

Cleaner Air Oregon

Advisory Committee Meeting Summary

October 18, 2016



The Cleaner Air Oregon Advisory Committee was welcomed by Co-Chairs Jackie Dingfelder and Claudia Powers. Committee members introduced themselves. Facilitator John Donovan reviewed the process overview, committee roles and ground rules.

Sarah Armitage of DEQ gave an overview of air quality along with the rulemaking timeline. David Farrer of OHA gave an overview of toxicology. Sue Langston presented the general framework of a health risk-based industrial permitting program. John Donovan summarized the public forum policies that were held around the state.

Overview of Oregon's Environmental Justice Program

Advisory Committee members raised several points and concerns about how the Cleaner Air Oregon rulemaking would and should address the impacts of industrial business activities in communities with environmental justice concerns. These points included:

- How to mitigate not just present, but historical impacts and health risk in Environmental Justice communities with the new rules; *DEQ/OHA Response: Past risk is included in the cumulative risk discussion paper.*
- What metrics will be used to address environmental justice and make sure there is adequate public engagement? If the public isn't engaged in rulemaking process, how can that be fixed in permitting?
- Consider bringing on a consultant with expertise in environmental justice issues to bring deep experience of how to address environmental justice issues in this process.
- Must consider cumulative impacts, or won't capture environmental justice impacts.
- The toxicology presentation should be redone and embed the following:
 - Include environmental justice in policy decisions because already vulnerable people are asked to carry additional burden; and
 - Show how these toxins affect the next generation.
- Incorporate South Coast Air Quality Management District's approach which included formulating a clean communities plan, identifying where there are existing environmental burdens and reducing those burdens.
- Address Title 6 obligations of DEQ and OHA.
- How are we doing outreach to engage the broader community now in plain, understandable language? *DEQ/OHA Response: DEQ and OHA will take customized presentations and forum questions statewide for communities interested in Cleaner Air Oregon. That engagement will be presented to the Advisory Committee to keep them updated. DEQ and OHA will also develop more online information for those that cannot attend meetings.*
- This issue needs to be addressed from a health and an environmental justice perspective, but not everything can be done at once. However, the program needs to be visionary and a model for our

nation. Solutions are being considered from an environmental justice standpoint, a health impact assessment would be required before giving permit to allow emissions of air toxics. This would be an excellent tool to create cleaner air in Oregon make sure people most affected are made whole and mitigate health harms they suffer.

Public Comment

Katharine Salzmann – EPAC. People exposed to under regulated sources are participating in public science experiment. Cautiously optimistic – whole new regulatory approach. Air advocates and industry interests have had limited success in the past. What will make it possible for industry interests to fully support this rulemaking? The cost savings /health benefits will significantly outweigh the cost to industry. Hope that cost considerations will be discussed in the fiscal portion. Dream big and let the editor out of your head. What would this look like if costs were no constraint?

Moore Fahey – CRAG law center. Start by acknowledging EJ into CAO process. As a recipient of federal funds, DEQ has obligation under civil rights act to act in a way that does not pose discriminatory impacts under Title V. Request EJ paper include an acknowledgement of this issue.

Akash Singh – NCA. The success of the program requires looking at a massive step forward from the Technical Workgroup and regional forums. One critique is that EJ has to be the primary focus through which all other things should be filtered.

Nikki Barnes - works on airport issues. Port of Portland largest lead polluter in the state. As a municipality, it has no elected representation. The Port admits to pump tons of lead into air. It is distressing that they are so callous of public health. The State of Oregon needs to protect us from agencies like the Port of Portland that lack all democratic structure. Noise should be viewed by this committee as a significant pollutant, and the noise office should be reinstated.

Dan Forbes – Mercury. Folks who served on the prior PATS committee have expressed disappointment that their views were not expressed in the final report. What is the formal process for getting divergent comments in the final report?

Nicholas Caleb – NCA. There are many examples of mitigation efforts in the superfund process. The original intent was the polluter pays and it was used as a way to clean up sites. Locally in Oregon we have fish consumption rate. Good acknowledgement that protecting most vulnerable protects everyone.

Dayna Jones – OPAL. When we are talking about cumulative risks and sources, it is important that moving forward, CAO acknowledge environmental justice obligations under Title 6 and the federal executive order. Communities with environmental justice concerns historically have much higher body burdens. Address EJ in other than a working lunch.

Applicability

Program element 1: New, modified and existing sources

Some advisory committee members felt they needed additional information before weighing in on whether existing sources should be included in the program or not.

Some advisory committee members supported regulating new, modified and existing sources for the following reasons:

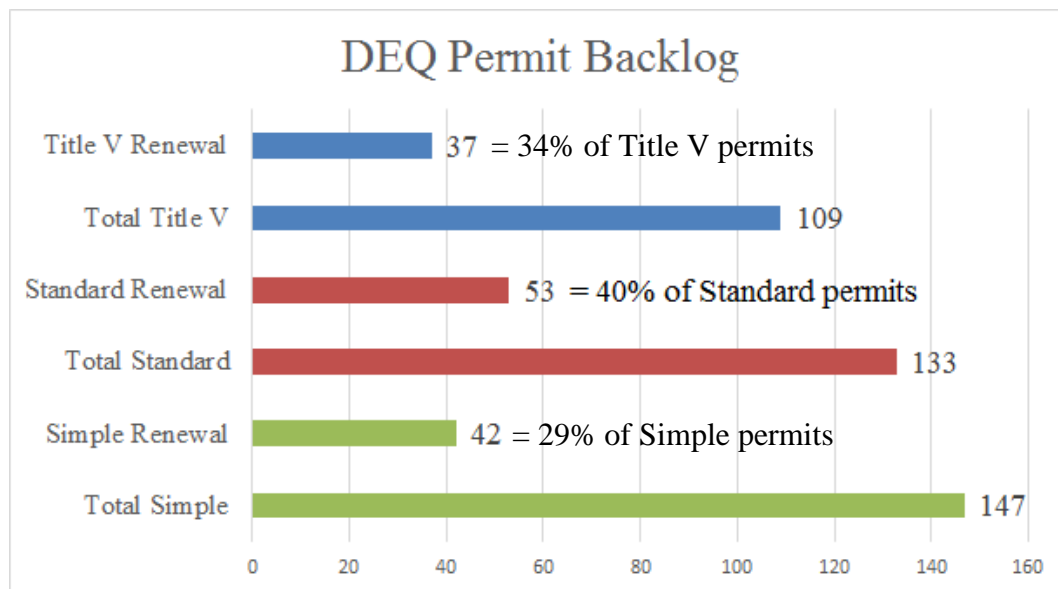
- If we don't regulate existing sources, we can't solve this problem because how many existing source will actually make modifications?
- People want to make sure existing sources that compromise public health are included in the program, regardless of whether or not they are currently permitted.
- Consider including indirect sources such as airports, rail yards, hospitals, and parking lots that have a magnetic pull on mobile sources that enter and exit the central location. **(Bike rack)**
- Look at monitored areas with high air toxics concentrations, address these first in a geographic approach, and include all sources.
- Consider DEQ's backlog and whether there is capacity to have an impact in a vulnerable communities.
- Existing sources must be included because they were the cause of cadmium and arsenic levels. There is also a fairness issue for business statewide. Prioritize by emissions of highest toxicity substances and EJ communities.
- Existing sources need to be included from an environmental justice perspective. Look at the toxics that matter most for the health of vulnerable populations.
- Using a regulatory geographic approach where regulations are implemented in an area that has known air toxics issues could lead to unintended consequences, where new operations launch or existing sources move outside the air quality area because of the rules.
- We can build a matrix to prioritize sources by including all emitters in a geographic area and use prioritization criteria.

Is there the ability to reassess whether Title V permits are doing what they are supposed to do? *DEQ/OHA Response: All facilities have to submit annual reports and Title V sources also submit semi-annual reports. Inspections, announced and unannounced, depend on size of the facility, larger ones get more frequent inspections. Do you have the right mix in Title V? DEQ/OHA Response: Sources are on Title V permits because of the amount of emissions, not the type of industry. Gas stations and coffee roasters under a simple permit, makes me nervous. Is the category too diverse? DEQ/OHA Response: General and Basic permit categories are very diverse but each permit contains requirements for that type of facility. DEQ also has a catch-all category if you emit over certain thresholds or if DEQ thinks you need a permit.*

Some advisory committee members supported regulating new and modified sources only for the following reasons:

- It seems reasonable to just include new and modified sources only, at least in the first phase because of DEQ's capacity. Including existing sources would be too much.
- People had expectations of the Portland Air Toxics Solutions program that fell flat. Costs and resources, which were disregarded in PATS, must be considered when developing a program. Bite off an amount of a program that could actually be successful.
- South Coast Air Quality Management District has an advanced program, a huge support team, and has been regulating air toxics for years. They do about 5 full blown risk assessment per year. DEQ and OHA are most likely to be successful in implementing the program at the time of source modification when businesses have funds to do something.

Request: What is DEQ’s backlog? Can DEQ handle regulating existing sources considering the backlog?
DEQ/OHA Response: Resources will be discussed in program elements at the December advisory committee meeting. DEQ currently has a backlog but we have also experienced a net reduction in resources during last 12 years, even as the population increases. We focus on new permits first so as not to delay construction.



Request: Where do the sources of money come from?
DEQ/OHA Response: DEQ has permit user fees for new applications, New Source Review, and modeling review. Title V has to fund itself so no general funds are used. DEQ will be proposing fees to cover the CAO program. It might also be funded by general funds. This topic will come back to the advisory committee.

Program element 2: Whole facility versus piece of equipment

DEQ has emission limits for individual pieces of equipment, such as New Source Performance Standards or National Emission Standards for Hazardous Air Pollutants. But we also have other kinds of limits that apply to the whole facility (e.g., cannot cause a nuisance, prevent fugitive dust, use fuels with sulfur limits).

Some advisory committee members supported regulating individual pieces of equipment and whole facilities for the following reasons:

- Would the Technical Workgroup have recommended regulating individual pieces of equipment if they were aware of the high Plant Site Emission Limit and how baseline goes back 30 years? To regulate by putting an upper limit on emissions, such as PSELS, has nothing to do with the goal of public health. *DEQ/OHA Response: It’s hard to say what the Technical Workgroup would recommend if they knew about the PSELS. We haven’t gotten far enough in program development to know if we will have PSELS for air toxics.*
- Individual equipment and the whole facility should be regulated to address things like fugitive emissions. In the case of Bullseye, a set standard for a piece of equipment failed. Including the whole facility is important for fugitive emissions since neighbors are still experiencing them.

- Would love to see the program start at the facility level and then have ability to implement individual pieces of equipment.

Some advisory committee members supported regulating individual pieces of equipment only for the following reasons:

- If you want the program to move along, you have to look at pieces of equipment, not all equipment in the facility because it will take too long.
- For facility modifications, there may be incentives to update equipment and lower emissions. If a source has to do a facility wide assessment rather than an individual piece of equipment assessment, it will be more complicated and possibly discourage any investment at all.

Program element 3: Categorical exemptions

What is the motivation behind having categorical exemptions? *DEQ/OHA Response: Other state programs reviewed in depth all had categorical exemptions. These are activities where emissions are so low, things like janitorial activities, cafeteria activities, groundskeeping. Other programs have identified types of activities that the health risk would be low and move on to things that pose health risk. For example, NY does not regulate natural gas combustion for air toxics, but does for criteria pollutants. Categorical exemptions are usually by piece of equipment, not the whole industry in the programs we have looked at. The DEQ Title V program has a list of categorically insignificant activities whose emissions do not have to be quantified because they are so low.*

Some advisory committee members supported inclusion of categorical exemptions for the following reasons:

- Include categorical exemption to run the program but have flexibility. Under Title V, would have to include coffee pot emissions in permits if there were no exemptions. Include on and off ramps to address what is important. Look at health impacts.
- There should be exemptions and it should be simple.
- Would need production limits or other qualifiers to categorical exemptions that wouldn't take much agency resources to address.
- Need an on-ramp in case facts change. In the Title V program, no one envisioned data farms so generators were exempted but now they are in. We need a specific process for bringing sources back in.
- The upside to this is the ability to say there are categorical exemptions. It would be critical to do the inverse – request information from industrial facility prior to exempting. There may be broad categories so there needs to be reporting requirements during the early years so we get a sense of whether that is a good idea instead of setting it in stone.

Some advisory committee members did not support inclusion of categorical exemptions for the following reasons:

- Need to be careful with categorical exemptions. Would prefer to be cautious.
- The program would lose out with categorical exemptions. Industry next to daycare or school may not be captured.

- Concerned about emission rates for categorical exemptions that are based on a technology standard and not toxicity weighted. *DEQ/OHA Response: de minimis and SERs, if used for categorical exemptions, are set based on toxicity and health risk.*
- Need to clarify why risk is not significant from categorical exemptions. The insignificant nearby sources should be part of background. Also need wet and dry deposition issues.

What is the commitment to do information request of air toxics emissions for industrial sources?

DEQ/OHA Response: The information request has not gone out yet.

Is there a way between meetings to gather early input by sending out a few questions early, then staff can focus on background presentations. *DEQ/OHA Response: In order for the Advisory Committee process to be transparent, discussion of all program elements must happen at meetings where the public has access.*

Pollutant Scope and RBCs

Pollutant scope:

Some advisory committee members support using the list of 52 air toxics with Ambient Benchmark Concentrations or EPA's list of 187 Hazardous Air Pollutants for the following reasons:

- The ATSAC set Risk Based Concentrations (called Ambient Benchmark Concentrations) for the 52 air toxics so it's difficult to define the list of air toxics without knowing how to set RBCs. We could easily look at EPA's 187 HAPs or the CA list but not if it uses the ATSAC process to establish RBCs which takes a lot of time.
- If you use the 187 federal HAPs and include 6 criteria pollutants, you come up with 189. 187 air toxics have RBCs determined for them. If we picked 2000 air toxics and had to set RBCs for each, it would take too long. For emerging pollutant and new science, there must be a way to add air toxics to the list. Prioritize the chemicals.
- Strongly suggest going with 52 air toxics with ABCs or EPA's list of 187 HAPs and focus on air toxics found in Oregon. Use the 52 chemicals that are of interest in Oregon for which the Air Toxics Science Advisory Committee set ABCs. A huge amount of work went into assessing the Ambient Benchmark Concentrations. There are defects in the 187 HAPs, like chromium and chromium compounds, hexavalent chrome versus trivalent chrome. Start with 52 benchmark and have a process to expand the list with focused intent on in Oregon. Continuing ATSAC work is logical. If we were to pick a bigger list than the 52 air toxics that we have benchmarks for, is it tenable to do work based on science to address these pollutants that don't have benchmarks?
- Support 52 Oregon benchmarks but EPA must know something about toxics so include 187 HAPs. Do an assessment and see what is missing from that list. Based on what Oregon industry is emitting, add to those lists.

Some advisory committee members support using a larger list air toxics for the following reasons:

- We want to make sure we are coming from place of permitting from a health standpoint, not a death standpoint. Looking at just carcinogens is insufficient. We need to look at endocrine disruptors, chemicals that cause inflammation, the ways chemicals interact with each other and change in atmosphere. We learned from moss studies that DEQ doesn't know what is out there.

Until we have a better idea of what is out there and at what concentrations and who is responsible, need more accurate reporting. Until we know what is being emitted, cannot regulate from health based.

- Use the precautionary principle based on the pollution from Bullseye for the last 30 years, especially for chromium. Emissions were thought to be chromium 3 which is not harmful. We did not have the science. The conversion test showed chromium 3 turned into hexavalent chromium so we need to err on the side of precaution in public health.

We received a number of comments after the meeting on pollutant scope and will be posting them on the website for the public and the advisory committee.

Setting RBCs and default toxicity values:

When setting RBCs, where is measurement taking place? Smoke stack? Receptor? *DEQ/OHA Response: Ambient concentration measured in the community.* Not at a particular source? *DEQ/OHA Response: No, ATSAC says RBCs are ambient concentrations.*

Some advisory committee members support using the list of 52 air toxics with Ambient Benchmark Concentrations or EPA's list of 187 Hazardous Air Pollutants and not setting RBCs for additional air toxics for the following reasons:

- Strongly agreed with the Technical Workgroup to use 52 air toxics with ABCs or EPA's list of 187 HAPs. A lot of work has been done so adopt those recommended by the Technical Workgroup and use ATSAC when needed.
- One aspect to consider is whether there is really an efficiency gain to look at programs that have looked at air toxics, like CA and include diesel particulate. Is it our understanding that CAL EPA has devised RBCs for remaining HAPs? *DEQ/OHA Response: CalEPA has RBCs for 187 HAPs.* Use the CalEPA approach.
- Seems like basis of program should be founded on science and focused on Oregon. 52 ABCs went through ATSAC, and if going beyond, ask ATSAC to see what should be added. Include rule language to expand the list if needed.
- AOI members understand 52 RBCs but not 187 HAPs used in this context. The pollutants that should be included depends on the structure of the program, what will these be used for and what does it mean to AOI members? There is value in developing risk based concentrations for a limited list of air toxics but then we don't know what will come down the road later.
- How many of 52 ABCs are on EPA 187? *DEQ/OHA Response: 50 are on federal list, two are extra.* Whether we do 52 or CalEPA or EPA list, we are still doing 50 and adding to that list. Do something founded on good science that has empirical demonstration of being useful in other situations. Do as much as we can that is scientifically defensible as quickly as possible. Make sure we don't burden agency with a huge amount of work at first. Take 52 and start with 187 list.
- Through the environmental justice lens, the suggestion that we stick to 52 is just a snapshot in time. Oregon could be doing all sorts of manufacturing in future and there is no way to predict chemicals used in those processes. Use EPA list of 187 because good science and most protective. Look at how to apply precautionary principle. Take into account other standards outside US that we can use that are protective. Where is the concentration in the air being measured – helps to

know what exposure it for most vulnerable neighborhoods. Where is that ambient monitor placed? Does it capture exposure levels for vulnerable populations? Where are we measuring concentration? As close to fence line as possible and directly in communities that run the risk of being most burdened. The monitoring being done in Lane County doesn't measure the most impacted.

- How do you do something that is going to be effective and get good health outcomes for most populations with limited resources? ATSAC will continue to meet so if there are new industries, they will develop add new chemicals in the future. Diesel PM shouldn't be included in industrial air pollutants. Not necessary to go to 187 HAPs because we don't have capability or capacity to go beyond that. Good system to have air toxics prevalent in Oregon. If we add a bunch of work to DEQ, we aren't looking at neighbors that are impacted the most. Let's have an impact instead of being so broad.

Some advisory committee members support establishing RBCs for a larger list air toxics for the following reasons:

- ATSAC is a good scientific process that works well but it takes time. If we expand the scope, to 200, 400, or 700 chemicals, it would take a long time to develop RBCs. Use the variable approach of EPA and ATSDR RBCs. If one is in question, ask ATSAC to review. Put the burden on sources to make first cut at whether it's toxic and bring that to ATSAC to review.
- Have you looked internationally or are you just using US data? Are there differences from state to state? Is there is a scientific reason for those differences? *DEQ/OHA Response: Agencies have different cycles of review. Recency often plays into that. EPA, ATSDR and CA have the same primary literature but use different safety factors. Two agencies may have different number by a factor of 10, that's not that uncommon.* Are there differences between air toxics released in community with 50 living within a quarter mile versus 10,000 people living within a quarter mile? How do you address increasing population density? With very limited resources, can you address chemicals that affect a smaller number of people versus a larger number of people? *DEQ/OHA Response: DEQ took that into account when choosing the 52 benchmarks. Contaminants that are more common in OR on are list of 52.*
- Expand the list to at least 187 EPA HAPs and make a strong case for indexing to credible authoritative body who makes these decisions. *DEQ/OHA Response: CalEPA is that body. There are cost savings to use other agencies RBCs.* Are 52 protective enough? Index our list of pollutants to CalEPA's. *DEQ/OHA Response: California Air Resources Board and the CA Office of Environmental Health Hazard have a combined list of non-cancer reference exposure levels and cancer unit risk estimates of almost 240 air toxics.*
- Using existing literature and scale for what other pollutants are out there. What RBCs are out there? *DEQ/OHA Response: WA Ecology has RBCs for almost 400 pollutants. Southwest Clean Air Agency in Vancouver, WA has RBCs for over 750 air toxics.*
- Having RBCs will help us prioritize that list. SWCAA has tool to gather that data. Would be helpful to see list of RBCs. *DEQ/OHA Response: DEQ will provide the list of RBCs we have collected. Our list of RBCs doesn't have date of when RBC was set to show recency but we will add that before distributing.*

- Just because we are looking only at 52 chemicals with ABCs, doesn't mean other chemicals aren't in the air. Start with 187 and look comprehensively at what's in our air. Use processes to eliminate those pollutants from our air and then take those off the list.
- Diesel particulate comes from stationary sources too like diesel generators so should be included as an air toxic.

Pollutant averaging times:

Some advisory committee members support using short term averaging periods in addition to chronic values for the following reasons:

- The averaging time depends on health exposure. Is there a school next door? If there is any attempt to look at relative potency factors, then you could argue the need for 8 hour RBCs.
DEQ/OHA Response: In the next meeting there is discussion on cumulative risk. For cumulative risk assuming additivity, overall sum is equal to sum of individual values.
- When people are exposed to toxics, it's not over a yearly average, it happens in spikes. How do you quantify that? If a facility had a limit on emissions and did it all in one day, they could exceed their annual average in one day. It's important to include 24, 8 and 1 hour exposures because that is how people live.
- One important thing to talk about is concentration averaging time. For example, for hexavalent chrome, just figuring out the 24 hour benchmark made a huge impact on the community. It was a scramble to create a health protective benchmark. No need to reinvent wheel. See 187 HAPs and chemicals that are made that we don't know about. Nanoparticles? There are all kinds of things we need to be aware of. What about synergistic effects? Take into consideration and use health based precautionary lens.
- We are asking the question the wrong way. Leave it up to permit writers. Ask the question about the chemical and the exposure. Is it in a school yard? If we are doing a risk based approach, use the annual numbers and see if there are short term exposure. Is there good science on the short term RBCs? Look at the exposure point of view and determine if there should be acute rather than annual exposure. Come back to science, exposure, concentration and duration. If those fit into a permit, then go the next step.
- Is the Bullseye example of batch processing applicable? If most other states have short term RBCs, can we borrow from them? *DEQ/OHA Response: If chronic values are set conservatively enough, then they should be protective of acute (short term) exposures.* Most monitoring data from Bullseye was okay except for two days. The cadmium average for the month was bumping up to acute RBC for cadmium. Should we ask for both? If batch processing illustrates that doing chronic only, may lead to missed exposure.

Some advisory committee members do not support using short term averaging periods in addition to chronic values for the following reasons:

- Are there a number of toxics that DEQ should look at first to develop 24 hour RBCs? Is it similar to how ATSAC developed list of 52? Is there a prioritized list that could be reviewed by ATSAC?
DEQ/OHA Response: All states we looked at have 1 hour, 24 hour and annual averaging time. Most states took occupational exposure limits and divided by a factor like 100, which is a policy

decision and not in rule. Most short term benchmarks were developed in this way. Certain air toxics definitely have more of an acute concern than others. For example, Polycyclic Aromatic Hydrocarbons are a potent carcinogen over chronic exposure but not over a short term so it may not make sense to develop an acute level for PAHs. If you went through 189 chemicals, is there a partial list of short term RBCs that has peer reviewed science? DEQ/OHA Response: CalEPA has a subset of acute risk based concentrations.

- The numbers for some of these acute values from other authorities are arbitrary; they took chronic numbers and divided by factor. We have to have benchmarks established. If we are not going to use arbitrarily defined numbers from other authorities, are we asking DEQ or some other agency to do basic research to develop RBCs? This is too resource intensive. Are arbitrary numbers better than nothing?
- We should not use acute arbitrary number and divide by 100. If there is good science, then we should consider. Don't use a dartboard to see what it hits.

Other Comments:

Background needs to be considered in the permit decision to address the public's concern. Make sure the program is health based and addresses environmental justice.

The jargon is difficult to navigate, making the process frustrating. Feels like the Matrix for DEQ Please define terms because transparency is important.

There is the question of the availability of a knowledgeable qualified workforce. There is probably not a qualified group of people to review air toxics permit.

If there are toxics we are interested in, why do we want to include an industry that emits none of those? It's difficult to say who should be included until we know what pollutants should be included.

Need a prioritization mechanism so we attack the worst toxics in worst locations for the better health of people in those locations.

Roundtable on thoughts for the day:

Gordon Zimmerman – very educational on so many different aspects. This adds to the mix of previous wastewater experience. We need some kind of prioritization to address the worst toxics in the worst locations. One size doesn't fit all.

Mike Freese – It's easier to respond to something specific in writing. April 1 is too late to see rules and provide feedback. Broad questions give us an idea of where we are going. Looking forward to end product. Make sure that everyone feels we can add to what we are doing. Have indication from agency; here were recommendations from the Technical Workgroup and policy forums, how to respond? What are you looking for? How does this all fit together in the bigger picture? Hope to provide critical feedback.

Ramona Quinn – Everyone has wonderful points but I can't see limiting ourselves to 52 compounds when there are 187 HAPs. If we are limited to 52, then when another chemical becomes a problem somewhere, do we go through the process of adding chemicals even though people are already sick and having problems? If they are in an area that no one is looking at, there is a potential for litigation.

Josh Hall – Enjoyed discussion and dialogue today; good process with good take aways. Are existing sources for the implementation phase? Is there going to be time for those sources to get up to speed? If you look at individual equipment or whole facility, breeds culture inside plant we can increase here and reduce over there. Glad that avenue wasn't discussed much. Liked what Steven said about looking at it from exposure point of view. Have significant exposures that you might not recognize, maybe significant for shorter period of time, until process is repaired. If you looked over an annual time frame everything might be copacetic. Might miss acute exposure. Concerned about how broad everything is. Do we have the resources to get everything done? Great opportunity.

Jay Bozievich – In the overall process, made me think about career in public health over 35 years. Remember getting out of school dealing with major pollutants in stormwater, sanitary, and drinking water. Worried about people getting sick from some pollutant... Dealt with this health issue, moving on to more refined ones. Worried about disinfection by products that could be carcinogenic at low levels but couldn't deal with that because they were just worried about people getting cholera. It's too big of a jump to go from 52 to more. What is cleaner air? Cannot jump to clean air. What is next step that has biggest health improvement? Must address vulnerable populations. What are chemicals that have highest risk for most vulnerable populations? Don't try and take too big of a step so we get good results. Vaccinate population against diseases that are most dangerous. Choose public health. Everything is dependent on everything. Ask people if they still think the same about earlier issues after going through the whole process.

Larry Burke – Found meeting to be encouraging, we all want the same thing. More protective regulations that can be effectively implemented as soon as we can. There are differences on what can happen. Important to target regulations for chemicals that are important in Oregon. Move in right direction that is most effective.

Steve Anderson – Illuminating discussion bridging science and policy. Toxicologists talk about safety factors. Always trying to figure out what is safe. Have to answer as a scientists with reasonable certainty. Policy that must protect public good and allow industry to have incentives for doing the right thing. For on ramps and off ramps, see decision chart, have chemicals or not, go one way. Decision chart to help go through process. Listen to science and make logical public policy decisions to go in the right direction. Here is where you are in, here is where you are out, and here is where we can bring you back into the process. Provide certainty for regulated industry and the public.

Kathryn VanNatta – As a representative for directly regulated entity, some conversations were awkward. Didn't think I would feel respected as representative of large sources. If you give suggestions, you are volunteering someone else. If you are not volunteering someone else, then you are not participating in being regulated. It's a confusing process if you are a regulated entity and difficult to provide input because you don't know the big picture. We don't know how numbers are going to be used and when they will be applied. Even when you develop regulation at the legislature, you know the big picture. Waiting until April 1 for technical details will make it difficult to figure out what fiscal effect will be on facilities. If you don't know how many chemicals that may need modeling, each run is an additional cost. Everyone's positions will be important.

Paul Lewis – Feels like a great starting point. Will come out better than where we started. As far as the process, the hours are really, really long. Is there a way between meetings to gather early input from committee meetings? Send out questions early to get where people are early in process?

Mark Riskedahl – Brevity is better. Take approach of commending agency staff, Governor through management through staff. Level of professionalism and aptitude is impressive. We are not just setting ourselves up with low expectations. This feels like this is big opportunity and big chance to do something great. Appreciate work that has gone into this.

Dean – Technical workgroup recommendations are right on so review what they recommended. The reason that is true is because we are at the easy phase. When we start implementation, we would need to use a bit of judgement at prioritization.

Mary Peveto – Rulemaking approach does feel very different from historical context. After all discussions today, can get bogged down, especially with RBCs. We have to dispense of over analysis of science when science is done by esteemed bodies that we can go to. There is a question of Oregon doing that in a lesser way. Decide what Oregon-relevant pollutants are missing in Louisville and CA standards, then cut through constant debate on where that level should be. It seems obvious we take 187 HAPs and create enforceable standards. Trying to get cleaner air but I like clean air.

Huy Ong - appreciate advisory committee's different self-interests but everyone is very respectful. Appreciate commitment to attempt addressing EJ analysis. Make sure EJ is not just lunch time discussion and use core principles throughout process. If we start off with EJ principles, this table would look different. Always challenge ourselves when moving forward that meetings are meaningful and look for ways to shape the agenda, finding process ways to incorporate comments.

Tom Wood – In favor of the idea that we have a science based and very focused program. If we try and take on way too much, we will end up with way too little.

Laura Seyler – Thank you to DEQ and OHA for bringing this knowledge and presenting it. It is difficult to explain uncertainty and to explain estimating so some people are uncomfortable with that. But the truth is that we want to get as much science behind the information as we can so we are not unnecessarily spending money for things that don't benefit people's health.

Jo Ann Hardesty – Good to be in this kind of environment that you wouldn't normally hang out with. Learned a lot in process. Recommendation to organizers: make any decisions before 2 pm when people are fresh. Wish there was a way to do a history of OR 101 with this group. People talk about vulnerable populations like they just happen but it's because of policy, state law and redlining that people don't live in certain communities. Vulnerable populations didn't drop out of the sky. Help inform the Advisory Committee of vulnerable populations where people cannot pull themselves up by their bootstraps and move where the air is better.

Dianna Rohlman – needs to be iterative process. Today is very broad and making very sweeping rules that sound great at the time but when getting to nitty gritty, we don't need to track certain chemicals. Needs to be iterative process to engage in these topics.

Lisa Arkin – Look back to the purpose for gathering here today; to create human health risk based rules for industrial facilities. Statutorily DEQ has obligation to use EJ approach and combined with this, when it comes to implementation we have to include all sources, new, modified and existing. Evaluate the whole facility and there are many components of pollution. Approach to categorical exemptions should be quite cautious. Should have everyone at a level and decide what to pick off instead of adding this on later. With excellent science based pollution RBCs, include all 187 HAPs. Think more about RBCs and exactly

how that plays out in measuring ambient concentration and where to measure. Look at 24, 8, and 1 hour averaging times because there are different levels of pollution spiking in our environment and that affects health. Come back to health based and thank staff, co-chairs and Governor Brown.

Jessica Applegate – Thanks to OHA and DEQ for opportunity. Exciting and enjoyed listening to other perspectives. Not coming in with closed mind. Small business owner and sees both sides. One suggestion: add Oregon column to 6 state comparison.

Al Hooton – Very heartened by health based approach and risk based analysis. It obviously has to occur within an EJ perspective and context. Would like to very much give props to DEQ and OHA staff, very impressive work. Primary thought is we have to get away from arbitrary numbers. When used in policy decisions, it promulgates arbitrariness throughout decision making and generates more unintended and negative side effects. Incorporate the iterative process and solve problems as well as we can in a progressive manner. Get solutions in place and take another iteration.

Sarah Armitage – did not list pollutants that are addressed numbers for pollutants from other states. 398 from WA. SCAQMD looks at 700, Michigan model is open ended model. See 6 state summary.

John Donovan – The question of tribal engagement in the Cleaner Air Oregon regulatory overhaul has come up several times this morning already in the CAO advisory committee and we have some additional information to share. Every one of Oregon's nine federally-recognized tribes has a seat at this table at any time during the Advisory Committee process. That said, under Oregon law and Executive Order, the Governor and state agencies conduct government to government consultations on issues that may affect tribal interests. It is up to each tribe to decide whether to engage in stakeholder forums such as this, or to pursue those sovereign to sovereign dialogues, or both. A formal letter did go from the DEQ and OHA directors to tribal leadership and health and environmental staff, as noted earlier. However, each director regularly meets in face to face consultations with tribes, and that has occurred in the months since the launch of the Cleaner Air Oregon regulatory overhaul. We were concerned about this question of tribal engagement, so asked for this clarification and wanted to share this with you.

Claudia Powers – We are a part of this process of changing environmental law. We may set precedent in this program beyond Oregon. Saw a lot of talent in beginning of meeting, I rest my case. People came having done homework. People came with real suggestions and well-formed comments. Stuck with deepest technical information. It was a good day!

Jackie Dingfelder – listening and shared learning, living in a time where the level of discourse troubles many of us. Mutual respect. Hard discussions but willing to be mindful of where people are coming from. We all have a lot to learn together. Unique process could be a model for rulemaking in the future. Agencies are learning a lot from this process. Different from how rules are made in the past. Willingness to take time to listen and not get defensive. With experts in certain fields, it's important to have an open mind in this process. Thanks to facilitator and to the public for well-articulated positions.