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**Subject:** SB public testimony Collin SB 1541 oppose, Support SB1508  
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Dear Senators,

I am familiar with clean air regulations generally, and Oregon's current legislation. I sincerely appreciate the well intended work on clean air in both houses of the legislature. I do have some technical concerns with SB 1541 but support SB1508

Pre-session filed bill language on SB 1541 currently proposes the dangerously unprotective suggestion of 100 in a million for cancer, and HI of 10. There is no safe level for many chemical emission such as lead. Every year research demonstrates that lead bioaccumulates and affects the neurodevelopment of children, and especially children of color who are exposed more. These impacts can be passed along through generations. There should be no number decided by statute that ties the hands of regulators to be more protective when necessary. I also opposes the idea that New and Existing facilities would have different standards. Oregon's PSEL program is over protective of existing facilities, so while it may seem a reasonable proposal because no other state has a standard for existing, it is not an equal comparison since other states' NSR rules capture more modifications and upgrades at older facilities than Oregon's program does. We need the following to protect current and future residents and businesses of Oregon. We do need some tweaks in our air regulations for the public health, safety and welfare, including economic development. We need

- All industrial air toxic emitters are included statewide
- The new reporting requirement for 660 air Toxics
- Health based risk Risk Action Levels and permit applications and renewals for 215 air Toxics and clear procedures for compliance
- Sensitivity to vulnerable people and environmental Justice
- A beginning approach to cumulative risks
- The polluter pays structure
- The area multi source risk action level and requirements for ambient monitoring
- The inclusion of rural communities

Public health has always been a quiet but key player in most state and federal environmental laws and policies. Now, with increasing populations, discernible accumulating human impacts, and new tools to assess risk and air quality we naturally see a greater inclusion of public health as a basis for policy. Because environmental impacts affect minorities and low income people more, their numbers become more visible. The increased knowledge of these impacts is a driving foundational force for Environmental Justice.

#### Environmental Justice: Background

Generally, an environmental injustice occurs when a disproportionate impact of the burdens of environmental decisions is affecting one group while another group experiences the benefits of these environmental decisions. Examples : Waste sites, air and water pollution, traffic decisions are example. Race is the most determinative factor in hazardous waste siting nationally. Low income communities can also experience disproportionate impacts and are a large part of EJ.

<http://www.mdpi.com/1660-4601/8/6/1755> It is NOT making everyone equally burdened. When the burden is shifted equally then pollution reduction occurs. An example is East LA and incinerators  
[https://en.m.wikipedia.org/wiki/Mothers\\_of\\_East\\_Los\\_Angeles](https://en.m.wikipedia.org/wiki/Mothers_of_East_Los_Angeles)

These Impacts occur over and over again in the same areas, and accumulate along with higher public health risks including possible epigenetic impacts. The pollution adds up over time. Pollution accumulates In places with populations that can't resist polluting industries. Both urban and rural Low income communities and African American communities are heavily impacts. Toxic Waste and Race <http://www.ucc.org/environmental-ministries-toxic-waste-20>

## Environmental Justice: Why It Matters to Everyone

Cumulative environmental and public health impacts spread both in the current environment but also to subsequent generations who inhabit that land. This is particularly important with air toxins, which tend to spread further than other pollution vectors. Because air toxins spread further, more people and more of the environment are exposed to ever accumulating risks and impacts.

## Environmental Justice in Oregon

There is documented environmental injustice in Oregon around air pollution. In 2011 a research study found diesel air pollution higher in Portland than Oregon health guideline. It also found that the 10 lowest income and the ten highest minority census block groups experience more exposure to all sources of air toxins. In Multnomah County census tracts with higher than average Black/African American, Asian Pacific Islander and/or Latino residents have 2 to 3 Times the exposure to diesel particulate matter than census tracts with 90% or more non Latino white census tracts. Diesel emissions themselves contain many of the same air toxins we include in current and proposed air quality regulation- cadmium, benzene, arsenic, formaldehyde, and a range of chromium compounds.

The Governor's Office of Natural Resources maintains a web site with agency reports and meeting notes. Oregon also has a history of environmental justice going back to Governor Barbara Roberts and continuing to the present. The Oregon Environmental Justice Task Force has worked with Oregon Natural Resource Agencies for the last 9 years to bring collaborative and community focused approaches.

EJ in Oregon: It's the Law, Lewis and Clark Law Review, <http://elawreview.org/articles/volume-38/issue-38-2/environmental-justice-in-oregon-its-the-law/>

## New Policy Tools for New Public.

Disproportionate impacts of air pollution on vulnerable populations continue but new tools can help stakeholders be sensitive to EJ populations. <http://www.mdpi.com/1660-4601/8/5/1441> These new tools allow policy makers, such as DEQ and OHA, to adjust programs to meet public health protections. Nearby research universities have recently applied this tool measuring air pollution, race, and public health dynamics. UW study <https://consumer.healthday.com/public-health-information-30/race-health-news-570/minorities-exposed-to-dirtier-air-u-s-study-finds-726465.html>

## Benefits of air pollution regulation: lives

On a global average each person inhales about 10,000 liters of air per day. It is the contents of that air that affects our lives. Poor air quality is one of the five leading health risks globally. Long term exposure to air pollution is associated with respiratory infections, chronic obstructive pulmonary disease (COPD), stroke, heart attack and lung cancer. Roughly 90% of the world population or about 7 billion people, is exposed to outdoor pollution above 10 micrograms of pm 2.5 per cubic meter averaged over a year. This exceeds World Health Organization guidelines. 4 and a half million people die annually from air pollution impacts. About ½ of these are in Russia and China. In this population it is estimated that each person died 28 years earlier than if they had no air pollution, which is 120 million years of lost human life annually, according to the Lancet Commission on Pollution and Health. (go.nature.com/2zcqzau)

The US Clean Air Act proves that these types of rules save lives, it is used as a partial model internationally as developing nations struggle with air pollution and greenhouse gas emissions. About 200 million people in the US live in places monitored for particulates in 1970 to now, mostly cities. It excludes about 150 million people mostly in rural and small town areas. On average we can expect to live an additional 19 months, for a total gain of 336 million life years. Source NY Times, 9/24/15 Michael Greenstone. Upshot In Los Angeles particulate pollution declined by more than half since 1970. Now the average resident lives about 20 months longer. NYC - 24 months, Chicago - 24 months. Greatest improvements were in small towns dominated with unrestricted heavy industries. In Weirton, West Virginia- 1970, particulate concentrations were similar to modern Beijing. Now a child born there today can expect to live 5 years longer.

DEQ/OHA should include a measure of lost life present and future permit decisions, and need the flexibility to do so. Real pollution prevention is needed to really protect health. Real air pollution regulation really does save lives.

## Vulnerability: It Affects Us All

### CHILDREN

Children are outside more, more vigorous when outside, and have developing lungs. <http://www.lung.org/our->

[initiatives/healthy-air/outdoor/air-pollution/children-and-air-pollution.html](http://initiatives/healthy-air/outdoor/air-pollution/children-and-air-pollution.html)

They are very small particles and can rest in the lung for awhile. Gases in diesel include carbon monoxide, nitrogen oxides, sulfur dioxide, and formaldehyde and 1,3 butadiene, latter two are toxic and hazardous air pollutants. Associated with tumors and cancers. The Multiple Toxics Exposure Study In LA found that Diesel emissions were responsible for 70% of the total cancer risk from all toxic air pollution in the greater Los Angeles area.

<http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies/mates-iv>

#### ELDERLY

Citizens over the age of 70 are specifically not included in measuring health risks to vulnerable populations. COPD and emphysema in the elderly is serious, and toxic air pollution makes it worse.

The Elderly have longer life time exposure to ambient air emissions, or dirty lungs.

1. Weaker immune systems struggle with bacteria that were easily dispatched in youth,
2. Have a longer healing time
3. Heart and lung disease can get worse with exposure to air pollution to everyone, but especially the elderly.
4. More ER visits when there are high air pollution levels

<https://www.airgle.com/blog/elder-and-air-quality/the-elderly-air-pollution-and-hospitalization/>

The elderly are not difficult to find or hard to count. The entire population age range should be included to fully include vulnerable people.

#### Sustainability and Environmental Justice

The basis of Sustainability lies in applying the precautionary principle to environmental and public health. Applied here, it would include ALL emissions to determine the risks of irreparable and deadly impacts before a permit is issued. Including all emissions is a necessary condition for sustainable development and for the accurate assessment of how fast cumulative impacts are eroding public health.

There are some important community engagement opportunities in this version of the rule but the risk information is late in the process, and may thwart community and regional efforts to implement sustainable practices.

#### Incentives for Industry to Non comply

We need a trigger for the community to engage the permit holder on a health risk issue that could be related to their emissions. The rules as written now allows long industry extensions to continue noncompliance which increases health risks to people.

#### Conclusion

Air emissions accumulate more everyday. With air emission accumulation and increasing population the health of the residents can begin to suffer, effecting the most vulnerable first. We are all vulnerable in the womb, as a child, and as a senior citizen. Everyone is vulnerable to the accumulating toxicity of these chemicals. These accumulations are not going away, and the population is not decreasing. We will need to capture and contain all Toxic air emissions at a true zero threshold for ecological sustainability, one that includes all people.

<http://www.mass.gov/eea/agencies/massdep/air/quality/cumulative-exposure-to-air-toxics.html>

What is not increasing is adequate protection of the public health. As my published research in New Delhi investigated, inadequate public health protections degrade to a public health emergency, reducing life along the way. There, in unregulated industry, the interventions focus on face masks and end of life care for all age groups.

But, what is increasing is citizen empowerment through more knowledge and mounting concerns about family welfare and health risks where we all work, live, and play.

Thank you for your time and consideration.

Respectfully submitted

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Sent from my iPad