

Memo

To: Technical Workgroup

From: DEQ and OHA

Date: June 14, 2016

Subject: Implementation – Running a Program (UPDATED)

Introduction

The Cleaner Air Oregon rulemaking is a partnership between Oregon Health Authority and Oregon Department of Environmental Quality 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 so DEQ can carry out its mission of cleaner air and a healthier 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 benchmarks.

DEQ and OHA have evaluated other state air toxics permitting programs and narrowed the field to six programs for further assessment: Louisville, Kentucky; New Jersey, New York, Rhode Island, South Coast Air Quality Management District (California), and Washington. Key elements of these air toxics programs will be summarized and presented to the Technical Workgroup and the resulting policy issues will be discussed at Policy Forums around the state and with the Advisory Committee. After receiving input on the different aspects of a risk-based air toxics permitting program from the Technical Workgroup, the Policy Forums, and the Advisory Committee, DEQ/OHA will draft proposed rules and all interested parties will have a chance to comment on the proposed rules during the public notice period in 2017.

DEQ and OHA will be updating this issue paper throughout the rulemaking process based on input from the Technical Workgroup, Policy Forums around the state and the Advisory Committee.

A glossary of terms can be found at this link:

<http://www.deq.state.or.us/nwr/docs/metalsem/8Glossary.pdf>

Purpose

This issue paper addresses the key element 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 do we know if the program is successful? How do we make sure the public is involved? And how do we ensure that environmental justice communities are not impacted unfairly?

Phasing

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

The states that regulated existing sources phased them in to manage workload. If DEQ regulates existing sources, some type of phasing may be necessary in Oregon, especially in the first stages of implementation of a new program.

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 (FEDOOPs).</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 inconsistency, unclear requirements for sources, and permits too numerous for existing resources.</p>
South Coast Air Quality Management District (CA)	<p>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</p>

Program	Program Description
	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?

DEQ must consider workload for successful implementation of the rules. Some states have prioritized sources and phased them in over time to manage workload. Other states have phased in new regulations by only implementing them at permit renewal or modification. Some type of phasing will be necessary if DEQ regulates air toxics from existing sources.

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 upon modification and renewal. In addition, existing sources are subject to any applicable Reasonably Available Control Technology regulation upon adoption.

Program	Program Description
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.

[The following information was gathered at the June 30, 2016 Technical Workgroup meeting:](#)

[Pros and Cons of Implementation:](#)

- [There will probably be sources that want to jump ahead of this with voluntary early risk reduction if they might get lesser public notification.](#)
- [Some smaller sources might be much quicker to review. There needs to be a balance between smaller and more complex sources.](#)
- [Do a pilot program to see how much times it takes to permit small, medium and large sources.](#)

- Give sources a certain amount of time to submit information, starting with the large sources first, then down to small ones.
- For existing sources in South Coast, AB2588 was a four year phase in. The highest emitting facilities were addressed in the first year, etc. Once they are in, there are different requirements for different categories of facilities.
- Are there ways to elevate areas for implementation based on hotspots or risk?
- Geographic approach – you might want to have different programs in different localities.
- Environmental Justice –Is there an equitable allocation of resources to address these issues?
- You need the initial emission inventory established in order to prioritize.
- Focus on what you know, the sources you know have toxics. Next work on other permits, then look at SIC/NAICS code that categorizes an industry for the sources you don't know about. You will need to phase it in over time.
- You may want to set a limit. For existing sources, set a time limit based on upcoming workload. For example, where you know there are high permit renewals, do not assign a lot of work and the reverse.
- How does phase-in affect workload? One possibility is to hire consultants to get through the original pulse of work. There are other possibilities.

Capacity

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

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 SCAQMD 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 for Oregon's reformed program 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 the air toxics program.

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

Program	Program Description												
	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)] 										
	<p>Minor Air Facilities Fee Schedule: http://www.nj.gov/dep/aqpp/Sub8%20Fee%20Tables_effective%2027Feb2015.pdf</p> <p>Major Air Facilities Fee Schedule: http://www.nj.gov/dep/aqpp/Sub22%20Fee%20Tables_effective%2027Feb2015.pdf</p> <p>Additional details: http://www.nj.gov/dep/aqpp/archived/amendedarchive.html</p>												
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	<p>Major Source or Major Modification @ \$25,410 each</p> <p>Complex Minor source or Modification @ \$4,620.00 each</p> <p>Minor source or Modification @ \$ 1,271.00 each</p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: left;">ACTUAL EMISSIONS:</td> <td style="text-align: right;">FEE</td> </tr> <tr> <td>< 10 tons per year</td> <td style="text-align: right;">\$ 480</td> </tr> <tr> <td>\$ 10 tons per year < 20 tons per year</td> <td style="text-align: right;">\$ 1134</td> </tr> <tr> <td>\$ 20 tons per year < 50 tons per year</td> <td style="text-align: right;">\$ 1962</td> </tr> <tr> <td>\$ 50 tons per year</td> <td style="text-align: right;">\$ 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</p>												

Program	Program Description
	<p>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>

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

Pros and Cons of permitting fees:

- There are different fee structures for existing sources. Emissions based fees (\$ per ton) vary by pollutant and are fairly low. In addition, facilities that have a higher risk pay more.
- Southwest Clean Air Agency has fees similar to Washington. WA fees are set up differently than OR. Permit fees are different than an annual fees and they also have registration fees. WA charges by piece of equipment. Therefore, the more equipment they have, the more costly the permit. There are emission fees and air toxics fees.
- Also note that Title V funds have to be kept separately. Agencies can't use Prevention of Significant Deterioration fees to add equipment to a Title V permit.
- It is important to keep in mind small businesses. Sometimes they cannot afford the fees of the larger businesses.
- Monitoring costs in SCAQMD are not tied to the state budget. They have different pots of funding. There is a complicated fee structure that is mostly based on level of work for agency. There are certain buckets for funds. For example some money can only go to toxics work.
- On the monitoring side, Oregon has the general fund. Do allow some other funds for monitoring.
- In Washington, monitoring is funded by EPA. They do what EPA requests for network assessment. Occasionally there are special state studies.
- Southwest Clean Air Agency partners with Washington Ecology on monitoring. Some money comes from the state and EPA. The rest of the budget is local money.
- Some sources are required to monitor so there are some ways to pass the costs onto permittees.
- There might be funds for human biomonitoring.

What skills and number of Full Time Equivalents are needed to implement other programs?

Skills and the number of Full Time Equivalents vary, depending on the complexity and scope of the state/local programs reviewed. The Full Time Equivalents described below for New York, Rhode Island and Washington programs are for the air toxics programs only; other state programs list Full Time Equivalents for their whole air permitting programs. This information will be hard to estimate for Oregon's reformed program until we know what type of air toxics program will be proposed.

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

Program	Program Description
Washington	<p>Applicants are responsible for preparing risk assessments (called health impact assessments in rule). Ecology has three people review each risk assessment:</p> <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 <p>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 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.</p>

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

All programs have internal databases to implement their programs. Information from air toxics can be included in DEQ’s TRAACS (Tracking, Reporting and Administration of Air Contaminant Sources) internal database.

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	<p>New York has an internal database that is kept up-to-date.</p> <p>New York also has fact sheets and flow charts along with a downloadable version of AERSCREEN.</p> <p>AG-1 is a computer program used to implement ambient impact analyses.</p>
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 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

State	Program Description
	internally. It is not easy to use. Ecology does not currently have web-based tools.

Evaluation

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

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. 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.

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	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).
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	Rhode Island looks at air inventory data for reductions in air toxic emissions along with National Air Toxics Assessment data.
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

Program	Program Description
	ultrafine particle concentrations. <ul style="list-style-type: none"> • 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 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 and need to be addressed.</p>

TECHNICAL QUESTION: How could DEQ measure air toxics permitting program effectiveness?

[The following information was gathered at the June 30, 2016 Technical Workgroup meeting:](#)

Program effectiveness:

- [NATA should not be used to measure program effectiveness because the science and methods are improving every time the assessment is done. The models and risk characterizations change every 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 – gas stations, school boilers, etc., but is a lot of work.](#)
- [Do not use human health for measuring program effectiveness. There are too many factors to tease out the impacts of a permitting program. Human health is very difficult to measure.](#)
- [Note that there are some landmark studies looking at health outcomes. One study looked at lung function and lung capacity of kid in urban/rural settings. Lung function changes based on proximity to roadway. As the air quality improves, there is measurable difference in lung function of children. You can't tie this to a facility but can tie it to the community level of air quality.](#)

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

Program improvements for some states/locals would not be applicable in Oregon because we would probably take the good advice of these states and build it into our program upfront (e.g., regulate existing sources whose requirements would supersede existing criteria pollutant rules if applicable, phase in air toxics review of existing sources to match resources, address cumulative risk, Best Available Control Technology for Toxics, and streamlining).

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
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)	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.

Program	Program Description
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.

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?

Online information about air toxics programs range from permits to cancer risk. Because EPA’s National Air Toxics Assessment map is already online, development of a similar tool for Oregon would not be useful. DEQ works to improve the data that EPA uses to make the National Air Toxics Assessment map.

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:</p> <p>http://www3.aqmd.gov/webappl/OI.Web/OI.aspx?jurisdictionID=AQMD.gov&shareID=73f55d6b-82cc-4c41-b779-4c48c9a8b15b.</p>

Program	Program Description
	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
Washington	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. The majority of minor new source review permits are not available online.

Environmental Justice

How do other programs factor in population vulnerability?

Most programs review permit actions through the lens of environmental justice. Environmental justice issues are important to DEQ. DEQ is committed to the principles of environmental justice and to ensuring that the agency’s actions – including permitting, cleanup, policy and planning, outreach and education, and compliance and enforcement – address the interests of Oregon communities, especially minority, low-income and other traditionally underserved communities, as much as state and federal laws allow. DEQ adopted an Environmental Justice policy in 1997 to guide the agency’s work, including principles for making environmental equity inherent in the way DEQ does business.

Program	Program Description
Louisville, Kentucky	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. 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>
New Jersey	The link to the Department’s Office of Environmental Justice is http://www.nj.gov/dep/ej/ . Notifications are regularly sent to environmental justice communities concerning application submissions and stack test results.

Program	Program Description
	Also, the Air Program frequently meets with environmental justice community representatives.
New York	In the Environmental Rating system, New York looks at sensitive receptors and background concentrations, which may be higher in environmental justice communities. They also use NATA data to help identify environmental justice communities.
Rhode Island	Most populated areas in Rhode Island are environmental justice communities because industry is located among houses, schools, and hospitals. The state does not have separate requirements for environmental justice communities although the modeling guidance takes into account sensitive receptors.
South Coast Air Quality Management District (CA)	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.
Washington	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 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 environmental justice communities. 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 10 ⁶ from all sources rather than the maximum allowed by a new source of 10 in 10 ⁶) 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.

A well-thought out implementation plan will be critical to the success of Cleaner Air Oregon. The following are policy questions that should be addressed to make implementation as smooth as possible.

Do DEQ and OHA have the technical information assembled in this issue paper to inform these policy choices? Are there unique aspects of air toxics permitting programs not described in this paper that DEQ and OHA should consider? Is there technical information or considerations missing from this issue paper?

- ❖ Should DEQ phase in affected facilities that emit air toxics or hire temporary resources to permit them all at once? Hiring temporary resources will present challenges because of training needs, not only for the new air toxics program but for incorporation into DEQ's current permitting program.
- ❖ Should DEQ phase in sources based on emissions? Potential risk? Industry category? Permit renewal or modification?
- ❖ How do we ensure we have resources to pay for the air toxics program?
- ❖ Should DEQ establish different air toxics permitting requirements for environmental justice communities? If so, what kind of requirements?