Air Pollution Report
2018 Update

No Industries are located in the area depicted under the Map Key or credits

Compiled by Greg Bourget
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Map by Robert Mannering
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The Northeast Coalition of Neighborhoods (NECN) is a nonprofit serving Portland’s 12 inner North/Northeast neighborhoods. NECN helps increase neighborhood livability through inclusive civic engagement and grassroots community building. NECN works to impact social and environmental justice through issue advocacy, support for community projects, and leadership development. Governing Magazine identified Portland as having the highest amounts of gentrification in the country, noting high displacement in Northeast Portland, which has disproportionately impacted African Americans.

NECN is concerned about the air pollution coming from several factories, particularly the clusters around the I-5 corridor and Columbia Avenue. For example, Tarr LLC is a chemical distributor, located near the Concordia and Woodlawn Neighborhoods, which was identified by the latest EPA Toxics Release Inventory as one of the largest air polluters in Oregon. Tarr LLC currently emits over 4,218 pounds of toxic industrial solvents from their factory at 2946 NE.
Columbia Blvd annually. Precision Equipment Inc., close to the Woodlawn Neighborhood, is a hard chrome electroplating factory. Although Precision uses a scrubber, which is a device that filters emissions, we would like them to switch from hexavalent chromium, a potent carcinogen, to trivalent chromium, a safer alternative for chrome plating. Some dry cleaners in our neighborhoods still use toxic and cancer-causing perchloroethylene instead of currently available safe alternatives. All dry cleaners included on the cover of this report use perchloroethylene; we estimate about one 55 gallon drum is released on site annually per dry cleaner. California’s Air Resources Board banned the substance from use in new dry-cleaning machines in 2007.

Citizen involvement is needed to address Northeast Portland air pollution. The Environmental Protection Agency (EPA) National Air Toxics Assessment (NATA), released in December 2015 found that Portland ranked as the worst city nationwide for respiratory distress. For cancer risk, Multnomah County ranks in the worst 2% of US Counties. This is due in part to lax, unenforceable air pollution regulation. An example of this problem was Uroboros Art Glass Factory, located in Eliot Neighborhood

Oregon’s Department of Environmental Quality (DEQ), the regulatory agency responsible for air safety, announced in early 2016 that neighborhoods surrounding Uroboros had a monthly average of 49 times the state’s established air-safety benchmark level for cadmium, based on information gathered from the US Forest Service moss study. Cadmium exposure is linked to cancer, respiratory problems, and organ damage. A recent study by the Oregon Health Authority found that for the years 1999-2003, there was a small yet statistically significant increase in the rate of bladder cancer in one census tract near Uroboros. Researchers state that more studies are needed at this time. Bladder cancer can be linked to arsenic, which is a chemical Uroboros used in their processes in the past.

Uroboros, like other similar facilities, had been operating in compliance with the law. Despite Oregon’s established health benchmarks, there have been no regulatory requirements associated with such benchmarks. A failure of oversight, regulation, and transparency has led to inadequate testing, monitoring, and emissions controls like smokestack filters. Citizen outcry over heavy metals from Portland glass factories caused new rules requiring Uroboros to install a scrubber and clean their stacks. As of October 2016, Uroboros announced they are going out of business.

The most dangerous cancer causing air pollutant in North/Northeast Portland is diesel particulate. Boise, Eliot, and Humboldt neighborhoods border the I-5 corridor and Lloyd and Sullivan’s Gulch border I-84 which are subject to diesel particulate from short haul trucks. Diesel particulate acts like the liquid mist in an inhaler by efficiently delivering harmful chemicals from the air into the lungs where it easily enters the bloodstream.

Multnomah County air ranked in the worst 1% of counties nationwide for concentrations of diesel particulate according to the last EPA NATA. This is due to Oregon’s weak regulation of industrial diesel trucks. Filtered trucks emit less than one tenth of the diesel particulate but Oregon is not required to have filters on its trucks. Unfiltered diesel trucks are illegal in California.

NECN has obtained a spreadsheet of every diesel truck in Oregon from Oregon Department of Transportation and Oregon Department of Motor Vehicles, including model year and owner. Model year can help determine whether a diesel particulate filter was installed. Since 2008, federal rules require truck engines to be built with diesel particulate filters, but trucks built before 2009, when 2008 engines were implemented into new trucks, rarely have filters.
2011 EPA diesel particulate dataset is online under Pollutant Specific Results. Scroll down for Diesel PM at: epa.gov/national-air-toxics-assessment/2011-nata-assessment-results

2016 ODOT & PBOT truck data obtained by request

From EPA NATA data model

- 1.24 - 1.80
- 0.97 - 1.24
- 0.64 - 0.97
- 0.41 - 0.64
- 0.19 - 0.41

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The World Health Organization classifies diesel exhaust as a carcinogen, causing lung and bladder cancer. The Environmental Protection Agency (EPA) reported that diesel exhaust can also cause eye, throat, and bronchial irritation, lightheadedness, nausea, as well as coughing and phlegm. In 2015 the Oregonian reported that other health effects of diesel exhaust include "heart attacks, pre-term and low-weight births, and asthma." A 2008 study by Irina Krivoshto et al in Journal of the American Board of Family Medicine found that diesel exhaust is 100 times more toxic than gasoline engine exhaust.

In 2015 DEQ reported that 80-95% of diesel exhaust is ultra-fine particulate "easily inhaled and left in the lower area of the lungs... capable of entering the bloodstream, allowing them to be circulated to all parts of the body."

Clean Air Task Force in Boston calculated EPA data and State of California risk assessments and found diesel emissions in Portland cause more than five times as many cancers as all other inhaled carcinogens combined.

Diesel powered vehicles are only 6% of vehicles on the road - yet diesel powered vehicles emit 60-70% of all particulate emissions from all vehicles, according to Oregon DEQ. The largest unfiltered diesel fleet by far in the Portland area is XPO Logistics. Home Depot and Amazon are both considering purchasing this entire fleet. Next worst is USF Reddaway, Penske, TriMet, Safeway, UPS, PGE, Wilson Construction, Ryder, and Waste management respectively.

Nearly all California diesel trucks had diesel particulate filters by 2015. In the three county Portland area, 3/4 of all diesel trucks are currently unfiltered. According to the EPA diesel particulate is most concentrated about one mile from the source — which is primarily short-haul, in-city truck routes.

Air pollution near highways is dangerous. A Dutch study of 1,191 children in Holland attending 20 schools near freeways found traffic intensity near schools were significantly associated with chronic respiratory symptoms. Lung function testing of the children found that cough, wheeze, runny nose, and asthma were reported significantly more often for children living within 2.25 city blocks of a freeway, more so for girls than in boys.

Vehicle exhaust includes carbon monoxide which can cause headache, dizziness, and nausea. Vehicle exhaust also contains nitrogen dioxide (NO₂). According to the EPA, "breathing air with a high concentration of NO₂ can ... aggravate respiratory diseases, particularly asthma, leading to respiratory symptoms, such as coughing, wheezing or difficulty breathing, hospital admissions and visits to emergency rooms. Longer exposures to elevated concentrations of NO₂ may contribute to the development of asthma and potentially increase susceptibility to respiratory infections."

By their own admission, Oregon DEQ does not include human health to regulate air pollution from industry. Governor Brown has made significant steps to change this by removing corrupt officials who were recently leading the DEQ and Oregon Health Authority. Governor Brown’s Cleaner Air Oregon (CAO) is currently advancing how stack emissions are reported and regulated. However CAO does not address industrial diesel trucks at all. In 2017 the Oregon legislature struck down proposed diesel truck legislation similar to California's law.

Inaction by the State of Oregon means Portland residents must negotiate directly with nearby trucking companies or the industries they contract with. NECN is working with Portland Clean Air to help you challenge unfiltered truck fleets whose routes are by your house. Citizen action works. It was citizen action that closed the Trojan Nuclear Power Plant, that won the $1.4 B Big Pipe project to protect the Willamette. Citizen action saved Opal Creek.
What You Can Do

1. To read about toxic chemicals on site for each industry in your neighborhood, you can go online to view our full report at: necoalition.org/report

2. To read the DEQ Permit information, called Air Contaminant Discharge Permits, for neighborhood industries that concern you:
   a. Go to the map at portlandcleanair.org
   b. Zoom in on your neighborhood
   c. Click on the industry - sidebar will appear
   d. Click the link on the bottom of the sidebar

3. If you are concerned about your past exposure to Uroboros, you can also speak with an attorney. Contact Dan Matthew Preusch or Dan Mensher at Keller Rohrback Law Office.
   Phone: (800) 776-6044
   Email: info@kellerrohrback.com

4. It took neighbors 42 years to identify that Bullseye Glass was putting 6,000 pounds of lead, cadmium, arsenic, and chromium into its unfiltered furnace annually - 85% went airborne next to a daycare in inner SE Portland. Now they have a scrubber removing 97% of these emissions because of intervention from their neighbors. In response, Portland Clean Air (PCA) obtained the Portland area air pollution records of nine government agencies. PCA needs data compilation and analysis volunteers. Previous science or data experience is welcome, but not required. Volunteers receive an Excel spreadsheet via email or website and, following explicit instructions, copy and paste. or type data that pertains for Inner NE.

Volunteer with NECN

There are many opportunities to volunteer with Northeast Coalition of Neighborhoods (NECN).

Land Use and Transportation Committee (LUTC): NECN’s Land Use and Transportation Committee discusses and takes action on land use and transportation issues in North and Northeast Portland, the city and region, and the state. Current focus areas include the Portland comprehensive plan, residential infill, and inclusionary zoning.

Northeast Action Teams (NEATS)
NEATS are groups that respond to immediate issues in the community such as community justice, pollution, and pedestrian rights. Topics are driven by community interest.

Neighborhood Associations
NECN is home to 12 inner North/Northeast Portland neighborhoods. Every neighborhood has its own Neighborhood Association. Neighborhood Associations are volunteer-run organizations that consider and act on a broad range of issues affecting life in their neighborhoods. All are encouraged to participate in their neighborhood associations by attending meetings, bringing up issues and concerns for discussion, and planning projects.

For more information about polluting industries or unfiltered truck routes near you, or to volunteer, contact: Greg@portlandcleanair.org

Want to get on a list-serve or volunteer with NECN? Contact Jessica: jessica@necoalition.org or 503-388-5030
Volunteer-supported activities:

- **Community Justice Conversation:** Hosted conversation between community and advocates leading justice reform in Portland around how to create safe neighborhoods.

- **Summit on the State of Air Toxics:** Engaged community on how to respond to cadmium hot spots discovered in the Boise and Eliot neighborhoods.

- **Portland Harbor Superfund:** Provided education around the Portland Harbor Superfund and responded to the Environmental Protection Agencies’ proposed cleanup plan.

- **Community Cookout:** A community gathering to celebrate the neighborhood, as well as to discuss gang violence and the impact on children.

Northeast Coalition of Neighborhoods
**Background and Mission**
Northeast Coalition of Neighborhoods (NECN), founded in 1975, is an independent 501(C)(3) nonprofit organization. NECN is one of seven neighborhood coalitions in Portland, which are primarily funded by the City’s Office of Neighborhood Involvement. NECN identifies and takes on local issues to increase neighborhood livability and promote neighborhoods participation. This is accomplished through inclusive civic engagement and grassroots community building.

**Policy Formation and Skill Building**
NECN convenes community committees, run by volunteers, to take up issues and advocate, as well as build knowledge through trainings, events, and workshops. These groups also serve as a conduit for information sharing between neighborhoods, Portland Bureaus, and nonprofit groups.

**NECN’s Service Area**
NECN’s service area includes neighborhoods in inner North/NE Portland: Alameda, Boise, Concordia, Eliot, Humboldt, Irvington, King, Lloyd District, Sabin, Sullivan’s Gulch, Vernon, and Woodlawn. People who live or work in Northeast Portland can get involved directly with NECN and/or through their Neighborhood Association. Every neighborhood has its own Neighborhood Association, and each Neighborhood Association is a member of NECN.
Works Cited pages 1-3:


2014. Toxics Release Inventory My Right To Know App. Online at: myrtk.epa.gov/info/search.jsp


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