

Memo

To: Cleaner Air Oregon Regulatory Reform Advisory Committee
From: DEQ and OHA
Date: October 12, 2016
Subject: Implementation – Running a Program



Request for Advisory Committee Members

The Oregon Department of Environmental Quality (DEQ) and the Oregon Health Authority (OHA) have identified six discussion topics for the advisory committee meetings. The following document describes one discussion topic, with six related program elements. DEQ and OHA are seeking Advisory Committee input on the following questions:

- 1) What should DEQ and OHA be considering in relation to implementation when choosing an approach for Cleaner Air Oregon?
- 2) Are there additional elements, other than the ones listed, that DEQ and OHA should consider?
- 3) Are there other air toxics permitting programs that provide unique examples not described in this discussion paper?

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Introduction

The Cleaner Air Oregon rulemaking is a partnership between OHA and DEQ to develop a new regulatory system for managing air toxics emissions from industrial sources. The new rules will be based on the potential risk to human health and will allow DEQ and OHA to carry out their respective missions of cleaner air while protecting and promoting health in Oregon. In developing this new regulatory approach, the two agencies will begin looking at individual sources of industrial emissions across the state in relation to public health.

After receiving input on the different aspects of a health risk-based air toxics permitting program from the Technical Workgroup, the Policy Forums, and the Advisory Committee, DEQ and OHA will draft proposed rules. All interested parties will have a chance to comment on the proposed rules during the public notice period in 2017.

DEQ and OHA have evaluated air toxics permitting programs in Louisville, Kentucky; New Jersey; New York; Rhode Island; South Coast Air Quality Management District, California; and Washington. These programs were recommended as being innovative, representing a range of diverse approaches to air toxics permitting programs. In addition, Washington's program was included because it is often compared to DEQ's. Key elements of these air toxics programs were summarized and discussed at Technical Workgroup meetings in June and July 2016. Documentation of Technical Workgroup discussions and background information for Oregon, along with elements to consider are presented below.

DEQ and OHA will be asking for Advisory Committee input for each discussion topic and if there are any additional topics that should be considered.

A glossary of terms can be found at this link:
<http://www.oregon.gov/deq/RulesandRegulations/Advisory/8Glossary.pdf>

Purpose

This discussion paper addresses the key elements of implementation: How do we implement Cleaner Air Oregon? Should implementation be the same in all areas of the state? Which sources should be evaluated first? How much does an air toxics permitting program cost and what should the fees be? How will we know if the program is successful? How do we make sure the public is involved? And how do we ensure that communities with environmental justice concerns are not impacted unfairly?

For detailed information on the six air toxics permitting programs that DEQ and OHA researched, please see the Appendix below.

The Technical Workgroup (<http://www.oregon.gov/deq/RulesandRegulations/Pages/2017/cleanerair2017w.aspx>) provided an evaluation of other state's approaches to human health risk-based air toxics programs for industrial facilities and answered technical questions in support of rulemaking, as requested by DEQ and OHA. The workgroup was tasked with providing focused and specific input to help DEQ prepare policy issues for discussion at Regional Forums and Advisory Committee meetings in the fall of 2016. The workgroup was not a decision-making body. The Technical Workgroup included individuals with expertise in toxicology, modeling, pollution prevention, and representatives of other state air toxics programs.

The Regional Forums occurred in the months of September and October in all regions of the state to provide an opportunity for informal community input.

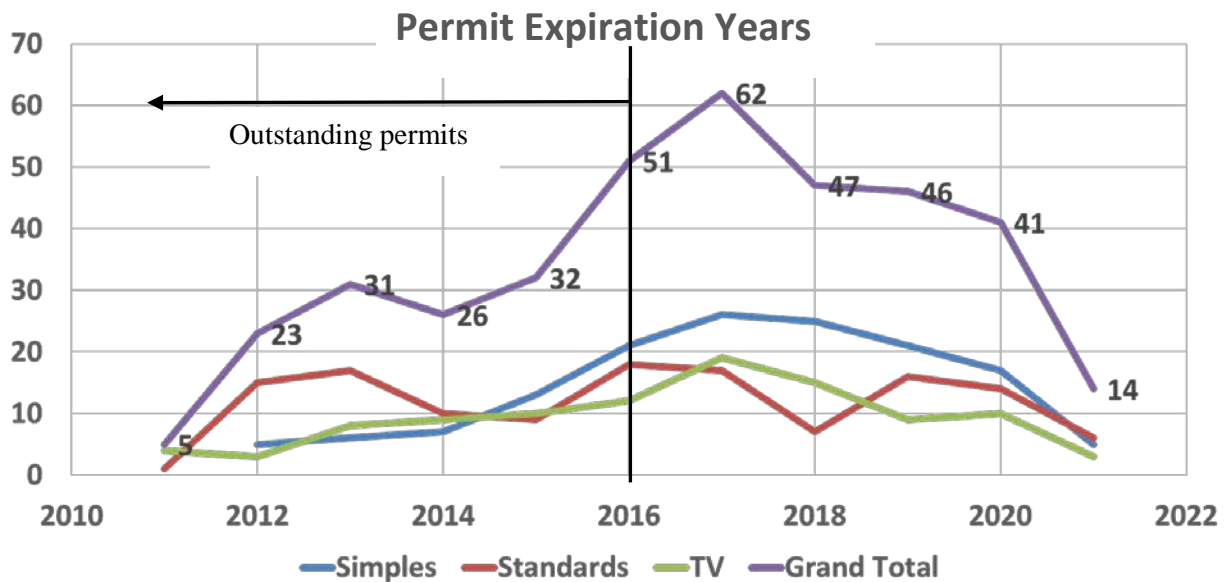
The Advisory Committee includes a variety of representatives from community level organizations, advocacy groups to city/county government representatives to small businesses and large businesses. (<http://www.deq.state.or.us/nwr/docs/metalsem/CAOacroster.pdf>)

Program Element 20: Phasing

Three of the states that regulate existing sources (Louisville, New Jersey, and New York) phased them in to manage workload by incorporating air toxics at permit renewal. Rhode Island targeted industry sectors and South Coast focused on the largest, most complex emitters first. If DEQ regulates existing sources, some type of phasing will be necessary, especially in the first stages of implementation of the new program.

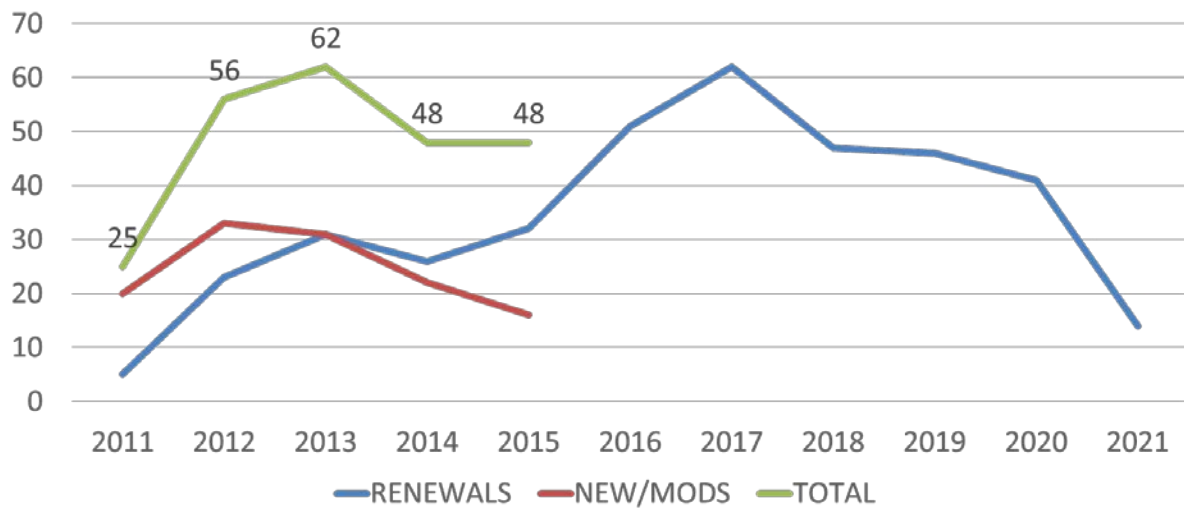
Oregon Information

DEQ must consider workload for successful implementation of the rules. The following information presents data on how many air quality permit renewals are due each year along with the number of new and modification applications DEQ receives each year to help inform decisions on how sources should be phased into Cleaner Air Oregon if DEQ and OHA regulate existing sources.



If existing sources are regulated and health risk-based air toxics are incorporated at permit renewal, the slide above shows what the renewal schedule looks like for the next 6 years for Simple and Standard ACDPs and Title V permits.

New/Modified Applications + Renewals



The above graph shows the combination of new and modification applications in blue along with renewals in purple. The total is shown in gold. The total ranges from 6% to 14% of the total of these types of permits. These numbers give an approximation of how many permits would be reviewed each year to incorporate health risk-based air toxics requirements if existing sources are regulated at permit renewal.

Summary of Technical Workgroup Input

The following information was gathered at the June 30, 2016 Technical Workgroup meeting:

- Use of an initial emissions inventory will help prioritize sources, starting with the large sources first. Phase sources in over time by focusing on the ones you know have toxics. Next work on other permits, then look at SIC/NAICS (Standard Industrial Classification and North American Industry Classification System) codes that categorize an industry for the sources you don't know about;
- There needs to be a balance between smaller and more complex sources. For existing sources, take into consideration permit renewals in order to balance workload. South Coast Air Quality Management District (CA) uses a four-year phase in for existing sources, starting with the highest emitting facilities. One possibility is to hire consultants to assist in expediting the beginning pulse of work;
- A pilot program can be used to see how much time it takes to permit small, medium and large sources;
- Are there ways to elevate areas for implementation based on hotspots or risk? You might want to have different programs in different localities;
- Some sources may want to jump ahead of this process by initiating voluntary early risk reduction for lesser public notification.

Summary of considerations for phasing

This is preliminary information DEQ and OHA have gathered in discussions with the Technical Workgroup, from public comment, and from experience in the air program. We consider this a starting point for the Advisory Committee discussion and input.

- An air toxics emissions inventory will take time to develop and will include gathering information from sources and evaluating that information.
- Focusing first on the largest, most complex emitters would create the largest workload but would also more quickly address sources that may pose potentially unacceptable risk.
- Sources that may pose the highest potential risk may not be located in communities with environmental justice concerns.
- Sources that may pose the highest potential risk may not be in the first priority group if air toxics are evaluated at permit renewal.
- DEQ's renewal schedule is distributed unevenly, which will make the workload larger in some years.
- When DEQ developed the Title V operating permit program, a call-in schedule was created to even the workload over a three year period for a known group of sources.

Potential elements for phasing

The following are potential elements for which DEQ and OHA are seeking additional discussion and input from the Advisory Committee. If there are additional elements not included below, please raise them.

Potential Elements
A. Implement at permit renewal
B. Prioritize by industry type
C. Prioritize by emissions
D. Prioritize by concern affecting most people
E. Prioritize by concern in each area or environmental justice areas
F. Prioritize by areas of the state
G. Start with new permits, then existing, then non-permitted sources
H. Placeholder for elements developed by advisory committee members

Program Element 21: Looking beyond current air permitting program for other sources of air toxics

Since public health is not currently addressed in air permitting for other than criteria pollutants, there could also be unpermitted sources of air toxics that pose potentially unacceptable risk. DEQ currently permits approximately 2,590 facilities for criteria pollutants, greenhouse gases and EPA's list of 187 Hazardous Air Pollutants. If DEQ and OHA propose a longer list of air toxics for regulation, or if the

sources do not meet current criteria for permitting, some unpermitted facilities may emit certain air toxics at levels that pose potentially unacceptable risk. To identify these unpermitted facilities, DEQ must use different avenues because of the additional regulated pollutants.

DEQ regulates facilities that generate hazardous waste through its hazardous waste program. Many of these facilities generate extremely hazardous waste as the result of processes that could also emit air toxics and may or may not have air permits. Should hazardous waste generation be a lens to bring facilities into the health risk-based air toxics permitting program? Should DEQ and OHA look at other databases for potential sources of air toxics?

Oregon Information

DEQ has used information from other databases to identify potential sources of air pollution that may need air permits but has not conducted a concerted and focused effort. Such databases include the list of hazardous waste generators registered with DEQ, Standard Industrial Classification codes, North American Industry Classification System codes and the Toxics Release Inventory program.

The Office of State Fire Marshal surveys business and government facilities for information about the presence of hazardous substances and collects information about incidents involving hazardous substances based on the Oregon Community Right to Know and Protection Act. Reportable quantities of hazardous substances (500 pounds or 500 gallons of substances not highly toxics or explosive) that are used, stored, manufactured or disposed of at business and government sites in Oregon are required to be reported annually. This database might be a potential source of unpermitted air toxic sources.

Summary of Technical Workgroup Input

- Look at sources that do not have permits.
- There are different ways of bringing sources into the permitting realm; for example, through consideration of hazardous waste generators.
- The annual Toxics Release Inventory, which tracks toxic chemical releases and waste management activities at industrial and federal facilities across the United States, is the most comprehensive source of emissions from businesses that may not be under a permit. The Toxic Release Inventory is not always accurate but it is still a good screening tool for potential emitters. Businesses that use 10,000 pounds/year of a listed chemical are required to report, although examination at lower thresholds may be needed for more toxic chemicals.
- The hazardous waste program uses the Risk-Screening Environmental Indicators Model as a tool to prioritize which sources may present hazards, but it is not always accurate. Risk-Screening Environmental Indicators uses information from EPA's Toxic Release Inventory. One option would be to look at facilities that have a higher Risk-Screening Environmental Indicators score.

Summary of considerations for looking beyond the current air permitting program for other sources of air toxics

This is preliminary information DEQ and OHA have gathered in discussions with the Technical Workgroup, from public comment, and from experience in the air program. We consider this a starting point for the Advisory Committee discussion and input.

- Health impacts can occur regardless of whether the facility is permitted or not.

- Regulation of unpermitted sources may create a much larger workload for DEQ than just regulating currently permitted sources.
- Holding permitted and unpermitted sources to different standards might create a fairness issue.
- DEQ has the authority to regulate sources of air toxics.

Potential elements for looking beyond the current air permitting program for other sources of air toxics

The following are potential elements for which DEQ and OHA are seeking additional discussion and input from the Advisory Committee. If there are additional elements not included below, please raise them.

Potential Elements
A. DEQ hazardous waste generators as potential sources
B. Toxics Release Inventory (~660 chemicals) reporters as potential sources
C. Non-permitted businesses that have the same NAICS/SIC codes as permitted businesses as potential sources
D. State Fire Marshall (~800 chemicals) reporters as potential sources
E. Industrial NPDES Water Quality Permittees and those covered by the NPDES 1200-Z and 1200-COLS stormwater general permits with runoff that could include heavy metals
F. Placeholder for elements developed by advisory committee members

Program Element 22: Community Engagement

Community engagement is a very important part of DEQ and OHA’s work. Communicating risk in a helpful and effective way will be critical to the success of Cleaner Air Oregon. How can decision-makers seek out and facilitate the involvement of those potentially affected? What methods can an agency use to make information available? How can a permitting program encourage meaningful public participation in permitting decisions from communities with environmental justice concerns?

DEQ asked the National Association of Clean Air Agencies (NACAA) how they incorporate environmental justice into their permitting programs. Several programs have laws that trigger environmental justice provisions within their permitting programs. Other programs follow defined best practices. Programs have several kinds of practices in place to notify, involve, and facilitate meaningful participation from communities with environmental justice concerns. These include:

- Notifying communities and making information available:
- Requiring public notification for new or renewed air quality permits for facilities located in communities with environmental justice concerns or for certain types of facilities;
- Holding information meetings early in the permit process, answering questions;
- Publishing permit information in a local newspaper, having permit-related material available at the local library;

- Developing a plain language document that explains permits and the permitting process;
- Translating permit materials if needed based on language spoken in the surrounding area, having interpreters present during rulemakings and public hearings;
- Asking community members how they want communication and outreach to proceed and how best to inform the community (local media sources, community events, etc.).

Facilitating meaningful public participation:

- Defining and requiring “meaningful public participation”;
- Requiring an environmental justice plan pre-permit application for some facilities;
- Meeting with representatives from communities with environmental justice concerns.

Oregon Information

DEQ informs and engages the public through the use of public notices. There are four categories of public notice, depending on the type of permit being issued. A Category I Public Notice is used for the simplest of air permits, and Category IV is for the most complex. Public notice ranges from no notice for sources assigned to the simplest permits, which are noticed when first issued, to a 35-day public notice period and opportunity for public hearing. For the most complex sources, a public informational meeting is required prior to any work on a draft permit. During the meeting, DEQ describes the requested permit action and accepts comments from the public for consideration in drafting the proposed permit.

Summary of Technical Workgroup Input

- Risk communication is challenging and can be done in several ways. There is no right way to do it; no one right approach. People want to get information differently. Explain that the rule is intending to prevent a significant increase in risk to human health and ensures that new facilities are built in a way to consider the health of people around it by not causing a huge increase in potential risk by itself. Do more than a factsheet. It requires someone to go out and talk to people and try to put in perspective what these risks actually mean. Just be honest with people. Do not try to ease concerns, but communicate what the risk is.
- If there is a point where this whole program can go wrong, it’s in risk communication. You can have the perfect technology and science based program, but if you fail on risk communication, you fail totally, because emotions will come into play. It’s difficult for people to understand what the numbers mean. Most people perceive risk as being limited to two numbers, one and zero. Is it safe or not safe? Does it cause cancer or not? Risk is a difficult topic to communicate to the public, even a very well educated public. Breathing is not voluntary, not like flying or smoking. Try to involve and educate the public every step of the way. The more you educate the public, the more likely that risk communication will be successful. Webinars are an excellent tool that can be used to translate complex scientific knowledge into lay terms.
- You could use a hybrid approach with a community meeting so people can express concerns and others can hear those concerns. Once a common message is recognized and understood, you can then break into small sessions with posters to ask detailed questions. In small groups, you can have more candid conversations. The back and forth dialogue helps build trust and understanding of each other’s viewpoints. Larger scale meetings are better for controversial issues. You can take testimony and get back to people or you can take questions and provide immediate response.

- Sometimes multiple meetings are important. Follow-up after a meeting is important to continue the dialogue with phone calls or sending reports. Lay the groundwork ahead of time with information such as web materials. What is the message you want to deliver on a facility or issue? Make sure there is plenty of opportunity for public feedback and know what you want to do with that feedback. Contact with the media needs to be carefully thought out, too. A lot of emphasis is placed on technical effort, but a lot of resources are needed on risk communication, sometimes more than expected.
- When you do risk communication, bring in more than scientists. Be sure and build time with experts to build trust and credibility. At EPA, there is a whole communications group to help with public hearings, not just scientists, who tend to be too technical. Bring in other enforcement and permitting employees.
- Communication goes two ways so listening is a critical component to build trust. How you listen, the space to listen, and being empathetic are important. What are you following up on? You need to understand what sparked the original outrage and help people express it, then get to technical issues.
- Involuntary risks are viewed as being riskier than what we do every day, which actually can be riskier. Risk communication is viewed as an afterthought of the risk assessment process. We should be thinking about it up front and address it early on. Community meetings are at the bottom of the list in terms of being an effective way to communicate. You need to build up the credibility of an agency or facility in small groups over a long period of time. Credibility can be lost in just one event, if not handled properly. Risk communication needs to be a long term process and talking about involuntary risks that people are concerned about is important.
- You have to be empathetic when you answer tough questions. There are concerns about health and household. Don't go straight to technical answers, but show concern first. Emphasize that at all group meetings with stakeholders. It helps build credibility. More one on one meetings build trust over time as people get to know you better.
- The timing is critical to build trust. Be up front to start early communication. If you wait too long in order to positively know the final answer, it might be too late. For Bullseye, in the time it took to study the problem and try to get answers, you could have lost trust from the community. They perceive it as hiding information. You're trying to do a good job to study the information before going public. Months pass and you can't move at a quick pace. At a minimum, go out and say we have a potential problem; we don't have the answers; we need to study it further; we will give you updates along the way.
- Cal EPA has a good public outreach communications program. Start out with guidelines. Write a fact sheet early on and use certain steps to prepare for community meetings. Define the key messages. Consider where you will hold community meetings; they need to be in a place where the community feels comfortable.
- EPA just released new version of EJSCREEN that can do more than just give risks. It looks at linguistics, education of the community and census data. Like WA and CA, EPA's website is translated into Spanish except for the technical portions; translation of which is an issue of limited resources.
- EJSCREEN is the best interface for mapping geographic areas and looking at populations. If a census block group indicates the presence of different languages, translate information into those languages. It's good to have a process for deciding when translation is needed, but you need to maintain flexibility. South Coast uses a loose 10% threshold for census block for determining when to translate to a second language. Use a flexible threshold for when to translate but be aware that it's a resource

issue. South Coast Air Quality Management District (CA) typically translates only the summary of a technical report. For general communication, they provide translators at meetings.

How do you involve facilities in risk communication?

- At South Coast Air Quality Management District (CA), if there is a notification required because a source is above a risk threshold, the existing facility is required to do all notification. South Coast will write the main letter to communicate risk then the facility can add a cover letter and do all the mailings. South Coast conducts the meetings and invites the facility to the table to present and help answer questions. Share up front what will be communicated. If you are worried about a facility in town, talk to the mayor, city council, local planning staff, and let them know ahead of time that this is coming.
- The agency should invite the facility to the meeting with as much advance notice as possible. It helps the facility think through what they can do better and also helps the community understand what is important to that facility. Do dry runs for both agency and facility so you know what each one is saying and there isn't a conflict. Employees are good, credible sources of information, but understand and know what they will say before the meeting. In a small town, it is often just one industry being evaluated and the public is worried about possible loss of jobs. Encourage communication between public and facility.

Summary of Environmental Justice Task Force Input

- Conduct all community engagement, including enhanced and targeted engagement with communities with environmental justice concerns, in plain and concise language, with translation if appropriate.
- Environmental justice stakeholders have fewer resources and less capacity to participate in multiple advisory and rulemaking processes on discrete emission sources. DEQ should provide environmental justice stakeholders with targeted technical assistance and include them in weighing the commensurate exposure from different emission sources with the degree of clear statutory authority it has to regulate those sources.
- The Task Force requests that DEQ consider a comprehensive approach to addressing air toxics, beginning with clearer communication to Environmental Justice stakeholders about the relative likely cumulative risks from multiple emission sources, as well as disproportionate vulnerability to health impacts from air toxics and other social determinants of health. DEQ and OHA together have an opportunity to more accurately frame the overall risks faced by communities of color and low-income communities, and commit to integrating efforts to address other emission sources such as diesel and wood smoke that are not covered by this rulemaking.

Summary of Individual Environmental Justice Task Force Member Input

- Fully staff the Citizen Advocate position with a qualified environmental justice expert and build trust with community. Then, as trust is built, create systems for early, often, continuous and targeted community engagement, ideally before the draft permit is up for public notice and comment. Identify concerns early, and build community capacity (technical) to both understand and respond to permit application. Work with community and industry to negotiate equitable outcomes. All that said, if substantive burden is placed on applicant to conduct disparate impact analysis along with permit application, this gives community opportunity to analyze and respond, without having heavy initial burden to show disparities.

- Lack of genuine outreach and environmental justice staff has kept DEQ/OHA from building trust; we have statutory direction to create our own innovative policy approach, requires commitment from agencies to fully implement and build technical capacity within communities so they can meaningfully participate in decision-making

Summary of considerations for community engagement

This is preliminary information DEQ and OHA have gathered in discussions with the Technical Workgroup, the Environmental Justice Task Force, public comment, and from experience in the air program. We consider this a starting point for the Advisory Committee discussion and input.

- Enhanced community engagement procedures may be needed for controversial permit actions.
- Enhanced community engagement procedures may be needed for underserved or overburdened communities.
- Additional DEQ and OHA resources will be needed for enhanced community engagement.
- More robust community engagement can result in better information for a permit decision

Potential elements for community engagement

The following are potential elements for which DEQ and OHA are seeking additional discussion and input from the Advisory Committee. If there are additional elements not included below, please raise them.

Potential Elements
Elements for DEQ
A. Explore ways to reach out to the affected community in coordination with relevant staff, including permit writers, environmental justice coordinators, public affairs staff
B. Meet regularly with representatives from communities with environmental justice concerns
C. Identify and prioritize the most highly impacted communities based on criteria that are relevant to air quality, health, and demographic markers. Solicit potential partnerships among community and business members around air quality-related impacts and potential mitigation strategies.
D. Send regular notifications to communities with environmental justice concerns regarding application submissions and stack test results
E. Consult with the chief elected official or officials of the town or towns in which the affecting facility is proposed to be located or expanded to evaluate the need for a community environmental benefit agreement
F. Consider holding information meetings for the public in addition to formal public comment sessions.
G. Offer translation services for communities with multi-lingual populations, including interpreters at public meetings
H. Provide community awareness training to permit writers to increase their understanding of the community stressors, such as a community tour and discussion with community groups and other stakeholders.

Potential Elements
I. Have inspectors use LanguageLink which is a phone language interpreter complete with 300 languages
J. Encourage the permit applicant to consult EPA guidance on environmental justice and other resources developed under Plan EJ 2014, including the <i>Actions that EPA Regional Offices Are Taking to Promote Meaningful Engagement in the Permitting Process by Overburdened Communities</i> and <i>Promising Practices for Permit Applicants Seeking EPA-Issued Permits: Ways to Engage Neighboring Communities</i>
Elements for sources
A. File an environmental justice public participation plan with and receive approval from DEQ prior to filing any application for such permit,
B. Applicants must hold public information meetings to keep the public informed about the proposed action and permit review status. Meetings should be held throughout the permit review process at locations and times convenient to the stakeholders to the project.
C. Sources must describe the results and recommendations of the public outreach efforts, such as: (1) establishing a complaint phone line; (2) organizing a community committee that periodically meets with the facility contact; and (3) identifying community groups that should be routinely included in important correspondence.
D. For sources that exceed an action risk level, require them to provide public notification and hold public meetings 12 months after approval of the risk reduction plan and every 12 months thereafter, until the total facility risk is below the action risk level.
E. Placeholder for elements developed by advisory committee members

Program Element 23: Compliance

Compliance with permit limits resulting from the implementation of Cleaner Air Oregon is critical to reduce risk to human health from air toxics. DEQ and OHA did not discuss compliance with air toxics permit requirements with the Technical Workgroup but one conversation around ambient monitoring is relevant to the topic.

DEQ asked the National Association of Clean Air Agencies (NACAA) how they incorporate environmental justice into their permitting programs. Some other programs address environmental justice by conducting inspections more frequently or providing more technical assistance in communities with environmental justice concerns. One stated that they consider equity and environmental justice when planning for monitoring and communicating results. South Coast Air Quality Management District's [Clean Communities Plan](#) has a monitoring component.

Oregon Information

DEQ's air quality program currently permits approximately 2,600 sources. Each source is inspected based on the following schedule:

Type of Permit	Inspection Cycle (every X year)
TV	2
Standard	3
Simple	4
General	5
Basic	10

According to the DEQ enforcement guidance, the program could first issue a warning letter with opportunity to correct for permittees that are out of compliance for any permit requirement. The warning letter with opportunity to correct would notify the permittee that they are in violation, that they must correct the violation by submitting the information by a certain date, and that failure to comply could result in a formal enforcement action including assessment of civil penalties. The follow-up to the warning letter with opportunity to correct if the permittee does not comply would be to refer the matter to DEQ’s Office of Compliance and Enforcement to prepare a formal enforcement action that would include a civil penalty for the violation and an order to remedy the violation.

DEQ has taken an average of 15 enforcement actions per year against sources for the last 16 years. DEQ has issued civil penalties against 210 sources totaling \$1.94 million during the period of 2000 through 2015.

Summary of Technical Workgroup Input

This section paraphrases comments made by individual members of the Technical Workgroup on the topic of ambient monitoring. This discussion mainly focused on how to use ambient monitoring in Cleaner Air Oregon.

- As air monitors become less expensive and more like consumer products than technical equipment, average citizens will use them. How can an agency use the data collected from the public, which likely hasn’t followed collection protocols related to standard quality assurance requirements for regulatory data?
- Technology is evolving quickly. For example, refineries are using tubes placed out in the field on fence posts or telephone poles, so fencing isn’t needed to protect the monitor. However, methods like the tubes do not provide real-time data, which is what the community wants. There are apps on phones that can measure air toxics. How do you QA/QC this kind of data? How do you get this real-time data out to the public? How do you design a program to take advantage of evolving technologies? South Coast Air Quality Management District has provided a certification process for low-cost monitors on their website (<http://www.aqmd.gov/aq-spec/home>).
- Monitoring data won’t help much with a risk assessment or permit if you have to wait a year for the data. You could build a monitoring requirement into a permit, monitor for X years to show that air toxics concentrations are consistently below thresholds and then remove the monitoring requirement.
- Real-time monitoring changes the regulatory paradigm. Sources can use fence line monitoring to take corrective action if high levels are measured, ensuring the public that compliance is maintained.

Summary of Environmental Justice Task Force Input

- Ensure Monitoring and Modeling to Better Identify Toxic “Hot Spots”
 - The lack of pollution monitoring has long been a barrier to achieving Environmental Justice, particularly in the area of air toxics, where air shed monitoring is expensive and complex. Using modeling to project likely exposure to air toxics is necessary, and it is critical to ensure that such modeling is designed to err on the side of health protection.
- Apply enhanced permitting requirements to new and renewal permits, with shorter renewals to account for changing demographics, health science, and technology (Based in part on Southwest (WA) Clean Air Agency renewal permitting regulations.)
- Ensure that inspection, monitoring and enforcement strategies are equitable and feasible, incorporating citizen monitoring with sufficient technical guidance and collaboration with academic partners where appropriate

Individual Environmental Justice Task Force Member Input on

- Environmental Justice Task Force Members recommend additional monitoring in communities with environmental justice concerns.
- Pennsylvania has environmental justice standards that are triggered by NSR/PSD permits in and around environmental justice communities, placing burden on permit applicant to meet environmental justice policy; while this standard is limited, OR DEQ/OHA could extrapolate from this policy and apply it more broadly, triggered if health-benchmarks for criteria pollutants and hazardous air pollutants are exceeded; prominent feature is requiring applicant to conduct modeling, produce overlay maps and support extensive outreach and engagement activities.
- DEQ should first seek to impose terms and conditions on permits that might otherwise pose elevated health risks to communities with environmental justice concerns (increased pollution-control technology, monitoring, compliance).
- Burden should be on permit applicant to identify potential disparate impacts in initial application; Process should include initial overlay screening to confirm/identify potential disparate impacts, along with monitoring data and/or modeling to identify elevated health-based risks.
- In programs where decisions regarding environmental justice activities are made on a case by case basis, the weight given to different factors such as size and complexity of project, community concern, compliance history, etc. is very important.
- Using a cumulative risk assessment methodology, each permit should be considered in the context of whether it will disproportionately impact POC and low-income communities, whether we’re dealing with criteria air pollutants (for which we have health-based NAAQS) or hazardous air pollutants (which, unfortunately, we largely only have technology-based standards).
- It is incumbent upon DEQ (ideally with OHA collaboration) to ensure health-based assessments for all such permitting, whether they are criteria or HAPs. This is true whether or not a particular facility can be identified as the proximate cause (or substantial contributor) to exceeding a health-based standard. Both Title VI and the CAA require a primary focus on protecting human health.

Summary of considerations for compliance

This is preliminary information DEQ and OHA have gathered in discussions with the Technical Workgroup and from experience in the air program. We consider this a starting point for the Advisory Committee discussion and input.

- Health impacts can be minimized by ensuring compliance with all permit requirements.
- DEQ monitors compliance with permit requirements through continuous emissions monitoring, stack testing, pollution control device parametric monitoring (e.g., pressure drop across a scrubber, temperature of a thermal oxidizer), recordkeeping and reporting.
- Providing more technical assistance or inspecting sources more frequently in overburdened or underserved communities could help address environmental justice issues
- The cost of compliance to industry and DEQ's workload will increase because of new applicable requirements.
- DEQ will write permit conditions for air toxics that are enforceable (e.g., emission limits, operation and maintenance requirements, control technology requirements, recordkeeping and reporting).
- Air toxics emissions limits may require source testing to determine compliance.
- DEQ has the authority to require compliance with all permit requirements.

Potential elements for compliance

The following are potential elements for which DEQ and OHA are seeking additional discussion and input from the Advisory Committee. If there are additional elements not included below, please raise them.

Potential Elements
A. Inspect sources with higher air toxics emissions more frequently than other sources
B. Inspect sources in overburdened communities or communities with environmental justice concerns more frequently than other sources
C. Provide additional resources and assistance to facilities in disadvantaged areas.
D. Require less frequent inspections for sources that reduce health impacts by pollution prevention or process changes
E. Require ambient monitoring for sources with the highest risk or in communities with environmental justice concerns
F. Shorter renewals to account for changing demographics, health science, and technology
G. Placeholder for elements developed by advisory committee members

Program Element 24: Capacity - regulatory costs and fee structure

The cost of implementing an air toxics program depends on the complexity and scope of the programs reviewed. Only Washington's program has separate fees for the air toxics program, although South Coast Air Quality Management District (CA) has a National Emission Standard for Hazardous Air Pollutant

evaluation fee. Other programs' fees cover both criteria pollutants and air toxics. This information will be hard to estimate until we know what type of air toxics program will be proposed. DEQ anticipates that special fees will be proposed for sources that will be regulated under Cleaner Air Oregon.

DEQ asked the National Association of Clean Air Agencies (NACAA) how they incorporate environmental justice into their permitting programs. Several programs have staff dedicated to environmental justice. Other programs used federal funds to improve how their program addresses environmental justice issues, while others rely on permit applicant to fund environmental justice work.

Oregon Information

DEQ's existing fee structure for Air Contaminant Discharge Permits consists of the following:

- Initial permitting fee
- Annual fees
- Special activity fees (i.e., permit modifications, compliance order monitoring, etc.)

Title V permittees pay:

- Annual base fee
- Emission fees (\$ per ton)
- Special activity fees (i.e., permit modifications, ambient air monitoring review, etc.)

Summary of Technical Workgroup Input

- WA charges fees by piece of equipment. The more equipment they have, the costlier the permit. There are emission fees, air toxics fees and registration fees. The initial fee for a risk assessment review is \$10,000 for 106 hours and \$95 per hour over 106 hours.
- At South Coast Air Quality Management District (CA), there is a complicated fee structure that is mostly based on level of work for the agency. They have different types of funding that cover specific activities, such as air toxics work.
- Title V funds have to be kept separate.
- It is important to consider the potential financial burden to small businesses, because they might not be able to pay the same fees as larger businesses.

Summary of Environmental Justice Task Force Input

- Request and allocate sufficient resources to build trust with communities with environmental justice concerns and implement this approach.
- A comprehensive approach to air quality regulation is also critical for balancing the agency's resource needs to address different emission sources. While DEQ is right to identify additional resources (in terms of FTE and otherwise) needed for a more effective approach to point source permitting, we are aware that there are similar budget asks for work around diesel and wood smoke. Given that different emission sources may pose differential threats to different racial, ethnic and socioeconomic subpopulations, and that cumulative exposure to multiple sources of air toxics is the overarching concern, DEQ should address the issue of resources

comprehensively and holistically to ensure equal protection and fair treatment for all communities.

Individual Environmental Justice Task Force Member Input on Staffing and Resources

- Given that different emission sources may pose differential threats to different racial, ethnic and socioeconomic subpopulations, and that cumulative exposure to multiple sources of air toxics is the overarching concern, DEQ should address the issue of resources comprehensively and holistically to ensure equal protection and fair treatment for all communities.
- EJTF has been asking for minimum 1.0 FTE for environmental justice Citizen Advocates positions across all agencies since 2008, pursuant to ORS 182.545.
- Environmental justice stakeholders have fewer resources and less capacity to participate in multiple advisory and rulemaking processes on discrete emission sources. DEQ should provide environmental justice stakeholders with targeted technical assistance and include them in weighing the commensurate exposure from different emission sources with the degree of clear statutory authority it has to regulate those sources.

Summary of considerations for regulatory costs and fee structure

This is preliminary information DEQ and OHA have gathered in discussions with the Technical Workgroup and from experience in the air program. We consider this a starting point for the Advisory Committee discussion and input.

- Fees must be charged to cover Cleaner Air Oregon because it is a new program.
- Because of the variability in different air permitting programs, it is difficult to compare fee structures.
- DEQ has an existing fee structure in place that is easily adaptable to air toxics permitting.
- DEQ and OHA will not know the exact universe of affected sources until after the program is implemented so establishing a fee structure will be difficult.

Potential elements for capacity - regulatory costs and fee structure

The following are potential elements for which DEQ and OHA are seeking additional discussion and input from the Advisory Committee. If there are additional elements not included below, please raise them.

Potential Elements
A. Annual fee + activity fee
B. Annual fee + \$/ton fee
C. One-time base fee + activity fee or \$/ton fee
D. Equipment fee
E. Application fee
F. Risk fee

Potential Elements
G. Permit applicant funds environmental justice activities
H. Environmental justice position at DEQ assists with environmental justice activities. Request and allocate sufficient resources to build trust with communities with environmental justice concerns and implement this approach.
I. Placeholder for elements developed by advisory committee members

Program Element 25: Evaluation

Measuring the effectiveness of Oregon’s air toxics program will be an important part of program implementation. DEQ does not know if resources for ambient monitoring will be available so another type of measurement tool is needed.

Oregon Information

- Annual reporting is an existing part of DEQ’s permitting program for all permitted sources.
- DEQ performs emissions inventories for criteria pollutants every three years for all permitted sources.
- DEQ has two long-term air toxics trend monitors in Portland and La Grande.
- The Lane Regional Air Protection Agency periodically conducts air toxics monitoring in Lane County.

Summary of Technical Workgroup Input

The following information was gathered at the June 30, 2016 Technical Workgroup meeting:

- NATA should not be used to measure program effectiveness over time, because the science and methods are improving every time the assessment is done. This means that the risks measured in one NATA period cannot be credibly compared to the risks measured in a subsequent NATA period. The models and risk characterizations change over time.
- Have to measure effectiveness at the community level.
- People really want monitoring data. It is very effective as a risk communication tool.
- Emissions inventory is used for everything (e.g., gas stations, school boilers, etc.) but is a lot of work.
- Do not use human health for measuring program effectiveness because it is very difficult to measure even though there are some landmark studies looking at health outcomes. There are too many factors to tease out the impacts of a permitting program.

Summary of considerations for evaluation

This is preliminary information DEQ and OHA have gathered in discussions with the Technical Workgroup and from experience in the air program. We consider this a starting point for the Advisory Committee discussion and input.

- Annual reporting is an existing part of DEQ’s permitting program so emissions inventories, used by many states, would be a good tool to measure program effectiveness.
- Ambient monitoring is expensive and funding may not be available for additional long-term air toxics trend monitors.
- Tracking pollution prevention is difficult since many sources do not report these types of activities to DEQ.
- Reductions in risk would only be calculated for sources that trigger more refined analyses or a full risk assessment. DEQ and OHA do not yet know how many sources would fall into this category.

Potential elements for evaluation

The following are potential elements for which DEQ and OHA are seeking additional discussion and input from the Advisory Committee. If there are additional elements not included below, please raise them.

Potential Elements
A. Track program effectiveness by air toxics emissions inventories
B. Track program effectiveness by air toxics ambient monitoring if funding is available
C. Placeholder for elements developed by advisory committee members

APPENDIX

1. Have other programs been implemented all at once or in phases? What are advantages and disadvantages of their phased approach?

Note: this is each state's/local's evaluation of their own program.

Program	Program Description
Louisville, Kentucky	<p>As adopted, existing Title V sources were required to submit modeling analysis for Category 1 Toxic Air Contaminants (those identified in the West Louisville Air Toxics Study with a carcinogenic risk goal >1 in a million) followed by a second submittal for the Category 2 Toxic Air Contaminants (those identified as having a Risk Screening Environmental Indicator Score above 500). Shortly thereafter, the Federally Enforceable District Origin Operating Permits were required to submit their submittal evaluating Category 1 Toxic Air Contaminants followed a year later by their second submittal evaluating Category 2 Toxic Air Contaminants.</p> <p>Adequate time at program inception must be allowed to develop programmatic guidance, recruit and train necessary staff, and secure funding for the program. The District prioritized by construction review, operating permit renewal, and staff expertise. The District also revised the regulations to extend the deadlines and streamline the applicability criteria for Federally Enforceable District Origin Operating Permits (FEDDOOPs).</p>
New Jersey	<p>At the New Jersey Department of Environmental Protection, implementation occurs as facilities apply for permits for new or modified source operations and at permit renewal. Any new or modified rules, policies, or technical manuals concerning air toxics are applicable to all source operations throughout the state. Permit revisions may be required to address the new or modified rules.</p>
New York	<p>The New York Department of Environmental Conservation air toxic regulation is triggered for new and modified processes and also during permit renewal, so phasing is automatic.</p> <p>When permits come up for renewal (every seven years for synthetic minor permits) in New York, air toxics are evaluated under Part 212. In some cases, the source could be meeting all requirements and would not have to do any additional requirements for the air toxics review. For permit modifications, the whole facility is evaluated, depending on the permit renewal schedule and the type of modification. If the modification is for something small, the permit writer may wait until permit renewal to evaluate the whole facility.</p>
Rhode Island	<p>Rhode Island's program was implemented all at once but they have targeted industry sectors for Air Toxics Operating Permits because there is no ranking system. The advantage of this approach is the flexibility it provides to choose which industry sector to target. The disadvantages of this approach are</p>

Program	Program Description
	inconsistency, unclear requirements for sources, and permits too numerous for existing resources.
South Coast Air Quality Management District (CA)	South Coast Air Quality Management District implemented their program in phases due to the large number of sources (~25,000 includes small sources, e.g., gas stations, dry cleaners, etc.) and the potential requirement for risk assessments. They focused on the largest most complex emitters first, which is both an advantage and a disadvantage because it addressed the highest risk but also created the greatest workload.
Washington	The Washington Department of Ecology (Ecology) air toxics program was an add-on to the existing New Source Review program so they did not need to prioritize or phase in sources. Applications for new and modified emissions units of air toxics are part of the New Source Review application for criteria pollutants. Some sources that would have been exempt from New Source Review pre-construction permitting based on criteria pollutant de minimis threshold levels have needed a permit based solely on exceedances of Toxic Air Pollutant de minimis levels. In other words, this rule has required more sources to undergo New Source Review permitting than would have been required if only considering criteria pollutants.

If phased in, how have other programs prioritized sources for implementation?

Program	Program Description
Louisville, Kentucky	<p>Louisville recommended that DEQ plan the program to focus on sources of concern first and then be expanded in the future to cover additional sources.</p> <p>Louisville said that in hindsight, a phased approach by source category or industry-code seems like a more reasonable approach since the categories and implementation schedules can be developed based on specific sources of concern first. Alternatively, requiring sources to evaluate the toxicity of their emissions at their next operating permit renewal would allow for integrating the program into the agency's existing permitting cycle. Please consider how often you expect sources to re-model: When submitting an application for a minor revision? Significant revision? Once every five years at renewal? The STAR Program is iterative and requires evaluation whenever a new process or process equipment is added or existing equipment is modified. Additional evaluation may also be required to confirm compliance, particularly with respect to de minimis emissions.</p>
New Jersey	Phasing was not necessary because applications must be submitted and approved before new equipment can be installed and before existing equipment can be modified. Operating permits for major facilities are updated

Program	Program Description
	upon modification and renewal. In addition, existing sources are subject to any applicable Reasonably Available Control Technology regulation upon adoption.
New York	Phasing for New York’s existing sources occurred because air permits were updated with the new regulations only at permit renewal or modification, spreading out the implementation of the air toxics permitting regulations over several years. For new sources, phasing was not necessary because applications are submitted when new sources request permits.
Rhode Island	Rhode Island did not phase in implementation.
South Coast Air Quality Management District (CA)	<p>South Coast requires a four-year reporting cycle based on implementation of the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (commonly known as AB 2588), which established a statewide program for the inventory of air toxics emissions from individual facilities as well as requirements for risk assessment and public notification of potential health risks. AB 2588 requires South Coast to designate high-, intermediate-, and low-priority categories and include each facility within the appropriate category based on its individual priority. In establishing priorities, South Coast is to consider the potency, toxicity, quantity and volume of hazardous materials released from the facility; the proximity of the facility to potential receptors, including, but not limited to, hospitals, schools, daycare centers, worksites and residences; and any other factors that South Coast finds and determines may indicate that the facility may pose a significant risk to receptors.</p> <p>Each toxic substance has an assigned degree of accuracy associated with it that is a de minimis emission threshold level for reporting. As a result, facility-wide toxic emissions greater than one-half of their corresponding degree of accuracy are inventoried and reported for prioritization. Conversely, total facility toxic emissions less than one-half of their corresponding degree of accuracy levels are not considered in the prioritization.</p> <p>This four-year reporting cycle has continued to spread the workload out over four years, even now when recent changes to the program are being implemented.</p>
Washington	Phasing was not necessary because applications are submitted when new or modified sources request permits. Ecology did not address existing sources at the time the air toxics regulations were implemented.

2. Capacity: What are the regulatory costs associated with different program requirements for the regulated parties? What kind of fee structure do other programs use?

Program	Program Description		
Louisville, Kentucky	Louisville has a split fee program: <ul style="list-style-type: none"> • Title V and synthetic minor sources pay a base fee (same for both) • Title V sources pay an additional STAR Program fee based on their reported emissions 		
New Jersey	Fee Type	Original Fee - 1989	Revised Fee - current
	Annual Emissions fee (Major facilities)	<ul style="list-style-type: none"> ▪ \$25/ton (1989 dollars) ▪ CO is excluded ▪ \$1,000 minimum 	<ul style="list-style-type: none"> ▪ \$116.30/ton ▪ CO is not excluded ▪ \$3,000 minimum
	OP Initial and Renewal Application fees	<ul style="list-style-type: none"> ▪ \$125/POE ▪ \$25,000 application fee cap ▪ no renewal application fees 	<ul style="list-style-type: none"> ▪ \$125/POE ▪ \$50,000 application fee cap ▪ same as above for renewal applications
	Modification fees	<ul style="list-style-type: none"> ▪ \$25,000/application (cap) ▪ Application fee established by rule [See N.J.A.C. 7:27-22.31(r)] 	<ul style="list-style-type: none"> ▪ \$50,000/application (cap) ▪ Application fee established by rule [See N.J.A.C. 7:27-22.31(r)]
	Minor Air Facilities Fee Schedule: http://www.nj.gov/dep/aqpp/Sub8%20Fee%20Tables_effective%2027Feb2015.pdf Major Air Facilities Fee Schedule: http://www.nj.gov/dep/aqpp/Sub22%20Fee%20Tables_effective%2027Feb2015.pdf Additional details: http://www.nj.gov/dep/aqpp/archived/amendedarchive.html		
New York	New York charges Title V fees, which range from \$60/ton to \$90/ton and a base fee of \$2,500.		
Rhode Island	Major Source or Major Modification @ \$25,410 each Complex Minor source or Modification @ \$4,620.00 each Minor source or Modification @ \$ 1,271.00 each		

Program	Program Description										
	<table> <tr> <td>ACTUAL EMISSIONS:</td> <td>FEE</td> </tr> <tr> <td>< 10 tons per year</td> <td>\$ 480</td> </tr> <tr> <td>\$ 10 tons per year < 20 tons per year</td> <td>\$ 1134</td> </tr> <tr> <td>\$ 20 tons per year < 50 tons per year</td> <td>\$ 1962</td> </tr> <tr> <td>\$ 50 tons per year</td> <td>\$ 3488</td> </tr> </table>	ACTUAL EMISSIONS:	FEE	< 10 tons per year	\$ 480	\$ 10 tons per year < 20 tons per year	\$ 1134	\$ 20 tons per year < 50 tons per year	\$ 1962	\$ 50 tons per year	\$ 3488
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South Coast Air Quality Management District (CA)	<p>Permit processing fees are established by South Coast’s Governing Board, based on the size and complexity of the equipment to be permitted and, in some instances, the type of air pollution being emitted. Fees for processing of permit applications are shown in Rule 301 (PDF). Time and materials are charged in addition to permit processing fees for larger, more complex sources. South Coast’s tables of fees based on source complexity include permit fee rates for control equipment and basic equipment. Processing fees for risk assessments for more complex sources also include time and materials charges.</p>										
Washington	<p>The local air agencies in Washington evaluate New Source Review applications. Ecology staff review risk assessments if they are required. The initial fee for a second tier review including a risk assessment review is \$10,000, which covers approximately 106 hours of review. There is no refund if the full amount is not used. If more than 106 hours are needed for review, Ecology charges \$95/hour. The legislature changed Ecology’s fee structure, allowing them to recover costs by charging hourly rates rather than flat fees.</p> <p>Ecology receives approximately 6 to 10 risks assessments statewide per year. The types of sources needing risk assessment review has changed over the years. In 2009, Ecology revised the rules to include diesel particulate matter in risk assessments. This brought in backup engines even though they do not run often. Wood drying kilns also trigger risk assessment review because of aldehyde emissions, and these emissions are difficult to control because they are emitted from numerous vents in the kiln. Fertilizer manufacturing facilities trigger second tier review from ammonia emissions. Surface coating operations have triggered from solvent use (ethylbenzene Acceptable Source Impact Level is based on California’s Office of Environmental Health Hazard Assessment unit risk factor).</p>										

3. What skills and number of Full Time Equivalentents are needed to implement other programs?

Program	Program Description
Louisville, Kentucky	<p>The total program has 60 Full Time Equivalentents. On the technical side, there are 24 engineers in permitting and compliance programs and roughly 16 environmental scientists and associated professionals. The STAR program</p>

Program	Program Description
	relies on the expertise of other agencies to estimate risk, including the U.S. EPA, the National Toxicology Program, the International Agency for Research on Cancer, the Agency for Toxic Substances and Disease Registry, and the California and Michigan air regulatory agencies. Although the Air Pollution Control District previously employed a toxicologist, any current need would be met today by contract. There is a mix of chemical, electrical, mechanical, civil, and environmental engineers. Many have masters' degrees, two have Ph.D.'s in engineering, focusing on modeling.
New Jersey	New Jersey has 50 Full Time Equivalents for minor facilities and 45 Full Time Equivalents for major facilities. Permit reviewers typically have engineering degrees. Not all personnel involved in air toxics have to be toxicologists since EPA Integrated Risk Information System and California unit risk factors and reference concentrations are used. Meteorologists conduct ambient air quality analyses, whose results determine the toxic air pollutants impacts.
New York	There are only 4 Full Time Equivalents that handle the behind-the-scenes air toxics work at the headquarters office in addition to regional staff that conduct permitting. There is a toxicologist, an environmental health specialist, an industrial hygienist and a cell biologist. 95% of the regional staff are engineers so they call headquarters with questions on air toxics.
Rhode Island	Rhode Island currently has one Full Time Equivalent assigned to all aspects of the air toxics program, permitting, ambient monitoring, modeling, etc.
South Coast Air Quality Management District (CA)	South Coast has ~ 800 Full Time Equivalents, which has been stable for about 10 years. The majority of the staff work on criteria pollutants since the areas is one of the worst ozone nonattainment areas in the country. There is a core group of 6-8 people that work on AB2588 (related to air toxics, hot spots), which is comprised of engineers and air quality specialists that work on emissions inventory and health risk assessment calculations. South Coast also has a health effects officer but that person does not determine toxicity of chemicals. California state guidance is relied upon for toxicity determinations. South Coast emphasized the importance of training, especially for consultants who would be hired to do the risk assessments for the affected facilities.
Washington	Applicants are responsible for preparing risk assessments (called health impact assessments in rule). Ecology has three people review each risk assessment: <ol style="list-style-type: none"> 1. Risk assessor/toxicologist reviews risk assessment 2. Modeler reviews modeling protocol and results 3. Engineer reviews emission assumptions and Best Available Control Technology analysis These review tasks only occupy a portion of a Full Time Equivalent time. It takes a collective of perhaps a half to one Full Time Equivalent in total to do the reviews on an annual basis. Other toxics policy or technical assistance

Program	Program Description
	issues may take a bit more time. 1-2 Full Time Equivalents is a good estimate for reviewing risk assessments and doing air toxics programmatic work.

4. What types of databases/resources are needed to implement the program? Does the program have web-based tools?

State	Program Description
Louisville, Kentucky	Louisville has an internal database. Louisville also has maps of major and moderate sources subject to the program.
New Jersey	New Jersey has an internal Environmental Management System that stores source test results, screening risk assessments, and refined risk assessments.
New York	New York has an internal database that is kept up-to-date. New York also has fact sheets and flow charts along with a downloadable version of AERSCREEN. AG-1 is a computer program used to implement ambient impact analyses.
Rhode Island	Rhode Island has an internal database (Plover system) for tracking sources. In addition, Rhode Island uses California’s Risk Assessment Standalone Tool to perform multi-pathway human health risk assessments.
South Coast Air Quality Management District (CA)	South Coast has a massive internal database for tracking permit units. Hotspots Analysis and Reporting Program (HARP) is an external computer software tool that that combines emission inventory database, facility prioritization calculation, air dispersion modeling, and risk assessment analysis to assist with the programmatic requirements of the Air Toxics Hot Spots Program.
Washington	Ecology has a system on SharePoint to track permit timeliness and share data internally. It is not easy to use. Ecology does not currently have web-based tools.

5. Evaluation: What is the effectiveness of other programs? Are reductions in emissions or risk tracked? Has the program seen an increase in pollution prevention?

Program	Program Description
Louisville, Kentucky	<p>In 2005, the federal Toxics Release Inventory reported 5 million pounds of toxic chemical released. In 2014, the amount was down to 2.5 million pounds.</p> <p>Louisville did a 10-year look back during summer 2015 that involved meeting every Friday for report out on all permittees, lessons learned, etc.</p>
New Jersey	<p>New Jersey has the capability to analyze trends in air toxic emissions using National Air Toxics Assessment and the New Jersey Emissions Monitoring System (NJEMS).</p>
New York	<p>New York does emissions inventories to evaluate the effectiveness of their program but it is not an official program. They also look at National Air Toxics Assessment data for trends.</p> <p>Ambient monitoring in industrial areas is also used.</p>
Rhode Island	<p>Rhode Island looks at air inventory data for reductions in air toxic emissions along with National Air Toxics Assessment data.</p>
South Coast Air Quality Management District (CA)	<p>South Coast evaluates the effectiveness of their program in multiple ways:</p> <ul style="list-style-type: none"> • The permanent toxics monitoring program (~24 criteria pollutant monitors, 10 air toxics monitors) tracks trends along with micro-site monitors (one year) to get a comprehensive picture of air toxics. • Annual reports from sources. • Every seven years, South Coast models air toxics from point and mobile sources and compares it to ambient monitoring data. • Multiple Air Toxics Exposure Study includes a monitoring program, an updated emissions inventory of toxic air contaminants, and a modeling effort to characterize risk across the Basin. The study focuses on the carcinogenic risk from exposure to air toxics but does not estimate mortality or other health effects from particulate exposures. An additional focus of MATES IV is the inclusion of measurements of ultrafine particle concentrations. • Emission inventory every year on 24 chemicals to track progress • \$/pound of toxics on one-year and four-year cycles
Washington	<p>Ecology does not measure program effectiveness. It is difficult to quantify what emissions would be without the program in place. Sources have taken limits on potential to emit to avoid the second tier review. Some sources install pollution</p>

Program	Program Description
	<p>control equipment that is more stringent than Best Available Control Technology but do not share the rationale for this choice with Ecology.</p> <p>There is a single National Air Toxics Trends monitoring station in the state where trends are tracked. Community-scale toxics monitoring has occurred in several locations in Washington since 2001, but only for about 1 year timeframes. These monitoring studies are used to determine if there are potential sources of specific toxic air pollutants that are potentially problematic a need to be addressed.</p>

6. What would state and local regulatory agencies change about their air toxics programs if they could?

Program	Program Description
Louisville, Kentucky	<ul style="list-style-type: none"> • Implementation of a major program like STAR should be integrated into the agency's overall regulatory scheme to avoid implementation gaps, especially with respect to existing delegated obligations (Title V, PSD-NSR, SIP, etc.) • Broad authority can be good, but do not leave too much to be figured out on the fly. Specific timeframes for submittals, such as a Request for Modification, for example, will help avoid regulatory gaps. • Emissions analysis should be based on the same units included in the facility's operating permit. STAR allows companies to define the process/process equipment to be modeled. This may or may not correspond to the permitted emissions units. This methodology will be easier for compliance staff and much easier for the public to compare apples to apples. • Revisit the default value in Regulation, especially for carcinogens. See Regulation 5.20 sections 3.3.5 and 4.11. • Continue focusing on the same number of Toxic Air Contaminants, but consider reducing the categories to two instead of four. • Consider requiring a specific modeling protocol, including the reporting format, to assist staff and the public in reviewing demonstrations. As an alternative, consider developing a standard risk reporting format to be included in the Statement of Basis. • Clearly identify compliance processes at the time the rules are being proposed. At a minimum, outline them in the Regulatory Impact Assessment materials.
New Jersey	Update rules in an expeditious manner to incorporate any changes to unit risk factors

Program	Program Description
New York	<p>The updated program is too new to really know what should be changed.</p> <p>NY has some old rules that have been on the books for years and it is hard to update these rules. For example, asphalt plants are difficult to deal with for air toxics. Traditionally they have only looked at particulate matter from these sources, not formaldehyde or polycyclic aromatic hydrocarbons (PAHs). If you model risk, impacts are greater than guidance concentrations so can you require more controls than currently required? A lot of testing may be needed to establish emission factors. Permit engineers need to look at risk management and make judgment calls when needed.</p>
Rhode Island	<p>Rhode Island's preconstruction permits have no expiration dates. Operating permit have a five year term. Rhode Island must reconcile permit terms for all permit types when including air toxics requirements.</p> <p>Rhode Island would also like to clearly delineate who is required to get an Air Toxics Operating Permit. Should it be by the amount over the Minimum Quantity? By size? By subcategory?</p>
South Coast Air Quality Management District (CA)	<p>SCAQMD's air toxics program functions well and has done a good job at reducing risk. Improvements to streamline the program and modify timelines are currently underway.</p>
Washington	<p>In the staff person's opinion, Ecology would:</p> <ul style="list-style-type: none"> • Include rules to address existing sources in the air toxics program; • Include consideration for persistence and bioaccumulation (i.e., multi-pathway risks) when setting Acceptable Source Impact Levels • Address cumulative risk from all sources in an area or determine background concentrations; and • Incorporate toxicity in BACT analyses. • Evaluate different approaches for considering emissions from emergency diesel engines as it does not take a lot to trigger second tier review due to the very low diesel particulate matter Acceptable Source Impact Levels. In many cases, New Source Performance Standard is probably sufficient. In others (e.g., massive data centers with dozens of enormous engines) a more detailed review process is warranted.

7. Public Information: How easily can the public get information about facilities through other programs? How do other programs ensure the information they provide is useful and accurate?

Program	Program Description
Louisville, Kentucky	The STAR Program is a risk-based program and provides additional opportunities for public review and comments and, in certain cases, requires that additional public hearings be held. Risk communication is complex and challenging. Permits are online but emissions inventory information is not, a goal for the future.
New Jersey	New Jersey has approved operating and preconstruction permits online. The readings of the state’s ambient air are available on-line. The public can also sign up for the Air Program’s Listserve notification system.
New York	New York has all Title V permits online.
Rhode Island	Rhode Island has all preconstruction and operating permits online.
South Coast Air Quality Management District (CA)	<p>South Coast has an interactive map that shows cancer risk from sources throughout the district: http://www3.aqmd.gov/webappl/OI.Web/OI.aspx?jurisdictionID=AQMD.gov&shareID=73f55d6b-82cc-4c41-b779-4c48c9a8b15b.</p> <p>Risk communication is a huge part of the air toxics program. South Coast referred to EPA’s NATA mapping tool as another good resource. https://www.epa.gov/national-air-toxics-assessment/2011-nata-map</p>
Washington	<p>Ecology maintains an Air Operating Permit Register (Title V permits only) which lists all actions a clean air agency takes on a facility's permit application. These actions may include draft and final permits, permit modifications, and public hearings/meetings. The Permit Register also informs the public about how to be involved in the air operating permit process. Ecology also publishes the Air Operating Permit Register on the 10th and 25th (or the closest work day) of each month, when there are entries.</p> <p>The majority of minor new source review permits are not available online.</p>

8. Environmental Justice: How do other programs factor in population vulnerability?

Please also refer to the discussion paper on Environmental Justice in Permitting.

Program	Program Description
Louisville, Kentucky	<p>Louisville’s program was the agency response to the environmental justice concern in Rubbertown, a chemical manufacturing complex in West Louisville. It applies across the entire county and provides additional opportunities for public involvement.</p> <p>In the STAR Regulation 5.30 Stakeholder Group Report and Plan of Action (September 19, 2007) it recommends: <i>“Where there may be many minor and area sources in a neighborhood or where there are significant risks from different source categories, i.e., Title V and FEDOOP (Federally Enforceable District Origin Operating Permit) companies, stationary minor and area sources, mobile sources, non-road mobile sources, and miscellaneous area sources, an assessment of risk at the neighborhood level should be undertaken.”</i></p>
New Jersey	<p>The link to the Department’s Office of Environmental Justice is http://www.nj.gov/dep/ej/. Notifications are regularly sent to communities with environmental justice concerns regarding application submissions and stack test results. Also, the Air Program frequently meets with representatives from communities with environmental justice concerns.</p>
New York	<p>In the Environmental Rating system, New York looks at sensitive receptors and background concentrations, which may be higher in communities with environmental justice concerns. They also use NATA data to help identify communities with environmental justice concerns.</p>
Rhode Island	<p>Most populated areas in Rhode Island are communities with environmental justice concerns because industry is located among houses, schools, and hospitals. The state does not have separate requirements for communities with environmental justice concerns although the modeling guidance takes into account sensitive receptors.</p>
South Coast Air Quality Management District (CA)	<p>There was an environmental justice initiative in 1990 that has cascaded through all the programs. Incentive funding provides dedicated funding to environmental justice areas. The Clean Communities Plan (update to the 2000 Air Toxics Control Plan) is like a State Implementation Plan and its objective is to reduce the exposure to air toxics and air-related nuisances throughout the district, with emphasis on cumulative impacts. The elements of the 2010 Clean Communities Plan are community exposure reduction, community participation, communication and outreach, agency coordination, monitoring and compliance, source-specific programs, and nuisance. South Coast has done pilot studies in specific environmental justice areas where they target one spot. Most recently they sued the developer of a proposed rail yard close to schools and homes and won in court because of environmental justice issues.</p>
Washington	<p>Ecology has an environmental justice coordinator that helps them navigate and be aware of environmental justice issues but there are no special rules that apply. When permitting sources in environmental justice areas, Ecology makes sure that the community is adequately informed by using enhanced notification</p>

Program	Program Description
	<p>procedures (radio spots, publications in other languages). Local air authorities may handle this differently (see http://www.pscleanair.org/priorities/Pages/equityej.aspx) New and modified emissions units of air toxics do not have to meet any special standards in communities with environmental justice concerns. Ecology does not currently have a clear framework for identifying communities with environmental justice concerns. One project trying to address environmental justice concerns in Central Washington included a cap on cumulative risk (100 in 10⁶ from all sources rather than the maximum allowed by a new source of 10 in 10⁶) of all sources in the area that is not included in the rules. The public misconstrued this effort by thinking that Ecology tried to increase the individual risk allowed and filed an Office of Civil Rights complaint against Ecology.</p>

Other

- When looking at risk, consider how things, like zoning, change over time. If we have infill, how do you take that into account? It can be difficult when environmental regulators come in after zoning decisions have been made. Zoning shouldn't allow heavy industry near residential areas. While we can minimize risk, we cannot change zoning. One thing that has been useful in California is their land use handbook guidance on how to consider land use and how close is too close. Most city planners don't know about air quality concerns, but they have understanding of planning and so use their handbook. South Coast Air Quality Management District (CA) also has good guidance on where schools should be located. DEQ and OHA should develop guidance on where people should live, in terms of land use. Questions from the public include "Should I move here?" It comes down to a zoning problem.