



April 23, 2014

MEMORANDUM

TO: Swan Island-North Portland Air Quality Forum

FROM: Debra Nudelman, Kearns & West on Behalf of Oregon Consensus

SUBJECT: Swan Island-North Portland Air Quality Forum Meeting – April 2nd Meeting Summary

Thank you for your participation and effort in the Swan Island-North Portland Air Quality Forum (the Forum) meeting held on April 2nd, 2014 at the Historic Kenton Firehouse, Portland, OR. This memo includes upcoming meeting dates, agreed-upon action items and a brief meeting summary.

Upcoming Project Team Meeting Dates	Who	Location
To be determined	Project Team	By phone

Upcoming Forum Meeting Dates	Who	Location
<ul style="list-style-type: none"> Tuesday, June 3, 2014; 9:00 am – 12:00 noon 	Forum Members	Kenton Firehouse

Action Items	Who	When
1. <u>Information Follow-up</u> <ul style="list-style-type: none"> Develop and distribute action items memo 	Kearns & West (K&W) to Group	By cob, 4/23
2. <u>Timeline</u> <ul style="list-style-type: none"> Schedule a meeting for the Project Team; develop upcoming meeting topics and meeting schedule Schedule out every other month Forum and project team meetings for the 2014 calendar year 	K&W and Project Team K&W	Prior to the 6/3 meeting After consulting with Project Team

Action Items	Who	When
3. <u>Background Materials</u> <ul style="list-style-type: none"> Presenters send printed materials to Kearns & West for distribution and posting to OC website 	Christine, Sarah, Alan, Paul	By cob 4/9
4. <u>DEQ Information Sharing Tasks</u> <ul style="list-style-type: none"> Provide link to the PATS website and interactive link: www.deq.state.or.us/aq/toxics/patsm aps.htm and www.deq.state.or.us/aq/planning/pat sreport.htm Provide answers to questions raised regarding acetone and Petrocard Provide input, feedback, and suggestions regarding the North Portland Air Quality Monitoring Project Q & A to DEQ Bring more information on the Air Quality Monitoring Program as it develops and update the Forum at the next meeting 	Christine Svetkovich, DEQ DEQ Forum members DEQ	Completed Completed Prior to 6/3 meeting At the 6/3 meeting
5. <u>Follow-up Tasks From Presentations</u> <ul style="list-style-type: none"> Share information on tour of Vigor Industrial's yard in late April/early May Provide comments or feedback to Alan Sprott on Vigor Industrial's scope of work Share a list providing available odor thresholds for air toxics with Oregon ambient benchmark concentrations and other pollutants that may be present in the area. Share the rest of Daimler's sampling and emissions data 	Alan Sprott / Mary Peveto All Forum participants Dave Farrer, OHA Paul/Brian, Daimler – DEQ	By 4/25 By 4/30 Prior to 6/3 meeting Prior to 6/3 meeting
6. <u>Other Forum Tasks</u> <ul style="list-style-type: none"> Consider bringing in a dedicated person from Bureau of Environmental Services (Susan Anderson) 	Sam and others	Prior to 6/3 meeting

Action Items	Who	When
<ul style="list-style-type: none"> Share other information that participants want before the next meeting 	Forum members to K&W	Prior to 6/3 meeting

Meeting Documents
<ul style="list-style-type: none"> Proposed Agenda January 28th Meeting Summary North Portland Air Quality Monitoring Questions and Answers (DEQ) Air Quality Industrial Sources on Swan Island: Reported Emissions (DEQ) PATS 2017 Modeled Emission Maps for Swan Island and North Portland: ZIP Codes 87227, 97217, 97203, 4/2/2014 (DEQ) Presentation: Portland Air Toxics Solutions (PATS) Overview <ul style="list-style-type: none"> Links: www.deq.state.or.us/aq/toxics/patsmaps.htm and www.deq.state.or.us/aq/planning/patsreport.htm Vigor Industrial Presentation Handouts: Permitted Sources and Emissions, and Air/Odor Emissions Analysis and Alternatives Assessments. Presentation: Daimler Trucks North America Western Star Truck Plant <p><i>Copies of documents can be obtained by contacting Kearns & West or by visiting the Oregon Solutions website at http://oregonconsensus.org/projects/swan_island_air_quality_forum/</i></p>

Bin List/Upcoming Meeting Topics
<ul style="list-style-type: none"> Bring correlated information with zip codes off of the complaints with odor Common interest: strive for objective indicators of a connection between odor and source Bring in experts with information on non-cancer risk (i.e., VOC's, asthma and other respiratory problems) –Oregon Health Authority Environmental Health staff or others Air quality issues – addressing both nuisance odors and toxic odors important to neighbors; need to do both, and decide what to do about it/how to integrate topic into the Forum: <ul style="list-style-type: none"> Work practices Pollution control Time of day/weather How to integrate into forum Strive for clarity with a correlation between odors, toxics, permits and facilities in relationship to areas How to strive for verified data to better know what is happening? What does Daimler want out of the process to engage in reduction actions? Understand what is already being done by companies, what are the current controls in place? What are the requirements and why?

List of Attendees:

Member	Affiliation
Lenny Anderson	Swan Island Business Association
David Breen	Port of Portland
Brian Burton*	Daimler Trucks North America
Councilor Sam Chase~	Metro
Brian Duncan*	Arbor Lodge Neighborhood
David Goodyke	Landscape Architect
Heather Hoell	Venture Portland
Speaker Tina Kotek~	Oregon State Legislature
Brian Mannion	Vigor Industrial
Dwain Panian	IAM local 1005
Mary Peveto*	Neighbors for Clean Air
Jeff Rook	University of Portland
Alex Santana	University Park Neighborhood Association
Stacey Schroeder	North Portland Air Quality University Park Neighborhood
Christine Svetkovich	Department of Environmental Quality

*Project Team Members ~Conveners

Interested Parties: Dave King (Climate Jobs Committee), Beate Hoelscher, Lisa Timmerman (Port of Portland), Allen Wheeland (Arbor Lodge Neighborhood Association), Linda Nakashima (NCA), John Krallman (Neighbors for Clean Air), Eric Feeley (ODEQ), Joe Rowe, Adam Barleu, David Lange (KBOO Radio News volunteer), Pam Allee, Chad Stales, Andee Short (House Speaker Tina Kotek), Amanda Hess (State Senator Chip Shields), Andee Short (House Speaker Tina Kotek)

Kearns & West Facilitation Team: Deb Nudelman & Beth St. Amand

Oregon Consensus/Oregon Solutions Team: Steve Greenwood

Speakers: Paul Erdy (Daimler Trucks North America), Alan Sprott (Vigor Industrial), Jessica Reichers (DEQ), Dave Farrer (Oregon Health Authority), Sarah Armitage (DEQ)

Meeting Notes

Welcome, Introductions, Purpose and Agenda

Speaker Kotek welcomed the group and opened the meeting. Councilor Sam Chase mentioned that there was someone from KBOO here tonight and a Metro photographer. He asked for objections to having either of these media contacts present and there were none. He also thanked both Speaker Kotek and Senator Shields for the providing food and refreshments this evening.

Deb Nudelman reviewed the agenda. She said that most of it was focused on responding to questions from the first meeting. The project team thought it would also be good to hear from the businesses, and she thanked both Vigor and Daimler for presenting tonight. She asked that the group listen, hold questions until the question-and-answer periods afterward. Lastly, the group needs to determine what it wants to work on together: What's the glue that holds us together? Why did we agree to do this? She emphasized the importance of examining what will make participants stay with the process. The last part of the agenda will provide the group time to talk to each other, have this discussion and determine how to spend the next four meetings together.

Councilor Chase then acknowledged the work Speaker Kotek did with the Legislature to secure the monitoring equipment.

2014 Session/Swan Island Air Toxics Monitoring

Speaker Kotek reviewed the project details: Despite budget constraints, DEQ received \$375,000 from the 2014 Legislature to purchase staff time and monitoring equipment for the state. Though it will start with a focus on Swan Island and North Portland; the equipment is portable and will be then sent around the state. DEQ is currently working on how to implement this monitoring project, but the goal is to begin collecting data from Swan Island/bluff area by the fall 2014. The air quality sampling must be done so that scientific protocols are met – and it is up to DEQ to set up the parameters. While this funding will help address issues identified by the Swan Island Air Quality Forum, Speaker Kotek emphasized that the monitoring decisions will ultimately be up to DEQ, and that the equipment will ultimately be moved to also address air quality issues in other parts of the state.

Christine Svetkovich from DEQ referenced the Question and Answer handout distributed this evening. She requested that the group review this document and let her know if you have additional questions. Christine said that DEQ is excited to be able to do this timely work: the community has questions, and DEQ has questions regarding air toxics and exposures. DEQ can learn from this information and then look at reduction options that are possible to mitigate risks. By having the stations, we can learn more about weather patterns and how they move into neighborhoods.

She updated the group regarding project status: they are determining sites and equipment, including how to install, purchase and modify hardware and software, and putting the appropriate contracts and agreements in place. She said that at the next meeting, they could bring more detailed information about where monitors may go on a map, specifics about the pollutants monitored and why.

She introduced Jessica Reichers, Air Quality Monitoring Manager for DEQ. Jessica noted that this is an incredible opportunity for her team. However, the monitoring presents challenges. It is an ambitious timeline; also, it is important to note that obtaining equipment and preparing samples will require following federal requirements and quality assurance policies. They will examine what air toxics are present, at what concentrations, what is the source and how can we mitigate community exposure? They will need to collect unbiased information.

She described more about the actual process: there will be eight sites monitoring for over 100 compounds, and 8 meteorological sites that measure wind speed and direction; they may be co-located. If the equipment is not sited well, it can produce incorrect readings. Siting factors include spatial interferences (tall tree or buildings), contamination from nearby sources (chimney, gas station), making sure the site is secure, having an electrical source for instruments, easy access to internet or cell phone towers for communication, and reasonable site access for staff. She noted that the timeline includes hiring, purchasing equipment, and selecting sites. Initiating and completing the agreements may take the longest, especially agreements with property owners.

Questions from the group included the following:

- *Timeline: It will be set up in fall and will monitor for a year.*
- *Will all sites be mobile? Yes. The full air toxics site will be on one trailer.*

- Will monitoring identify possible sources: important to distinguish between probable v. possible. *Having 8 meteorological sites is unusual; there is usually just one. If we can figure out wind patterns, it is possible we can trace back pollutants.*
- What about coordinating highly variable business activities with monitoring? *DEQ can't tailor sampling to business activities. However, the monitoring schedule operates usually on a 1 to 6: every 6 days, we run it for 24 hours. This way, if we sample different days, the variability evens out over time.*

Christine summarized next steps: DEQ will bring more information on the Air Quality Monitoring Program as it develops and update the Forum at the next meeting. She also asked the Forum to provide input, feedback, and suggestions to DEQ. Deb noted that meeting summaries are posted to the Oregon Consensus website. Deb then took a few minutes to remind the group of the ground rules before moving on to the next topic.

Air Quality and Toxics

Christine Svetkovich of DEQ reviewed spreadsheets distributed earlier this evening. She noted that it took DEQ more time to compile the responses from questions that came up at the previous meeting than anticipated and that DEQ is committed to as timely responses as possible. She also clarified that for Daimler's emissions, the information from the last meeting was permitted limits vs. what is actually emitted. She started with Daimler and walked the group through the spreadsheet, including the list of pollutants, and then actual emissions reported for those years. Daimler has two specific requirements for metal and plastic coatings: Under metal, allowed amount is 2.6/HAPS (hazardous air pollutants) per gallon of coatings. In 2010, the actual was .21 lbs/gallon.

She then moved on to Vigor, which does different things and therefore has different conditions in their permits. They use VOCs as a surrogate for HAPS. DEQ dug into the annual report and made estimates. She emphasized that these are just estimates and can be further refined. Out of 123 tons/year, 25 are estimated as HAPS. She also noted that that if you look at the four pollutants listed, those numbers do not add up to 25; that they only listed the top four.

Questions:

- Under Daimler, is the 2.5 tons/yr. in 2010 relative to rest of the numbers in the chart? *No. This is an actual emission rate. Other numbers are not in tons/year, but lbs./yr. It's not a one-to-one comparison.*
- Is there no aggregate VOC for Daimler? *No.*
- There were clarifying questions as to how the spreadsheet aggregates.
- Can you tell me when acetone was removed from the HAPS and how that affects the value? *Christine said she will look into that information.*
- All of these numbers are estimates? *The only estimates are in the Vigor column far right. All the others are actual numbers reported.*
- There are limits for some HAPS but not for all. HAPS are a subcategory of VOCs.
- What category of NESHAPs are being used? *Not sure, but there is a list on bottom.*

Christine moved on to the next page. She noted that all of the activities that happen at these permitted locations are all different, so it is difficult to compare them. Actual emissions are reported annually. Deb asked her how do you know the limits? Christine noted that it is on the back for each facility for each of the pollutants.

Additional Questions:

- Daimler and Vigor are two big ones; no one else is doing painting? *No one else is regulated to do painting.*
- There was a question about Petrocard: and Nitrogen Oxide. That has a limit of 39 tons/year. But they don't report? *Their requirements are not for emissions, but amount of gasoline. We do a calculation to figure out if they get near it. Christine will check Petrocard.*
- How do we know they are good models? *All based on EPA requirements or specific rules. Have you tested the model in relation to actual outputs/inputs? Do testing between an activity and emissions? There is a whole body of information on this. But DEQ doesn't actually do that. EPA and other researchers test emissions from industrial processes to develop emission factors. DEQ and permitted facilities use emission factors to calculate emissions.*

Christine introduced Sarah Armitage, Air Quality Planner with DEQ. Sarah said that Christine asked her to bring information on the Portland Air Toxics Solutions (PATS) modeling effort through 2011. There was a large advisory committee, a few of whom are present tonight. Some of the information we have does not answer all the questions either; they are estimates. For her presentation, she referred the group to PATS 2017 Modeled Emission Maps for Swan Island and North Portland handout. She then reviewed the project with a PowerPoint presentation. PATS looked at all sources emitting 19 air toxics and ran a model that provides an estimate of pollutants in many locations. As a result, you can determine some generalizations – which categories contribute the most toxics.

The project came up with recommendations for five priority categories including residential wood burning, cars and trucks, which are mostly diesel related. Most pollutants from industrial facilities are closely distributed to the source. Ambient concentrations are known to cause cancers, so benchmarks are written in lifetime risk. She noted that these are very protective levels. The study area included all three counties in the metro area, and correlated to the risk of 19 pollutants, how many times above the benchmark, shows relative risk for cancer. She clarified that it is the risk, not the actual number of cancer cases or adverse effects.

As a result, they developed an interactive map to display the modeling information. By using census blocks, the site can show much risk we've estimated at each of these locations. The website is located at www.deq.state.or.us.aq.toxics/patsmaps.htm. She reminded the group that they are estimates. The work was done in 2011, but was projected forward to 2017 to incorporate growth.

She showed different layers of risk from different sources, including on-road engines. She noted that there is a strong spatial pattern with highways and congestion, showing a relationship between congestion and toxics. The non-road engines source model is land-use based, and is more of an estimate. She said that wood smoke depends on where you live. It can be isolated in certain parts of neighborhoods; the higher risk is located with density. This model used Census data as well and a DEQ survey on residential wood smoke. She also noted that an environmental justice study was done as part of the PATS work; there is a summary in the chart she brought.

She then introduced Dave Farrer, Public Health Toxicologist from Oregon Health Authority. He summarized his department's role. OHA works with DEQ on development of ambient benchmark concentrations, which are goals for public health. Then, once DEQ has air and monitoring data, OHA helps with interpretation of that for health.

Questions:

- All of PATS is modeled out for year 2017. If we wanted to look at what was there today, would it be similar? *We think 2017 is a good representation of present-day (included expected changes).*
- Regarding Map 2: There is a big red spot. There are petroleum plants north of Esco, but no shadow. *The model is telling us it is higher on on-road and wood smoke effects.*
- Clarify the “1 in million” benchmark. *For cancer, you add up the overall cancer risk to get an overall risk. Can aggregate all factors – 70 in a million extra chance. 50% of men, 1/3 of women get cancer in their lives. If there are one million men, 500,000 get cancer, then the factor raises it to 500,070.*
- What about the other health risks: asthma, COPD? *Dave responded that most of the criteria pollutants and air toxics contribute to asthma, COPD. Acroline comes from gas engines and wood smoke – that also leads to making asthma worse and other respiratory illness. For air toxics in these types of concentrations, cancer is the primary risk. The others are largely due to criteria pollutants. Some can also affect both risks.*
- Is part of the reason we have benzene is due to gas formula? *Sarah responded that our gasoline comes from Alaska, so it is higher in benzene. In 2011 because of federal regulations, the benzene in NW gasoline was reduced 50%. It could be further lowered and has been done elsewhere.*
- What about Toluene? *It creates intense neurological effects but those happen at a higher level of exposure. Cancer is most significant for the concentrations found in air.*
- We are talking about lifetime risk: What about developmental risk? *A lot of benchmarks especially metals were based on developmental risk. In most cases, cancer is still the risk you’d see first.*

Presentations from Swan Island Businesses

Vigor Industrial

Alan Sprott of Vigor Industrial directed the group to the handouts he distributed this evening, which included an aerial photo of Vigor’s site showing the shipyard. Most of the work occurs inside the ship: Vigor primarily refurbishes living spaces and performs machinery work down below. Most air emissions come from activities on dry dock, such as exterior painting. He said that their largest source of emissions is from painting and sandblasting. The other site area has large white tanks with the tank farm and oil processing plant, which is the largest source of nuisance odors from the facility.

The main air pollutants are VOCs and HAPS; 70 tons of VOCs per year inside the shop. They also generate a lot of wastewater from ships. That water has low percentage of oil, but a lot of water. Vigor puts it into their treatment plant and reclaim the oil and sell as industrial fuel, then discharge water into sanitary sewer. He referred to the handouts. He said that Vigor’s activity is most tied to number of man-hours.

Questions:

- How many man hours? *Million hours per year; will see more hours due to new construction.*
- Are you 24/7? *We are 24/7, most happens day shift. We will run a light swing shift, rarely graveyard, but always someone there. 365 days. The weekend is the same as the week.*
- What about ballast water treatment: The VOCs only, nothing else? *There’s heavy metals, whatever can be in oil (sulfur), can be in there as well. Alex: Does the water come only from ships you work on? It is from multiple sources. Treat it all the same way, all within permit.*

Alan said that they are conducting an Air Toxics study of their facility. They have hired an outside expert to look at Vigor’s emissions and opportunities to eliminate emissions or reduce air toxics. They are also looking at nuisance odor sources – what is the source of those, what can we do to eliminate this? He said that Vigor wants to make this a collaborative process with our neighbors, to

help them prioritize. Vigor also is looking to build ways for an ongoing collaborative process, as they would like to expand operations.

Vigor is looking for product substitution - can they find coatings that are less toxic? Since the weather on Swan Island affects how emissions move, can Vigor adapt operations if they see those situations emerging? They are working with the University of Portland on that issue. UP students are doing odor surveys employed by Vigor reporting through the environmental science department, to compare activity with odor conditions. Then Vigor will take this information back, prioritize, and have an action plan. He directed the group to the Scope of Work in the handout. He said that they are still taking comments, and invited the Forum to provide comments directly to Alan or Neighbors for Clean Air. He said that they would like to be in the field starting by June, because that's when most of the odor problems occur. He emphasized that they want to coordinate with DEQ as well.

Daimler Trucks North America

Paul Erdy, Plant Manager for Daimler Trucks North America Western Star Truck Plant, introduced himself. He has been the plant manager for truck plant for nearly nine years. He has seen evolution in the plant. He provided an overview of the plant's activities: it is 475,000 square feet, primarily assembly and some fuel tank operations; they assemble 26 heavy-duty trucks per day, have 1 shift; 744 employees.

Part of the goals is to have a zero environmental impact to community, including eliminating waste. He reviewed that Daimler is a large global company. Overarching ISO14001 certification, regulated by DEQ. With painting and coatings, they are looking at pollution prevention. He showed a graph of VOCs produced by ton and lbs/truck. Chart of HAPS, lowering their HAPS through changing materials (primer). In the aerial photo, he pointed out that some stacks are decommissioned, others are the solvent recovery unit. In 2012, there was a 100 percent elimination of n-butanol. Daimler also had a 12 percent reduction in VOCs.

In November 2011, they had a meeting with neighbors to discuss odors. Daimler initiated an air sampling program on the bluff: 2x a day for a year, 168 different compounds, 15 were potentially associated with paint activities. Air Toxic Ltd. performed the analysis. He said that Daimler worked with neighbors, and health concerns were an issue so Daimler changed paints, primers to reduce emissions and odors.

A member of the group asked if all operations are indoor and wondered about the sources of odor. Another member had questions about the data and disagreements about the number of hits and how many there were. The group member stated that Forum meetings are to work on a solution, and was concerned that until there is a willingness to be ready to admit to being part of problem, then industry representatives are not a part of solution. Daimler responded that they are willing to work.

Deb noted that many people wanted to speak; the question is how much more time tonight? We may decide to pick up at the next meeting where we left off tonight.

There were additional questions regarding the transparency of Daimler's air quality monitoring and a request for more information to the public. One of the group members expressed that they would like to see the impact to the community addressed in Daimler's overall emissions data: the community's experience doesn't always fit with regulations.

There was a question of how odor thresholds relate to health. Dave Farrer from OHA replied that there is a distinction between toxicity and odor response. Toxicity enters the body and does damage, affects health. Odor is more variable from person to person and with symptoms. The difference is that the perception of odor causes health effects. For many chemicals, the odor benchmark is lower than the scent/odor threshold. Dave agreed to provide a list that combines how the odor threshold relates to toxicity.

Lenny Anderson noted that it was his last meeting and thanked Daimler and Vigor for their presentations. Other questions included how lowering HAPS will affect people in the plant (the plant is respirated; don't expose people if we shouldn't), why Daimler's sampling program did not include samples on Willamette in front of the plant. Paul responded that the location was based on complaint locations.

Speaker Kotek said that she would like to see more information beyond just coatings, such as wastewater and other emissions. She also noted that she would like to see the sampling data, particularly in relation to hexanol (which was not emitted from Daimler's plant).

Next Steps for the Air Quality Forum

Deb wrapped up the meeting. She asked the group to think about what they want to do with the numbers presented: What do you know? She asked the group to share with her information they may want to hear more about and topics they want to discuss at upcoming meetings. The next meeting for the forum is tentatively scheduled for May 16 from 9-12; since a number of members were not able to attend it was likely to be rescheduled. Speaker Kotek and Councilor Chase thanked the group for their hard work and closed the meeting.

This memo respectfully submitted by Kearns & West.