADA compliant. Also, the convenience requirement opens the source up to criticism of the sort DEQ faces all the time when it picks the most appropriate venue, but people claim it is not convenient. DEQ needs to significantly edit its public meeting and notification requirements to make them reasonable, rational and applicable to all of the state (as opposed to just the major urban areas).

Sixth, the requirement in proposed OAR 340-245-0250(2)(a) to require that sources provide translators for meetings in communities where 10 percent or more of the population speak a particular language is excessive and poses an undue burden on the source. This burden should lie with DEQ, not with the source. DEQ is in the unique position to be able to identify languages requiring translation and has access to appropriate translators. This is not a burden that DEQ should transfer to the regulated source.

Seventh, DEQ should revise the requirement at proposed OAR 340-245-0250(1)(b) to identify addresses and contact information for various entities within the notification area to make clear that the source need only consult reasonably available information to satisfy this obligation.

Finally, the statement required of sources in proposed OAR 340-245-0250(3)(b)(iii) is inappropriate and misleading. We find it strange that DEQ would attempt to regulate the speech of sources affected by this proposed rulemaking. Moreover, the statement, as proposed, would require sources making public notifications of community engagement meetings to lead with the following: "DEQ requires us to hold a community meeting to discuss the health risk from the air toxics emissions from our source."
That statement unfairly implies that the source is acting reluctantly and that DEQ involvement was necessary for the source to communicate with the public. It sets the source up with an uncooperative, defensive tone from the outset. The statement also unfairly suggests to the public that the discussion during the community engagement meeting will involve some absolute, known, fixed amount of risk from the source (i.e., "the health risk"). If the public is going to be an informed partner in this effort, then it should not be shielded from the many assumptions, uncertainties and approximations that go into estimating risk from source air toxic emissions.

Reconstruction
(OAR 340-245-0020(42) and -0030(6))

The proposed rule, at OAR 340-245-0020(42), adopts the majority of the definition of "reconstruction" from the New Source Performance Standard ("NSPS") program and seeks to apply it to the CAO program. This introduction of the concept of reconstruction is misguided and it should be removed. Existing sources should be assessed as existing sources. Just as the reconstruction concept was dropped from the PSD program after it was initially proposed in the 1970s, reconstruction is not appropriate for CAO. New sources are appropriately subject to the more stringent new source RALs because they are greenfield sources that have very different opportunities to design their layout and controls to accommodate the requirements of the CAO program. Existing sources, even those engaged in major construction projects, lack that flexibility and cannot be lumped in with greenfield sources and held to the new source RALs.

If the reconstruction concept is retained, it needs to be reworked. While the proposed rules include the first half of the NSPS reconstruction definition having to do with the cost threshold, they leave out the second half of the definition: "[i]t is technologically and economically feasible

to meet the applicable standards set forth in this part." See, 40 CFR 60.15(b). DEQ should not take select pieces of the NSPS definition of "reconstruction," but rather should adopt both components so that it is clear that reconstruction does not apply where it is not technologically and economically feasible to meet the requirements of OAR 340-245.

In addition, the timing outlined in the proposed rules is not internally consistent. As proposed, OAR 340-245-0030(6)(a) requires notice of reconstruction 60 days before beginning construction. Proposed OAR 340-245-0030(6)(b) states that DEQ will then make a determination within 90 days of receipt of the notice as to whether the project is reconstruction or let the source know any additional information the agency would like to review. There is no requirement for a specific time period in which DEQ must act and so the process of assessing reconstruction could last indefinitely. The proposed rule language is clearly based on EPA's NSPS regulations (40 CFR 60.15) and yet EPA holds itself to having to respond within 30 days. See, 40 CFR 60.15(e) ("The Administrator will determine, within 30 days of the receipt of the notice required by paragraph (d) of this section and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.") DEQ has similarly adopted this requirement to respond in 30 days in OAR 340-238-0060.
The rule language should clarify that DEQ will respond to any reconstruction determination request within 30 days, that the source is otherwise permitted to proceed consistent with the timelines in OAR 340-210-0240 and that if DEQ fails to act within those timelines then that burden is carried by DEQ, not the source. Otherwise, projects could be held up indefinitely.

The language in proposed OAR 340-245-0030(6)(c)(B) is inconsistent with a reconstruction determination. Proposed OAR 340-245-0020(42) defines "reconstruction" as "the replacement of components of an existing source to such an extent that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new source." Therefore, the focus of a reconstruction assessment should be limited to the amount of capital to be expended as part of the project and the fixed capital cost required to construct a comparable entirely new source. If the project cost is less than 50 percent, then the assessment is complete. The same is true if the project cost exceeds the 50 percent threshold. However, the proposed rule language includes an assessment of the estimated life of the source after replacement that is inappropriate here. Therefore, proposed OAR 340-245-0030(6)(c)(B) should be deleted.

We appreciate the assessment in proposed OAR 340-245-0030(6)(c)(C) in that the rule language attempts to evaluate how the replacement components relate to the toxics being emitted. However, the rule language should be amended to clarify that if the replacement components do not significantly contribute to toxics emissions, then reconstruction is not triggered.

Submittal Deadlines
(OAR 340-245-0050)

The proposed OAR 340-245-0050 presents unreasonably short deadlines for each of the four levels of response available to a source that receives notice under the toxics program. We appreciate that proposed OAR 340-245-0050(9) leaves open the possibility that DEQ can grant up to a 120 day extension. However, in certain situations even that 120 day extension is inadequate. For example, if a source needed to conduct source testing in order to properly inform its risk assessment, there would not be enough time to prepare a test plan, obtain DEQ approval, conduct the test, wait the 45 days it takes to get results back, get DEQ review and approval of those results and then begin the risk assessment. The tightness of these deadlines is exacerbated if the testing period falls during a plant curtailment or over a holiday shutdown. The times in OAR 340-245-0050(1) through (8) should be lengthened to ensure that there is adequate time to prepare a good work product and DEQ should not cap the maximum extension it can grant in OAR 340-245-0050(9). This is not just a matter of an individual facility's capabilities, but of the Department's resources as well. If the Department is overwhelmed, it should not be constrained in its ability to grant extensions. DEQ should retain the discretion to grant a longer extension if the circumstances warrant it.

Emissions Inventory
(340-245-0340)

Oregonians for Fair Air Regulations is concerned that the process for developing emission inventories in the proposed rules is inadequate. It is clear that to the extent the program is focused on modeling, the single most important thing is to ensure that each source has an accurate inventory that DEQ endorses prior to commencing the long and expensive modeling process. However, the rules, as proposed, appear to disregard this step of the process. Many aspects of DEQ's proposed program are based on South Coast AQMD's program. However, South Coast AQMD provides a source 150 days, with the option of extension, to prepare an emissions inventory. This process is done in coordination with the air district so that by the time the inventory is submitted, there are no surprises for the source or the agency. This process acknowledges the potential that testing may be needed and provides adequate time for it to occur. Furthermore, South Coast AQMD reviews the inventory upon submittal and provides for formal approval before a source performs work based on the inventory. By contrast, DEQ provides only 30 days for preparation of an emissions inventory with a maximum possible extension of 60 days for both emissions inventory (-0340(1)) and modeling information (-0340(6)) and does not have any interaction with the source until after that work is complete. Once an inventory is submitted, DEQ need only give a preliminary opinion within 60 days. DEQ is required to ultimately approve or reject the inventory, but no time frame for this occurring is provided. Furthermore, no indication of the interaction between requesting an inventory and requesting that a source enter into the risk assessment program is provided.

The emissions inventory section of the proposed rules needs to be substantially rewritten to integrate the inventory requirements into the rest of the program, to require discussion before and during inventory preparation and to ensure that DEQ timely reviews and approves finished inventories. The first step as DEQ implements the program must be to commence collection of inventories that are consistent with the framework of the CAO regulations. The inventories previously requested do not match up with the requirements in the regulations. For example, there are pollutants for which information was not requested in the inventory but which are regulated under Division 245. Moreover, the inventories previously requested were prepared by sources without any regulatory structure. If DEQ ranks sources based on the inventories previously submitted, the program will necessarily be applied inconsistently and unfairly among sources that each prepared an inventory in good faith, but without the benefit of a common regulatory structure to follow to ensure consistent, equivalent data for purposes of comparison.

Accordingly, DEQ needs to revise the rules to clarify that the first step in implementing the program will be to revisit the inventories so as to ensure complete and accurate information is provided for all sources, in a standard manner. Once the revised inventories are submitted, DEQ can complete the task of ranking sources and then launch into the risk assessment process. This sequence of events needs to be clearly spelled out in the rules and the revised language needs to be renoticed so that the public can offer meaningful comment.
We note that one reason the emissions inventory requirements are so important is that the inventories described in the proposed rules differ from the inventories that were requested this past summer. The pollutants are different and the previously submitted inventories were prepared in many cases based on reasonably anticipated future actual emissions and not the production and process rates used to calculate the PSELs as specified in the proposed rules. The proposed rules were not developed when the inventory requests were mailed out and the instructions accompanying the inventory requests were poorly worded such that different sources approached the request in differing manners. Once the rules are finalized, it will be necessary for many sources to develop inventories consistent with those rules.

To reiterate, another reason that DEQ's involvement in emission inventory preparation is essential is for program standardization. The inventories previously submitted to DEQ were completed without the benefit of established regulatory criteria and necessarily reflect varying, inconsistent approaches. Thus, unless there is DEQ review and approval of finished inventories, the program risks being applied unequally, inconsistently and potentially unfairly by reference to inventories that have been prepared by sources according to varying, inconsistent approaches

Toxicity Reference Value Hierarchy
(340-245-0400)

The proposed rules require DEQ, in consultation with OHA, to apply a strictly hierarchal approach to evaluating sources of toxicological information for recommending TRVs. The proposed hierarchy of information sources is incomplete.

It is missing leading contributors of toxicological information such as the World Health Organization (to name just one). More fundamentally, the hierarchal approach eschews a science-based approach in favor of one that is expedient. The proposed hierarchal approach ignores both the complexity as well as the myriad judgment calls (both scientific and policy-related) inherent in the development of toxicity values established by even DEQ's pre-approved sources.

Under the proposed approach, DEQ would not be required to consider information prepared by any source that is not listed. Assume that tomorrow, Stanford University researchers publish a groundbreaking paper that implicates all of DEQ's proposed TRVs. The proposed rules would not require DEQ or OHA to specifically consider that information. Rather, the proposed rules would direct DEQ or OHA to ignore that information unless it was specifically incorporated into a toxicity value that DEQ itself establishes or was established by another of the other pre-approved sources. That makes no sense where the goal of the program is to reflect good science.

Likewise, the proposed hierarchy is inflexible as to when a particular pre-approved "authoritative" toxicological information source establishes a given toxicity value or whether that value is based upon the current science.
For example, if both ATSDR and OEHHA set a toxicity value for a particular air toxic, the ATSDR value would be prioritized irrespective of whether that value was set years before the OEHHA value and before the current science was available.

These examples demonstrate the very real potential that the bright-line, hierarchal approach to setting TRVs will cause those values to ignore current and developing science. While we appreciate that DEQ intends to revisit the TRVs periodically, that process is no substitute for setting the TRVs using a rigorous, science-based approach in the first instance.

Accordingly, we specifically request that DEQ revise proposed OAR 340-245-0400 to replace the rigid information source hierarchies in favor of specific criteria for recommending a TRV (e.g., for each pollutant, potency, persistence, bioaccumulation, scientific uncertainties) using current and credible scientific information, whatever the information source. For each TRV that is recommended, DEQ should also provide a discussion of the basis for that value, including (without limitation) the key study that supports the value, the primary adverse effect addressed by the value, the uncertainty factors considered, and the justification for why one available value is recommended over others.

Toxics Emissions Unit
(340-245-0020(55))

The definition of "Toxics Emissions Unit" or "TEU," at proposed OAR 340-245-0020(55), states that a TEU "does not necessarily emit air toxics." That statement is entirely inconsistent with the first sentence in the definition of the term TEU as "any part or activity of a source that emits or

has the potential to emit any air toxics." DEQ needs to provide an explanation of the phrase "does not necessarily emit air toxics" as used in this proposed definition and then should renotice the TEU definition so that the public can offer meaningful comment.

Toxicity Calculations (OAR-340-245-0410 and OAR 340-245-8050 Tables 3, 4 and 5)

Oregonians for Fair Air Regulations is greatly concerned about the lack of transparency and extensive errors associated with the TRVs in Table 3, the Adjustment Factors in Table 4 and the RBCs in Table 5 of the proposed rules. Concerning Table 3, insufficient discussion and support for the various proposed TRVs is provided in the publicly available documentation. At a minimum, DEQ should include a reference list identifying all regulatory, technical and other documents considered by DEQ in coming up with the proposed TRVs. DEQ should also include a discussion of the known health effects for each chemical for which a TRV has been proposed, including exposure concentrations where those effects are observed. Similar documentation should also be provided to demonstrate how the DEQ calculated the RBCs in Table 5.

The documentation made available by DEQ should include an explanation for the basis of each of the adjustment factors set forth in proposed OAR Table 4. Without further information, it is impossible to meaningfully comment on DEQ's proposed adjustment factor set. Why, for example, did DEQ conclude that multi-pathway adjustment factor ("MPAF") values derived for the warm Southern California climate were appropriate for exposures in the cooler Oregon climate? Until DEQ shows its work on these adjustment factors, the public is deprived of a meaningful opportunity to comment.

One notable input to the MPAF values that DEQ must revise are the residential soil ingestion rates. The soil ingestion rates used to derive DEQ's proposed MPAF values (of 400 mg/day for children and 200 mg/day for adults) are much higher than what EPA recommends as the high-end soil ingestion rates for deriving its RSLs. The soil ingestion rates presumed for setting the proposed MPAFs are also much higher than what DEQ itself recommends as default parameter values in the Department's own risk assessment guidance. See Draft HRA Procedures, Table C-2. We specifically request that DEQ rework the MPAFs using the following soil ingestion rate assumptions: up to 200 mg/day for children and up to 100 mg/day for adults. We also request that DEQ request ATSAC's review of all of the proposed MPAFs.

However, even without review of DEQ's work product, sources were able to identify critical errors with the proposed values. DEQ posted corrections to the rules to address the substantial error in the formaldehyde risk values, but the correction was never published in the Secretary of State's Bulletin and so never part of the official public notice. However, that was not the only error identified in the proposed rules.

For example, based on the toxicity values, adjustment factors and RBC equations provided by DEQ, the trichloroethylene ("TCE") RBC proposed for Non-Residential Chronic, Child, Cancer in Table 5 (1.2 $\mu g/m^3$) is incorrect; the correct value is 2.8 $\mu g/m^3$.

TCE is not the only air toxic for which errors were identified in Table 5. A cursory review of some of the other chemical entries in the OAR Tables 3, 4 and 5 indicates that there are other errors in these tables. For example, there are errors in the cancer RBCs for resident and non-residential child receptors for urethane and coke oven emissions. These miscalculations illustrate that these RBCs have not undergone a thorough review to assure accuracy.

In addition, there are instances in OAR Tables 3 and 4 where notations are attributed to the wrong chemical or chemical group. For example, OAR Table 3 includes notation "h" for hexavalent chromium, a notation specific to the calculation of TRVs for dioxin-like compounds. As another example, the entries for all dioxin-like compounds listed in OAR Table 3 (nearly 30 entries) all have an "A3" notation, indicating that these TRVs were based on the TRV of benzo[a]pyrene, a polycyclic aromatic hydrocarbon (PAH), not a dioxin-like compound. Had DEQ shared the spreadsheet used to generate the RBCs at the time the rule was put out for public comment, we are sure that other errors would be identified.
However, DEQ prevented meaningful public review of this critical component of the rulemaking thus depriving the public of reasonable opportunity to comment.

A cursory review of the TRVs and RBCs proposed in OAR Tables 3 and 5 also reveals unexplained inconsistencies between the proposed TRVs and the ambient benchmark concentrations ("ABCs") recommended by the Air Toxics Science Advisory Committee ("ATSAC"). As you know, on July 14, 2017, the Department issued notice of its intent to proceed with rulemaking to update the previously adopted ABCs consistent with ATSAC's recommendations (the "2017 ABC Rulemaking"). Various of the proposed TRVs proposed in Table 3 and RBCs proposed in Table 5 were purportedly set by reference to the ATSAC recommended ABCs included in the 2017 ABC Rulemaking (but which have not yet been adopted into Oregon's rules). However, there appears to be significant disagreement between the newly proposed ABCs and the proposed TRVs and RBCs. Consider these examples:

- Even though DEQ proposed to eliminate the preexisting ABC for hydrogen fluoride ("HF") of 14 $\mu g/m^3$ in the 2017 ABC Rulemaking, Table 5 derives an HF RBC based on the very preexisting ABC value that DEQ proposed to eliminate. Oddly, Table 3 lists the proposed TRV for fluoride of 13 $\mu g/m^3$ as the proposed TRV for HF. There is no scientific basis for imposing a TRV of 13 $\mu g/m^3$ for HF. DEQ must either revise the HF TRV in Table 3 and in the supporting spreadsheets (discussed below) to a value that is appropriate for HF (and not fluoride), or eliminate the HF TRV and RBCs (consistent with the 2017 ABC Rulemaking);

- Even though in the 2017 ABC Rulemaking DEQ proposed an ABC for insoluble nickel based on the potential carcinogenicity of insoluble nickel compounds, OAR Table 5 includes non-cancer insoluble nickel RBCs based on the non-cancer TRVs for soluble nickel compounds without any explanation; and

- Even though in the 2017 ABC Rulemaking DEQ proposed an ABC for soluble nickel compounds based on non-cancer risk and the data that soluble nickel compounds are not potentially carcinogenic, OAR Table 5 includes cancer RBCs for soluble nickel compounds that are even lower than the cancer RBCs assigned for insoluble nickel compounds.

These examples, and other toxicological comments on the proposed rules, are presented in the January 19, 2018 report by leading independent expert toxicologist Elisabeth A. Bailey, Ph.D, Senior Toxicologist with Gradient, entitled "Comments on the Oregon Department of Environmental Quality's 2017 Proposed Cleaner Air Oregon Rules," (hereafter the "Gradient Toxicology Report") which is included as an attachment to this letter and incorporated by reference herein.

DEQ must address these and any other inconsistencies between the ABCs (whether preexisting or proposed) and the correspondingly derivative proposed TRVs and RBCs.

In addition, we understand based on communications with DEQ staff that DEQ developed a spreadsheet for calculating the Table 5 RBCs. However, even when requested, DEQ declined to share the spreadsheet, suggesting it was too complicated for public review. Then, on January 3, 2018, 19 days before the end of the comment period and long after the proposed rules were filed with the Secretary of State, DEQ posted on its web page a spreadsheet purporting to explain the derivation of the RBCs. That spreadsheet does not adequately explain how DEQ arrived at the Table 5 RBC values. Even more concerning is that DEQ attempted, through that same spreadsheet, to change the RBCs for a number of the chemicals regulated in the proposed rules. Specifically, a note in that spreadsheet states the following:

> **Correction to Carcinogenic PAHs**. After the proposed rules were released, DEQ discovered that the list of carcinogenic polycyclic aromatic hydrocarbons (cPAHs) did not follow the approach recommended by the ATSAC for development of ambient benchmark concentrations (ABCs). The approach will be included as an appendix to the Recommended Procedures for Conducting Air Toxics Health Risk Assessments. Tables 3 and 5 in the rules are missing five cPAHs (anthanthrene, benzo[c]fluorene, benzo[g,h,i]perylene, cyclopenta[c,d]pyrene, and fluoranthene), which should be included. In addition, Tables

> 3 and 5 include three PAHs (dibenz[a,h]acridine, dibenz[a,j]acridine, and 7H-dibenzo[c,g]carbozole) which DEQ decided should not be regulated as carcinogens. These three chemicals will be removed from Tables 3 and 5.

DEQ cannot comply with the requirements of the Oregon Administrative Procedure Act ("APA") by posting significant changes to the rules on its web page days before the end of the public comment process. This series of corrections evidences the lack of readiness of the rules for public notice. Oregonians cannot be engaged in a constant game of catch-up as the Department unofficially releases clues that the rules are changing. It is impossible to comment on a rule that is in a state of flux throughout the fixed comment period. Changing the pollutants subject to the proposed rules 19 days before the end of the comment period and weeks after public hearings have been held is a clear violation of ORS 183.335 and substantially prejudices the interests of Oregonians for Fair Air Regulations, i.e., the very persons to be affected by the proposed rules and any late-breaking revisions.

DEQ must make the corrections identified above, finalize its proposed rule language such that the affected parties can provide meaningful comment and renotice the rules.
As indicated, various TRVs proposed in Table 3 were set by reference to ABCs proposed in the 2017 ABC rulemaking. In response to the 2017 ABC rulemaking, this Coalition and many others submitted comments on the proposed revised ABCs. Those comments, which are incorporated herein as attachments, included reports prepared by leading independent expert toxicologists. The commenting toxicologists found that the recommended ABCs significantly overestimate risk. Applying the best and most up-to-date information available, the toxicologists recommended that different ABC values be established for the following substances:

- Acrolein;
- 1,3-butadiene
- Chlorine;
- Ethylene oxide;
- Fluoride anion;
- Formaldehyde;
- Hexavalent chromium;
- Insoluble nickel compounds;

- Soluble nickel compounds;
- Trichloroethylene;
- Phosgene;
- Styrene;
- Toluene Diisocyanate; and
- Xylenes.

These recommendations followed from the application of critical toxicological information that DEQ and ATSAC appear to not have aptly considered, such as:

- U.S. Environmental Protection Agency's current inhalation gas dosimetry guidelines;
- EPA's recommended benchmark concentration lower bound limit;
- EPA's current benchmark dose software for derivation of inhalation toxicity values;
- application of EPA's recommended upper-bound exposure assumptions; and
- up-to-date epidemiology data.

In addition to revising the above-listed ABC values, there was widespread agreement among the toxicologists consulted that DEQ should establish a separate ABC for metallic nickel. As detailed in the attached reports, there is no valid toxicological basis to conclude that metallic nickel (among the least toxic of all nickel forms) is as toxic as nickel subsulfide or other highly toxic nickel forms. Nickel subsulfide is the byproduct of nickel smelting which no longer occurs anywhere in the U.S., let alone Oregon. As such, there is no scientific support for DEQ's proposal to set an ABC, TRV or RBC for all insoluble forms of nickel, which would lump metallic nickel in with highly toxic forms of insoluble nickel compounds. Nickel in alloy form likewise presents no discernible toxicity risk and should be excluded from the ABCs, TRVs and RBCs entirely, consistent with how nickel alloys are treated in California.

There is also considerable concern over the proposed cancer TRV for cobalt. The value proposed for adoption was considered at length by the ATSAC and rejected as being based on an animal study that has no relation to actual environmental exposure. The ATSAC concluded that the study reflected bad science. See, February 2015 ATSAC Meeting Minutes. The form of cobalt that is the basis for the proposed TRV is not stable in the environment and, in the experiment underlying the value, the cobalt had to be constantly administered as an aerosol in order to overcome the fact that it otherwise could not be maintained in the air.

The animals in the study had so much cobalt dust in their lungs, they had side effects from anoxia, further documenting that it was really poor study. Given the ATSAC's rejection of the study and associated value, it should not now be proposed by DEQ. Consistent with the approach taken by OEHHA, DEQ should not adopt a cancer value in the absence of good science.

Similarly, the proposed TRVs and Multi-Pathway Adjustment Factors ("MPAFs") for hexavalent chromium ("chromium VI") reflect out-of-date toxicity data and contain significant errors associated with the MPAF values. As explained in the attached paper prepared by Gradient on behalf of the American Forest & Paper Association, the proposed chromium VI TRVs do not reflect current information and should not be included in the final rule. In addition, the MPAF values used in deriving the chromium VI RBCs are wrong in several regards. First, the MPAF chromium VI cancer values from the South Coast AQMD are calculated based on the OEHHA inhalation cancer toxicity value (*i.e.*, IUR of 1.5 x 10-1 per $\mu g/m^3$ for cancer) as opposed to the US EPA IRIS IUR of 1.2 x 10-2 per $\mu g/m^3$ for cancer that DEQ applies to the RBC calculations. In addition, the MPAF chromium VI non-cancer values from the South Coast AQMD are calculated based on the OEHHA non-cancer REL (0.2 $\mu g/m^3$) as opposed to the US EPA RfC of 0.1 $\mu g/m^3$ for chromate particulate and ATSDR MRL of 0.005 $\mu g/m^3$ for chromic acid mist that DEQ applies to the chromium VI RBC derivations. This approach is incorrect. DEQ cannot apply MPAF values from South Coast AQMD that are based on toxicity values that are different from the TRVs DEQ applies to the chromium VI RBC calculations. DEQ needs to revise the MPAF values so that they are calculated using the same toxicity values that DEQ applies to derivation of the chromium VI TRVs and RBCs. These issues significantly impact the chromium VI TRVs and RBCs as well as those for many other substances proposed to be regulated under the CAO rules.

Similarly, there is no sound toxicological or policy basis for the presumption built into proposed note "d" of OAR Table 5 that all source emissions of chromium are in the hexavalent form, unless specifically proven otherwise. Although it is DEQ's choice to set RBCs for hexavalent chromium instead of total chromium, that choice (standing alone) is no justification for the massively misleading suggestion that all source emissions of chromium are in the hexavalent form. In fact, the exact opposite presumption is appropriate. Absent specific information about a source or its TEUs, DEQ should presume that source emissions of chromium are not in the hexavalent form.

There are serious deficiencies with the proposed TRVs, Adjustment Factors and RBCs. Oregonians for Fair Air Regulations urges DEQ to withdraw the proposed values, review them carefully in conjunction with the ATSAC and the regulated community and re-propose Tables 3, 4 and 5 based on the most current information and accurate technical approaches. This effort should start with convening the ATSAC to review all of the proposed TRVs set according to ABCs included as part of the July 14, 2017 ABC rulemaking notice.

This request is consistent with DEQ's stated objective of ensuring that Oregon's ABCs are based on up-to-date and scientifically defensible information and the stated purpose of the proposed CAO rules to use a "science-based approach."[3] Reconvening the ATSAC to consider all TRVs based on ABCs is also clearly appropriate given new toxicological information revealing that the ABCs grossly overestimate risks presented by numerous substances.

Issues Specific to Acute TRVs and RBCs

DEQ must revisit the entire set of proposed acute non-cancer RBCs and invite additional scientific input on the methodology underlying those values before DEQ releases a new, revised set of acute non-cancer RBCs for public comment. A comprehensive review of each of the proposed acute RBCs was impossible given the lack of explicative information included with DEQ's proposal. Nonetheless, even a general review of the proposed acute RBCs justifies our request. By our count, fully thirty of the proposed acute RBC values are equal to or lower than the chronic non-cancer RBC values selected by DEQ for the same chemicals. The commenting toxicologists found this remarkable.

According to those scientists, acute toxicity values are typically higher than chronic toxicity values given that the acute values reflect toxicity effects over much shorter exposure durations (e.g., 24-hours as compared to 70 years). Moreover, inherent in the chronic toxicity values is the fact that short-term exposure may occasionally exceed a chronic value, so long as the average exposure concentration over the full, long-term exposure period remains below the chronic value. Setting acute non-cancer RBCs lower than the chronic RBCs is inconsistent with that inherent approach.

For these reasons, the commenting toxicologists expected that DEQ would have acted with the utmost of transparency and scientific rigor before setting any acute non-cancer RBC value at a level that is equal to or more stringent than its chronic counterpart. Strikingly, however, DEQ has not provided any explanation of the toxicological basis (dose-response relationship) used to set acute RBCs that are more stringent than the chronic non-cancer RBCs. Said differently, DEQ has not pointed to the scientific information indicating the presence of acute effects at the acute values it has proposed. DEQ should step back, develop and then disclose for public review a complete analysis of the current and best available science supporting each proposed acute RBC. It is scientifically flawed for DEQ to derive acute RBC values from studies that do not evaluate effects over a short-term exposure period. Therefore, in the absence of actual data demonstrating acute effects at a proposed value over an equivalent short-term exposure period (24-hours), that value should be replaced with a higher, scientifically valid value or withdrawn entirely until the best available science demonstrates an acute effect over a 24-hour period.

[3] OAR 340-245-0005(1)(c).

Oregonians for Fair Air Regulations' request that DEQ reconsider the entire set of proposed acute RBCs following ATSAC review, release of comprehensive analytical information and further scientific input from the public is further justified given that the commenting toxicologists found invalidating scientific errors associated with every single one of the specific acute values that they had the time and resources to review in depth. Specifically, the commenting toxicologists found that:

- DEQ's proposed acute non-cancer RBC for insoluble nickel compounds is extraordinarily conservative and has been set at a threshold at which it would be toxicologically impossible to elicit any acute effects. Unsurprisingly, then, the EPA Office of Air Quality Planning and Standards ("OAQPS") does not recommend an acute toxicity value for insoluble nickel;

- DEQ's proposed acute non-cancer RBC for manganese is derived from an occupational study evaluating effects over a subchronic exposure period that lasted a full five years and is thus not scientifically relevant to DEQ's consideration of 24-hour effects. Although the calculations that DEQ completed to derive an acute RBC from this occupational study of subchronic manganese exposure are self-evident, DEQ has provided no scientific support that acute effects of any degree will occur at DEQ's derived value;

- DEQ's proposed acute non-cancer RBC for lead simply adopts the level (of 0.15 ug/m^3) established as the National Ambient Air Quality Standard ("NAAQS") for lead, without further analytical or scientific explanation. Missing is any consideration of the critical fact that the lead NAAQS includes a three-month averaging time. The lead NAAQS does not indicate the presence of acute effects given instantaneous or even 24-hour exposures at or over the adopted level 0.15 ug/m^3. Rather, the lead NAAQS teaches that -- in EPA's assessment -- short-term lead exposures will be safe to human health so long as, on average, those exposures remain below the adopted level over each rolling three-month period. DEQ has pointed to no scientific support for the application of the lead NAAQS level to the vastly shorter exposure period of 24-hours.

- DEQ's proposed acute non-cancer RBC for cadmium is based on an ATSDR acute value set in 2012 that does not reflect the best available science. The 2012 ATSDR value includes an overly conservative duration adjustment (the underlying study involved subjecting rats to continuous exposures over a 62-hour period, thus no adjustment for a 24-hour value is necessary) and was not based on EPA's current Multiple Pass Particle Dosimetry ("MPPD") model for rat-to-human particle dosimetry adjustment. DEQ should derive its acute non-cancer RBC for cadmium using the same methodology that the Texas Commission on Environmental Quality ("TCEQ") applied to derive its proposed acute (24-hour) cadmium value in 2016. The TCEQ methodology, which

utilizes EPA's current MPPD model and does not include a needlessly conservative duration adjustment, is better supported by science than the 2012 ATSDR methodology.

These and other problems with DEQ's proposed acute non-cancer RBC values are detailed in the attached Gradient Toxicology Report. We urge DEQ to address these problems (including by withdrawing the proposed acute non-cancer RBCs for insoluble nickel compounds, manganese, and lead) and to undertake the wholesale reconsideration of the proposed set of acute non-cancer RBCs requested above.

Relatedly, we ask that DEQ revise proposed OAR 340-245-0040(3), which enshrines the agency's analytical methodology for selecting short-term toxicity reference values. In particular, DEQ should:

- Delete proposed OAR 340-245-0040(3)(a)(D), which inappropriately allows DEQ to develop 24-hour acute toxicity values from ATSDR Intermediate Minimal Risk Levels, which are based on significantly longer exposures (of between 15 and 365 days); and

- Revise proposed OAR 340-245-0040(3)(c), which states that -- for a given chemical -- DEQ will set the chemical's acute non-cancer TRV at the chronic TRV if the acute TRV derived from authoritative information is lower than the chronic TRV value "because chronic non-cancer toxicity reference values are generally more reliable." This statement about the relative reliability of chronic values does not support imposing any long-term TRV as the acute (24-hour) one. Instead of defaulting to the chronic TRV value, DEQ should be required to conduct a careful toxicological review with support of the ATSAC and public input before setting any acute TRV at a level that is equal to or lower than the corresponding chronic TRV.

In sum, it is likely that the acute non-cancer RBCs will necessarily play a controlling role in many source risk assessments. It is thus imperative that DEQ establish the acute RBC values by reference to the best science available, as evaluated by the ATSAC and after further public input.

Title V Permit Shield
(OAR 340-218-0110)

There is no basis for excluding CAO requirements from the Title V permit shield. DEQ is proposing to amend OAR 340-218-0110 (Title V Permit Shield) to state that the shield does not apply to requirements in an Air Toxics Permit Attachment. We see no reason for this choice. If Title V sources are subject to the Division 245 requirements and receive an Air Permit Attachment, then those sources should be able to receive the benefits of the permit shield. We see no rational policy reason for not affording the shield to the Division 245 requirements and nor do we see how denying the shield is compliant with ORS 468A.310(3)(e).

We request that the proposed amendment to OAR 340-218-0110 either be deleted from the final rule or be renoticed with an explanation of the purpose of the exclusion so that we can meaningfully comment on it.

Fiscal and Economic Impacts Assessment was Inadequate

DEQ Must Mitigate Impacts to Small Businesses

The proposed CAO rules will have a significant adverse impact on Oregon's small businesses. In order to mitigate some of that impact, DEQ should not require small businesses to be among the initial sources called into the program. The first sources required to undergo the rigors of the CAO program will face expenses not faced by those who are able to follow in their footsteps. Working out the details of the program will take time and require specialized expertise. No source wants to have to shoulder this burden, but it is particularly difficult for a small business to do so. As designed, the CAO program could target small businesses due to the fact the emissions levels and proximity to public receptors does not distinguish a business as large or small. Therefore, DEQ should delay calling any small business into the program until the initial rounds of sources (i.e., the first 20) have completed the process. That revision will provide a meaningful benefit to the small business sources.

DEQ Must Prepare a Robust Fiscal Impacts Assessment

As was discussed in detail at the August 30, 2017 RAC meeting, the fiscal impacts analysis provided to the Fiscal Impacts Advisory Committee was facially inadequate. The Department has been working on the proposed rules for over a year and has a wealth of resources and available information to call upon in assessing control costs and yet the agency inexplicably chose not to avail itself of these resources. Instead, the Department provided the Fiscal Impacts Advisory Committee with inadequate data, analysis and accompanying materials, and left insufficient time for the Committee members to produce the materials lacking from the draft fiscal impact report. Even if the Committee had sufficient time to produce the data, analysis and materials, it would need another opportunity to review the information and, as a committee, produce a recommendation based on adequate information. The Department has subsequently failed to avail itself of the opportunity to correct the extensive shortcomings in the final fiscal impacts analysis report. In its current form, DEQ has not met its statutory duty to assess fiscal impacts, including overall or upon small businesses, and must do so before moving forward with the draft rules in order to meet its statutory obligations.

Based on the limited information provided by the Department, we believe that the draft rule will have a significant adverse impact on all manufacturers, but especially small businesses. The proposed rules do not adequately mitigate those significant adverse impacts and DEQ ignored the mitigation measures previously suggested (e.g., not having small businesses among those initially called in under the program).

As a result, the rules needlessly create increased regulatory uncertainty for both small and large businesses. In addition, the draft rule will put small and large businesses on the same regulatory timetable with respect to regulatory costs – capital, labor, fees, modeling, monitoring, outreach and more – that could reach tens-of-millions of dollars in the aggregate per facility. This does not meet the policy objectives outlined in statute.

The analysis of the proposed rules by a professional economist at MFA substantiates the above concerns. That analysis, which is attached, illustrates how the true economic impacts of this rulemaking were not completely or accurately considered by DEQ and are not reflected in the agency's final report of the rules' fiscal and economic impact. Strikingly, MFA applied DEQ's own assumptions to estimate that the total cost of to Oregon businesses could run as much as $8.4 billion (net present value) over the next 20 years. MFA's analysis likewise shows the rules' potential impact upon small businesses to be devastating. MFA's analysis also contrasts the proposed rules' overwhelming cost with their uncertain benefit.

In light of MFA's analysis, and DEQ's failure to prepare a complete or accurate cost-benefit analysis of the proposed rules, DEQ must revise and renotice the fiscal and economic impacts assessment. Toward that end, DEQ should first reconvene the Fiscal Impacts Advisory Committee.

Before moving forward, DEQ must also, as required by law, revise the proposed rules to mitigate their impacts to small businesses and then renotice the revised rules for additional public comment.

Conclusions

The businesses making up Oregonians for Fair Air Regulations are proud of their longstanding and cooperative work with DEQ to reduce air emissions. Likewise, Oregonians for Fair Air Regulations remains convinced that it is possible to develop the CAO program to achieve the Department's overarching goals of protecting the health and well-being of all Oregonians by both reducing stationary source air toxics exposures and supporting a thriving business environment. However, the proposed rules do not attain these goals.

We strenuously object to DEQ moving forward with the rules, as proposed. We urge the Department to slow down and take the time it needs to improve the rules' substance, analyze the pertinent scientific information and assess the rules' true impacts. Then, and only then, we ask that the Department issue a refined set of proposed rules for further public comment. Failure to do so would deny the members of Oregonians for Fair Air Regulations the ability to meaningfully comment on the proposed program in violation of the Oregon Administrative Procedures Act.

We look forward to continuing to work with you to establish a practical and effective program. Please do not hesitate to call me if you have any questions about these comments.

Sincerely,

Thomas R. Wood

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