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It's Your Oregon

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Testimony for the Senate Energy & Natural Resources Committee
April 1, 2015

SB 824

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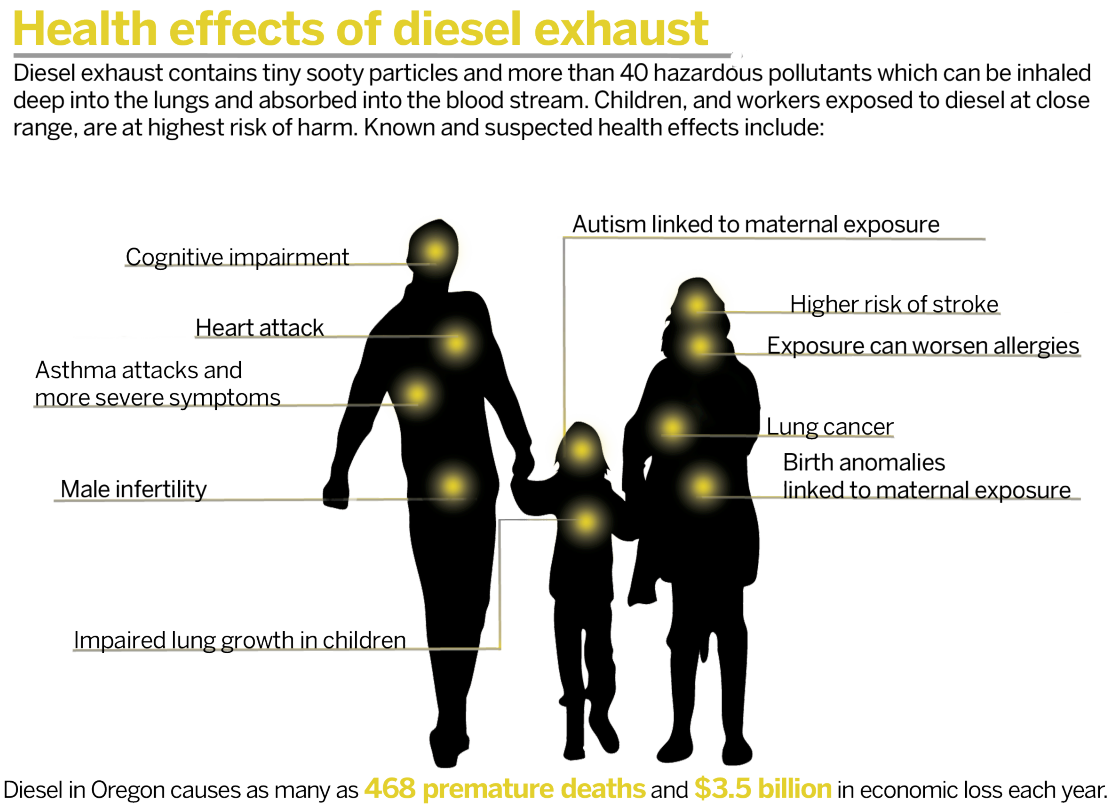
Founded in 1968, the Oregon Environmental Council (OEC) is a nonprofit, nonpartisan, membership-based organization. We advance innovative, collaborative solutions to Oregon's environmental challenges for today and future generations.

Oregon Environmental Council **supports** SB 824, which would ensure that construction equipment used in public works projects is cleaned up over time, require registration of non-road diesel engines, direct the Environmental Quality Commission to adopt diesel emission standards, and allow local governments to adopt anti-idling ordinances stronger than state law.

We appreciate that diesel engines are the workhorses of the economy, with superior longevity and durability. Unfortunately, diesel exhaust has a number of negative health consequences that affect many Oregonians. We ask that the state legislature take steps to protect Oregonians' health through incentives and regulations to accelerate the clean up of diesel equipment.

Diesel Harms Human Health[i]



Diesel Aggravates Asthma
A major health challenge in Oregon is childhood asthma, and diesel exhaust is a key aggravating factor. Children are especially susceptible to diesel emissions because they breathe 50% more air per pound of body weight then adults, as well as having narrow airways and immature immune systems. Research indicates that diesel exhaust can increase both the frequency and severity of asthma attacks and may lead to inflammation of the airways that can cause or worsen asthma.[ii] Children suffering from asthma not only have to deal with daily health challenges, but many studies have shown that children with asthma have higher school absenteeism, possibly translating into poorer performance in school. According to the most recent "The Burden of Asthma in Oregon" report by the Oregon Health Authority (2013) over 320,000 adults and 67,000 Oregon children suffer from asthma. In the decade before the report was released, 47 to 78 Oregonians died each year from asthma, and one in seven sufferers wound up in an emergency room due to an asthma attack in 2007.

Diesel Contributes to Climate Change
Besides harming health, diesel soot also contributes to climate change. The fine particles in diesel exhaust—known as "black carbon"—absorb solar radiation and emit it as heat, cause snow and ice to melt quicker, and—because they affect the properties of clouds—these particles even affect precipitation. Diesel engines are most significant source of black carbon in North America. Reducing black carbon can result in significant near-term climate benefits and give us more time to deal with long-lasting greenhouse gases.

Exposure to Diesel Is Widespread in Oregon
Diesel particulate matter exceeds health benchmarks in 17 counties.[iii] Even in counties where ambient air concentrations meet the Department of Environmental Quality's health benchmarks for diesel, people live and work near concentrated sources of diesel exhaust (e.g., highways and construction sites) and are exposed to unsafe levels. This problem must be addressed all across Oregon. Oregon is 6th in the nation for highest health risk from diesel pollution, and 96% of Oregonians will have elevated cancer risk from diesel in their lifetime.[iv]

Diesel Is an Occupational Hazard
People whose occupations bring them in close and regular contact with diesel exhaust are especially vulnerable, including truck drivers, construction equipment operators, railroad workers, dockworkers, flaggers and others. A recent study conducted by California's Office of Environmental Health Hazard Assessment found that people working around diesel equipment were significantly more likely to develop lung cancer than those who were not exposed to diesel emissions.[v] Similarly, a 2003 study found that truck drivers had an increased risk of lung and prostate cancer; lung cancer was reported in 61 cases while 47.3 were expected, and prostate cancer was reported in 124 cases with only 99.7 expected.[vi]

Diesel Is an Environmental Justice Issue
Communities of color in Oregon are disproportionately impacted by diesel pollution, living in areas that have 2-3 times higher diesel exposure. People who live near highways, busy roads and rail lines are most impacted by diesel pollution and are often lower-income and community-of-color residents. Being exposed to diesel exhaust is particularly concerning for communities of color because many already have disproportionately higher rates of some health conditions that can be exacerbated by diesel exhaust.

Diesel Pollution Is a Costly Problem
Diesel harms our health and our pocketbooks. Families harmed by diesel pollution bear the direct costs of hospitalization, physician and nursing services, prescription medications and home care. Employers bear the cost of lost productivity associated with illness and premature death. All of us bear the cost of rising health insurance costs and needs for special educational and social services. EPA has estimated avoided health and welfare impacts due to full

implementation of clean engine standards nationwide.[vii] If one scales this nationwide estimate to Oregon, we would save $3.5 billion and avoid 460 premature deaths each year.

We Need Diesel Solutions

Federal regulations for new diesel engines will result in cleaner air over time, but older diesel engines can last for more than a million miles and can be rebuilt many times without pollution controls. Unless we take action to ensure old engines are retrofit with pollution control equipment or—even better—replaced, it could be 30 years before today's dirty engines are gone.

In Oregon, we also find that we have become the dumping ground for old diesel trucks and equipment that can no longer be used in California due to their more protective policies, so we must take steps now to ensure our fleet doesn't become even dirtier.

Thank you for considering, and hopefully supporting, the direction laid out in SB 824.

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[i] Sources for infographic include:
(1) U.S. Environmental Protection Agency. Health assessment document for diesel engine exhaust. Prepared by the National Center for Environmental Assessment, Washington, DC, for the Office of Transportation and Air Quality; EPA/600/8-90/057F. Available from: National Technical Information Service, Springfield, VA; PB2002-107661, and http://www.epa.gov/ncea (1.2 composition; 1.6 lung cancer; 1.6.1 asthma; 1.6.1 allergies). 2002.
(2) Krivoshto IN, Richards JR, Albertson TE, Derlet RW. The toxicity of diesel exhaust: implications for primary care. J Am Board Fam Med 2008; 21: 55–62. http://www.jabfm.org/content/21/1/55.full (heart attack, stroke, cognitive impairment, infertility, autism, birth anomalies)
(3) Downing, Kevin. The Concerns about Diesel Exhaust. Oregon Department of Environmental Quality Operations Division. October 2014. http://www.deq.state.or.us/aq/diesel/docs/DieselEffectsReport.pdf
[ii] Albright, J.F. and R.A. Goldstein, "Airborne Pollutants and the Immune System," *Otolaryngol Head Neck Surgery*, 114(2): 232-8. 1996.
[iii] Benton, Clackamas, Columbia, Coos, Deschutes, Hood River, Jackson, Josephine, Klamath, Lane, Linn, Marion, Multnomah, Polk, Wasco, Washington, Yamhill. Data from 2005 National-Scale Air Toxics Assessment. http://www.epa.gov/ttn/atw/nata2005/tables.html
[iv] Ibid.
[v] OEHHA. Health effects of diesel exhaust. http://oehha.ca.gov/public_info/facts/dieselfacts.html
[vi] Jarvholm, B., and D. Silverman. *Lung cancer in heavy equipment operators and truck drivers with diesel exhaust exposure in the construction industry*. Occupational and Environmental Medicine 2003 July; 60(7): 516-520. 2007.
[vii] For its 2007 Clean Diesel Truck and Bus rule, EPA estimated the emission standards will prevent 8,300 premature deaths, more than 9,500 hospitalizations, and 1.5 million work days lost. http://nepis.epa.gov/Adobe/PDF/20017FRJ.pdf